Phase One Environmental Site Assessment – 220 Bradford Street, Barrie, Ontario

2020-04-20

Prepared for: Chayell Hotels Ltd.

Cambium Reference No.: 9326-001

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List of Acronyms

APEC	-	area of potential environmental concern
AST	-	aboveground storage tank
bgs	-	below ground surface
BH	-	borehole
BTEX	-	benzene, toluene, ethylbenzene, xylenes
COPC	-	contaminants of potential concern
EC	-	electrical conductivity
ESA	-	Environmental Site Assessment
FIP	-	fire insurance plan
LNAPL	-	Light non-aqueous phase liquids
Ministry	-	Ministry of the Environment, Conservation and Parks
MNRF	-	Ministry of Natural Resources and Forestry
MW	-	monitoring well
O.Reg.	-	Ontario Regulation
PAHs	-	polycyclic aromatic hydrocarbons
PCA	-	potentially contaminating activity
PCBs	-	Polychlorinated biphenyls
PHCs	-	petroleum hydrocarbons
ppm	-	parts per million
RSC	-	Record of Site Condition
SAR	-	sodium adsorption ratio
SCS	-	Site Condition Standards
UST	-	underground storage tank
VC	-	vinyl chloride
VOCs	-	volatile organic compounds

1.0 Executive Summary

Chayell Hotels Ltd. (Client) retained Cambium Inc. (Cambium) to complete a Phase One Environmental Site Assessment (ESA) at 220 Bradford Street in Barrie, Ontario (Site or Phase One Property). The Phase One ESA will be used to support filing a Record of Site Condition (RSC) under Section 168.3.1 of Part XV.1 of the *Environmental Protection Act*; therefore, it was completed to meet the requirements of Ontario Regulation (O.Reg.) 153/04.

The roughly 0.35 ha Site is on the west side of Bradford Street and extends to Sanford Street. The Site is currently vacant and undeveloped but was formerly used for residential and commercial purposes.

Review of historical documents indicated that the Site was first developed for residential purposes around 1945. In 1949, a commercial building was constructed and the Site was used for residential and commercial purposes until 2012 when the buildings were demolished. Commercial occupants included an autobody/auto repair shop and a car dealership.

The Phase One ESA identified 22 Potentially Contaminating Activities (PCAs), three on-site and 19 off-site, within the Phase One Study Area. The on-site PCAs and four off-site PCAs contributed to Areas of Potential Environmental Concern (APECs). The related contaminants of potential environmental concern (COPCs) are volatile organic compounds (VOCs), petroleum hydrocarbons (PHC) F1-F4, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and metals. Potentially contaminated media is soil and groundwater.

Based on the Phase One ESA findings, a Phase Two ESA is required to support filing an RSC.

2.0 Introduction

The Client retained Cambium to complete a Phase One ESA at 220 Bradford Street in Barrie, Ontario.

The Phase One ESA will be used to support filing an RSC under Section 168.3.1 of Part XV.1 of the *Environmental Protection Act*; therefore, it was completed to meet the requirements of O.Reg. 153/04.

2.1 Phase One Property Information

The Site is on the west side of Bradford Street and extends to Sanford Street in Barrie, Ontario in the County of Simcoe. Site information and property owner information are summarized below. The Phase One Property location is shown on Figure 1. A plan of survey is provided in Appendix A.

Property use surrounding the Site is as follows.

North: Commercial (The Speech Clinic – 218 Bradford Street) and residential (212 and 214 Bradford Street)

South: Commercial (Simcoe County Logistic Support Unit - 224 Bradford Street) and parkland (240 Bradford Street)

East: Bradford Street then industrial (249 Bradford Street - City of Barrie Wastewater Treatment Facility)

West: Residential (149 to 163 Sanford Street)

Site Identification Information

Municipal Address	220 Bradford Street, Barrie, Ontario
Historical Land Use	Commercial and Residential
Current Land Use	Vacant former commercial and residential
Future Land Use	Residential
PIN	58794-0126
Roll No.	434204000108100
Universal Transverse Mercator Coordinates*	Zone 17T 604130 m E, 4914439 m N
Legal Description	Part Parklot 15 West Side Bradford Street, Lot 16 West Side Bradford Street, Lot 17 West Side Bradford Street, Lot 18 West Side Bradford Street, Plan 15 Barrie, Part 4 of Plan 51R-7586; Barrie
Site Area	≈0.35 ha (0.85 acres)

* Coordinates were obtained from Google Earth Pro.

Property Owner Information

Property Owner	Contact Information
Chayell Palm Canada Ltd. 7815 Kent Boulevard Brockville, Ontario K6V 6N7	Ali Rehman Vice President/COO Phone: (613) 484-6061 Email: ali@hiebrockville.com

2.2 Current and Proposed Future Uses

The Phase One Property is currently vacant and undeveloped. Around 1945, a dwelling was constructed on the Site and in approximately 1949, a commercial building was constructed. The Site was used for residential and commercial purposes until 2012 when the buildings were demolished. From 1949 to 2012, commercial occupants included an autobody/auto repair shop and a car dealership.

Cambium understands that Chayell Hotels intends to redevelop the entire Site for residential use, which constitutes a change to a more sensitive land use for the former commercial portion of the Site.

3.0 Scope of Investigation

This Phase One ESA was completed as specified in Schedule D of O.Reg. 153/04 and follows the mandatory reporting requirements stipulated in Table 1 of the schedule. This Phase One ESA included the following:

- A review of pertinent background and historical information including documents such as aerial photographs and topographic maps (as available)
- Review and summary of available environmental records obtained for the Site from the client and/or public and private sources
- Interviews with persons knowledgeable of the Site and adjacent properties
- A site reconnaissance including visual observation of properties within the Phase One Study Area from publicly accessible areas
- Preparation of this report documenting the findings of the Phase One ESA and recommendations for further work, if required, to assess the environmental condition of the Site

This Phase One ESA report describes the methods used to document and identify potentially contaminating activities (PCAs) associated with the Site and neighbouring properties within the Phase One Study Area. While this report considers said environmental concerns, both past and present, it is limited by the availability of information obtained at the time of the assessment. No subsurface investigation or sampling was completed as part of the Phase One ESA.

4.0 Records Review

This assessment was based on a review of the following records. A detailed list of sources referenced in this Phase One ESA is presented in Section 9.0.

- Aerial photographs
- Business directories
- Parcel Register
- Fire insurance plans (FIPs) and property underwriters' reports
- An ERIS search of numerous provincial, federal, and private databases
- Ministry of the Environment, Conservation and Parks (Ministry) records
- Technical Standards and Safety Authority (TSSA) records
- Available reports, maps, and other information

4.1 General

4.1.1 Phase One Study Area Determination

O.Reg. 153/04 defines the Phase One Study Area as the area that includes the Phase One Property, any other property that is located, wholly or partly, within 250 m from the nearest point on the Phase One property boundary, and any property that the Qualified Person (QP_{ESA}) determines should be included as a part of the Phase One Study Area.

The QP_{ESA} considered the area within 250 m from the property boundary sufficient to identify APECs, based on a review of current and historical surrounding land uses, topography, and groundwater flow direction.

4.1.2 First Developed Use Determination

The first developed use of the Phase One Property is defined by O.Reg.153/04 to be: (a) the first use of a Phase One Property in or after 1875 that resulted in the development of a building

or structure on the property, and (b) the first potentially contaminating use or activity on the Phase One Property.

A review of aerial photographs, business directories, FIPs, and property ownership information was completed to determine the first developed land use for the Site. In the 1946 FIP, a dwelling is present. A chain of title review, which provided the oldest available property information, indicated that the Phase One Property was owned by various individuals starting in 1835. The Site was transferred to William Pratt in 1941 and of the Site were transferred to Mary and James Knapp in 1942 parts. The first developed use was residential in the early 1940s.

4.1.3 Fire Insurance Plans

Cambium reviewed FIPs dated 1907, 1931, and 1946 available at the Barrie Public Library. Cambium reviewed an FIP dated 1971, a Cope Report dated 1985, and All Risk Reports dated 2003 and 2009 available through Opta Information Intelligence (Opta). The FIP and insurance inspection report review identified the following information for the Site and Phase One Study Area. Copies of the 1971 FIP and insurance inspection reports are presented in Appendix B.

1907 FIP

- The Site and properties to the south are undeveloped. Dwellings were present to the north, east (beyond Bradford Street), and west.

1931 FIP

- The Site remains undeveloped.
- A gasoline service station (present day 224 Bradford Street) with eight underground storage tanks (USTs) is immediately south of the Site with an auto repair shop beyond (roughly 40 m to the south).
- Dwellings are present to the north, east (beyond Bradford Street), and west. Gasoline service stations are present roughly 65 m to the southeast (part of present day 249 Bradford Street) and 150 m to the southeast (present day 252 Bradford Street).

1946 FIP

- The central portion of the Site is developed with a two-storey dwelling and garage with a laneway providing access from Bradford Street.
- A gasoline service station is present immediately south of the Site and dwellings are present on properties to the north, east, and west of the Site.

1971 FIP

- The 1971 FIP shows the eastern portion of the Site, areas to the east and south, and select areas to the north.
- The Site is occupied by an autobody shop (220 Bradford Street) and a two-storey dwelling (163 Sandford Street).
- Neighbouring properties include a commercial auto repair garage (224 Bradford Street) with a gasoline UST to the south and Dangerfield Motors Ltd. with a gasoline UST, oil storage room, and an autobody shop east of Bradford Street (a portion of present day 249 Bradford Street).
- The Barrie sewage treatment plant is present to the east (249 Bradford Street).
- Commercial auto repair garages are present to the south at 84 Tiffin Street and 94 Tiffin Street, and a bulk fuel plant is present at 91 Tiffin Street.

1985 Cope Report

The Site is occupied by a slab-on-grade, commercial building, reportedly constructed in the 1960s. The building is occupied by Honest Joe Motors Ltd., an autobody shop and automotive dealership, and Harris Auto Electric, an electrical automotive repair operation. Hazards noted included spray painting and varsol handling. The building is heated with gas units.

2003 All Risk Report

The 1-1/2 storey building is owned by Joe Tascona and was reportedly constructed in 1948. The Site remains occupied by Honest Joe Motors Ltd. and Harris Auto Electric. The building houses a paint spray booth and hoist(s). The report did not specify if the hoist(s) were in-

ground or above ground. The building is heated with suspended gas-fired unit heaters. No storage tanks are present.

2009 All Risk Report

The occupants remain the same as those in 1985. The report indicates that there was a fire loss circa 2001, which resulted in the construction of a new paint spray booth. No storage tanks are present.

4.1.4 Chain of Title

A Chain of Title from 1835 to 2012 provided in a previous Phase I ESA (Skelton, Brumwell & Associates, 2012) and a current parcel registry were reviewed to support the determination of first developed land use for the Site and identify PCAs. The parcel registry is provided in Appendix C.

The chain of title review identified the following:

- The Phase One Property was first transferred from Crown in 1835.
- The Phase One Property (PIN 58794-0126) is described as Part Parklot 15 West Side Bradford Street, Lot 16 West Side Bradford Street, Lot 17 West Side Bradford Street, Lot 18 West Side Bradford Street, Plan 15 Barrie, Part 4 of Plan 51R-7586; Barrie.
- Part Parklot 15 and Lot 16 were transferred from William Pratt to Joseph Tascona Sr. in 1957 and Lots 17 and 18 were transferred from Mary and James Knapp to Joseph Tascona Sr. in 1949. The Site was transferred from Joseph Tascona Sr. to Joscona Ltd. in 2003.
- The parcel register indicates the Site was transferred from Joscona Ltd. to Chayell Palm Canada Ltd. on November 15, 2018.

Property ownership and use details are presented in Table 1 (Lots 15 and 16), Table 2 (Lot 17), and Table 3 (Lot 18).

4.1.5 Environmental Reports

Cambium made appropriate inquiries to obtain copies of the following reports prepared in respect of all or part of the Site by or on behalf of a current or former owner respecting environmental conditions at the Site as listed in Schedule D, paragraph 4, subsection 3 (2) of O.Reg. 153/04:

- ESA reports
- Remediation reports
- Reports prepared in response to an order or request from the Ministry
- Reports relating to the presence of a contaminant on, in, or under the Site, or the existence of an APEC

Relevant information from the available reports is summarized below by report.

Phase I ESA (Skelton, Brumwell & Associates, 2012)

Skelton Brumwell indicated that the Phase I ESA was completed in accordance with the procedures outlined in O.Reg. 153/04. The Phase I ESA included a review of readily available historical and regulatory records, a site reconnaissance, interviews, and an evaluation of information and reporting.

A review of the Ministry of Natural Resources Ontario Base Map (OBM) based on 1983 aerial imagery indicates the property is relatively flat at an elevation of 225 m above sea level.

Skelton Brumwell interviewed Dennis Tascona, a representative of the owner of the propertry, and Les Babinchak, a former tenant at the site. Mr. Tascona stated that the property was used as a used car dealership and autobody shop from 1949 to 2012. His father owned the car dealership and autobody shop and in 1989, a portion of the building was rented to Mr. Babinchak. Mr. Babinchak owned Harris Auto Electric and completed repairs of electrical components of automobiles from 1989 to 2012. Any hazardous wastes generated on-site were disposed off-site by Mr. Babinchak or picked up and disposed off-site by Safety Kleen.

Mr. Babinchak stated that the shop did not have any ASTs or USTs and he was unaware of why there would be a record in the Retail Fuel Storage Tanks database.

During the site reconnaissance in October 2012, the property was vacant. There was a large amount of fill, generally sand, on the north side of the property to support a concrete block retaining wall. Morris Shelswell & Sons Excavating & Grading Ltd. brought the fill to the property from 66 Lockhart Road in Barrie during the demolition of a former ship/car dealership and residence in 2012. An oil stain was observed on an asphalt surface on the north side of the property. Adjacent to the south of the property were two mechanic shops, A One Automotive Services and Ed's Performance Shop.

Skelton Brumwell recommended that a Phase II ESA be conducted at the property "to determine whether or not any contamination exists on the subject lands".

Phase II ESA (THEM, 2016)

T. Harris Environmental Management (THEM) completed a Phase II ESA based on the information provided in Skelton Brumwell Phase I ESA. The Phase II ESA included the advancement of 10 boreholes (BH1 to BH10) to depths ranging from 1.2 m to 6.1 m below ground surface (mbgs). Three of the boreholes (BH1, BH2, and BH3) were instrumented with monitoring wells.

Soil samples from nine of the boreholes (BH1 to BH4 and BH6 to BH10) were analyzed for one or more of PHC/BTEX, PAHs, metals, electrical conductivity (EC), sodium adsorption ratio (SAR), cyanide, and pH to assess the concerns identified by the Phase I ESA. A groundwater sample from each the monitoring wells was analyzed for PHCs, VOCs, PAHs, and metals. The findings of the Phase II ESA (with Cambium commentary in *italics)* indicated the following:

- Soil and groundwater analysis results were compared to the Table 9 Site Condition Standards (SCS) for Use within 30 m of a Water Body in a Non-Potable Groundwater Condition (MOE, 2011) due to the proximity of the property to Hotchkiss Creek.

- The soil profile consisted of granular fill ranging from 0.6 to 1.2 m thick across much of the Site. The fill was underlain by native sand and clayey sand to the maximum depth of the investigation, 6.1 mbgs.
- The depth to groundwater was roughly 1.5 mbgs at all monitoring wells on February 26, 2016, three days after completion of the monitoring wells.
- Soil analysis results met the Table 9 SCS for BTEX, PHCs, PAHs, metals, and inorganics. *Concentrations of barium, cobalt, and vanadium exceed the Table 6 SCS applicable at properties with shallow groundwater (<3 mbgs).*
- Chlorinated solvents (a subset of VOCs) were present at concentrations greater than the Table 9 SCS in all three monitoring wells.

THEM concluded that VOC impacted groundwater was present at the Site. No recommendations were provided.

Groundwater Sampling & Analysis (THEM, 2016)

The groundwater sampling and analysis was completed to minimize uncertainty associated with groundwater conditions in existing wells on the property.

Groundwater samples were collected from three existing on-site wells (BH1, BH2, and BH3) and submitted for analysis of VOCs. The findings of the groundwater sampling and analysis indicated the following:

- THEM compared the results to the Table 9 SCS.
- The depth to groundwater ranged from 1.51 m (BH1) to 2.27 mbgs (BH3) on May 26, 2016 (approximately three months after completion of the wells).
- Chlorinated solvents (cis-1,2-dichloroethylene, trichloroethylene, and vinyl chloride) were present at concentrations greater than the Table 9 SCS in the groundwater samples collected from all three wells.

Phase II ESA (Pinchin, 2018)

The purpose of this Phase II ESA was to further investigate soil and groundwater quality based on the findings of the Phase II ESA completed by THEM. Pinchin indicated that the Phase II ESA was completed in general accordance with the Canadian Standards Association (CSA) Standard Z769-00 (R2013). The Phase II ESA included the advancement of four boreholes (BH101 to BH104) to 6.1 mbgs. All four boreholes were instrumented with monitoring wells.

A soil sample collected at the bottom of each of the boreholes BH101 to BH104 was analyzed for VOCs. One soil sample collected at BH104 was analyzed for PHC/BTEX. Based on review of the borehole logs, the analyzed soil sample for PHC/BTEX was selected for analysis on the basis of field vapor screening results (i.e., samples with highest vapors submitted for analysis). In addition, two borehole soil samples were analyzed for grain size. A groundwater sample from each the newly installed monitoring wells and three existing monitoring wells, was analyzed for VOCs. The findings of the Phase II ESA indicated the following:

- Pinchin compared the soil and groundwater analysis results to the Table 2 Full Depth Generic SCS in a Potable Ground Water Condition (MOE, 2011) for industrial/commercial/community land use and coarse-textured soil.
- The soil profile consisted of fill (sand and gravel) to a depth of 0.3 to 0.46 mbgs. The fill was underlain by native sand to silty sand to the maximum depth of the investigation, 6.1 mbgs.
- Groundwater levels were measured in the existing monitoring wells and the newly installed monitoring wells. The depth to groundwater ranged from 1.56 m (BH102) to 3.76 mbgs (BH101) on August 27, 2018 (four days after completion of the wells). Groundwater flow direction was generally to the northeast toward Kempenfelt Bay.
- The overburden soil was coarse-textured.
- Soil analysis results met the Table 2 SCS for PHCs/BTEX and VOCs.
- Chlorinated solvents were present at concentrations greater than the Table 2 SCS in three existing monitoring wells (BH1 to BH3) and two new monitoring wells (BH102 and BH104)

- Non-aqueous phase liquids (NAPL) were not present in the on-site monitoring wells.
- Pinchin concluded that VOC impacted groundwater was present at the Site and recommended that a risk-based approach be completed to assess the human health and ecological risks resulting from the Table 2 SCS exceedances.

4.2 Environmental Source Information

Cambium made inquiries appropriate to obtain reasonably accessible records pertaining to the Site, including the following, as listed in Schedule D, paragraph 7, subsection 3 (2), of O.Reg. 153/04:

- National Pollutant Release Inventory information maintained by Environment Canada
- PCBs information maintained by the Ministry
- Certificates of approval, permits to take water, certificates of property use or similar instruments related to the environmental condition of the phase one property and any property on, under or adjacent to the phase one property and issued pursuant to an Act administered by the Ministry, whether in force or not
- The *Inventory of Industrial Facilities Producing or Using Coal Tar or Related Tars in Ontario* (MOE, 1988a) and the *Inventory of Coal Gasification Plant Waste Sites in Ontario* (MOE, 1988b)
- Records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the Ministry where the incident, order, offence, spill, discharge or inspection affects the phase one property and any property on, under or adjacent to the phase one property
- Waste management records, including current and historical waste storage locations and waste generator and waste receiver information maintained pursuant to Regulation 347 of the Revised Regulations of Ontario, 1990 (General — Waste Management) made under the Act, or its predecessors with respect to the Phase One Property and any property on, under or adjacent to the Phase One Property

- Reports submitted to the Ministry related to the environmental conditions of the Phase One Property and any property on, under or adjacent to the Phase One Property
- Retail fuel storage tanks information maintained by the Technical Standards and Safety Authority
- Notices and instruments, including Records of Site Condition (RSCs), posted in the Environmental Registry
- Identification of areas of natural significance maintained by the Ministry of Natural Resources and Forestry (MNRF)
- Landfill information maintained by the Ministry - *Waste Disposal Site Inventory* (MOE, 1991)

4.2.1 City Directories

Cambium conducted a review of city directories for the Phase One property and neighbouring properties at the Barrie Public Library. Cambium reviewed directories dated 1927 to 1961 in roughly five year increments. Cambium also contacted Environmental Risk Information Services Ltd. (ERIS) to conduct a review of city directories for the Phase One property and current municipal addresses of abutting properties. Directories dated 1952 to 1999 were available.

The Site is first listed in 1950 as Crosstown Motors. Honest Joe's Motors is listed from 1961 to 1998/99, Harris Auto Electric is listed from 1990 to 1998/99, Ray's Simcoe Motors is listed from 1974 to 1976, and City Car Sales is listed from 1990 to 1994/95. Notable listings for neighbouring properties include:

- 222-226 Bradford Street (present day 224 Bradford Street): A service station is listed from 1927 to 1976, and an automotive repair shop is listed from 1982 to 1998/99.
- 229 Bradford Street: An autobody shop is listed from 1950 to 1961. This address was not searched by ERIS. The address is not present on the 1946 or 1971 FIPs.

- 233-235 Bradford Street: A service station is listed from 1933 to 1950 and a car dealership is listed at 233 Bradford Street from 1950 to 1961. The address was not searched by ERIS. Dangerfield Motors is present at 233 Bradford Street in the 1971 FIP and included an autobody shop, gasoline UST and oil storage room.
- 254 Bradford Street: A service station is listed in 1933.
- 249 Bradford Street: Barrie Sewage Disposal Plant is listed in 1961. This address was not searched by ERIS. The sewage plant is present at this address in the 1971 FIP and remains there today.
- 212 Bradford Street: was listed as a mechanical shop in 1990.

A summary of the directory listings for the Site and surrounding properties provided by ERIS is included in Appendix D.

4.2.2 ERIS Data

Cambium contracted ERIS to provide a database report for the Phase One Study Area (ERIS, 2019). The ERIS report summarizes the findings of a search of various federal, provincial, and private source databases for the Site and properties within a search radius of 250 m from the centre of the Site. Cambium completed a search of the following databases for properties within the Phase One Study Area that may not have been captured in the ERIS report: National Pollutant Release Inventory (Government of Canada, 2019), Ontario Inventory of PCB Storage Sites (MOE, 1991), and FOI requests were submitted to the TSSA. The ERIS report is presented in Appendix E.

On-Site Records

The ERIS report identified the following environmentally significant records for 220 Bradford Street.

- Chayell Hospitality Group Inc. was listed in the O.Reg. 347 Waste Generators Summary in 2018 as a generator of inert organic waste.

- Harris Auto Electric was listed in the Retail Fuel Storage Tanks database. No further information is provided. Based on the information provided in the previous Phase I ESA discussed in Section 4.1.5, and the fact that the record in the Retail Fuel Storage Tanks database does not contain any information pertaining to a tank, it is unlikely that a fuel storage tank owned by Harris Auto Electric was present at the Site.

Off-Site Records

The following environmentally significant records were identified for properties within the Phase One Study Area.

224 Bradford Street (Adjacent to the south/cross-gradient)

- 2591969 Ontario Inc. was a registered generator of waste in 2018. The waste classes were waste oils/sludges (petroleum based) and waste crankcase oils and lubricants.
- Trow Associates Inc. was a registered generator of light fuels from 2007 to 2008 at 242 Bradford Street. As this municipal address did not exist in 2007/2008, it is possible that the waste was generated at 224 Bradford Street. This listing is likely for wastes generated during a Phase II ESA.

249 Bradford Street (50 m east/down-gradient)

- In 2002, a Certificate of Approval (CA) was issued for the incorporation of one diesel generator for waterworks at Well 11.
- P.W.D. Pollution Control Centre was a registered waste generator from 1986 to 2019. The Waste classes were various metal wastes, paint/pigment/coating residues, aliphatic solvents, petroleum distillates, light fuels, waste oils/lubricants, other specified inorganics, brines/chlor-alkai wastes, aromatic solvents, detergents/soaps, compressed gas, laboratory chemicals, polymeric wastes, polymeric resins, and halogenated solvents.
- Barrie WPCP was registered as a receiver of landfill leachate in 1986 and from 1994 to 2016.

- The following spills were listed in the Ontario Spills database for the Barrie Sewage Treatment Plant.
    - A release of an unknown amount of motor oil on the road due to an unknown cause in 2002.
    - A release of an unknown amount of solvent to water due to an unknown cause in 2003.
    - A release of 1 to 2 L of diesel fuel to a parking lot due to unknown causes in 2007.
    - A release of 15 L of hydraulic oil to ground and creek due to pipe or hose leak in 2007.
    - A release of an unknown amount of diesel fuel into the pond beside the sewage treatment plant due to a fuel tank leak in 2006.

Bradford Street form Tiffin Street to Sewage Treatment Plant (130 m southeast/down-gradient)

- A release of an unknown amount of used motor oil to Bradford Street due to unknown causes in 2000.

Lot 25 Concession 5 – Sanford and Brock Street (140 m north/cross-gradient)

- The Landfill Inventory Management Ontario database has a listing for an historical/closed landfill (X4104). Refer to Section 4.2.4 for further information.

184 Innisfil Street (195 m northwest/cross-gradient)

- Barrie Public Utilities Commission was a registered waste generator of metal wastes and oil skimming and sludges in 1989 and 1992 to 1998.

4.2.3 Coal Gasification Plants

The *Inventory of Industrial Facilities Producing or Using Coal Tar or Related Tars in Ontario* (MOE, 1988a) was reviewed. No industrial facilities producing or using coal or related tars were identified within 1,500 m of the Site.

The *Inventory of Coal Gasification Plant Waste Sites in Ontario* (MOE, 1988b) was reviewed. No coal gasification plant wastes sites were identified within 1,500 m of the Site.

4.2.4 Waste Disposal Site Inventory

The *Waste Disposal Site Inventory* (MOE, 1991) was reviewed. Three waste disposal sites were identified within 250 m of the Site.

- X4131 - Closed in 1930, Class A5 (Municipal/Domestic wastes); shown to be roughly 30 m to the east
- X4104 - Closed in 1961, Class A5 (Municipal/Domestic wastes); shown to be roughly 100 m to the west
- X4105 - Closed in 1962, Class A5 (Municipal/Domestic wastes); shown to be roughly 200 m to the west

A review of the D4 Study and Environmental Assessment, Dyment's Creek Landfills (Golder, 2013) indicates that X4131 was deemed not to be a waste disposal site based on a meeting between with the City of Barrie and Ministry. More details regarding the location of landfill X4104 and X4105 are as follows.

- X4104 was east of Sanford Street and north of Brock Street, 190 m north of the Site. The landfill was operated from 1960 to 1961.
- X4105 was between Innisfil Street and Sanford Street, north of Brock Street, 195 m northwest of the Site. The landfill was operated from 1961 to 1962.

4.2.5 Freedom of Information

Ministry of the Environment, Conservation and Parks FOI Results

A Freedom of Information (FOI) Request was submitted to the Ministry on August 6, 2019. The response dated October 22, 2019 included the following environmentally significant record.

- In a Ministry email dated May 26, 2017, Matthew Dmytrenko, Environmental Officer states that a caller advised him that a Phase I and II ESA has been completed at the Site. The Phase II ESA was completed by T. Harris Environmental Management in 2016 and identified concentrations of trichloroethylene (TCE), dichloroethylene, and vinyl chloride in groundwater above the applicable standard in three monitoring wells.

City of Barrie Results

An FOI request was submitted to the City of Barrie on August 6, 2019. A response provided on October 28, 2019 included the following environmentally significant records:

- A 1999 Waste Survey Report by the Ministry identified a sump containing some oil residue in the automotive garage and noted that the Site did not have an oil interceptor.
- A 2006 Waste Survey Report by the City of Barrie indicated that there were no AST or UST, paint spray booth, or hydraulic equipment.
- Correspondence and permits indicate that the house and automotive garage were demolished in 2012 and that granular material was placed against the north building wall acting as a retaining wall along the property boundary between the Site and 218 Bradford Street.
- A Phase I ESA for the Site completed in 2012 by Skelton, Brumwell & Associates was provided. This report is summarized in Section 4.1.5.
- The *2018 Annual Groundwater Monitoring Program, City of Barrie* by Golder Associates Ltd. (Golder, 2019) was provided. The purpose of the monitoring program is to assess trends in the distribution of TCE and associated breakdown products that were identified in the early 2000s within the capture zones of municipal water supply Wells 12 and 15. The TCE contamination is reported as two separate “plumes”, referred to as the South and North Plumes. The North Plume was identified in 2003 in an unconfined aquifer north of Brock Street and extends from west of Anne Street to the City of Barrie’s Wastewater Treatment Plant. A review of the 2018 results suggests the concentration of TCE in groundwater in the unconfined aquifer beneath the north side of the Site could range from 5 to 10 µg/L. The closest City of Barrie monitoring well, CB13-1, is roughly 30 m east of the Site. In 2018 the TCE concentrations at CB13-1 were reported to be 337 µg/L in the shallow well screened from 6.2 to 9.2 m below ground surface (bgs) and 33.2 µg/L in the deeper well screened from 13.1 to 14.6 mbgs.

TSSA FOI Results

An FOI request to the TSSA for the Site and abutting properties was submitted on August 2, 2019. The TSSA responded on August 6, 2019 that there were no fuel storage tanks on the properties searched.

An FOI request to the TSSA for properties within the Phase One Study Area that may not have been captured in the ERIS report was submitted on September 11, 2019. The TSSA responded on September 12, 2019 that there were expired records for the following properties:

- 91 Tiffin Street, 215 m to the southwest, has records for an expired bulk plant and an expired fuel tank.
- 85 Brock Street, 240 m to the west, has records for an expired private fuel outlet and expired fuel tanks.

Copies of the FOI responses are included in Appendix F.

4.2.6 Brownfields Environmental Site Registry

Cambium searched for RSCs and transition notices filed in the Brownfields Environmental Site Registry. No RSCs or Transition Notices were found for the Site or properties within the Phase One Study Area.

4.3 Physical Setting Sources

The following documents were available for review and were used to improve the information database for this report.

- Historical aerial photographs
- Topography, hydrology, and geology maps (stratigraphic maps, topographic maps, Ontario base mapping (OBM), etc.)
- Areas of Natural or Scientific Interests (ANSI) maps
- Well records

4.3.1 Aerial Photographs

Aerial photographs of the Phase One Property and Study Area were reviewed for 1946, 1955, 1967, 1989, 1997, 2002, 2008, and 2013 for the purpose of identifying the first developed use of the Site and subsequent onsite activities, buildings, structures, and PCAs, as per Schedule D, paragraph 9, subsection 3 (2), of O.Reg. 153/04. Detailed observations from the aerial photographs are provided in Appendix G.

Review of the aerial photographs indicated that the Site was developed prior to 1946. Due to the quality of the 1946 image, further description is not possible. In 1967, it is evident the Site is developed with two buildings, a commercial style building and a smaller building, inferred to be a dwelling, on the central portion of the Site. The Site remains relatively unchanged until the 2013 aerial photograph in which the buildings have been demolished and the Site is vacant.

4.3.2 Topography, Hydrology, and Geology

The Site slopes gently toward the southeast. Site elevation generally ranges from 222 to 224 m above sea level (Simcoe, 2019). A roughly 2 m embankment, reported to be fill imported to the Site in 2012, is present along the retaining wall on the northeast property boundary. The topography increases regionally to the west (Simcoe, 2019).

The Site is within the Simcoe Lowlands physiographic region (Chapman & Putnam, 2007), characterized by level plains composed of sand, silt and clay. In the general area, the overburden is coarse-textured glaciolacustrine deposits of sand and gravel with minor silt and clay (OGS, 2010). The soils overlie Verulam formation limestone and shale (OGS, 2007). A search of the Ministry Water Well Information System by ERIS indicated that the stratigraphy in the Phase One Study Area generally consisted of sand, silty sand, and silt to the maximum depth of 14.3 mbgs. Clay was encountered around 9 to 11 mbgs in some locations and peat was encountered around to Hotchkiss Creek. Bedrock was not encountered.

Subsurface investigations completed by THEM in 2016 and Pinchin in 2018 identified the soil profile as fill ranging from 0.3 to 1.2 m thick underlain by native sand, silty sand and clayey sand to the maximum depth of the investigations, 6.1 mbgs.

The depth to groundwater on February 26, 2016 was roughly 1.5 mbgs in the three monitoring wells installed on February 23, 2016. On August 27, 2018, the depth to groundwater ranged from 1.56 m to 3.76 mbgs in the three monitoring wells installed in 2016 and the four monitoring wells installed on August 23, 2018. Based on the water levels collected on August 27, 2018, the groundwater flow direction was determined to the northeasterly toward Kempenfelt Bay.

4.3.3 Fill Materials

Previous investigations have identified the presence of fill along the northeast side of the Site, adjacent to the retaining wall. Reportedly, the fill was sourced from an undeveloped property at 66 Lockhart Road in Barrie. No analytsis results confirming the quality of the fill material were provided.

4.3.4 Water Bodies and Areas of Natural Significance

The closest water body is Hotchkiss Creek which runs parallel to the Site and ranges from 20 m to 50 m south of the Site; therefore, the Site is within 30 m of a water body, as defined in O.Reg. 153/04.

Cambium reviewed the Ministry of Natural Resources and Forestry (MNRF) online Make A Map: Natural Heritage Areas to determine if an area of natural significance, as defined in Section 1 of O.Reg. 153/04, is located in whole or in part within the Phase One Study Area (MNRF, 2019). The search did not identify occurrences of species at risk on the Site; therefore, the Site is not considered an area of natural significance.

4.3.5 Well Records

A search of the Ministry Water Well Information System by ERIS identified three records for on-site monitoring wells and 19 records for water wells within the Phase One Study Area ranging from about 15 m to 200 m from the Site. The wells were identified as observation wells, monitoring and test holes, and dewatering wells. Some records were for the abandonment of unspecified wells.

Stratigraphy in the on-site wells was sand to 6.1 mbgs. Stratigraphy in the off-site wells generally consisted of sand, silty sand, and silt to the maximum depth of 14.3 mbgs. Clay was encountered around 9 to 11 mbgs in some locations and peat was encountered around Hotchkiss Creek. Bedrock was not encountered.

4.4 Site Operating Records

A review of available site operating records is required when the Site is an Enhanced Investigation Property. A property is defined as an Enhanced Investigation Property as per clause 32 (1) (b) of O.Reg. 153/04 if it is used, or has ever been used, in whole or in part for an industrial use or for any of the following commercial uses,

(i) as a garage,

(ii) as a bulk liquid dispensing facility, including a gasoline outlet, or

(iii) for the operation of dry cleaning equipment.

The Site is an Enhanced Investigation Property and as such, a review of site operating records was required.

5.0 Interviews

As per O.Reg. 153/04, a minimum of two interviews with persons described below, are required in an effort to obtain further information regarding the Site use, occupancy history, and environmental conditions of the Site. This may include the following:

- Persons relevant to meeting the objectives of the Phase One ESA
- Current occupants and/or owners of the Site, or an individual with control of or authority over the owner
- Previous owners and/or occupants
- For industrial/commercial properties, a person that is knowledgeable of the Site activities (to be conducted on-site)
- Where the owner/occupant is not available, at least one owner or occupant of an adjacent property and one provincial or municipal government official, both of whom should be familiar with the Site

As part of this Phase One ESA, Mr. Ali Rehman, Vice President/COO with Chayell Palm Canada Ltd., completed a site questionnaire. In 2012, Skelton Brumwell interviewed Dennis Tascona, a representative of the current owner of the property, and Les Babinchak, a former tenant at the Site (Skelton, Brumwell & Associates, 2012). Information obtained from these interviews is included in the appropriate sections of this Phase One ESA report.

As described in Section 4.2.5, FOI requests were submitted to the Ministry and the TSSA for any relevant information they may have on file pertaining to the Site. Responses to the FOI requests are documented in Section 4.2.5.

6.0 Site Reconnaissance

6.1 General Requirements

Ms. Natalie Wright, P.Eng., conducted a site reconnaissance from 11 AM to 12:30 PM on June 9, 2019. At the time of the reconnaissance, the Site was vacant and undeveloped. Ms. Wright also conducted a walk-by of the surrounding properties in the Phase One Study Area to identify off-site PCAs that may contribute to an APEC. Surrounding properties were viewed from publicly accessible areas.

During the Site reconnaissance, the weather was hot and sunny for most of the reconnaissance, with a little precipitation the in last 10 minutes. The entire Phase One Property was accessible, and all aspects of the property were inspected. All information obtained from the site reconnaissance is described in Section 6.2. Select photographs taken during the site reconnaissance are included in Appendix H.

6.2 Specific Observations at Phase One Property

Cambium made all reasonable attempts to obtain the following information where applicable, as required by Schedule D, subsection 13 (1) of O.Reg. 153/04:

- A general description of structures and other improvements, including the number and age of buildings
- A general description of the number, age and depth of below ground structures
- Details of all tanks, above and below ground, at the Phase One Property, including the material and method of construction of the tank, tank age, tank contents and tank volume, whether in use or not
- Any potable and non-potable water sources
- The type and approximate location of underground utility and service corridors, such as sewer, water, electrical or gas lines, located on, in or under the Phase One Property

With respect to the structures and buildings on the Site, the following information was obtained:

- Exit and entry points
- Details of existing and former heating systems, including type and fuel source
- Details of cooling systems, including type and fuel source, if any
- Details of any drains, pits and sumps, including their current use, if any, and former use
- Details of any unidentified substances
- Details, including locations, of stains or corrosion on floors other than from water, where located near a drain, pit, sump, crack or other potential discharge location.

Inquiries were also made to determine the following

- Details including locations of current and former wells, including all wells described or defined in or under the *Ontario Water Resources Act and the Oil, Gas and Salt Resources Act*
- Details of sewage works, including their location
- Details of ground surface, including type of ground cover, such as grass, gravel, soil or pavement
- Details of current or former railway lines or spurs and their locations

For the portion of the Phase One Property not covered by structures and buildings, the following observations were made:

- Areas of stained soil, vegetation or pavement
- Stressed vegetation
- Areas where fill and debris materials appear to have been placed or graded
- Potentially contaminating activity
- Details of any unidentified substances found at the Phase One Property

The following is a description of the various points of investigation noted during the Site reconnaissance conducted for the Phase One ESA. All observations made during the Site reconnaissance are discussed in the following sections in detail with regard to any findings that are relevant to identifying PCAs and APECs.

6.2.1 Structures and Other Improvements

There is a retaining wall along northeast property boundary. The remainder of the Site is vacant and undeveloped.

6.2.2 Underground Utility and Service Corridors

No indications of on-site utilities were observed. A pole-mounted transformer and overhead power lines were observed on the adjacent property to the south.

6.2.3 Storage Tanks – Above Ground and Underground

No evidence of ASTs or USTs was observed at the Site. A record for the Site and registered to Harris Auto Electric was listed in the Retail Fuel Storage Tanks database. Based on the information provided in the previous Phase I ESA discussed in Section 4.1.5, and the fact that the record in the Retail Fuel Storage Tanks database does not contain any information pertaining to a tank, it is unlikely that a fuel storage tank owned by Harris Auto Electric was present at the Site.

An AST was observed on the adjacent property to the south along the north wall of the building. No surface staining or stressed vegetation was observed in the vicinity of the AST.

6.2.4 Oil/Water Separators

No evidence of an oil/water separator was observed at the Site.

Vent pipes for a suspected oil/water separator were observed on the adjacent property to the south.

6.2.5 Potable Water Sources

The Phase One Study Area is municipally serviced for drinking water. No drinking water wells were observed on the Site and no records of drinking water wells at the Site or within the Phase One Study Area were identified by the records review.

6.2.6 Entry and Exit Points

The Site is accessible via a driveway from Bradford Street. The Site is generally enclosed by chain-link and wood fencing on all sides and a locked gate is present across the driveway from Bradford Street.

6.2.7 Heating and Cooling Systems

No heating or cooling systems were observed or reported at the Site.

6.2.8 Drains, Pits, and Sumps

No sumps, drains, pits, or lagoons were observed or reported at the Site.

6.2.9 Unidentified Substances

No unidentified substances were observed or reported at the Site.

6.2.10 Current and Former Wells

Six monitoring wells were observed at the Site. Four flush-mount wells were observed on the south portion of the Site and two stick-up wells were observed on the north portion of the Site. All wells were in good condition.

No potable drinking water wells were observed or reported at the Site.

6.2.11 Septic Fields

No septic fields were observed or reported at the Site.

6.2.12 Ground Surface Conditions

Ground surfaces at the Site consisted of asphalt over much of the south portion with gravel in select locations. A roughly 2 m embankment, reported to be fill imported to the Site in 2012, is present along the retaining wall on the northeast property boundary. The north and west sides of Site are densely vegetated with young trees, shrubs and low lying vegetation. There are mature trees along the south, west and north property boundaries.

6.2.13 Railway Lines or Spurs

No railway lines or spurs were observed or reported at the Site.

6.2.14 Stained Soil, Vegetation, or Pavement

No staining was observed at the Site.

6.2.15 Stressed Vegetation

No areas of stressed vegetation were observed on the Site.

6.2.16 Fill and Debris Materials

A roughly 2 m embankment, reported to be fill brought to the Site in 2012, is present along the retaining wall on the northeast property boundary. A small mound of yard waste was observed on the west side of the Site along with small amounts of household waste.

6.2.17 Unidentified and Other Hazardous Substances

No unidentified substances were observed at the Site.

6.2.18 Adjacent Land Uses and Environmental Concerns

The Site is bound by commercial and residential to the north, Bradford Street to the east with the City of Barrie Wastewater Treatment Facility beyond, Simcoe County Logistic Support Unit and parkland to the south, and residential to the west. The Barrie Waste Water Treatment Plant was previously identified as a PCA.

6.2.19 Enhanced Investigation Property

A property is defined as an Enhanced Investigation Property as per clause 32 (1) (b) of O.Reg. 153/04 if it is used, or has ever been used, in whole or in part for an industrial use or for any of the following commercial uses,

(i) as a garage,

(ii) as a bulk liquid dispensing facility, including a gasoline outlet, or

(iii) for the operation of dry cleaning equipment.

The records review indicated that the historical use of the Site was a garage, and as such the Site is considered an Enhanced Investigation Property. No operating data was available from the current (Chayell Palm Canada Ltd.) property owner.

Processing and Manufacturing

No processing and manufacturing was observed on the Site.

Hazardous Materials

The records review indicated that Chayell Hospitality Group Inc. was listed in the O.Reg. 347 Waste Generators Summary in 2018 as a generator of inert organic waste.

Product Manufacturing

No product manufacturing was observed at the Site.

By-Products and Wastes

No by-products or waste are currently generated at the Site. Minor dumping of yard and household waste was evident on the west side of the Site. Two drums containing soil were observed on the south side of the Site and appear to be from previous subsurface investigations.

Raw Material Handling

No raw materials storage was observed at the Site during the site visit.

Drums, Totes and Bins

Two drums containing soil were observed on the south side of the Site and appear to be from previous subsurface investigations.

Oil/Water Separator

No oil/water separator was observed at the Site. Vent pipes, inferred to be from an oil/water separator were observed on the adjacent property to the south.

Vehicle and Equipment Maintenance

No vehicle or equipment maintenance was observed on site during the site visit.

Spills

No indications of spills were observed during the site visit and no spills were reported at the Site.

Liquid Discharge Points

No drains or other discharge points were observed at the Site during the site visit.

Processing and Manufacturing Equipment

No processing or manufacturing equipment was observed at the Site during the site visit.

Hydraulic Equipment

No hydraulic equipment was observed at the Site during the site visit.

6.3 Written Description of Investigation

This Phase One ESA included a review of historical documents, an interview with a person knowledgeable about the historical and current uses of the Site, and a site reconnaissance to observe existing site conditions.

The site reconnaissance was completed by Ms. Natalie Wright, P.Eng. on June 9, 2019. At the time of the site reconnaissance, the Site was vacant and undeveloped. Asphalt with some gravel covers the south portion of the Site where the buildings formerly existed. A roughly 2 m embankment, reported to be fill brought to the Site in 2012, is present along the retaining wall

on the northeast property boundary. The north and west sides of Site are densely vegetated with young trees, shrubs and low lying vegetation. The Site is generally enclosed by chain-link and wood fencing on all sides and a locked gate is present across the driveway from Bradford Street.

There were no underground utilities observed at the Site. Evidence of underground utilities was observed on adjacent properties and within the road allowance of Bradford and Sanford Street.

No evidence of USTs was observed. There were no ASTs or oil/water separators observed on the Site. An AST and vent pipes suggestive of an oil/water separator were observed on the property immediately south of the Site.

At the time of the site reconnaissance, there were no areas of stressed vegetation or soil staining observed at the Site. There were no waste streams or hazardous materials observed. A small mound of yard waste was observed on the west side of the Site along with small amounts of household waste.

The Site is bound by commercial and residential to the north, Bradford Street to the east with the City of Barrie Wastewater Treatment Facility beyond, Simcoe County Logistic Support Unit and parkland to the south, and residential to the west.

The closest water body is Hotchkiss Creek, which runs roughly parallel to the Site and ranges from 20 m to 50 m south of the Site; therefore, the Site is within 30 m of a water body.

Further to the description of the investigations outlined above, the findings that are relevant to the existence of an APEC or PCA are described in Section 7.0.

7.0 Review and Evaluation of Information

7.1 Current and Past Uses

Current and past land uses and ownership are summarized in Table 1 (Lots 15 and 16) and Table 2 (Lot 17), Table 3 (Lot 18).

7.2 Potentially Contaminating Activity

Cambium reviewed information available for the Phase One Study Area to identify environmental issues normally assessed in a Phase One ESA. The Phase One ESA identified 22 PCAs (three on-site and 19 off-site), listed below, within the Phase One Study Area. Refer to Table 4 for PCA details and Figure 2 for PCA locations.

PCA #1 Former on-site commercial autobody shop

PCA #2 On-site fill of unknown quality adjacent to the retaining wall

PCA #3 On-site contaminants in groundwater

PCA #4 Former gasoline service station at 224 Bradford Street

PCA #5 Former automotive repair garage at 224 Bradford Street

PCA #6 Former automotive repair garage at 240 Bradford Street

PCA #7 Former gasoline service station off-site to the southeast

PCA #8 Former gasoline service station at 252 Bradford Street

PCA #9 Gasoline UST at Dangerfield Motors formerly off-site to the east

PCA #10 Dangerfield Motors formerly off-site to the east

PCA #11 Barrie sewage treatment plant off-site to the east

PCA #12 Automotive repair garage at 84 Tiffin Street

PCA #13 Former automotive repair garage at 94 Tiffin Street

PCA #14 Former bulk fuel plant at 91 Tiffin Street

PCA #15 Former gasoline service station at 254 Bradford Street

PCA #16 Former automotive repair garage at 212 Bradford Street

PCA #17 Motor oil spill on Bradford Street, north of Tiffin Street

PCA #18 Barrie Public Utilities Commission at 184 Innisfil Street

PCA #19 Historical landfill northeast of Brock and Sanford Street

PCA #20 Historical landfill northwest of Brock and Sanford Street

PCA #21 Former private service station at 85 Brock Street

PCA #22 Regional TCE plume north of the Site

7.3 Areas of Potential Environmental Concern

As required by O.Reg. 153/04, all on-site PCAs resulted in an APEC. Off-site PCAs were assessed for their potential to result in contamination at the Site. Refer to Table 5 for APEC details and Figure 3 for APEC locations. Fifteen off-site PCAs did not result in an APEC due to the distance and/or direction from the Site, or were historical activities that were previously investigated and found to not result in contamination at the Site (Pinchin, 2018).

APEC 1 Footprint of the former autobody shop (PCA 10 - Commercial Autobody Shops)

APEC 2 Embankment along the northeast side of the Site (PCA 30 - Importation of Fill Material of Unknown Quality)

APEC 3 South portion of the Site (Unidentified PCA – Previously identified VOC and metal contaminants)

APEC 4 Southeast property boundary due to historical off-site activities to the southeast (PCA 27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles and PCA 28 - Gasoline and Associated Products Storage in Fixed Tanks)

APEC 5 Entire Site (Unidentified PCA – Regional TCE plume north of the Site)

7.4 Phase One Conceptual Site Model

The following descriptions and discussion supplement Figure 2 to Figure 3, and together comprise the Phase One Conceptual Site Model (CSM). The purpose of the CSM is to assist the QP in illustrating the results of the Phase One ESA and to provide a basis for further work, if required.

7.4.1 Site Description

The Site is on the west side of Bradford Street and extends to Sanford Street in Barrie, Ontario in the County of Simcoe. The legal description of the Site is *Part Parklot 15 West Side Bradford Street, Lot 16 West Side Bradford Street, Lot 17 West Side Bradford Street, Lot 18 West Side Bradford Street, Plan 15 Barrie, Part 4 of Plan 51R-7586; Barrie*. The Property Identification Number (PIN) is 58794-0126 (LT). The Universal Transverse Mercator (UTM) coordinates for the centroid for the Site are Zone 17 T, 604130 m east and 4914439 m north. The roughly 0.35 ha Site is bound by residential and commercial land use to the north, commercial and parkland land use to the south, Bradford Street to the east, and residential land use to the west.

7.4.2 Existing Buildings and Structures

There is a retaining wall along northeast property boundary. The remainder of the Site is vacant and undeveloped. Historical structures were removed in 2012.

7.4.3 Water Bodies and Areas of Natural Significance

The closest water body is Hotchkiss Creek, which runs roughly parallel to the Site and ranges from 20 m to 50 m south of the Site; therefore, the Site is within 30 m of a water body, as defined in O.Reg. 153/04.

Cambium reviewed the Ministry of Natural Resources and Forestry (MNRF) online Make A Map: Natural Heritage Areas to determine if an area of natural significance, as defined in Section 1 of O.Reg. 153/04, is located in whole or in part within the Phase One Study Area

(MNRF, 2019). The search did not identify occurrences of species at risk on the Site; therefore, the Site is not considered an area of natural significance.

7.4.4 Drinking Water Wells

The Phase One Study Area is municipally serviced for drinking water. No drinking water wells were observed on the Site and no records of drinking water wells at the Site were identified by the records review.

A search of the Ministry Water Well Information System by ERIS identified three records for on-site monitoring wells and 19 records for water wells within the Phase One Study Area ranging from about 15 m to 200 m from the Site. The wells were identified as observation wells, monitoring and test holes, or dewatering wells. Some records were for the abandonment of unspecified wells.

7.4.5 Potentially Contaminating Activities

Based on the records review, site reconnaissance, and interviews, 22 PCAs (three on-site and 19 off-site), listed below, were identified within the Phase One Study Area. Refer to Table 4 for PCA details and Figure 2 for PCA locations.

PCA #1 Former on-site commercial autobody shop

PCA #2 On-site fill of unknown quality adjacent to the retaining wall

PCA #3 On-site contaminants in groundwater

PCA #4 Former gasoline service station at 224 Bradford Street

PCA #5 Former automotive repair garage at 224 Bradford Street

PCA #6 Former automotive repair garage at 240 Bradford Street

PCA #7 Former gasoline service station off-site to the southeast

PCA #8 Former gasoline service station at 252 Bradford Street

PCA #9 Gasoline UST at Dangerfield Motors formerly off-site to the east

PCA #10 Dangerfield Motors formerly off-site to the east

PCA #11 Barrie sewage treatment plant off-site to the east

PCA #12 Automotive repair garage at 84 Tiffin Street

PCA #13 Former automotive repair garage at 94 Tiffin Street

PCA #14 Former bulk fuel plant at 91 Tiffin Street

PCA #15 Former gasoline service station at 254 Bradford Street

PCA #16 Former automotive repair garage at 212 Bradford Street

PCA #17 Motor oil spill on Bradford Street, north of Tiffin Street

PCA #18 Barrie Public Utilities Commission at 184 Innisfil Street

PCA #19 Historical landfill northeast of Brock and Sanford Street

PCA #20 Historical landfill northwest of Brock and Sanford Street

PCA #21 Former private service station at 85 Brock Street

PCA #22 Regional TCE plume north of the Site

7.4.6 Areas of Potential Environmental Concern

As required by O.Reg. 153/04, all on-site PCAs resulted in an APEC. Based on a review of potential to result in contamination at the Site, four of the off-site PCAs contributed to an APEC. APECs are listed below. Refer to Table 5 for APEC details and Figure 3 for APEC locations.

APEC 1 Footprint of the former autobody shop (PCA #1)

APEC 2 Embankment along the northeast side of the Site (PCA #2)

APEC 3 South portion of the Site (PCA #3)

APEC 4 Southeast property boundary (PCAs #4-6)

APEC 5 Entire Site (PCA #22)

7.4.7 Contaminants of Potential Concern

COPCs were identified for each PCA contributing to an APEC. The COPCs specific to each APEC are summarized in Table 5. VOCs, PHCs, PAHs, PCBs, and metals were identified as COPCs related to the current and historical on and off-site PCAs.

7.4.8 Contaminant Distribution and Transport

No underground utilities were identified on, in, or under the Site. Contaminant distribution and transport may be influenced by the presence of utility trenches that were historically present on the Site. Water level data reviewed for the Site indicates that the water table is within sand, which would likely have similar properties as trench backfill. Therefore it is considered unlikely that preferential migration of contaminants would occur via historical utility trenches.

No specific climatic or meteorological conditions were observed that may influence the distribution or migration of contaminants.

7.4.9 Geological and Hydrogeological Setting

The Site slopes gently towards the southeast. Site elevation generally ranges from 222 to 224 m above sea level (Simcoe, 2019). A roughly 2 m embankment, reported to be fill imported to the Site in 2012, is present along the retaining wall on the northeast property boundary. The topography increases regionally to the west (Simcoe, 2019).

The Site is within the Simcoe Lowlands physiographic region (Chapman & Putnam, 2007), characterized by level plains composed of sand, silt and clay. In the general area, the overburden is coarse-textured glaciolacustrine deposits of sand and gravel with minor silt and clay (OGS, 2010). The soils overlie Verulam formation limestone and shale (OGS, 2007). A search of the Ministry Water Well Information System by ERIS indicated that the stratigraphy in the Phase One Study Area generally consisted of sand, silty sand, and silt to the maximum depth of 14.3 mbgs. Clay was encountered around 9 to 11 mbgs in some locations and peat was encountered around to Hotchkiss Creek. Bedrock was not encountered.

Subsurface investigations completed by THEM in 2016 and Pinchin in 2018 identified the soil profile as fill ranging from 0.3 to 1.2 m thick underlain by native sand, silty sand and clayey sand to the maximum depth of the investigations, 6.1 mbgs.

The depth to groundwater on February 26, 2016 was roughly 1.5 mbgs in the three monitoring wells installed on February 23, 2016. On August 27, 2018, the depth to groundwater ranged from 1.56 m to 3.76 mbgs in the three monitoring wells installed in 2016 and the four monitoring wells installed on August 23, 2018. Based on the water levels collected on August 27, 2018, the groundwater flow direction was northeasterly toward Kempenfelt Bay.

7.4.10 Uncertainty or Absence of Information

All aspects of the Phase One ESA were conducted consistent with O.Reg. 153/04, and as such, the Site was investigated thoroughly to the best of the assessor's abilities. As access to the entire Site was possible, and adequate historical information was available through the interviewee's and records review, uncertainty or absence of information is not expected. While the placement of historical off-site structures and PCAs based on FIPs may be of low accuracy, investigations completed during the Phase Two ESA can account for this uncertainty with increased investigation and sample locations.

8.0 Conclusions

The Phase One ESA conclusions regarding the current environmental conditions at the Site are based solely on the results from the document review, regulatory records review, interviews, and site reconnaissance conducted as described in this report.

8.1 Requirement for a Phase Two Environmental Site Assessment

Based on the observations and information obtained for the Site and Phase One Study Area, which identified PCAs and APECs, a Phase Two ESA is required prior to filing an RSC for the Site.

8.2 RSC Based on Phase One ESA Alone

An RSC cannot be filed for the Site based only on a Phase One ESA.

8.3 Signatures

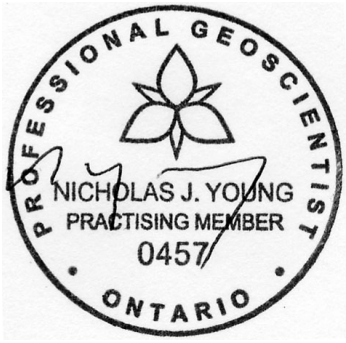
This Phase One ESA was completed by Mr. Nick Young, M.Eng., P.Geo., QPESA, as per O.Reg. 153/04. Information presented in this report is true and accurate to the best of the assessors' knowledge.

Respectfully submitted,

Cambium Inc.



Natalie Wright, P.Eng., PMP
Project Coordinator



Nick Young, M.Eng., P.Geo., QPESA
Senior Environmental Consultant

NJY/ncw

P:\9300 to 9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\Deliverables\REPORT - Phase One ESA\Final\2020-04-20 RPT Phase One ESA - 220 Bradford Street, Barrie.docx

9.0 References

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10.0 Standard Limitations

Limited Warranty

In performing work on behalf of a client, Cambium relies on its client to provide instructions on the scope of its retainer and, on that basis, Cambium determines the precise nature of the work to be performed. Cambium undertakes all work in accordance with applicable accepted industry practices and standards. Unless required under local laws, other than as expressly stated herein, no other warranties or conditions, either expressed or implied, are made regarding the services, work or reports provided.

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The findings and results presented in reports prepared by Cambium are based on the materials and information provided by the client to Cambium and on the facts, conditions and circumstances encountered by Cambium during the performance of the work requested by the client. In formulating its findings and results into a report, Cambium assumes that the information and materials provided by the client or obtained by Cambium from the client or otherwise are factual, accurate and represent a true depiction of the circumstances that exist. Cambium relies on its client to inform Cambium if there are changes to any such information and materials. Cambium does not review, analyze or attempt to verify the accuracy or completeness of the information or materials provided, or circumstances encountered, other than in accordance with applicable accepted industry practice. Cambium will not be responsible for matters arising from incomplete, incorrect or misleading information or from facts or circumstances that are not fully disclosed to or that are concealed from Cambium during the provision of services, work or reports.

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Site Assessments

A site assessment is created using data and information collected during the investigation of a site and based on conditions encountered at the time and particular locations at which fieldwork is conducted. The information, sample results and data collected represent the conditions only at the specific times at which and at those specific locations from which the information, samples and data were obtained and the information, sample results and data may vary at other locations and times. To the extent that Cambium's work or report considers any locations or times other than those from which information, sample results and data was specifically received, the work or report is based on a reasonable extrapolation from such information, sample results and data but the actual conditions encountered may vary from those extrapolations.

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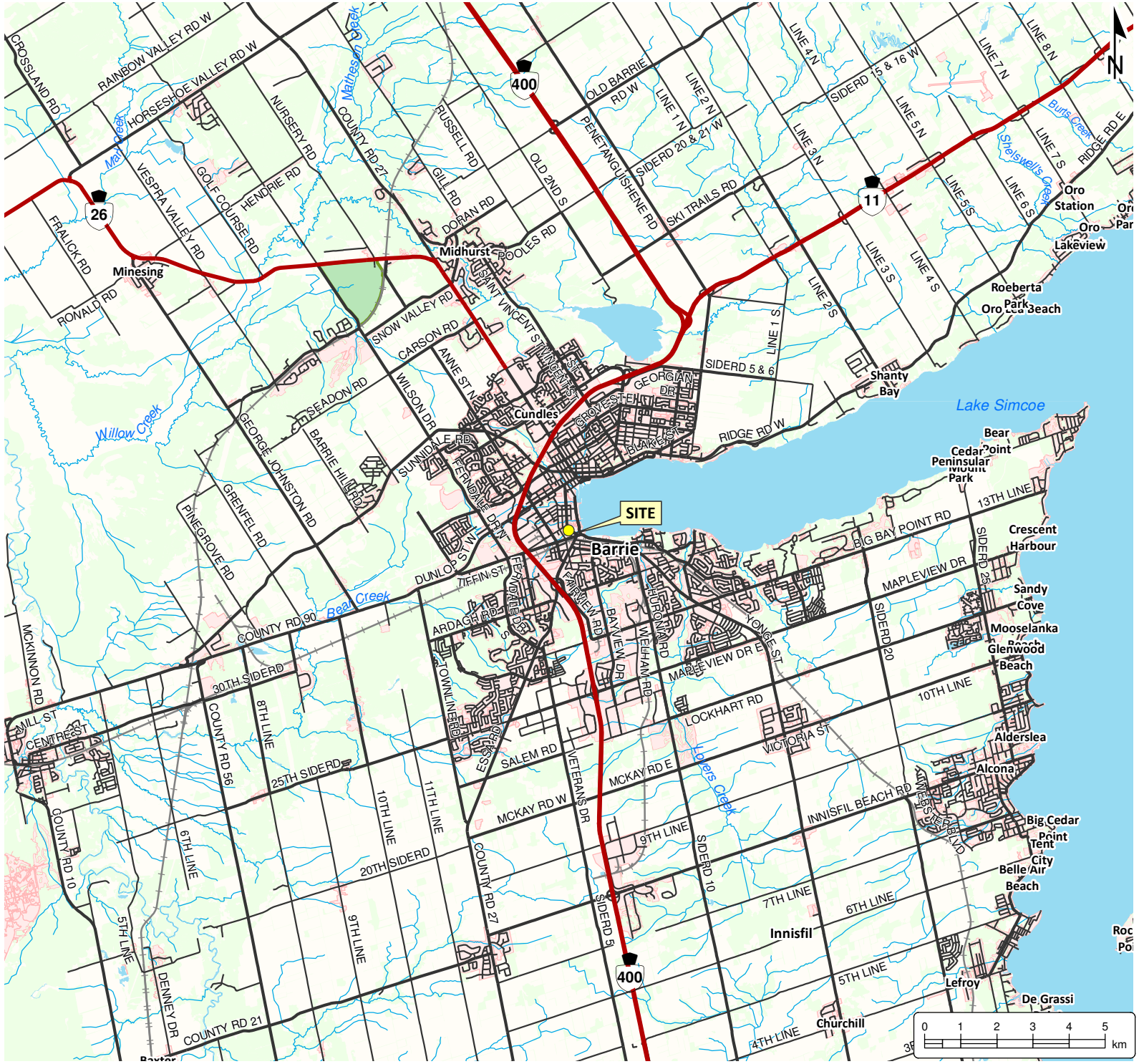
Limitation of Liability

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Figures



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

- Highway
- Major Road
- Minor Road
- Railroad
- Watercourse
- Water Area
- Provincial Park
- Built-Up Area
- Wooded Area

Notes:
- Base mapping features are © Queen's Printer of Ontario, 2019 (this does not constitute an endorsement by the Ministry of Natural Resources or the Ontario Government).
- Distances on this plan are in metres and can be converted to feet by dividing by 0.3048.
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SITE LOCATION MAP

Project No.: 9326-001		Date: September 2019 Rev.:	
Scale: 1:150,000		Projection: NAD 1983 UTM Zone 17N	
Created by: MAT	Checked by: NJY	Figure:	1

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 1 Regional Location Plan.mxd



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

- Study Area
- Location of Off-Site Activity
- Location of PCA 22 (projected extent of TCE plume >10ug/L)
- Site (approximate)

Onsite PCA

- PCA 1
- PCA 2
- PCA 3

Potentially Contaminating Activity:

- Resulting in APEC
- Not Resulting in APEC

LAND USE

Notes:
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CONCEPTUAL SITE MODEL - PHASE ONE STUDY AREA

Project No.:	9326-001	Date: / Rev.:	March 2020 / April 2020
Scale:	1:3,500	Projection:	NAD 1983 UTM Zone 17N
Created by:	MAT	Checked by:	NJY
Figure:	2		

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 2 Conceptual Site Model - Phase One Study Area.mxd



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

- Potentially Contaminating Activity
- Location of Off-Site Activity
- Location of PCA 22 (projected extent of TCE plume >10ug/L)
- Former Building Footprint
- Site (approximate)

Area of Potential Environmental Concern:

- APEC 1
- APEC 2
- APEC 3
- APEC 4
- APEC 5

Notes:
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CONCEPTUAL SITE MODEL - PHASE ONE PROPERTY

Project No.:	9326-001	Date: / Rev.:	March 2020 / April 2020
Scale:	1:1,000	Projection:	NAD 1983 UTM Zone 17N
Created by:	MAT	Checked by:	NJY
Figure:	3		

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 3 Conceptual Site Model - Phase One Property.mxd



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

Present Day Subject Property (approximate)

Notes:
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1946 AERIAL IMAGERY

Project No.: 9326-001		Date: September 2019	Rev.:
Scale: 1:3,000		Projection: NAD 1983 UTM Zone 17N	
Created by: MAT	Checked by: NJY	Figure: 4	

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 4 1946 Aerial Imagery.mxd



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

Present Day Subject Property (approximate)

Notes:
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1955 AERIAL IMAGERY

Project No.:	Date:
9326-001	September 2019
	Rev.:
Scale:	Projection:
1:3,000	NAD 1983 UTM Zone 17N
Created by: MAT	Checked by: NJY
Figure: **5**	

O:\GIS\project_MXDs\7400-7499\7441-001 City of Peterborough - Phase II ESA and RSC - 220 King Street, Peterborough\Urban Park - 50 Louis St\2019-09-11 FIG 5 1955 Aerial Imagery.mxd



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

Present Day Subject Property (approximate)

Notes:
- Base mapping features were obtained from the National Air Photo Library of Canada.
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1967 AERIAL IMAGERY

Project No.:	9326-001	Date:	September 2019
		Rev.:	
Scale:	1:2,500	Projection:	NAD 1983 UTM Zone 17N
Created by:	MAT	Checked by:	NJY
Figure:	6		

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 6 1967 Aerial Imagery.mxd



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

Present Day Subject Property (approximate)

Notes:
- Base mapping features were obtained from Simcoe County online GIS database, accessed August 2019.
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1989 AERIAL IMAGERY

Project No.: 9326-001		Date: September 2019	Rev.:
Scale: 1:2,000		Projection: NAD 1983 UTM Zone 17N	
Created by: MAT	Checked by: NJY	Figure: 7	

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 7 1989 Aerial Imagery.mxd



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

Present Day Subject Property (approximate)

Notes:
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1997 AERIAL IMAGERY

Project No.: 9326-001		Date: September 2019	Rev.:
Scale: 1:1,500		Projection: NAD 1983 UTM Zone 17N	
Created by: MAT	Checked by: NJY	Figure: 8	

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 8 1997 Aerial Imagery.mxd

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario



LEGEND

Present Day Subject Property (approximate)

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2002 AERIAL IMAGERY

Project No.: 9326-001		Date: September 2019	Rev.:
Scale: 1:2,000		Projection: NAD 1983 UTM Zone 17N	
Created by: MAT	Checked by: NJY	Figure: 9	

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 9 2002 Aerial Imagery.mxd



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

Present Day Subject Property (approximate)

Notes:
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2008 AERIAL IMAGERY

Project No.: 9326-001		Date: September 2019	Rev.:
Scale: 1:2,000		Projection: NAD 1983 UTM Zone 17N	
Created by: MAT	Checked by: NJY	Figure: 10	

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 10 2008 Aerial Imagery.mxd



PHASE ONE ENVIRONMENTAL SITE ASSESSMENT

CHAYELL HOTELS LTD.
220 Bradford Street,
Barrie, Ontario

LEGEND

Present Day Subject Property (approximate)

Notes:
- Base mapping features were obtained from Simcoe County online GIS database, accessed August 2019.
- Distances on this plan are in metres and can be converted to feet by dividing by 0.3048.
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2013 AERIAL IMAGERY

Project No.: 9326-001		Date: September 2019	Rev.:
Scale: 1:2,000		Projection: NAD 1983 UTM Zone 17N	
Created by: MAT	Checked by: NJY	Figure: 11	

O:\GIS\project_MXDs\9300-9399\9326-001 Chayell Hotels Ltd. - ENV - 220 Bradford Street\2019-08-06 FIG 11 2013 Aerial Imagery.mxd

Tables

Table 1 - Table of Current and Past Land Uses - Lots 15 and 16, Registered Plan 15

Year	Name of Owner	Description of Property Use	Property Use[1]	Other Observations from Aerial Photographs, Fire Insurance Plans, ERIS Report, etc.[2]
To 1835	Crown	Unknown - no records identified		None
1843	Robert Newcomak	Unknown - no records identified		None
1853	Charles Thompson	Unknown - no records identified		None
1875	Henry Fraser	Unknown - no records identified		None
1887	William Fraser	Unknown - no records identified		None
1925	John M. Bothwell	Undeveloped	Agricultural or other use	No building, structure, or use is identified in the 1907 and 1931 FIPs. No listings in the CDs from 1927 to 1942.
1941	Clarence Bothwell	Undeveloped	Agricultural or other use	
1957	William H. Pratt	Residence, automotive dealership, and auto body shop	Residential and Commercial	One dwelling is shown on the 1946 FIP. 1950 CD lists Crosstown Motors. Interviewee in 2012 Phase I ESA stated that the property was occupied by a used car dealership and autobody shop from 1949 to 2012.
2003	Joseph Tascona Sr.	Residence, automotive dealership, auto body shop, and automotive repair garage	Residential and Commercial	1961 CD lists Honest Joe, used car dealership. Interviewee in 2012 Phase I ESA stated that the property was occupied by a used car dealership and autobody shop from 1949 to 1989; and from 1989 to 2012, Harris Auto Electric, which completed repairs of electrical components in automobiles.
2012	Joscona Ltd.	Automotive repair garage	Residential and Commercial	
2018	Chayell Palm Canada Ltd.	Vacant; buildings demolished	Commercial	None

Notes:

CD - City Directories

FIP - Fire Insurance Plan

1. Specific Types of Property Use as defined by O.Reg. 153/04

2. Other observations are obtained from aerial photographs, records review, etc.

Table 2 - Table of Current and Past Land Uses - Lot 17, Registered Plan 15

Year	Name of Owner	Description of Property Use	Property Use[1]	Other Observations from Aerial Photographs, Fire Insurance Plans, ERIS Report, etc.[2]
To 1835	Crown	Unknown - no records identified		None
1843	Robert Newcomak	Unknown - no records identified		None
1853	Charles Thompson	Unknown - no records identified		None
1875	Henry Fraser	Unknown - no records identified		None
1887	William Fraser	Unknown - no records identified		None
1925	John M. Bothwell	Undeveloped	Agricultural or other use	No building, structure, or use is identified in the 1907 and 1931 FIPs. No listings in the CDs from 1927 to 1942.
1941	Clarence Bothwell	Undeveloped	Agricultural or other use	
1942	William H. Pratt	Undeveloped	Agricultural or other use	
1949	Mary and James Knapp	Residence	Residential	One dwelling is shown on the 1946 FIP.
2003	Joseph Tascona Sr.	Residence, automotive dealership, auto body shop, and automotive repair garage	Residential and Commercial	1950 CD lists Crosstown Motors. 1961 CD lists Honest Joe, used car dealership. Interviewee in 2012 Phase I ESA stated that the property was occupied by a used car dealership and auto body shop from 1949 to 1989; and from 1989 to 2012, Harris Auto Electric, which completed repairs of electrical components in automobiles.
2012	Joscona Ltd.	Residence and automotive repair garage	Residential and Commercial	
2018	Chayell Palm Canada Ltd.	Vacant; buildings demolished	Commercial	1907 FIP identified two dwellings.

Notes:

CD - City Directories

FIP - Fire Insurance Plan

1. Specific Types of Property Use as defined by O.Reg. 153/04

2. Other observations are obtained from aerial photographs, records review, etc.

Table 3 - Table of Current and Past Land Uses - Lot 18, Registered Plan 15

Year	Name of Owner	Description of Property Use	Property Use[1]	Other Observations from Aerial Photographs, Fire Insurance Plans, ERIS Report, etc.[2]
To 1835	Crown	Unknown - no records identified		None
1843	Robert Newcomak	Unknown - no records identified		None
1853	Charles Thompson	Unknown - no records identified		None
1858	Adam Burnitt	Unknown - no records identified		None
1865	James Granden	Unknown - no records identified		None
1875	Henry Fraser	Unknown - no records identified		None
1887	William Fraser	Unknown - no records identified		None
1925	John M. Bothwell	Undeveloped	Agricultural or other use	No building, structure, or use is identified in the 1907 and 1931 FIPs. No listings in the CDs from 1927 to 1942.
1941	Clarence Bothwell	Undeveloped	Agricultural or other use	
1942	William H. Pratt	Undeveloped	Agricultural or other use	
1949	Mary and James Knapp	Residence	Residential	One dwelling is shown on the 1946 FIP.
2003	Joseph Tascona Sr.	Residence, automotive dealership, auto body shop, and automotive repair garage	Residential and Commercial	1950 CD lists Crosstown Motors. 1961 CD lists Honest Joe, used car dealership. Interviewee in 2012 Phase I ESA stated that the property was occupied by a used car dealership and auto body shop from 1949 to 1989; and from 1989 to 2012, Harris Auto Electric, which completed repairs of electrical components in automobiles.
2012	Joscona Ltd.	Residence and automotive repair garage	Residential and Commercial	
2018	Chayell Palm Canada Ltd.	Vacant; buildings demolished	Commercial	1907 FIP identified two dwellings.

Notes:

CD - City Directories

FIP - Fire Insurance Plan

1. Specific Types of Property Use as defined by O.Reg. 153/04

2. Other observations are obtained from aerial photographs, records review, etc.

Table 4 - Potentially Contaminating Activities

	Potentially Contaminating Activity (PCA)[1]	Location of PCA	PCA Description	Contaminants of Potential Environmental Concern[2]	APEC[3] (Yes/No)
1	**PCA #10** - Commercial Autobody Shops	East side of the Site	Former on-site commercial autobody shop	VOCs, PHCs, PAHs, PCBs, metals	Yes
2	**PCA #30** - Importation of Fill Material of Unknown Quality	Along the retaining wall on the north side of the Site	On-site fill of unknown quality adjacent to the retaining wall	PHCs, BTEX, PAHs, metals	Yes
3	Unidentified PCA	South portion of the Site	On-site contaminants in groundwater	VOCs, metals	Yes
4	**PCA #28** - Gasoline and Associated Products Storage in Fixed Tanks	Off-site to the south	Former gasoline service station at 224 Bradford Street	PHCs, BTEX, metals	Yes
5	**PCA #27** - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-site to the south	Former automotive repair garage at 224 Bradford Street	VOCs, PHCs, PAHs, metals	Yes
6	**PCA #27** - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-site to the south	Former automotive repair garage at 240 Bradford Street	VOCs, PHCs, PAHs, metals	Yes
7	**PCA #28** - Gasoline and Associated Products Storage in Fixed Tanks	Off-site to the southeast	Former gasoline service station off-site to the southeast	PHCs, BTEX, metals	No
8	**PCA #28** - Gasoline and Associated Products Storage in Fixed Tanks	Off-site to the southeast	Former gasoline service station at 252 Bradford Street	PHCs, BTEX, metals	No
9	**PCA #28** - Gasoline and Associated Products Storage in Fixed Tanks	Off-site to the east	Gasoline UST at Dangerfield Motors formerly off-site to the east	PHCs, BTEX, metals	No
10	**PCA #10** - Commercial Autobody Shops	Off-site to the east	Dangerfield Motors formerly off-site to the east	VOCs, PHCs, PAHs, metals	No
11	**PCA #58** - Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Off-site to the east	Barrie sewage treatment plant off-site to the east	VOCs, PHCs, metals and inorganics	No
12	**PCA #27** - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-site to the southwest	Automotive repair garage at 84 Tiffin Street	VOCs, PHCs, PAHs, metals	No
13	**PCA #27** - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-site to the southwest	Former automotive repair garage at 94 Tiffin Street	VOCs, PHCs, PAHs, metals	No
14	**PCA #28** - Gasoline and Associated Products Storage in Fixed Tanks	Off-site to the southwest	Former bulk fuel plant at 91 Tiffin Street	PHCs, BTEX, metals	No
15	**PCA #28** - Gasoline and Associated Products Storage in Fixed Tanks	Off-site to the south	Former gasoline service station at 254 Bradford Street	PHCs, BTEX, metals	No
16	**PCA #27** - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	Off-site adjacent to the north	Former automotive repair garage at 212 Bradford Street	VOCs, PHCs, PAHs, metals	No
17	Unidentified PCA	Off-site to the southeast	Motor oil spill on Bradford Street, north of Tiffin Street	PHCs, BTEX, metals	No
18	**PCA #18** - Electricity Generation, Transformation and Power Stations	Off-site to the northwest	Barrie Public Utilities Commission at 184 Innisfil Street	PHCs, PCBs, metals	No
19	**PCA #58** - Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Off-site to the north	Historical landfill northeast of Brock and Sanford Street	VOCs, PHCs, PAHs, PCBs, metals	No
20	**PCA #58** - Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners	Off-site to the northwest	Historical landfill northwest of Brock and Sanford Street	VOCs, PHCs, PAHs, PCBs, metals	No
21	**PCA #28** - Gasoline and Associated Products Storage in Fixed Tanks	Off-site to the west	Former private service station at 85 Brock Street	PHCs, BTEX, metals	No
22	Unidentified PCA	Off-site to the north	Regional TCE plume in an unconfined aquifer around Brock Street, extending from Anne Street to the City of Barrie's Wastewater Treatment Plant.	VOCs	Yes

Notes:

1. 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

2. Method groups as defined in 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

3. APEC 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

Table 5 - Areas of Potential Environmental Concern

Area of Potential Environmental Concern[1]	Location of Area of Potential Environmental Concern on the Phase One Property	Potentially Contaminating Activity[2]	Location of PCA (on-site or off-site)	Contaminants of Potential Concern[3]	Media Potentially Impacted (Groundwater, soil, and/or sediment)
APEC 1	Footprint of the former autobody shop	10. Commercial Autobody Shops	on-site	VOCs, PHCs, PAHs, PCBs, metals	Soil & Groundwater
APEC 2	Embankment along the northeast side of the Site	30. Importation of Fill Material of Unknown Quality	on-site	PHCs, BTEX, PAHs, metals	Soil
APEC 3	South portion of the Site	Unidentified PCA - Previously identified VOC and metal contaminants	on-site	VOCs, metals	Groundwater
APEC 4	Southeast property boundary	28. Gasoline and Associated Products Storage in Fixed Tanks 27. Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	off-site	VOCs, PHCs, PAHs, metals	Groundwater
APEC 5	Entire Site	Unidentified PCA - Regional TCE plume north of the Site	off-site	VOCs	Groundwater

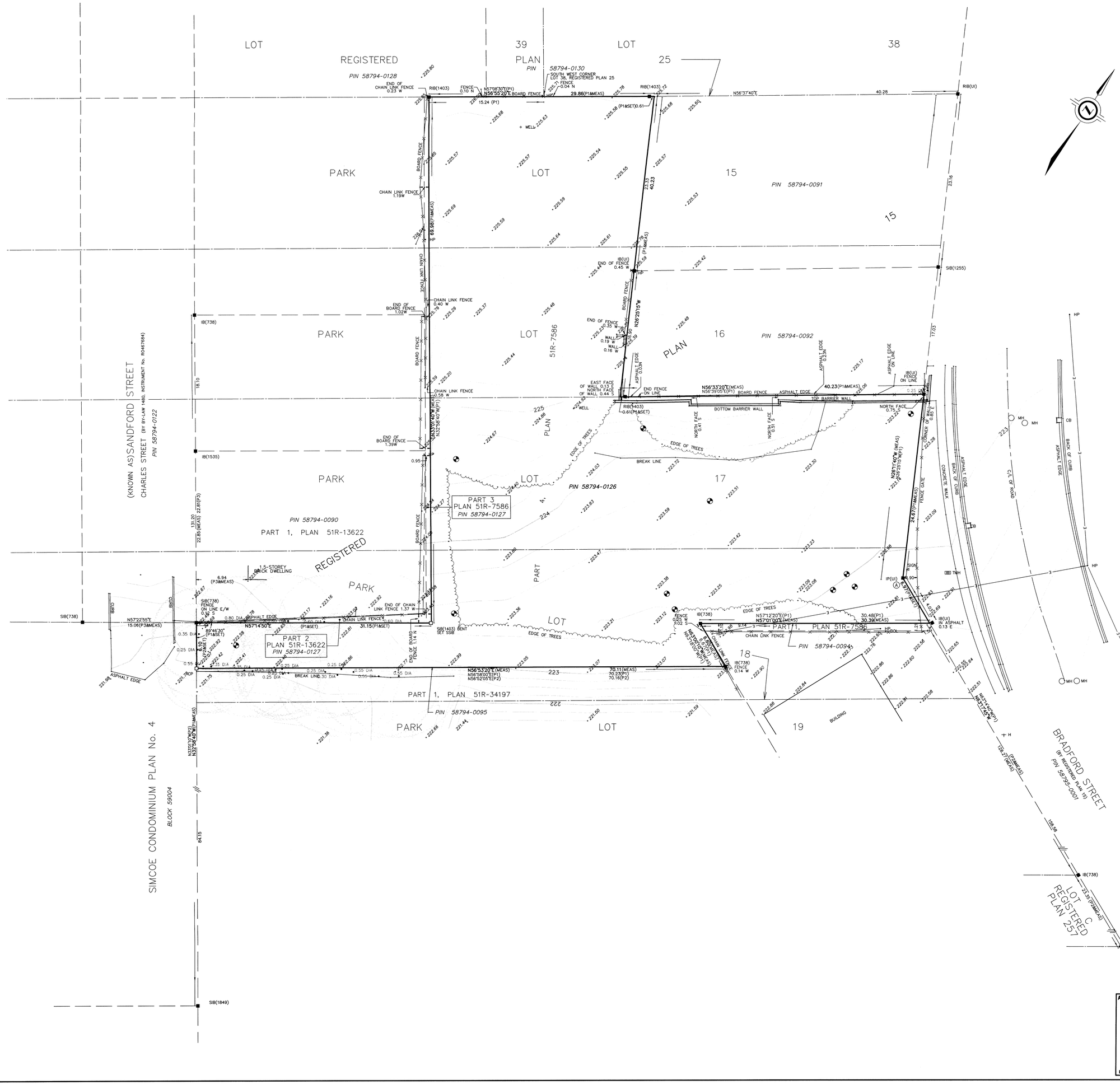
Notes:

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

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. Method groups as defined in 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

Appendix A
Plan of Survey



PLAN OF SURVEY SHOWING
TOPOGRAPHIC INFORMATION
PART OF PARK LOTS 15, 16, 17 AND 18
(WEST OF BRADFORD STREET)
REGISTERED PLAN 15
CITY OF BARRIE
COUNTY OF SIMCOE

SCALE 1 : 200
5 0 5 10 metres

J.D. BARNES LIMITED

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METRIC DISTANCES AND/OR COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

BENCHMARK

ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM AND ARE DERIVED FROM BENCH MARK No 03120080023 HAVING A PUBLISHED ELEVATION OF 226.540 METRES.

NOTES

BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B, BY REAL TIME NETWORK (RTN) OBSERVATIONS, UTM ZONE 17, NAD83 (CSRS) (2010.0).

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.999704.

FOR BEARING COMPARISONS, A ROTATION OF 00°55'40" COUNTER-CLOCKWISE WAS APPLIED TO BEARINGS ON PLAN P1.

ALL SET SSIB AND PB MONUMENTS WERE USED DUE TO LACK OF OVERBURDEN AND/OR PROXIMITY OF UNDERGROUND UTILITIES IN ACCORDANCE WITH SECTION 11 (4) OF O.REG. 525/91.

INTEGRATION DATA

OBSERVED REFERENCE POINTS (ORPs): UTM ZONE 17, NAD83 (CSRS) (2010.0).

COORDINATES TO URBAN ACCURACY PER SECTION 14 (2) OF O.REG 216/10.

POINT ID	EASTING	NORTHING
ORP (A)	604 158.98	4 914 446.99
ORP (B)	604 300.61	4 914 375.75

COORDINATES CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

LEGEND

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT SET
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR
IB	DENOTES	IRON BAR
CP	DENOTES	CONCRETE PIN
IP	DENOTES	IRON PIPE
WIT	DENOTES	WITNESS
MEAS	DENOTES	MEASURED
JDB	DENOTES	J.D. BARNES LIMITED
738	DENOTES	R.C. KIRKPATRICK, O.L.S.
1255	DENOTES	R.C. RAIKES, O.L.S.
1403	DENOTES	W.D. SMITH, O.L.S.
1535	DENOTES	P.J. MANSFIELD, O.L.S.
1849	DENOTES	C.A.MACDONALD SURVEYING INC, O.L.S.
P1	DENOTES	PLAN 51R-7586
P2	DENOTES	PLAN 51R-34197
P3	DENOTES	PLAN 51R-13622
CB	DENOTES	SINGLE CATCHBASIN
MH	DENOTES	MANHOLE
TMH	DENOTES	TELEPHONE MANHOLE
BOL	DENOTES	BOLLARD
HP	DENOTES	HYDRO POLE
H	DENOTES	FIRE HYDRANT
WELL	DENOTES	WELL
—E—	DENOTES	OVER HEAD HYDRO CABLE
	DENOTES	DECIDUOUS TREE

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON NOVEMBER 4, 2019.

Nov. 5, 2019
DATE

NAVID NAJJARBASHI
ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2085555
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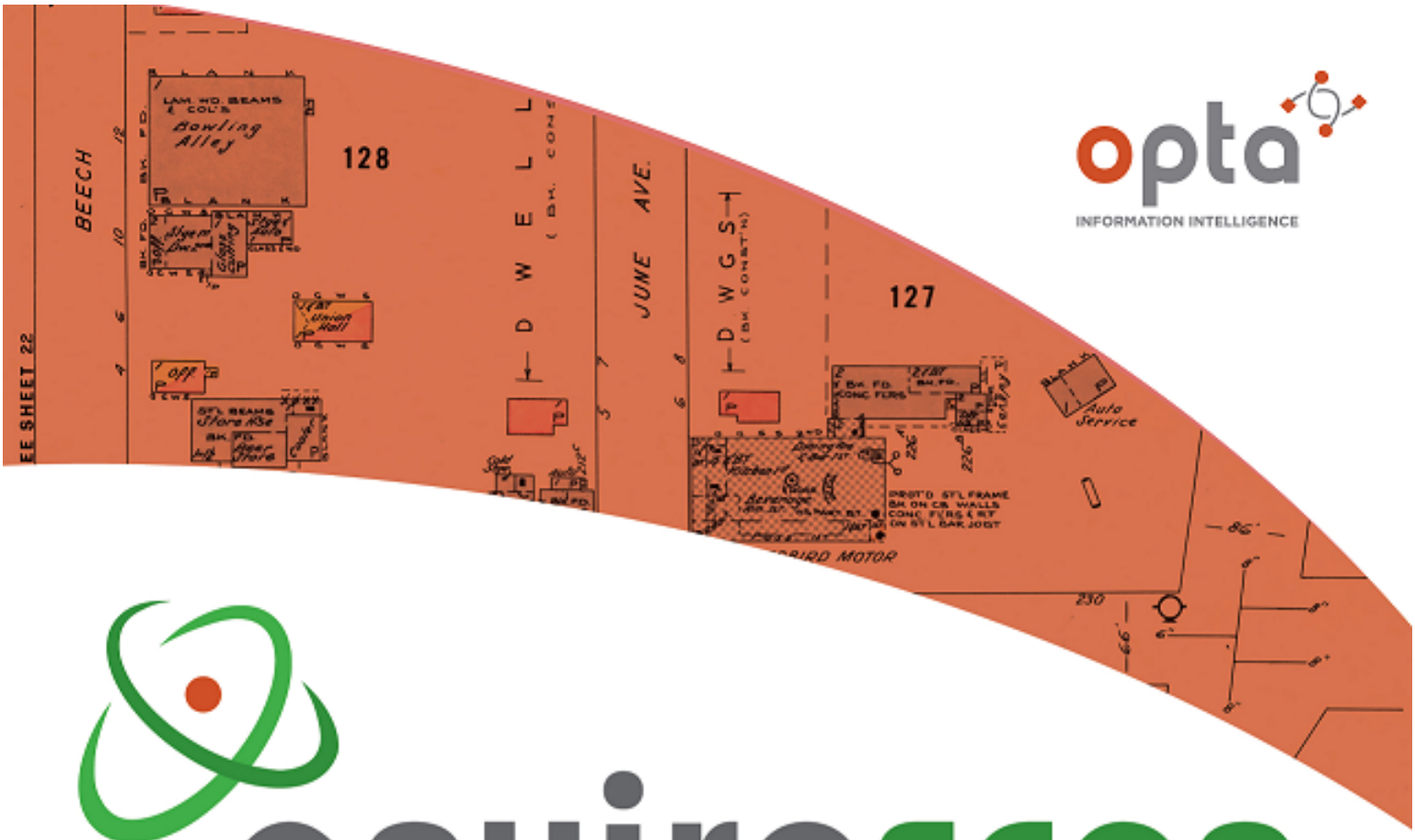
J.D.BARNES LIMITED
SURVEYING MAPPING GIS
LAND INFORMATION SPECIALISTS
142 COMMERCE PARK DRIVE, UNIT V, BARRIE, ON L4N 8W8
T: (705) 739-6770 F: (705) 739-6771 www.jdbarnes.com

DRAWN BY:	CHECKED BY:	REFERENCE NO.:
MIKE WALDOCK	NN	19-11-783-00

FILE: G:\19-11-783\00\DRAWINGS\19-11-783-00.dgn DATED: 11/04/2019

PLOTTED: 11/5/2019

Appendix B
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An SCM Company

175 Commerce Valley Drive W
Markham, Ontario L3T 7Z3

T: 905-882-6300
W: www.optaintel.ca

Report Completed By:

Sunita

Site Address:

220 Bradford Street Barrie Ont

Project No:

20190724204

Opta Order ID:

63912

Requested by:

Eleanor Goolab
ERIS

Date Completed:

7/31/2019 9:03:38 AM

Project Name: 9326001 Phase One ESA

Project #: 20190724204

ENVIROSCAN Report

Search Area: 220 Bradford Street Barrie Ont

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Eleanor Goolab
Date Completed: 07/31/2019 09:03:38

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Entire Agreement

The parties hereto acknowledge and agree to be bound by the terms and conditions hereof. The request form constitutes the entire agreement between the parties pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, negotiations and discussions, whether oral or written, and there are no representations or warranties, or other agreements between the parties in connection with the subject matter hereof except as specifically set forth herein. No supplement, modification, waiver, or termination of the request shall be binding, unless confirmed in writing by the parties hereto.

Governing Document

In the event of any conflicts or inconsistencies between the provisions hereof and the Reports, the rights and obligations of the parties shall be deemed to be governed by the request form, which shall be the paramount document.

Law

This agreement shall be governed by and construed in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein.

ENVIROSCAN Report

Report Index

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14 (1971) Volume: Barrie Firemap: 13
16 (1971) Volume: Barrie Firemap: 13
18 (1971) Volume: Barrie Firemap: 14

19 (2009) All Risk Report - 2009 JOSCONA LTD & HONEST MOTORS 220 Bradford Street BARRIE ON L4N3B6 (distance = 0 metres*)

45 (2003) All Risk Report - 2003 JOSCONA LTD & HONEST MOTORS 220 Bradford Street BARRIE ON L4N3B6 (distance = 0 metres*)

60 (1985) Cope Report - 1985 HONEST JOE MOTORS LTD 220 Bradford Street BARRIE ON L4N3B6 (distance = 0 metres*)

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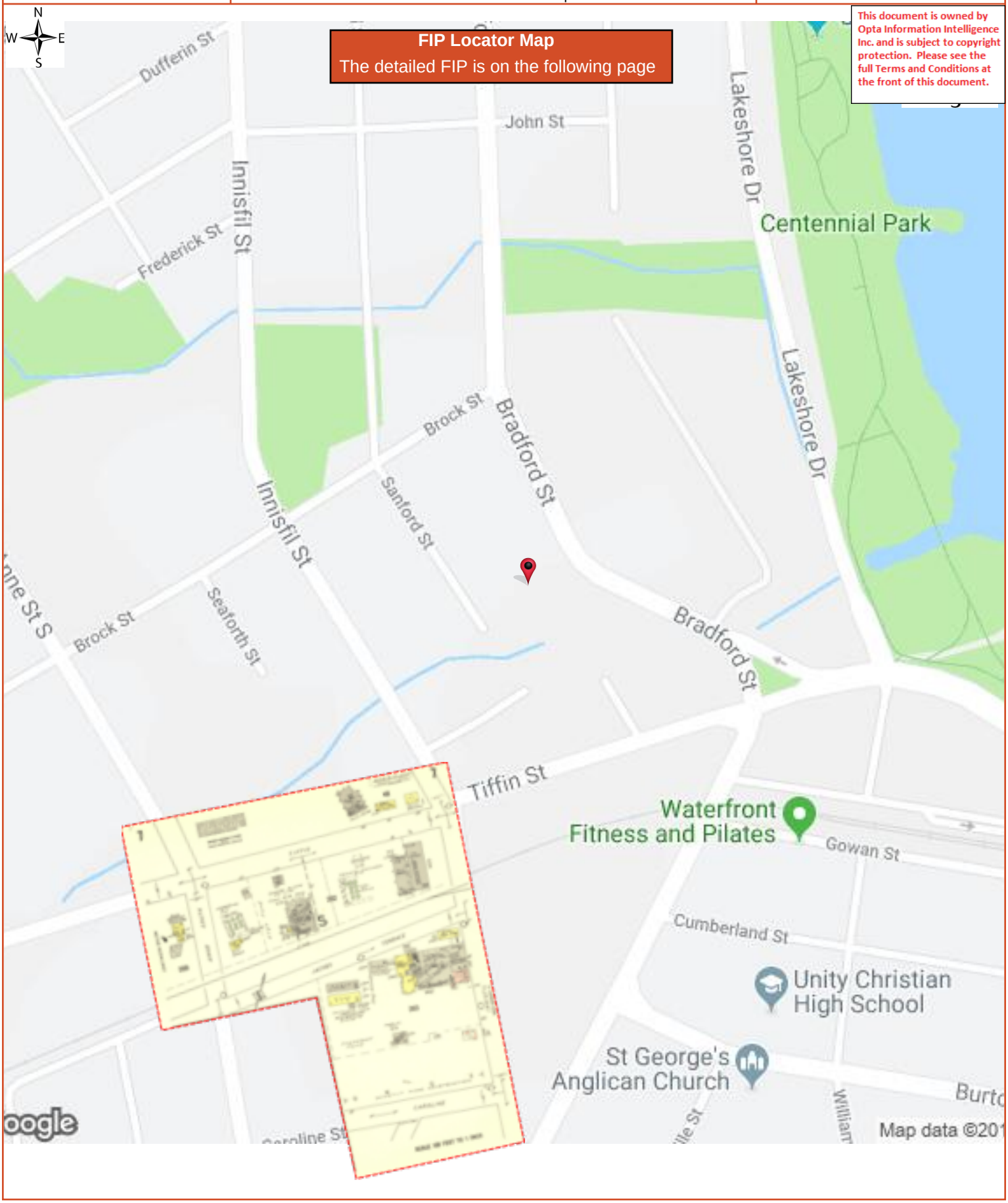
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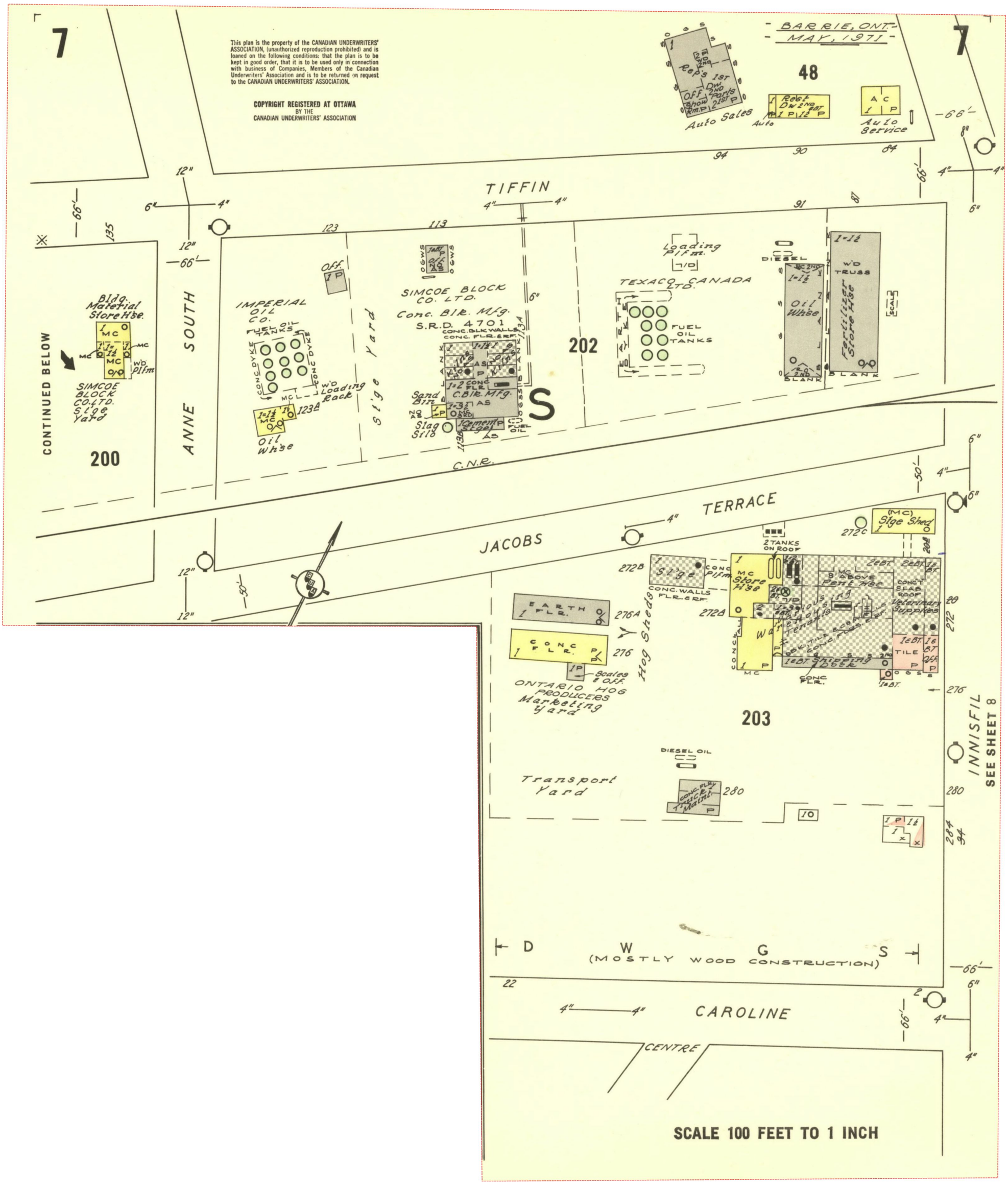


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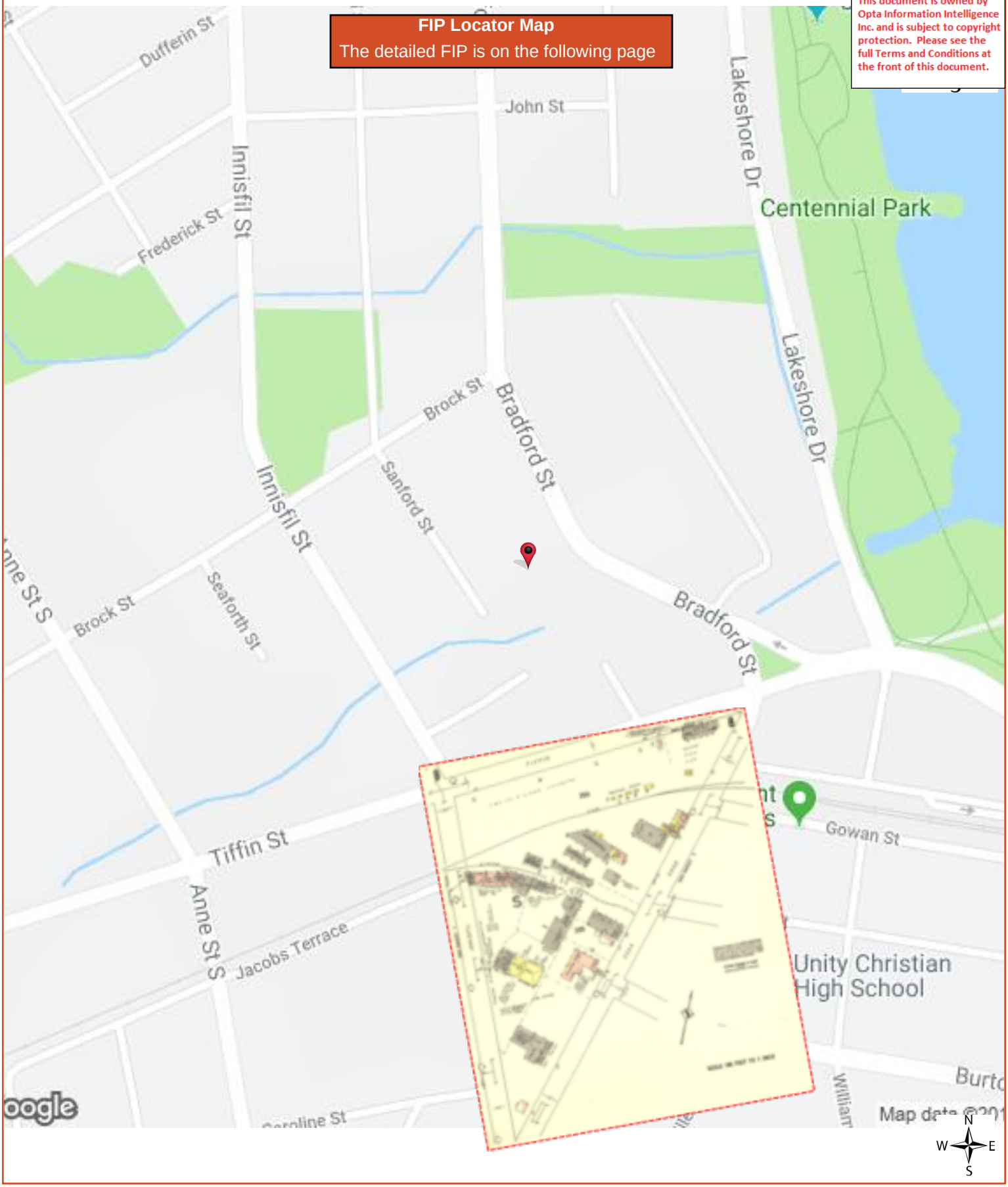
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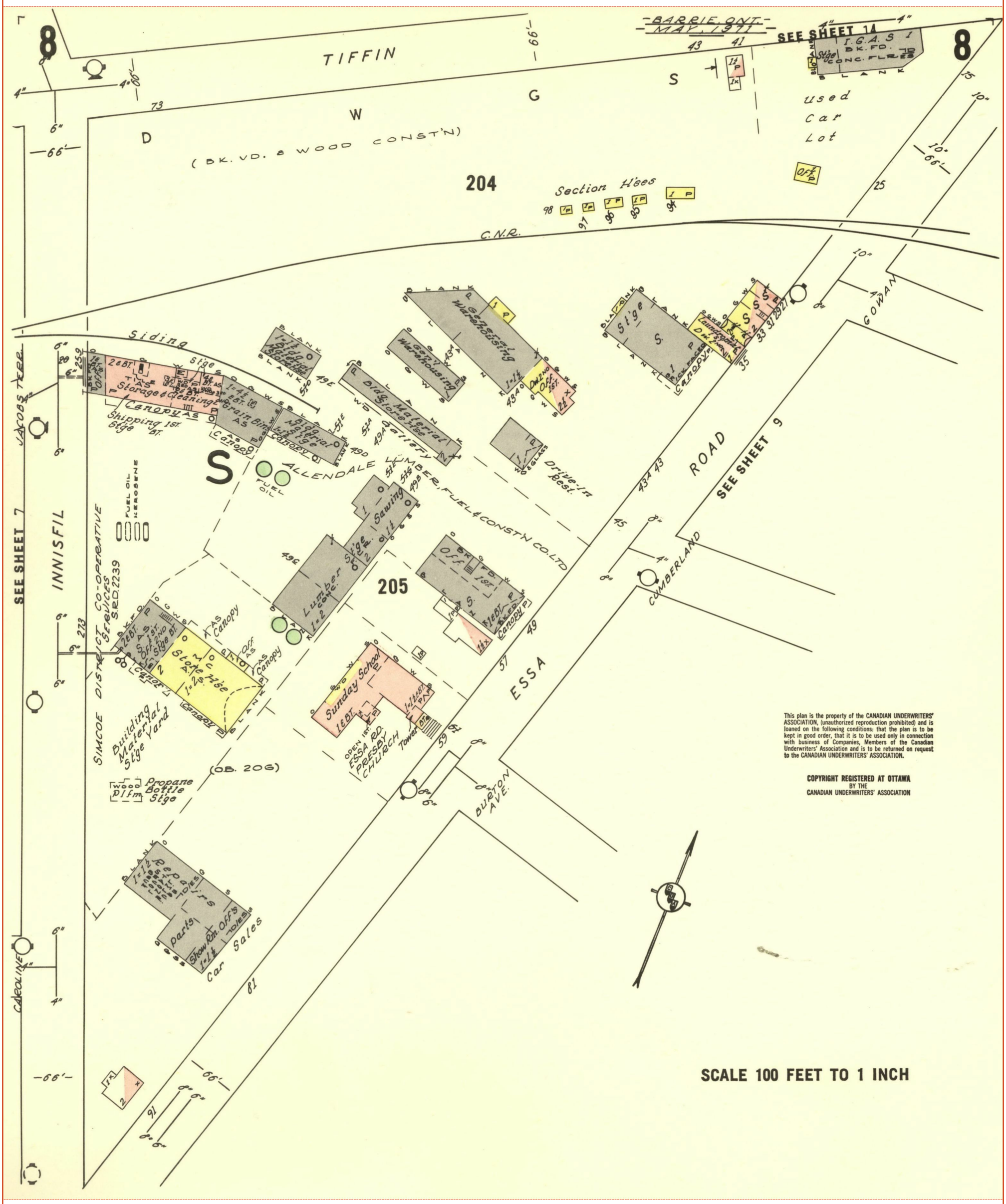


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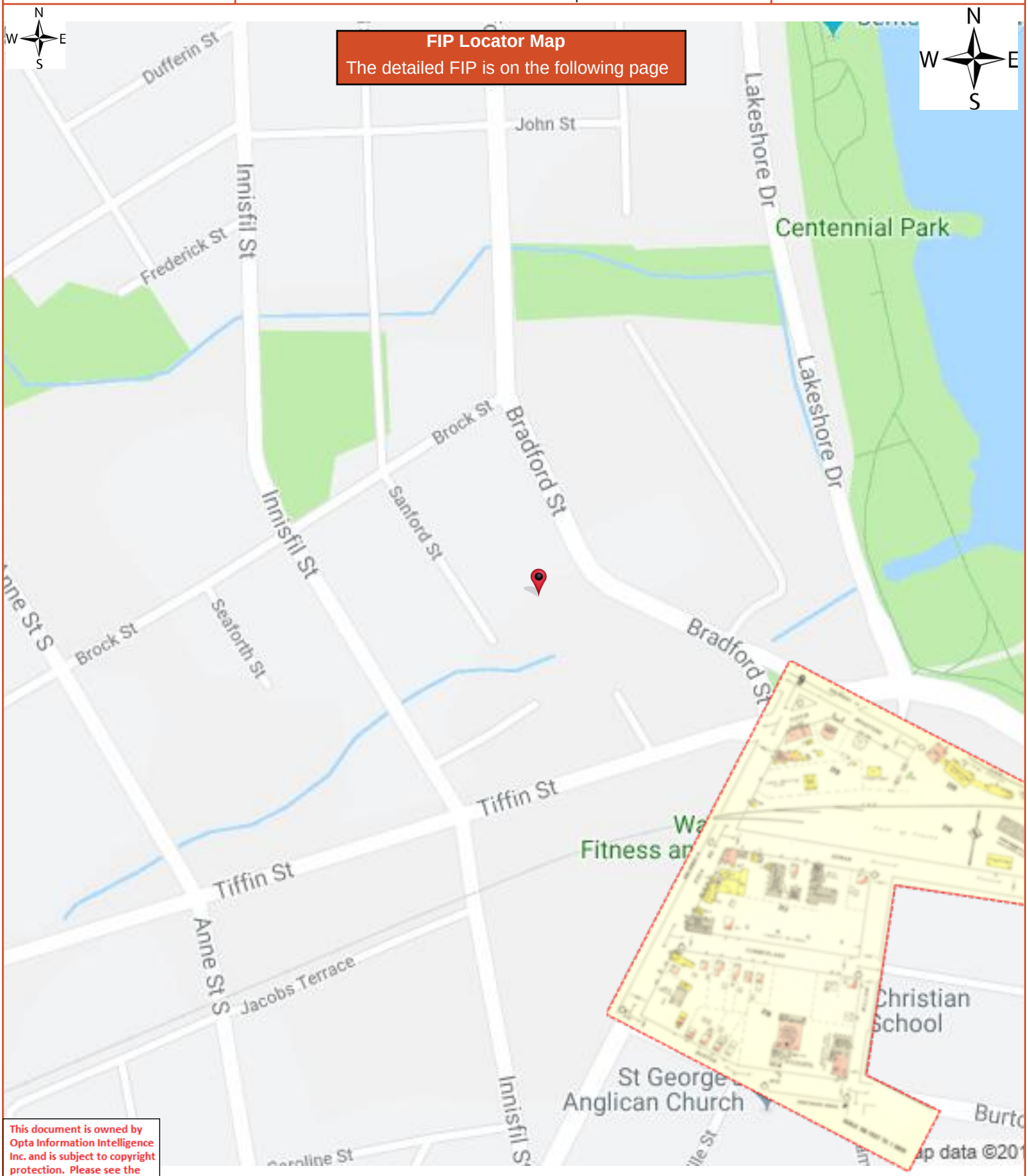
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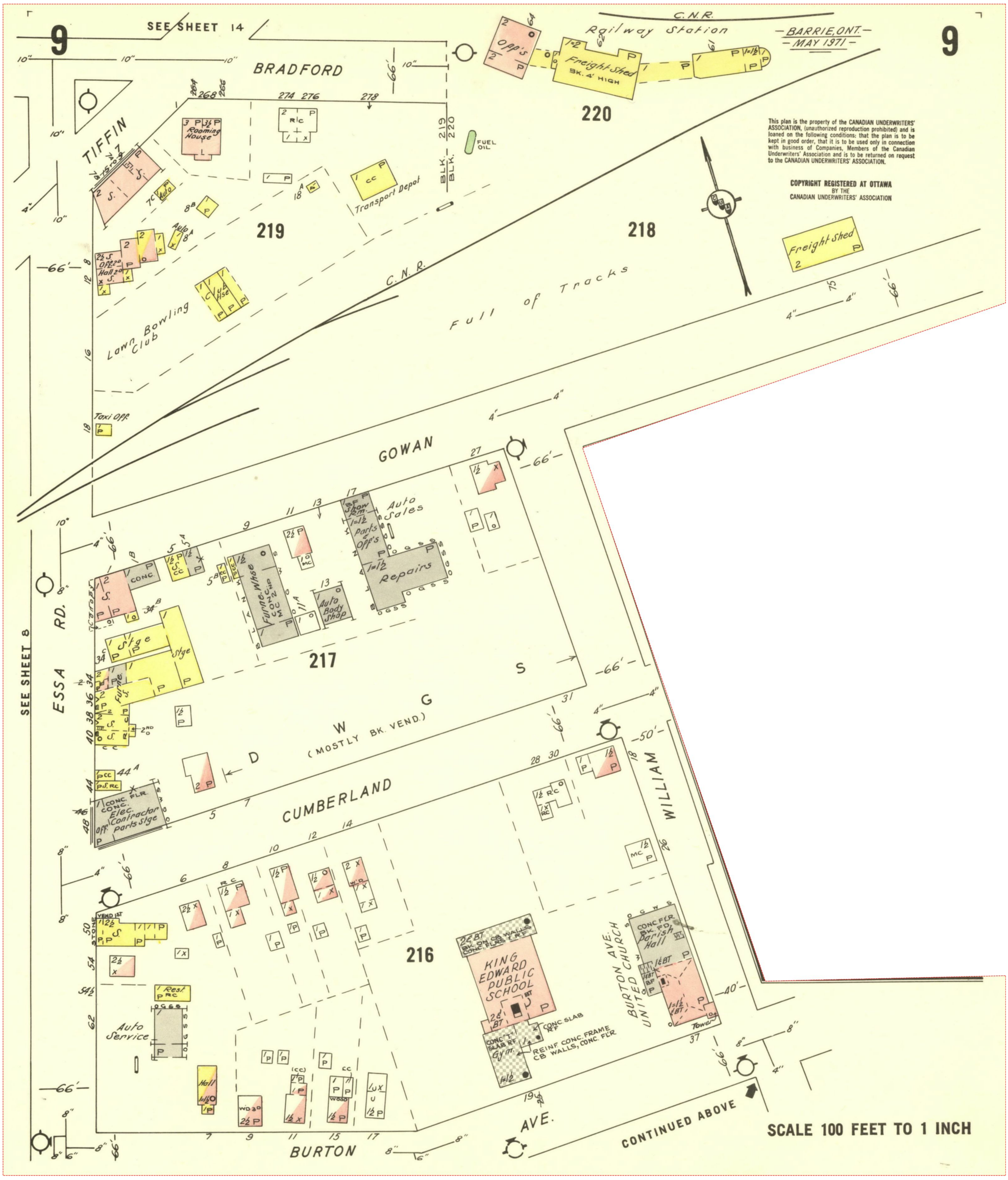
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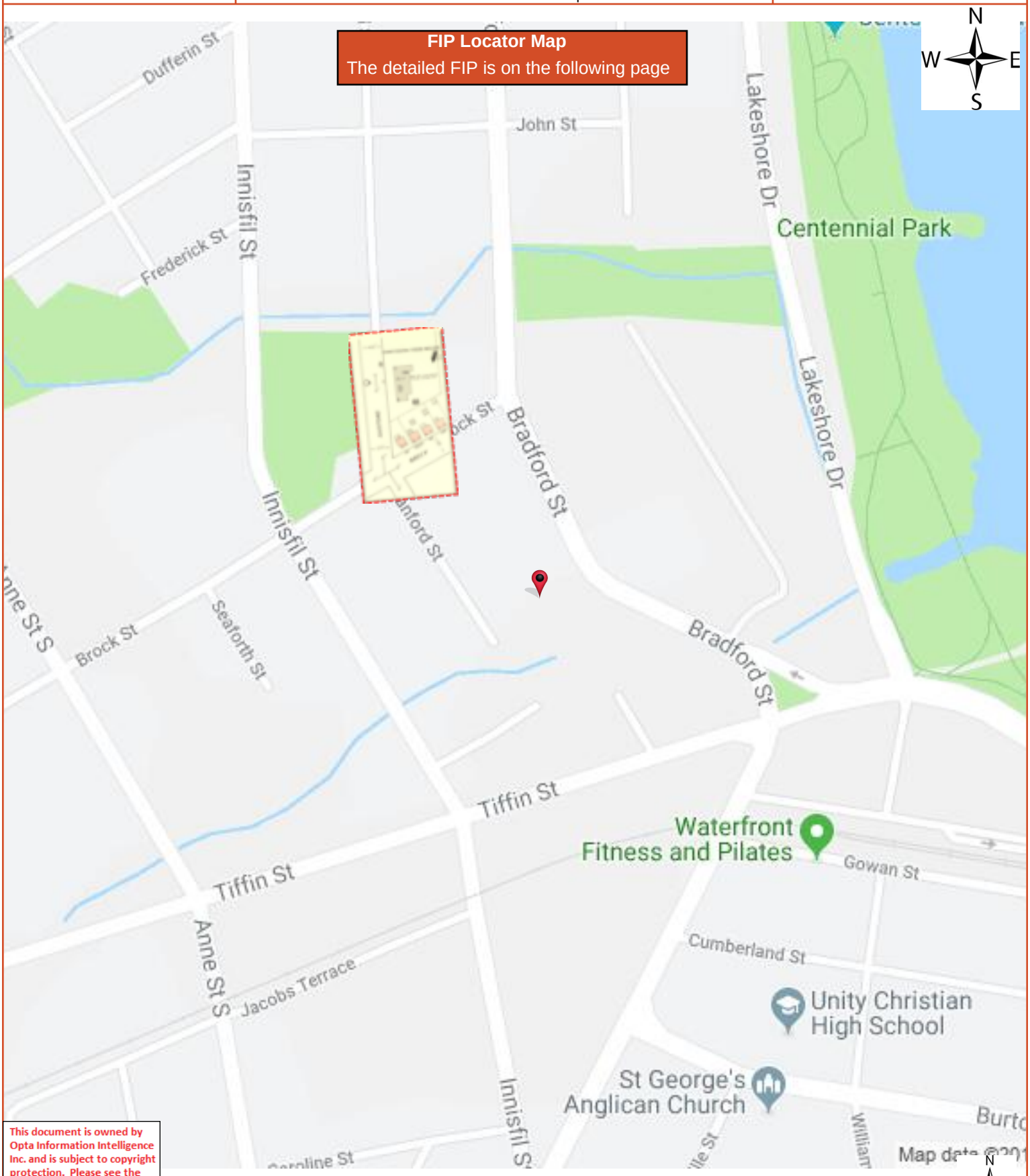
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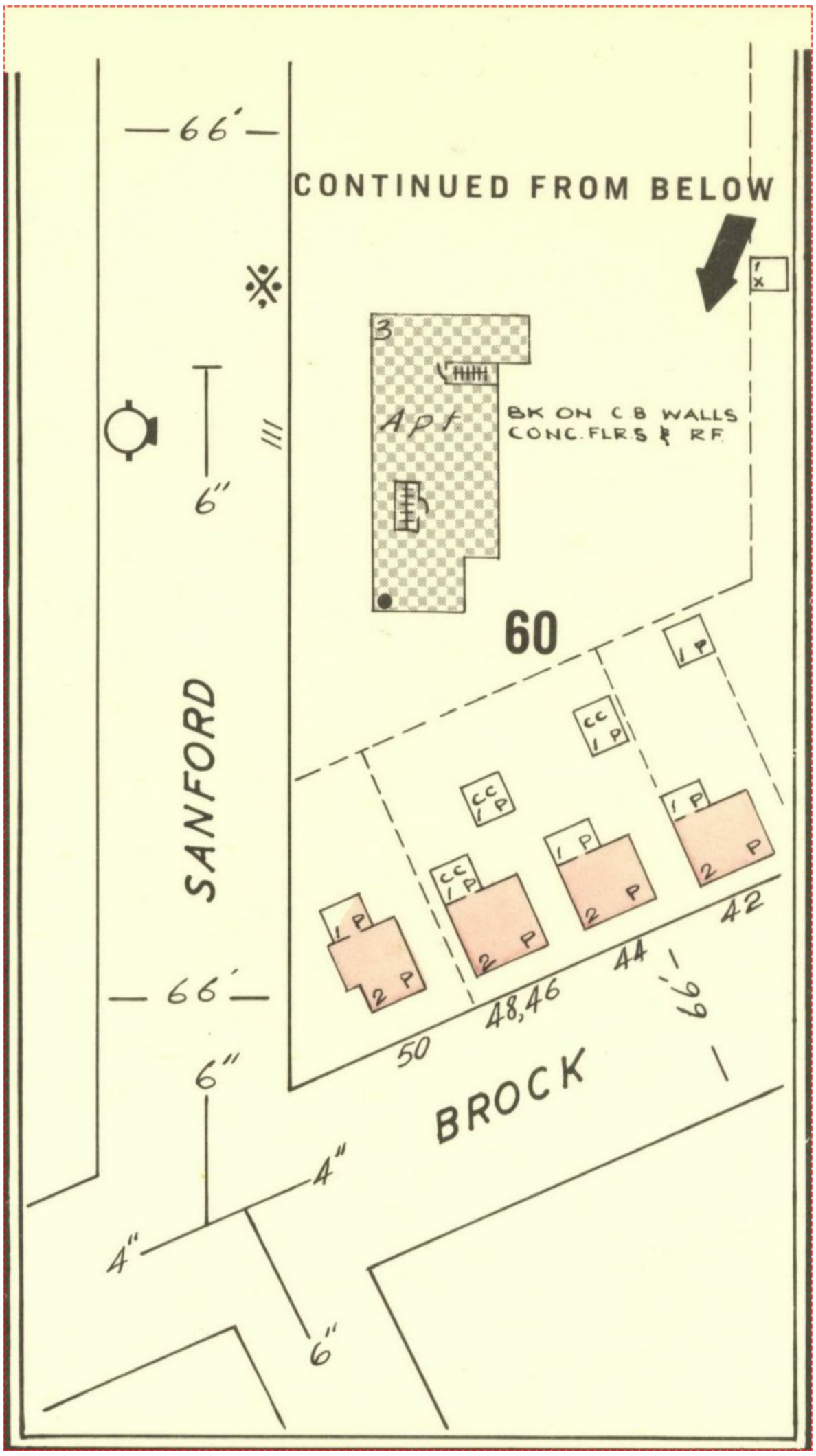
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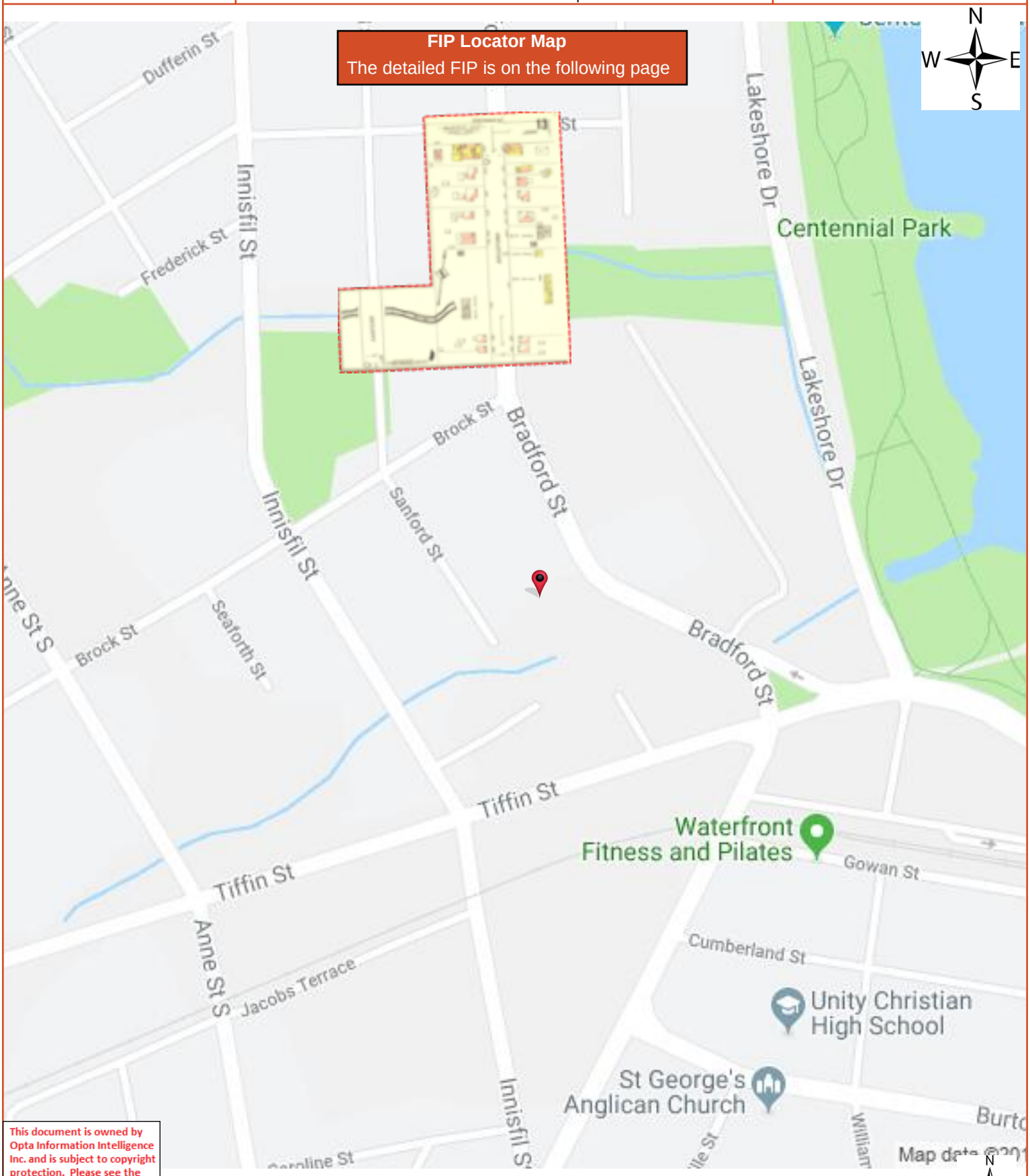
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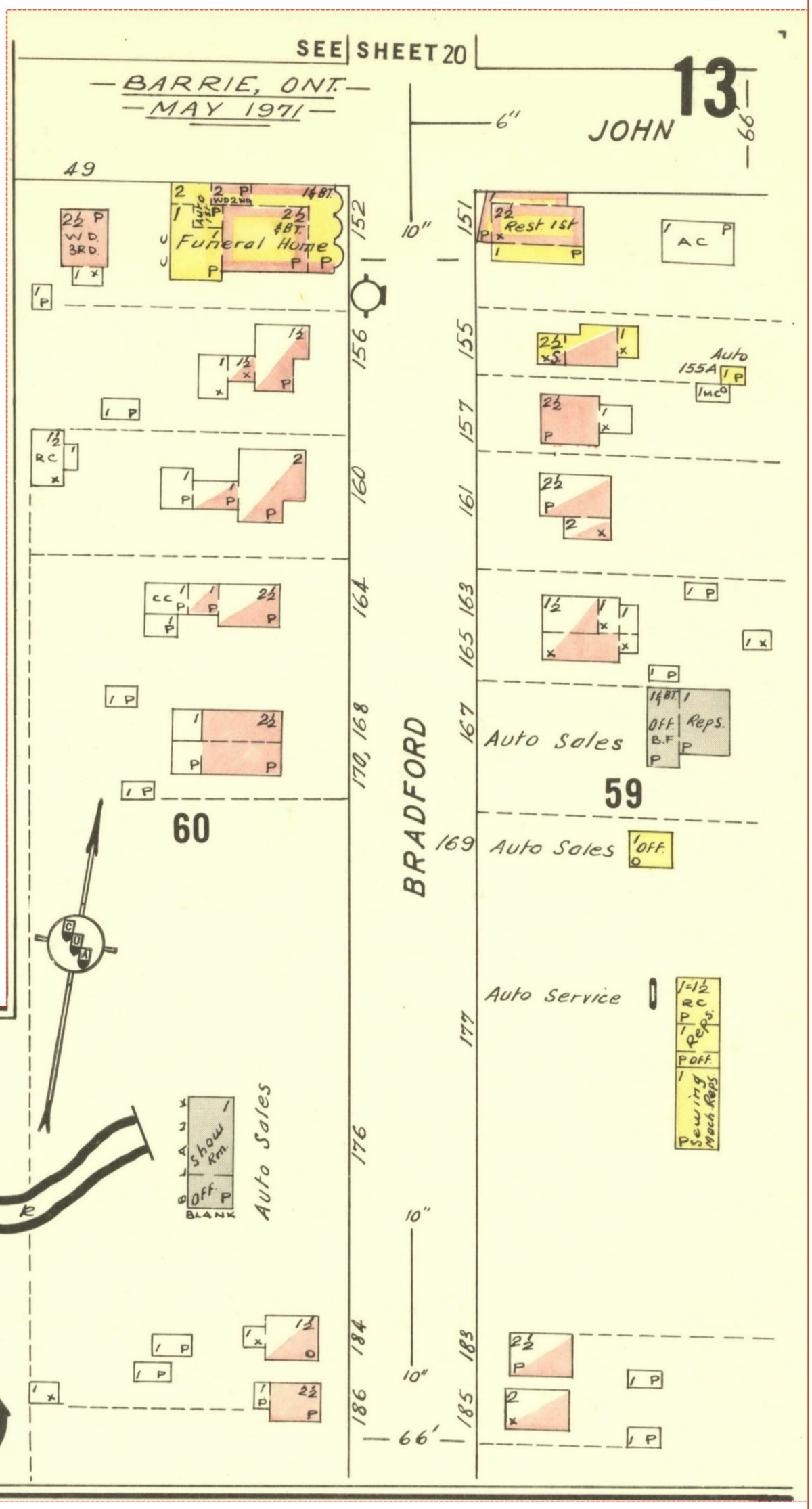
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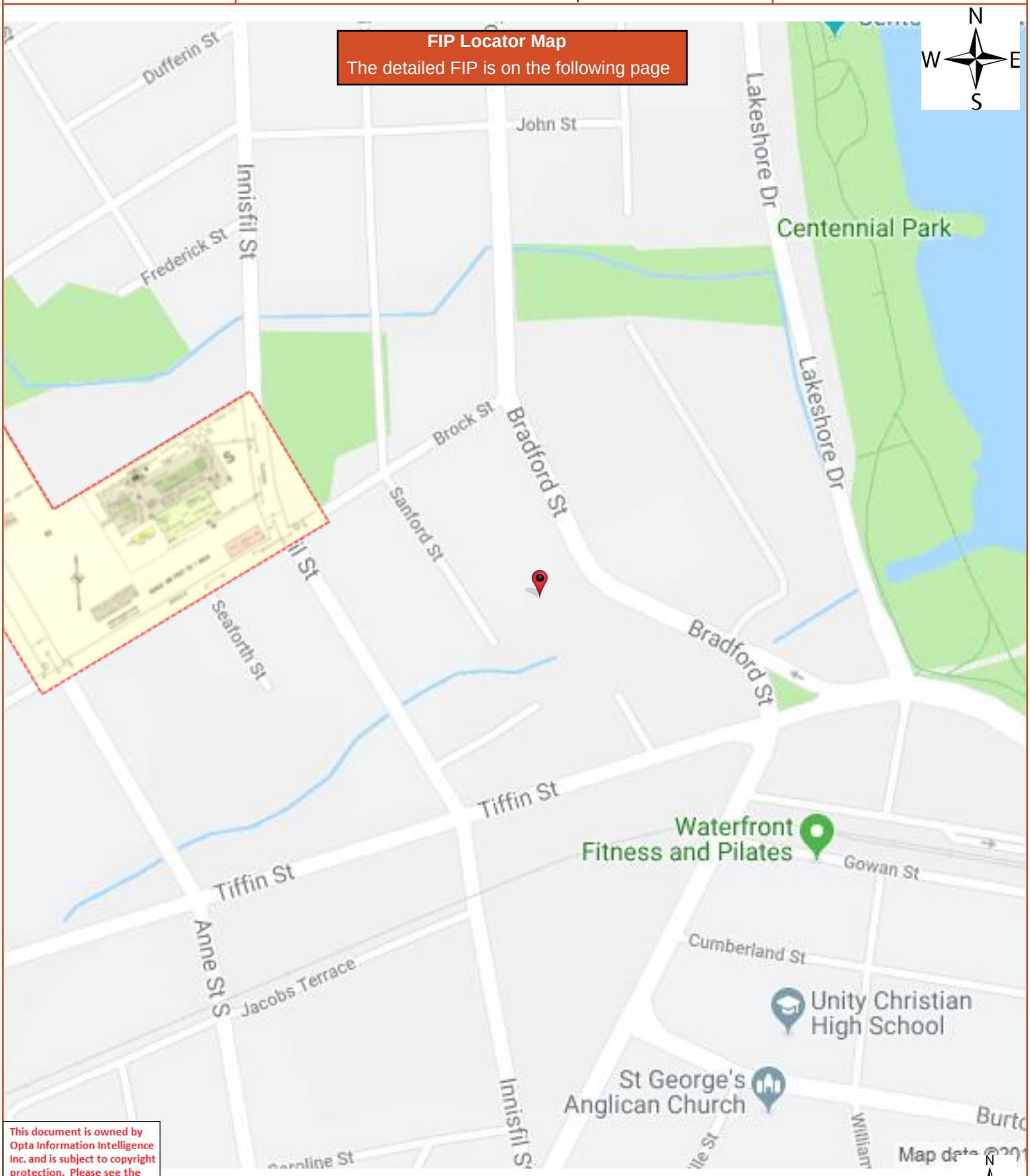
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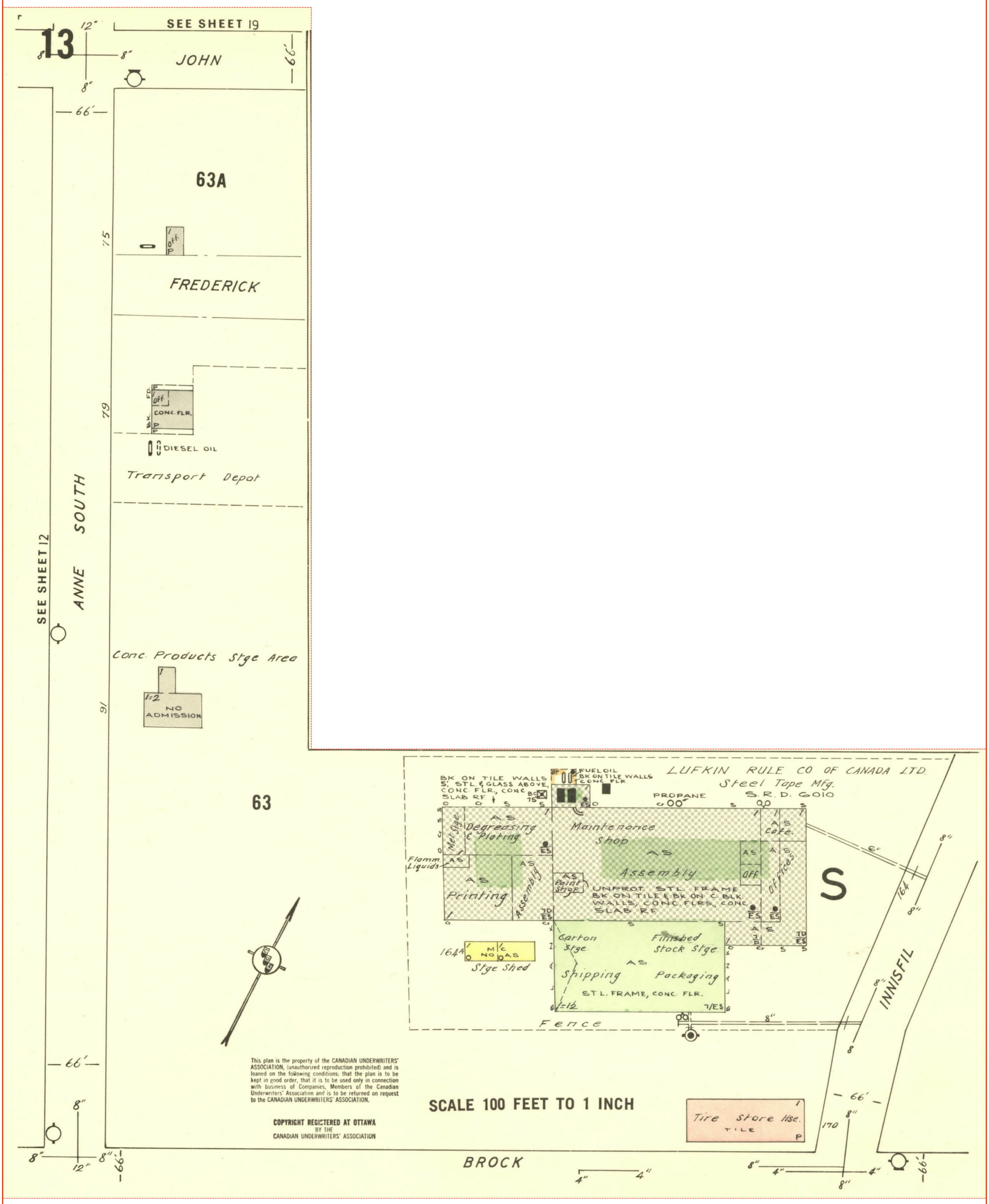
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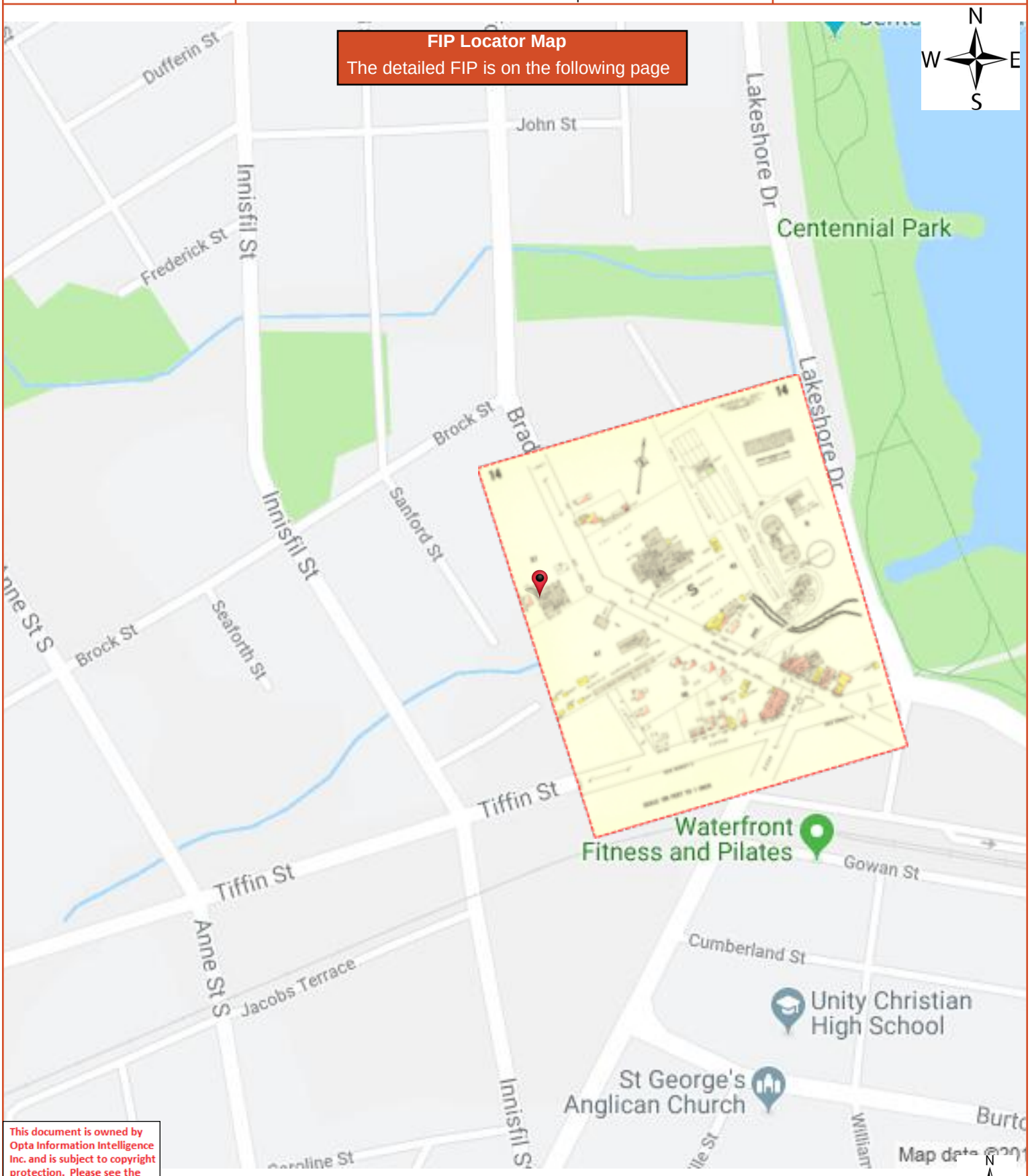
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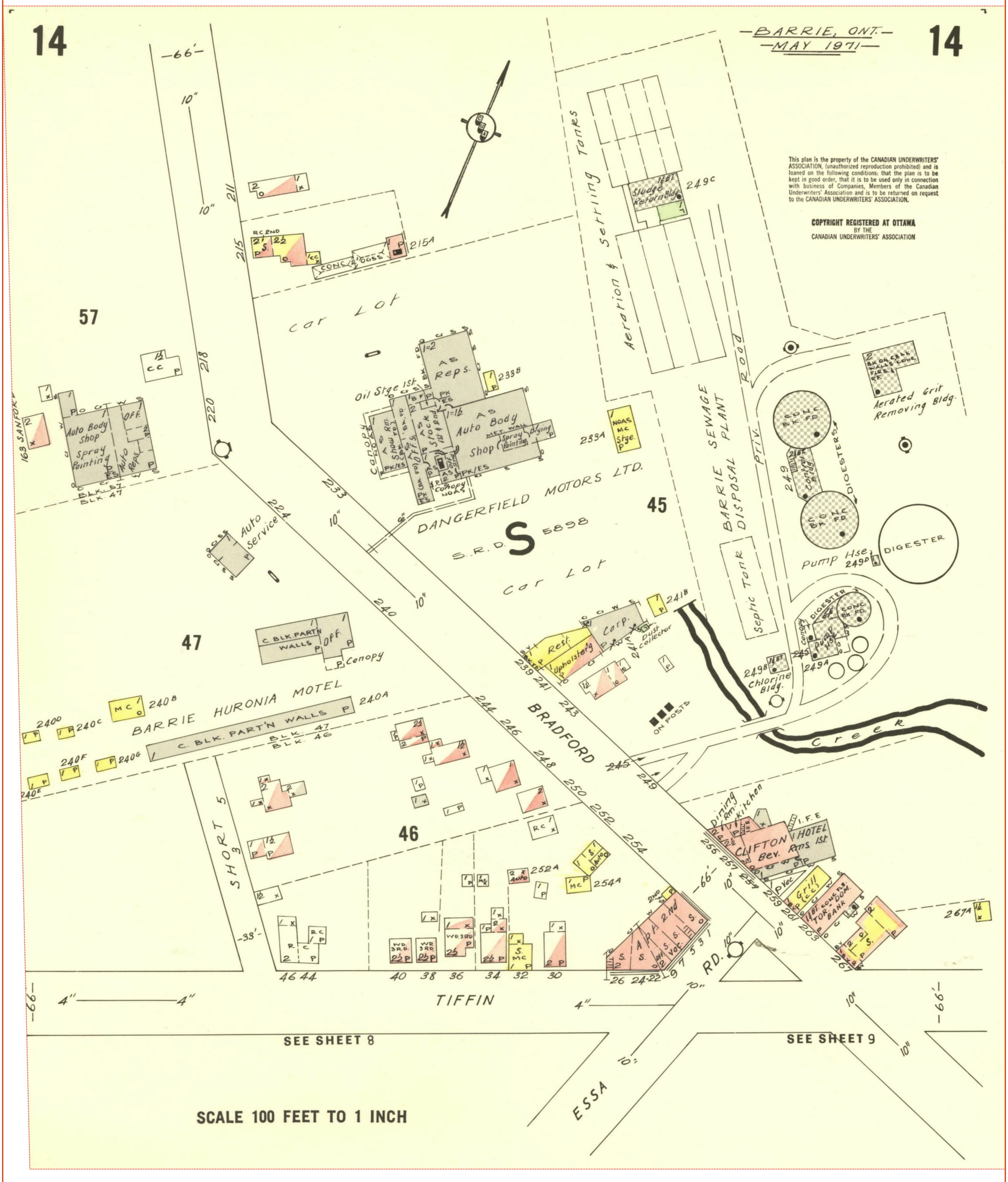
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Barrie Plan: 120G (1971)
Sheet: 14 (1971)



All Risk Report - 2009 JOSCONA LTD & HONEST MOTORS 220 Bradford Street BARRIE ON L4N3B6

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Risk Management Services Inc

INSURED:	JOSCONA LTD. & HONEST JOE MOTORS LTD., JOSEPH TASNONA	POLICY NO:	
DATE OF SURVEY:	02-19-2009	INSPECTOR:	DAVID FREEMAN
LOCATION:	220 BRADFORD ST BARRIE, ON L4N 3B6	MAILING ADDR:	220 BRADFORD ST BARRIE, ON L4N 3B6
CONTACT INFO:		TRACKING CODE:	935130
UNDERWRITER:	DIANE GAUNT	COMPANY:	DCG68 DOMINION OF CDA - COMM - NORC
IBC TERR CODE:	80	IBC CODE:	5531-00 Automobile Body, Paint Shops

ALLRISK

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1.0 OCCUPANCY INFORMATION (INSURED)

INSURED IS:	[X] OWNER OCCUPANT [ ] NON OCCUPANT BUILDING OWNER [ ] TENANT
Used car sales, repair & paint shop	
IBC OCCUPANCY CODE	5531-00 Automobile Body, Paint Shops
PREMISES INTRUSION ALARM	[ ] ACCEPTABLE [ ] UNACCEPTABLE [X] NONE
SPECIAL HAZARD CODE(S)	3.4 Spraying Class II & III liquids
DESCRIPTION	As above
NUMBER OF YEARS BLDG. OWNED	60
NUMBER OF YEARS AT THIS LOCATION	60
AREA OCCUPIED (SQ. M/S.F)	318
BUSINESS HOURS	Irregular & infrequent
DAYS PER WEEK	5
WAS ANNUAL REVENUE DISCLOSED	[ ] YES [X] NO
WAS PAYROLL DISCLOSED	[ ] YES [X] NO
PREVIOUS LOSS HISTORY PAST 3 YEARS	[X] YES [ ] NO [ ] UNDETERMINED
DETAILS	Insured is not aware of the $275,582 loss shown on the inspection request. There was a fire loss of about $85,000 about 8 years ago Which resulted in the construction of the new spray booth.
EXPLAIN LOSS HISTORY	N/A
COMBUSTIBILITY OF OCCUPANCY	[ ] L1 [ ] L2

RMS reports, prepared in compliance with commonly accepted risk control standards existing at the time services are rendered, are developed from an inspection of the premises and/or from data supplied by or on behalf of the Purchaser. RMS does not purport to list all hazards. While changes and modifications referred to in the reports are designed to upgrade protection and loss prevention of the premises, RMS assumes no responsibility for management and control of these activities. RMS will not be responsible to the Purchase for any losses or damages, whether consequential or other, however caused, incurred or suffered, as a result of the services being provided.

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1.0 OCCUPANCY INFORMATION (INSURED)

COMBUSTIBILITY OF OCCUPANCY	☐ M3 ☒ M4 ☐ H5
SUSCEPTIBILITY OF OCCUPANCY	☐ S1 - MINIMAL DAMAGE ☐ S2 - SLIGHT DAMAGE ☐ S3 - MODERATE DAMAGE ☒ S4 - HEAVY DAMAGE ☐ S5 - EXTREME DAMAGE ☐ N/A - BUILDING VACANT
DOES THE OWNER SUBLEASE TO TENANTS	☒ YES ☐ NO
TENANT NAME	Harris Electric
AREA OCCUPIED (SQ. M/S.F)	317
OCCUPANCY DESCRIPTION	Electronic auto repair
COMBUSTIBILITY CODE	☐ L1 ☐ L2 ☒ M3 ☐ M4 ☐ H5
SUSCEPTIBILITY CODE	☐ S1-MINIMAL DAMAGE ☐ S2-SLIGHT DAMAGE ☒ S3-MODERATE DAMAGE ☐ S4-HEAVY DAMAGE ☐ S5-EXTREME DAMAGE ☐ NOT APPLICABLE - BUILDING VACANT
IBC CODE	5513-00 Automobile Repair Garage, not Self Serve
PREVIOUS LOSS HISTORY PAST 3 YEARS	☐ YES ☒ NO ☐ UNDETERMINED
PREVIOUS LOSS HISTORY PAST 6 YEARS	☐ YES ☒ NO ☐ UNDETERMINED
NUMBER OF YEARS AT THIS LOCATION	20
PREMISES INTRUSION ALARM	☒ ACCEPTABLE ☐ UNACCEPTABLE ☐ NONE

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2.0 RISK SCORE

The RMS Risk*Score and comments contained in this report are based on conditions and practices observed during our survey and other pertinent data supplied by management personnel at the risk.

	1	2	3	4	5	6	7	8	9	
PROPERTY						X				Inadequate extinguishers past due for servicing (Rec. made). Automatic extinguishing system not serviced since 2001 & paints & thinners stored in open in spray booth (Recs. made).
LIABILITY					X					Premises a little messy but otherwise no unusual exposures were noted.
CRIME					X					No security alarm system but protection appears to be adequate for the exposure.

RISK ALERT ISSUED	☐ YES	☒ NO

Meaning of the RMS Risk*Score: The RMS Score is a grading of the risk inspected versus other risks in this class. Similar to the "Commercial" Fire Protection Grading system in design, there is range of 9 categories, with a grading or "score" of 1 being the most desirable. The RMS Score is based on a number of objective criteria pertaining to the risk at the time of our survey, tempered with the experienced judgement of our Loss Control Specialist. As a general guideline, the scores mean the following criteria:

1-3	Risks in this range are well maintained, with no apparent moral hazards or management problems. Undesirable features are non-existent and recommendations, if any, are desirable. Risks in this category are excellent (no deficiencies) to better than average for their class.
4-6	The maintenance of Risks in this range is considered average. Moral hazards are not apparent, but there may be possible management problems (e.g. poor housekeeping). Undesirable features noted are correctable, and recommendations will vary from desirable to important. Risks in this category are considered average for their class.
7-9	Risks in this range tend to be poorly maintained. Moral hazards and management problems (e.g. poor housekeeping and maintenance, poor attitude) are evident. Significant undesirable conditions are present and cannot or will not be corrected. Critical Recommendations may be present. Risks in this category are significantly below average for their class with little or no indication for improvement.

3.0 REMARKS

ADDITIONAL REMARKS	☒ YES	☐ NO

This risk is located on a well travelled street in a commercial area of Barrie. The insured has been at this location for 60 years currently operating as used car sales, repairs & paint shop. There is a tenant doing electronic auto repair.
The insured is a one man operation, is 92 years old & uses a walker to get around. He sells about 70-80 used cars annually during the non winter months as he does not keep them clear of snow in winter. The used cars are sold on an "as is" basis only. Auto repairs & spray painting have become more of a hobby than a business.
The portable extinguishers in the insured's premises are inadequate (Rec. made) & have not been serviced since 2001 (Rec. made). The portable extinguishers in the tenant's premises are adequate but have not been serviced since 2003 (Rec. made). The automatic extinguishing system in the spray booth has not been serviced since 2001 (Rec. made).

3.0 REMARKS

Paints & thinners are stored in the open in the spray booth (Rec. made).
Overall risk is considered as below average for the class. However, as the auto repair & spray painting has become more of a hobby, the underwriter may wish to consider the applicability of some recommendations.

4.0 RECOMMENDATIONS

Please note that these recommendations are classified as either CRITICAL, IMPORTANT, or DESIRABLE IMPROVEMENT. "CRITICAL" recommendations are those aimed at correcting undesirable feature/s which, if left unattended, could cause a serious loss and should be rectified IMMEDIATELY. This class of recommendation is only used in extreme situations. "IMPORTANT" recommendations are intended to highlight undesirable feature/s which if left unattended, could cause a serious loss and should be rectified as soon as possible. " DESIRABLE IMPROVEMENT" recommendations are those aimed at correcting an undesirable feature which can be improved when feasible, to help reduce the risk of a loss.

ARE THERE ANY RECOMMENDATIONS	[X] YES	[ ] NO
5		
RECOMMENDATION #	09-1	
RECOMMENDATION IS	[ ] CRITICAL [X] IMPORTANT [ ] DESIRABLE IMPROVEMENT	
As the three 2A-10B,C extinguishers on the insured's premises have not been serviced since 2001 they should be serviced now & at least once a year & be tagged with the name of the servicing company & the date of service.		
RECOMMENDATION #	09-2	
RECOMMENDATION IS	[ ] CRITICAL [X] IMPORTANT [ ] DESIRABLE IMPROVEMENT	
iThe current 2A-10 B,C extinguishers on the insured's premises should be supplemented with a wall mounted ULC labelled Class 4A-60B,C (minimum rating) extinguisher for use in the area of the spray booth.		
RECOMMENDATION #	09-3	
RECOMMENDATION IS	[ ] CRITICAL [X] IMPORTANT [ ] DESIRABLE IMPROVEMENT	
As the portable extinguishers on the premises of Harris Electric have not been serviced since 2003 they should be serviced now & at least once a year & be tagged with the name of the servicing company & the date of service.		
RECOMMENDATION #	09-4	
RECOMMENDATION IS	[ ] CRITICAL [X] IMPORTANT [ ] DESIRABLE IMPROVEMENT	
Paints & thinners currently stored in the open in the spray booth should be stored in a ULC, or similar, approved metal cabinet.		

4.0 RECOMMENDATIONS

RECOMMENDATION #	09-5
RECOMMENDATION IS	☐ CRITICAL ☒ IMPORTANT ☐ DESIRABLE IMPROVEMENT
As the automatiic suppression system for the spray booth has not been serviced since 2001 it should be serviced now & at least on an annual basis & be tagged with the name of the servicing company & the date of service.	

5.0 BUILDING CONSTRUCTION.

BUILDING CONDITION	☐ ABOVE AVERAGE ☒ AVERAGE ☐ MODERATE DEFICIENCIES ☐ MAJOR DEFICIENCIES
CONSTRUCTION CLASS	☐ 1 - FIRE RESISTIVE ☐ 2 - MASONRY NON-COMBUSTIBLE ☐ 3 - NON-COMBUSTIBLE ☒ 4 - MASONRY ☐ 5 - MASONRY VENEER ☐ 6 - WOOD FRAME
YEAR BUILT	1948
YEAR BUILT IS	☒ ESTIMATE ☐ KNOWN
AREA OCCUPIED BY INSURED (SQ. M)	318
COMBUSTIBILITY OF BUILDING	☐ L1 ☐ L2 ☐ M3 ☒ M4 ☐ H5
GROUND FLOOR AREA (SQ. M)	635
TOTAL FLOOR AREA (EXCL. BSMT.) (SQ. M)	635
HEIGHT (EXCLUDING BASEMENT) (M)	3.66
NUMBER OF STORIES (ABOVE GRADE)	1.00
BASEMENT	☐ YES ☒ NO
TOTAL AREA (SQ. M)	635
COMBUSTIBLE CONCEALED SPACES	☐ YES ☒ NO
Building appears to be structurally sound & functional for its use. However, no signs of ongoing maintenance or upkeep were noted.	

6.0 WALL CONSTRUCTION

MASONRY %	100
DESCRIBE	Concrete block

6.0 WALL CONSTRUCTION

INSULATION (DESCRIBE)	None

7.0 FLOOR CONSTRUCTION

CONCRETE %	100

8.0 ROOF TYPE

FLAT %	100

9.0 ROOF CONSTRUCTION

WOOD JOIST %	100

10.0 ROOF SURFACE

TAR & GRAVEL %	100
RESURFACED	☐ YES ☒ NO ☐ UNDETERMINED

11.0 INTERIOR FINISH WALLS

OPEN %	100

12.0 INTERIOR FINISH CEILINGS

NON COMBUSTIBLE %	70
OPEN %	30

13.0 VERTICAL OPENINGS

13.0 VERTICAL OPENINGS

ARE THERE ANY VERTICAL OPENINGS	[X] YES	[ ] NO
STAIRS	[X] YES	[ ] NO
PROTECTION TYPE (HRLY RATE)	[ ] WALLS-2 HR, DOORS - 1.5 HR. [ ] WALL-1HR, DOORS -.75 HR. [ ] WALLS-.75 HR, DOORS - .75 HR. [X] WALLS-0 HR, DOORS - 0 HR.	
ELEVATOR	[X] NONE [ ] NON PROTECTED	[ ] PROTECTED
ESCALATOR	[X] NONE [ ] CLOSED	[ ] OPEN
ATRIUM	[ ] YES	[X] NO
OTHER VERTICAL OPENINGS	[ ] YES	[X] NO

14.0 HORIZONTAL SEPARATION.

MAJOR PARTITION CONSTRUCTION	[ ] FRAME [X] CONCRETE BLOCK [ ] NOT APPLICABLE	[ ] DRYWALL ON STUDS [ ] OTHER
PROPER OPENING PROTECTION	[ ] YES [X] NOT APPLICABLE	[ ] NO

15.0 MEZZANINES

MEZZANINES	[X] YES	[ ] NO
COMBUSTIBLE %	100	
MEZZANINES PERCENTAGE OF FLOOR BELOW %	6	

16.0 BUILDING DESCRIPTION

BUILDING DESCRIPTION	[ ] SHOPPING MALL [ ] STRIP MALL [ ] OTHER	[ ] INDUSTRIAL MALL [X] STAND ALONE

17.0 FIRE EXPOSURES

	Distance	Height	Construction of Exposure Facing Wall	Exposure Occupancy Hazard	Exposure Occupancy Description	Exposure Comb. Code	Opening in Facing Wall of Exposure Yes	No
Rear	3		MASONRY	LIGHT (L1, L2)	Insured's vacant uninsured dwelling		X	
Right	5		MASONRY	LIGHT (L1, L2)	Chiropractor's office		X	
Left	7		MASONRY	LIGHT (L1, L2)	Auto supply shop		X	

18.0 HEATING

SUSPENDED UNIT HEATERS - GAS %	100	
BOILER	☐ YES	☒ NO
APPLIANCES ENCLOSED IN A NON-COMBUSTIBLE ROOM	☐ YES ☒ NOT REQUIRED	☐ NO
COMBUSTIBLE MATERIALS STORED IN THE ROOM	☐ YES ☒ N/A	☐ NO
HEATING FUEL TANK	☐ YES	☒ NO
ARE THERE ANY CHIMNEYS	☒ YES	☐ NO
TYPE OF CHIMNEYS	☐ MASONRY ☒ UNLABELLED PRE-FAB ☐ NON-STANDARD	☐ ULC FACTORY BUILT ☒ STANDARD ☐ OTHER
INSTALLATION DEFECTS	☒ NONE ☐ MAJOR	☐ MODERATE
INSTALLATION REPLACED	☒ YES	☐ NO
YEAR REPLACED	1973	
THE YEAR REPLACED IS	☐ KNOWN	☒ ESTIMATED
% REPLACED	100	
ROOF TOP UNIT(S)	☐ YES	☒ NO
COMMENTS	☒ YES	☐ NO
COMMENTS	No deficiencies were noted.	

19.0 ELECTRICAL.

TYPE	☒ CONDUIT ☐ NON-METALLIC	☒ BX ☐ KNOB & TUBE

19.0 ELECTRICAL.

TYPE	☐ OTHER	
TEMPORARY WIRING OR EXTENSION CORDS	☐ YES	☒ NO
INSTALLATION DEFECTS	☒ NONE ☐ MAJOR	☐ MODERATE
INSTALLATION (WIRING) REPLACED	☐ YES	☒ NO
INSTALLATION APPEARS SAFE	☒ YES	☐ NO
PARTIAL CHANGES/EXTENSIONS	☒ YES	☐ NO
DESCRIBE	Updated about 25 years ago & circuit breakers installed.	
COMMENTS	No deficiencies were noted.	

20.0 PLUMBING.

PLUMBING INSTALLED	☒ YES	☐ NO
INSTALLATION (PLUMBING) REPLACED	☐ YES	☒ NO
CONDITION	☒ GOOD ☐ POOR	☐ FAIR
INSTALLATION APPEARS SAFE	☒ YES	☐ NO
PLUMBING COMMENTS	NONE	

21.0 SMOKING

SMOKING RESTRICTED	☒ YES	☐ NO
"NO SMOKING" SIGNS POSTED	☒ YES	☐ NO
ENFORCED	☒ YES	☐ NO
NONE		

22.0 HOUSEKEEPING

HOUSEKEEPING	☐ GOOD ☐ POOR	☒ AVERAGE ☐ UNACCEPTABLE
Housekeeping fair, somewhat disorganized & al little messy but no continuity of combustibles.		

23.0 PUBLIC FIRE PROTECTION

FUS PROTECTION CLASS	4	
FUS CLASS MODIFIED	☐ YES	☒ NO
BLDG. PROT. CODE (NS OR AS)	☒ NS	☐ AS
BLDG. PROT.CODE NUMBER	3	
PRIMARY RESPONDING FIRE DEPARTMENT	Barrie - HPA	
TYPE OF FIRE DEPARTMENT	☒ FULL TIME ☐ COMPOSITE	☐ PART TIME/VOLUNTEER ☐ NONE
DISTANCE TO FIRE STATION	☒ 2.5 KM OR LESS ☐ OVER 5 KM TO 8 KM	☐ OVER 2.5 KM TO 5 KM ☐ OVER 8 KM
ROADS	☒ PAVED	☐ UNPAVED
ACCESSIBLE YEAR-ROUND	☒ YES	☐ NO
CONGESTED/INACCESSIBLE	☐ YES	☒ NO
WATER SUPPLY	☒ PUBLIC	☐ PRIVATE
HYDRANT PROTECTED	☒ YES	☐ NO
NUMBER OF HYDRANTS WITHIN 155 M	2	
COMMENTS	☐ YES	☒ NO

24.0 PRIVATE FIRE PROTECTION

PORTABLE FIRE EXTINGUISHERS	☒ YES	☐ NO
SERVICED IN THE LAST 12 MONTHS	☐ YES	☒ NO
COMMENTS	Inadequate type of extinguishers on insured's premises with 2001 service tags (Rec. made). Adequate supply & type of extinguishers on premises of Harris Electric with 2003 service tags (Rec. made).	
STANDPIPE/INSIDE HOSES	☐ YES ☐ NOT APPLICABLE	☐ NO
WATCHMAN SERVICE	☐ YES ☒ N/A	☐ NO
FIRE DETECTION SYSTEM	☐ FULL ☒ NONE	☐ PARTIAL
AUTOMATIC SPRINKLER PROTECTION	☐ FULL PREMISES ☒ NONE	☐ PARTIAL
NONE		

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25.0 ALL RISK

INFORMATION CONFIRMED BY	☒ PERSON CONTACTED ☐ OTHER
YEARS KNOWLEDGE OF RISK	60

26.0 EARTHQUAKE

WHAT IS THE EARTHQUAKE ZONE	1	
IS THERE ANY EARTHQUAKE HISTORY IN THE AREA	☐ YES ☐ UNDETERMINED	☒ NO
SIGNIFICANT EXTERIOR WALL OR FOUNDATION CRACKS NOTED	☐ YES	☒ NO
SAGGING	☐ YES	☒ NO
COMMENTS	NONE	

27.0 FLOOD

IS THIS ESTABLISHMENT LOCATED ON A FLOOD PLAIN	☐ YES	☒ NO
IS IT LOCATED NEAR A BODY OF WATER	☒ YES	☐ NO
DESCRIBE	Lake Simcoe (well below grade level)	
DISTANCE TO NEAREST BODY OF WATER DETERMINED	☒ YES	☐ NO
DISTANCE TO NEAREST BODY OF WATER (M)	250.00	
IS THERE A HISTORY OF FLOODING	☐ YES	☒ NO
EVIDENCE OF WATER DAMAGE	☐ YES	☒ NO
COMMENTS	NONE	

28.0 WATER DAMAGE

IS THERE EVIDENCE OF CORROSION	☐ YES	☒ NO
IS THE BUILDING SPRINKLERED	☐ YES	☒ NO
IS STOCK SUSCEPTIBLE TO WATER DAMAGE	☐ YES ☐ NOT APPLICABLE	☒ NO
ARE ALL WINDOW/SKYLIGHT OPENINGS ADEQUATELY SEALED	☒ YES	☐ NO

28.0 WATER DAMAGE

DOES WATER MAIN PASS UNDER BUILDING	☐ YES ☐ UNABLE TO DETERMINE	☒ NO
IS THE ROOF COVERING ADEQUATE	☐ YES ☒ UNDETERMINED	☐ NO
DATE OF MOST RECENT ROOF REPAIR	Spot repair in 2008	
INSIDE AND/OR ROOF STORAGE TANKS/PROCESS EQUIPMENT	☐ YES	☒ NO
IS THERE USE OF SKIDS	☐ YES	☒ NO
IS THERE USE OF SHELVING	☒ YES	☐ NO
IS THERE USE OF FLOOR DRAINS	☒ YES	☐ NO
SEWER BACKUP CLAIM IN THE LAST THREE YEARS	☐ YES	☒ NO
COMMENTS	NONE	

29.0 COLLAPSE AND/OR SEWER BACKUP

IS THERE ANY HISTORY OF COLLAPSE	☐ YES	☒ NO
IS THERE ANY HISTORY OF SEWER BACK-UP	☐ YES	☒ NO
ARE SEWER BACK-UP PROTECTION DEVICES IN PLACE	☐ YES ☐ UNDETERMINED	☒ NO
COMMENTS	NONE	

30.0 ADDITIONAL PERILS

IS LIGHTNING PROTECTION IN PLACE	☐ YES	☒ NO
IS RISK LOCATED WITHIN 5 KM OF AIRPORT	☐ YES	☒ NO
BENEATH A FLIGHT PATH	☐ YES	☒ NO
IS THE YARD FENCED	☐ YES	☒ NO
IS THE YARD AND THE EXTERIOR OF THE BUILDING LIT	☒ YES	☐ NO
DESCRIBE	Front & side. No rear doors or windows	
IS THE RISK LOCATED IN A HIGH WIND/HAIL AREA	☐ YES	☒ NO
ARE THERE VISIBLE SIGNS OF VANDALISM AT THE RISK	☐ YES	☒ NO
ARE THERE VISIBLE SIGNS OF VANDALISM IN THE AREA	☐ YES	☒ NO

30.0 ADDITIONAL PERILS

IS THE RISK PROTECTED FROM VEHICULAR IMPACT EXPOSURE	[X] YES [ ] NO [ ] NOT APPLICABLE
DESCRIBE	By vehicle for sale
IS THE RISK PROTECTED FROM TRAIN IMPACT EXPOSURE	[ ] YES [ ] NO [X] NOT APPLICABLE
IS THE RISK PROTECTED FROM BOAT IMPACT EXPOSURE	[ ] YES [ ] NO [X] NOT APPLICABLE
COMMENTS	NONE

31.0 BASIC PREMISES LIABILITY

STAIRS, RAMPS & HANDRAILS	[X] SATISFACTORY [ ] UNSATISFACTORY [ ] N/A
DESCRIBE	NONE
FLOOR SURFACES & COVERING	[X] SATISFACTORY [ ] UNSATISFACTORY [ ] N/A
DESCRIBE	NONE
WALLS & CEILINGS	[X] SATISFACTORY [ ] UNSATISFACTORY [ ] N/A
DESCRIBE	NONE
INTERIOR & EXTERIOR LIGHTING	[X] SATISFACTORY [ ] UNSATISFACTORY [ ] N/A
DESCRIBE	NONE
EMERGENCY LIGHTING	[ ] SATISFACTORY [ ] UNSATISFACTORY [X] N/A
INTERIOR & EXTERIOR HOUSEKEEPING	[X] SATISFACTORY [ ] UNSATISFACTORY [ ] N/A
DESCRIBE	NONE
WASHROOMS	[X] SATISFACTORY [ ] UNSATISFACTORY [ ] N/A
DESCRIBE	NONE
SIDEWALKS, YARDS & PARKING LOTS	[X] SATISFACTORY [ ] UNSATISFACTORY [ ] N/A
DESCRIBE	NONE
FIRE EXITS	[X] SATISFACTORY [ ] UNSATISFACTORY [ ] N/A

31.0 BASIC PREMISES LIABILITY

DESCRIBE	NONE
FIRE ALARM SYSTEM(S)	☐ SATISFACTORY ☐ UNSATISFACTORY ☒ N/A
SNOW & ICE REMOVAL	☒ SATISFACTORY ☐ UNSATISFACTORY ☐ N/A
DESCRIBE	Done by tenant
CERTIFICATE OF INSURANCE FOR SNOW & ICE REMOVAL KEPT ON FILE	☐ YES ☐ NO ☒ N/A
ELEVATING DEVICES	☐ SATISFACTORY ☐ UNSATISFACTORY ☒ N/A
SATELLITE DISHES	☐ SATISFACTORY ☐ UNSATISFACTORY ☒ N/A
EXTERIOR SIGNS	☒ SATISFACTORY ☐ UNSATISFACTORY ☐ N/A
DESCRIBE	NONE
CO DETECTORS WHERE REQUIRED	☐ SATISFACTORY ☐ UNSATISFACTORY ☒ N/A
SWIMMING POOL	☐ SATISFACTORY ☐ UNSATISFACTORY ☒ N/A
SERVICE LOGS KEPT UP TO DATE FOR STAIR, FLOOR, WASHROOM, ENTRANCE, PARKING AREA, SNOW CLEARING	☐ YES ☐ NO ☒ N/A
COMMENTS	No unusual exposures were noted.

32.0 BASIC CRIME

CRIME EXPERIENCE	☐ LOW ☒ MODERATE ☐ HIGH
NEIGHBOURHOOD APPEARS TO BE	☒ STABLE ☐ CHANGING VIA EXPANSION ☐ CHANGING VIA RENOVATION ☐ CHANGING VIA DETERIORATION
TARGET STOCK	☐ YES ☒ NO
VISIBLE MALICIOUS DAMAGE	☐ YES ☒ NO

33.0 BUSINESS

33.0 BUSINESS

AUTOMATIC TELLER MACHINE	☐ YES	☒ NO
SAFE ON PREMISES	☐ YES ☐ UNABLE TO DETERMINE	☒ NO
GUARD SERVICE	☐ YES ☐ UNABLE TO DETERMINE	☒ NO
TYPICAL STOCK	Cars & car parts	
SMASH & GRAB EXPOSURE	☐ YES ☐ UNABLE TO DETERMINE	☒ NO
COMMENTS	No cash is left on the premises.	

34.0 SECURITY ALARM SYSTEM

PREMISES ALARM SYSTEM IN USE	☐ YES ☐ N/A	☒ NO ☐ DISCONNECTED
APPLIES TO	☒ BUILDING ☐ OTHER	☐ INSURED TENANT
COMMENTS	The tenant has a security alarm system, consisting of motion detectors & magnetic door contacts monitored by GIT.	

35.0 PHYSICAL PROTECTION

DOOR LOCKS	☒ DEADBOLT ☐ PANIC	☐ SPRING ☒ OTHER
DESCRIBE OTHER	Slide bar & padlok on overhead doors	
WINDOWS PROTECTED	☐ YES ☐ N/A	☒ NO
OTHER OPENINGS	☐ YES	☒ NO
COMMENTS	Protection appears to be adequate for the exposure.	

36.0 SUPPLEMENTS

ARE THERE ANY ADDITIONAL BUILDINGS	☐ YES	☒ NO

GARAGE/AUTOBODY SHOP

37.0 PRINCIPAL OCCUPANCY

PRINCIPAL OCCUPANCY	[X] AUTO DEALER [X] AUTO REPAIR SHOP [X] BODY SHOP OR PAINT SHOP [ ] SMALL ENGINE REPAIR [ ] METALWORKER [ ] FIBERGLASS WORKER [ ] OTHER	
SPRAY PAINTING SUPPLEMENT ATTACHED	[X] YES	[ ] NO

38.0 AUTO REPAIR, SERVICING OR REFINISHING

TYPE OF VEHICLES SERVICED	Cars, vans, suv's & light trucks	
NUMBER OF SERVICE BAYS	5	
NUMBER OF HOISTS	1	
NUMBER OF STAFF	1	
LICENSED	1	
NUMBER OF SUPERVISORS/MANAGERS PER SHIFT	1	
LICENSED ALSO	[X] YES	[ ] NO
ARE CHECKLISTS FOLLOWED ON ALL WORK PERFORMED	[X] YES	[ ] NO
IS ALL COMPLETED WORK CHECKED PRIOR TO VEHICLE RELEASE	[X] YES	[ ] NO
VEHICLE SALES	[X] YES	[ ] NO
HOW MANY	70 -80 annually	
TOWING SERVICE	[ ] YES	[X] NO
PROPANE/NATURAL GAS CONVERSION PERFORMED	[ ] YES	[X] NO
COURTESY/RENTAL VEHICLES OFFERED	[ ] YES	[X] NO
GAS TANK REPAIRS	[ ] YES	[X] NO
REPAIR PIT LOCATED	[ ] YES	[X] NO
Used vehicles are sold on an "as is " basis without being certified.		

39.0 RECORD KEEPING

ORDERLY RECORDS MAINTAINED	[X] YES	[ ] NO
TYPES: COMPLAINTS	[ ] YES	[X] NO
TYPES: CUSTOMER FILES	[X] YES	[ ] NO

GARAGE/AUTOBODY SHOP

39.0 RECORD KEEPING

TYPES: WORK PERFORMED	[X] YES	[ ] NO
TYPES: JOB SPECIFICATIONS	[ ] YES	[X] NO
TYPES: TESTING DONE	[ ] YES	[X] NO
TYPES: OTHER	[ ] YES	[X] NO
RECORDS REVIEWED/AUDITED	[X] YES	[ ] NO
FREQUENCY	Annually	
DONE BY	Daughter-in-law who is a CA	
TYPE OF SUBCONTRACTED WORK	None	
None		

40.0 SPECIAL HAZARDS

FLAMMABLE OR COMBUSTIBLE LIQUIDS PRESENT	[X] YES	[ ] NO
One gal. of gas in safety container		
HOT WORK	[X] SATISFACTORY [ ] N/A	[ ] UNSATISFACTORY
SOLVENT RECYCLING	[ ] SATISFACTORY [X] N/A	[ ] UNSATISFACTORY
UNDERCOATING	[ ] SATISFACTORY [X] N/A	[ ] UNSATISFACTORY
PARTS WASHING	[ ] SATISFACTORY [X] N/A	[ ] UNSATISFACTORY
FIBER-GLASSING	[ ] SATISFACTORY [X] N/A	[ ] UNSATISFACTORY
OTHER	[ ] SATISFACTORY [ ] N/A	[X] UNSATISFACTORY
See Spray Painting Supplement		
Other than spray painting no unsafe hazards were noted.		
None		

41.0 STORAGE TANKS

ARE THERE PUMPS/TANKS IN USE	[ ] YES	[X] NO

GARAGE/AUTOBODY SHOP

41.0 STORAGE TANKS

None

42.0 TIRE STORAGE

TIRES STORED INSIDE	☐ YES	☒ NO
TIRES STORED OUTSIDE	☐ YES	☒ NO
TIRES STORED IN TRAILER	☐ YES	☒ NO
TIRES STORED IN OUTBUILDING	☐ YES	☒ NO

No tires are sold. Insured keeps his own tires (about 50) inside neatly stored on racks.

43.0 ELECTRONIC EQUIPMENT

SPECIALIZED DIAGNOSTIC EQUIPMENT	☐ YES	☒ NO
ELECTRONIC DATA PROCESSING	☐ MAIN FRAME ☐ PC STAND ALONE	☐ MINI SYSTEM ☒ NONE

N/A

No diagnostic or EDP equipment.

44.0 SIGNS

EXTERIOR SIGNS CONSTRUCTION	☒ WOOD ☐ GLASS ☐ OTHER	☐ METAL ☐ PLASTIC ☐ NONE
LOCATION	☒ MOUNTED ON WALL ☐ SELF-SUPPORTED	☐ MOUNTED ON ROOF ☐ OTHER
PROPERLY SECURED	☒ YES	☐ NO
OVERALL CONDITION	Satisfactory	

None

SPRAY PAINTING

45.0 OPERATING APPLICATION

PRODUCT APPLIED: PAINT	[X] YES	[ ] NO
PRODUCT APPLIED: GLUE	[ ] YES	[X] NO
PRODUCT APPLIED: PRIMER	[X] YES	[ ] NO
PRODUCT APPLIED: UNDERCOATING	[ ] YES	[X] NO
PRODUCT APPLIED: OTHER	[ ] YES	[X] NO
# OF FULLY CLOSED BOOTHS FOR APPLICATION	1	
BOOTH	[X] STANDARD	[ ] NON-STANDARD
CONSTRUCTION	[ ] PRE-FABRICATED [X] MASONRY [ ] OTHER	[ ] METAL [ ] PLASTERBOARD
ADEQUATE CLEARANCE AROUND BOOTH	[X] YES	[ ] NO
CLEAR SPACE KEPT CLEAN AND ACCESSIBLE	[X] YES	[ ] NO
IS OPEN SPACE USED FOR APPLICATION	[ ] YES	[X] NO
FLOOR CONSTRUCTION	[X] CONCRETE [ ] WOOD	[ ] STEEL [ ] OTHER
FREQUENCY OF USE	[ ] CONTINUOUS	[X] BATCH
# OF HOURS PER DAY USED	Used only in summer months 2-3 times monthly	
WORK DONE	[X] ONLY IN AREA INTENDED [ ] OUTSIDE AREA INTENDED	
EQUIPMENT: COMPRESSED AIR SUPPLY	[X] YES	[ ] NO
EQUIPMENT: AIRLESS SPRAY GUN	[ ] YES	[X] NO
EQUIPMENT: ELECTROSTATIC	[ ] YES	[X] NO
EQUIPMENT: DIP TANK	[ ] YES	[X] NO
EQUIPMENT: OTHER	[ ] YES	[X] NO

46.0 VENTILATION INSTALLATION

SUITABLE	[X] YES	[ ] NO
FILTERING SYSTEM	[X] DRY FILTERS [ ] WATER CURTAIN [ ] OTHER	[ ] DRY BAFFLES [ ] OIL CURTAIN
FILTERS WELL MAINTAINED AND IN PLACE	[X] YES	[ ] NO
MOTOR: NON-SPARKING & LABELED	[X] YES	[ ] NO

SPRAY PAINTING

46.0 VENTILATION INSTALLATION

MOTOR: NON-SPARKING & LABELED	☐ UNABLE TO DETERMINE	
MOTOR: IN THE EXHAUST DUCT	☐ YES	☒ NO
EXHAUST DUCT: SUITABLE	☒ YES	☐ NO
EXHAUST DUCT: ADEQUATE CLEARANCE FROM COMBUSTIBLE MATERIALS	☒ YES	☐ NO
Devilbiss exhaust system. No dirty rags used. The spray booth is equipped with a Kidde suppression system. It was installed about 8 years ago as a result of a fire loss of about $85,000. However, it has not been service since 2001 (Rec. made). The prtable extinguisher are three 2A-10B,C units (Rec. made) & have not been serviced since 2001 (Rec. made).		

47.0 ELECTRICAL INSTALLATION

ELECTRICAL EQUIPMENT INSIDE SPRAYING AREA	☒ STANDARD ☐ NONE	☐ NON-STANDARD
ELECTRICAL EQUIPMENT OUTSIDE SPRAYING AREA	☒ STANDARD ☐ NONE	☐ NON-STANDARD
LIGHTING LABELED	☒ YES	☐ NO
IN GOOD REPAIR	☒ YES	☐ NO

48.0 DRYER INSTALLATION

DRYER USED	☐ YES	☒ NO

49.0 FLAMMABLE AND COMBUSTIBLE LIQUIDS

STORAGE	☐ STANDARD	☒ NON-STANDARD
TYPE OF STORAGE	☐ CABINETS ☒ IN THE OPEN	☐ ROOM
LOCATION OF STORAGE	☒ IN SPRAY AREA	☐ OUTSIDE SPRAY AREA
QUANTITY IN SPRAY AREA	One 5 gal can of thinner & about 25 one pint cans of water & oil based paints stored in open in spray booth (Rec. made).	
QUANTITY OUTSIDE THE SPRAY AREA	0	
HANDLING	☒ SAFE	☐ UNSAFE
USE OF LABELED CANS		

SPRAY PAINTING

49.0 FLAMMABLE AND COMBUSTIBLE LIQUIDS

USE OF LABELED CANS	☐ YES	☒ NO
BONDING/GROUNDING PRACTICES FOLLOWED	☐ YES	☒ NO

50.0 OTHER HAZARDS

DIRTY RAGS STORED IN SAFETY CONTAINERS	☐ YES	☒ NO
SPRAY AREA HIGHLY CONGESTED	☐ YES	☒ NO
SMOKING RESTRICTED	☒ YES	☐ NO
"NO SMOKING" SIGNS POSTED	☒ YES	☐ NO
WELDING OR CUTTING SUFFICIENTLY REMOVED FROM SPRAYING AREA	☒ YES ☐ N/A	☐ NO
HEATING EQUIPMENT SUFFICIENT DISTANCE FROM SPRAYING AREA	☒ YES	☐ NO
MAINTENANCE	☒ GOOD ☐ POOR	☐ FAIR
DIP TANK USED	☐ YES	☒ NO

51.0 TYPE OF PROTECTION

AUTOMATIC DRY CHEMICAL SYSTEM	☐ NONE ☒ IN THE BOOTH OR SPRAY ROOM ☐ IN THE EXHAUST DUCT ☐ IN THE BOOTH OR SPRAY ROOM AND IN THE EXHAUST DUCT
AUTOMATIC SPRINKLERS	☒ NONE ☐ IN THE BOOTH OR SPRAY ROOM ☐ IN THE EXHAUST DUCT ☐ IN THE BOOTH OR SPRAY ROOM AND IN THE EXHAUST DUCT
EXTINGUISHER SYSTEM ALARMED	☒ YES ☐ NO ☐ NA
PORTABLE EXTINGUISHERS SUITABLE	☐ YES ☒ NO

Photographs

Front



Left side



Photographs

Rear



Spray booth



Photographs

DeVilbiss exhaust system



Flammable & combustible liquids storage in booth



Photographs

Interior



Interior



All Risk Report - 2003 JOSCONA LTD & HONEST MOTORS 220 Bradford Street BARRIE ON L4N3B6

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IAO All Risk

(Now available through the IAO Web-site; www.iao.ca)
INSPECTION REPORT

Supplement/s attached: ☒ Yes ☐ No

1.0 BASIC INFORMATION

Insured:	Joscona Ltd. and Honest Joe Motors Ltd.	**Policy Number**	CCP 8061550
Date of survey (YYYY/MM/DD):	2003-04-22	**IAO Loss Control Specialist:**	Richard Beausoleil
Person Contacted: Position	Jos Tascona, (Owner).	**Telephone No.**	705-728-5430
Mailing Address if Different for risk:	(unit # street # & name)	(City, Town, Village)	**IAO AIS No.:**
Location Surveyed:	220 Bradford St. Unit A (unit # street # & name)	Barrie (City, Town, Village)	On (Province) L4N 3B6 (postal code)
Secondary address (If any)	(unit # street # & name)	(City, Town, Village)	(Province) (postal code)
IBC Territory Code	81	**IBC Building Code: 5531**	**SR/MA File No.**
Underwriter: Andrea Shannon		**Broker:** Mallory Insurance Brokers Ltd.	

The *IAO Risk•Score* and comments contained in this report are based on conditions and practices observed during our survey and other pertinent data supplied by management personnel at the risk.

Recommendations in this report are made to point out those areas where remedial action could have the beneficial effect of making the above premises safer, and thus more desirable from an underwriting standpoint.

Thank you for choosing IAO to perform this inspection. Please do not hesitate to contact us if we can be of any further assistance.

2.0 *IAO Risk•Score*

	1	2	3	4	5	6	7	8	9
Property	☐	☐	☒	☐	☐	☐	☐	☐	☐
Liability	☐	☐	☐	☒	☐	☐	☐	☐	☐
Crime	☐	☐	☒	☐	☐	☐	☐	☐	☐

(1=Excellent & 9=Poor)

Comments

The building and grounds are generally in good condition.

Fire extinguishers not serviced (Rec.made).

Physical protection appears adequate for the risk.

RISK ALERT ISSUED : ☐ **Yes** ☒ **No** If yes, describe (*A risk alert is a telephone notification to the Inspection requestor, of a situation which could imminently cause a serious loss. A Critical Recommendation will be issued to address the situation.)*

Committed to Service Excellence

IAO reports, prepared in compliance with commonly accepted risk control standards existing at the time services are rendered, are developed from an inspection of the premises and/or from data supplied by or on behalf of the Purchaser. IAO does not purport to list all hazards. While changes and modifications referred to in the reports are designed to upgrade protection and loss prevention of the premises, IAO assumes no responsibility for management and control of these activities. IAO will not be responsible to the Purchaser for any losses or damages, whether consequential or other, however caused, incurred of suffered, as a result of the services being provided.

Meaning of the IAO Risk•Score: The IAO Score is a grading of the risk inspected versus other risks in this class. Similar to the "Commercial" Fire Protection Grading system in design, there is range of 9 categories, with a grading or "score" of 1 being the most desirable. The IAO Score is based on a number of objective criteria pertaining to the risk at the time of our survey, tempered with the experienced judgement of our Loss Control Specialist. As a general guideline, the scores mean the following criteria:

1-3	Risks in this range are well maintained, with no apparent moral hazards or management problems. Undesirable features are non-existent and recommendations, if any, are minor. Risks in this category are excellent (no deficiencies) to better than average for their class.
4-6	The maintenance of Risks in this range is considered average. Moral hazards are not apparent, but there may be possible management problems (e.g. poor housekeeping). Undesirable features noted are correctable, and recommendations will vary from desirable to important. Risks in this category are considered average for their class.
7-9	Risks in this range tend to be poorly maintained. Moral hazards and management problems (e.g. poor housekeeping and maintenance, poor attitude) are evident. Significant undesirable conditions are present and cannot or will not be corrected. Critical Recommendations may be present. Risks in this category are significantly below average for their class with little or no indication for improvement.

3.0 REMARKS

The insured is located on Bradford St. in a well established area in the central core of the City of Barrie. The building is approximately 55 years. The oxygen /acetylene-welding units on the premises are safely used by the risk. Portable fire extinguishers are standard throughout, however, they were not tagged nor serviced, (Rec.made). There is a paint spray booth, (Supplement attached). The building is not sprinklered. There is no burglar alarm system but the physical protection appears adequate for the risk.

The small addition on the second floor has not been used for the past 7 years and is for storage only. The insured is physically challenged and is not able to climb stairs. The insured works on his own and has no employees. There is approximately 65 domestic vehicles on the property, "including an unlicensed tow truck" and all are owned by the insured.

The risk was co-operative during this inspection.

4.0 RECOMMENDATIONS

Please note that these recommendations are classified as either ☐ **Critical,** ☒ **Important, or** ☒ **Desirable Improvement**. **"Critical"** recommendations as those aimed at correcting undesirable feature/s which, if left unattended, could cause a serious loss and should be rectified immediately. This class of recommendation is only used in extreme situations. **"Important"** recommendations are intended to highlight undesirable feature/s which if left unattended, could cause a serious loss and should be rectified as soon as possible. **"Desirable Improvement"** recommendations are those aimed at correcting an undesirable feature which can be improved when feasible, to help reduce the risk of a loss.

☒ Listed below	or	☐ None

03-01 ☐ Critical ☒ Important ☐ Desirable Improvement	
	Portable fire extinguishers should be serviced at least once a year and be tagged with the name of the servicing company and the date of service.

03-02 ☐ Critical ☐ Important ☒ Desirable Improvement	
	All rags soaked with oil or flammable liquids should be kept in ULC or equivalent labelled safety containers.

03-03 ☐ Critical ☐ Important ☒ Desirable Improvement	
	Necessary cleanliness should be maintained in all areas.

5.0 OCCUPANCY INFORMATION (IBC Occupancy Code 5531)

The Insured is

☒ Owner Occupant	☐ Non-occupant building owner	☐ Tenant
Name of building owner(if not Insured):		Number of years bldg. Owned: 55
Number of years at this location:55	Area occupied (sq. m): 409	Business hours: 8 to 4
Days per week: 5 days	Annual Revenue (optional):	Payroll (optional):
Previous loss history past 3 years ☐ Yes ☒ No ☐ Undetermined	Previous loss history past 6 years ☐ Yes ☒ No ☐ Undetermined	
Explain loss history:		
Insured Values: Property: $	Contents: $	
Combustibility of Occupancy: M3	Susceptibility of Occupancy: S3-Moderate Damage	

Occupancy : ☐ Major Tenant OR ☒ Insured IBC Industry Code:5531		or ☐ refer to Occupancy Specific Supplement:
Occupancy Description:Automobile Body, Paint Shops		
Special Hazard Code(s): GP8 SH6	Description: Burning torches/welder	
Special Hazard Code(s): GP10	Description: Housekeeping	
Other classes of occupants: (immediate exposures)		
Name: Harris Auto Electric	Area occupied: 336 sq.m	IBC Code 5531
Occupancy Description:Specializing in alternator and carburator rebuilding and electrical auto repair specialists.		
Special Hazard Code(s) :GP8 SH6	Description:Cutting Torches and Welding Units.	
Special Hazard Code(s) :	Description:	
Name:	Area occupied:	IBC Code
Occupancy Description:		
Special Hazard Code(s)	Description:	
Special Hazard Code(s)	Description:	
Areas not surveyed:	☐ For additional tenants see attached list	

6.0 BUILDING CONSTRUCTION (IBC Major Construction --)

Building condition:	☐ Above Average	☐ Average	☒ Moderate deficiencies	☐ Major deficiencies	
Year built: (yyyy)	1948	Area occupied by insured (sq. m): 409		Combustibility of Building M3	
Ground floor area (sq. m):	745 sq. m	Total floor area (excl. bsmt.)		745 sq. m	
Height (excluding basement):	3.65 m	Number of Stories: 1 (above grade)			
Basement: ☐ Yes	☒ No	Area of basement: (sq. m)		Total area: 745 sq. m	
Additions (year & brief description):	none				
Renovations (year & brief description):	none				
Wall construction:	Reinforced Concrete % ( )	Masonry: 100%: (CB)	Non Combustible: %: ( )	Brick/stone veneer: %: ( )	Wood frame: %: ( )
	Other:		Panels in Walls % Describe:		

Floor Construction:	Concrete: 100 %	Concrete on metal pan: %	Wood joist: %	Other: %	
Roof Type:	☒ Flat	☐ Sloped	☐ Peaked	☐ Other	
Roof Construction:	☐ Concrete %	☐ Steel deck %	☒ Wood joist % 100	☐ Other: %	
Roof Surface:	☒ Tar & gravel	☐ Metal	☐ Asphalt shingles	☐ Rubber Membrane	
	☐ Wood Shakes	☐ Other			
Resurfaced:	☐ Yes	☒ No	Date:		
Interior Finish Walls:	Combustible: 20 %	Non-combustible: 80 %	Open: %		
Interior Finish Ceilings:	Combustible: 100 %	Non-combustible: %	Open: %		
Vertical Openings:	☐ None	☒ Stairs	☐ Elevator	☐ Deck:	☐ Other
Horizontal Separation:	Major Partition Construction	☐ Not Applicable	☒ Frame	☐ Drywall on Studs	
		☐ Concrete Block		☐ Other	
	Proper Opening Protection:	☐ Yes	☐ No	☒ Not Applicable	
Mezzanines: ☒ No ☐ Yes Mezzanines percentage of floor	Combustible: % %	Non-combustible: %	Open: %		
Combustible Concealed Spaces:	☐ No	☒ Yes	If yes, describe Electrical room is also used for storing used tires and used car parts and forms part of the fire division which is not properly protected. Approximately 80 % of the fire wall is constructed of combustible material and %		
Concealed space properly protected	☒ No	☐ Yes	☐ Not applicable	Comment:	
Building Description:					
	Shopping Mall ☐ Yes ☒ No	Industrial Mall ☐ Yes ☒ No	Strip Mall: ☐ Yes ☒ No		
	Other Describe : Stand alone building				

7.0 EXPOSURES (Within 50m of risk)

	Distance	Height	Construction	Occupancy Hazard	Civic Number (optional)	Opening in Facing Wall Yes	No
Front	_____ m	_____ sto.	Open	None		☐	☒
Rear	*0* m	*1* sto.	Masonry Semi-Protected	Medium	220 B Bradford st.	☐	☒
Left	*5* m	*1* sto.	Masonry	Light		☐	☒
Right	*5* m	*11/2* sto.	Non-Combustible	Light		☐	☒

(For Malls) Describe partition walls between insured and other tenants.

8.0 COMMON HAZARDS (Heating, electrical, plumbing)

HEATING:

Forced warm air:	☐ Electric %	☐ Gas %	☐ Oil %	Other _____
Suspended unit heaters:	☐ Electric %	☒ Gas100%	☐ Oil %	Other _____
Portable heaters:	☐ Electric %	☐ Gas %	☐ Oil %	Other _____
Electric baseboard units: ☐ %				
Hot water/steam	☐ Electric %	☐ Gas %	☐ Oil %	Other _____
Other	☐ Electric %	☐ Gas %	☐ Oil %	Other _____

Boiler:	☐ Yes	☒ No	Age (yyyy) _____ and Make: _____	Date of last Boiler Inspection: (yyyymmdd) _____
Appliances enclosed in a non-combustible room:			☐ Yes ☐ No	☒ Not required:
Combustible materials stored in the room:			☐ Yes ☐ No	☒ Not applicable

Fuel tanks:	☒ None	☐ Inside	☐ Outside	☐ Above ground	☐ Below ground	Age (yyyy)____ Capacity (L)
Fill and vent piping: Inside			☐ Yes	☐ No	____ ☒ N/A	
Chimneys:	☐ Masonry	☐ ULC Factory built	☐ Unlabelled pre-fab	☒ Other *B-vent type*		
	☒ Standard	☐ Non-standard ____				
Installation defects:	☒ None	☐ Moderate	☐ Major			
Installation replaced:	☐ Yes	☒ No	(yyyy) ____	____ %		
Comment:						

ELECTRICAL:

Type:	☒ Conduit	☒ BX	☒ Non-metallic	☐ Knob & Tube ____	☐ Other ____
Temporary wiring or extension cords:	☒ No	☐ Yes ____			
Overcurrent protection:	☒ Circuit Breakers	Fuses:	☐ Ordinary	☐ Type P	☐ Type D ☐ Other
Installation defects:	☒ None	☐ Moderate	☐ Major		
Installation (wiring) replaced:	☐ Yes	☒ No	(yyyy)____	____%	
Partial changes/extensions:	☐ Yes ____	☒ No			
Comments: ____					

PLUMBING:

Type:	☒ Copper	☒ Galvanized	☐ Plastic	☐ Other ____
Installation Replaced:	☐ Yes	☒ No	(yyyy) ____	____%
Condition:	☐ Good	☒ Fair	☐ Poor ____	
Installation appears safe:	☒ Yes	☐ No ____		

SMOKING:

Smoking Restricted:	☐ Yes	☒ No			
"No Smoking" Signs posted:	☐ Yes	☒ No	Enforced:	☐ Yes	☒ No

HOUSEKEEPING:

☐ Good	☐ Average	☒ Poor	☐ Unacceptable
Comments: ____			

9.0 FIRE PROTECTION

PUBLIC:

F.U.S. Protection Class: *05* Responding Fire Department: *Barrie H.P.A.* IICC Protection Grade 04

☒ Full time ☐ Part Time/Volunteer ☐ Composite

Distance to Fire Department: *1* km Roads: ☒ Paved ☐ Unpaved Accessible Year-round: ☒ Yes ☐ No

☒ Public Water Supply ☐ Private Water Supply

No. Hydrants: *2* within 155 m, ____ within 156 - 305 m, ____ Over 305 m, ☐ None

PRIVATE:

Are the following adequate?

	Yes	No		Date Last Serviced	Comments
Portable Extinguishers	☒	☐		*Unknown*	*(Rec.made)*
Standpipe/Inside Hoses	☐	☐	N/A ☒	____	____
Watchman Service	☐	☐	N/A ☒	____	____
Fire Detection System:	☒ None	☐ Full	☐ Partial, Describe:	____	
i) Type of Detectors:					
ii) Detectors properly located:	☐	☐	Describe:	____	

iii) Components listed by: ☐ ULC ☐ UL ☐ Other _____

iv) Maintenance contract: ☐ ☐ Company: _____ Telephone #: _____

v) Connected to: ☐ ULC Listed Station ☐ Unlisted Service ☐ Fire/Police Department ☐ Local only ☐ Other: _____

Automatic Sprinkler Protection: ☒ None ☐ Full Premises ☐ Partial (describe): _____

☐ Sprinkler Supplement Attached ☐ Yes ☒ No

10.0 ALL RISK :

Information Confirmed by: Jos Tascona "Owner".

EARTHQUAKE

What is the earthquake zone:	1		
Is there any earthquake history in the area:	☐ Yes	☒ No	☐ Undetermined
If **Yes**, describe history _____			
Any evidence of the following:			
Significant exterior wall or foundation cracks noted? ☒ Yes ☐ No		Describe: *Minor interior cracking in fire division wall.*	
Sagging? ☐ Yes ☒ No		Describe: _____	

FLOOD

Is this establishment located on a flood plain:	☐ Yes	☒ No	
Is it located near a body of water:	☐ Yes	☒ No	Describe: _____
Distance to nearest body of water:	_____	☒ None determined	
Is there a history of flooding:	☐ Yes	☒ No	If **yes**, give history: _____
Evidence of water damage:	☐ Yes	☒ No	Describe:
Years knowledge of risk: 55 yrs.			

WATER DAMAGE

Plumbing is:	☒ Copper	☒ Galvanized	☐ Plastic	☐ Other Describe:
Is there evidence of corrosion:	☐ Yes	☒ No	Describe: _____	
Is the building sprinklered:	☐ Yes	☒ No	Comment:	
Is stock susceptible to water damage:	☐ Yes	☒ No	Describe: _____	
Are all window/skylight openings adequately sealed:	☒ Yes	☐ No	Describe: _____	
Does water main pass under building:	☐ Yes	☒ No		
Is the roof covering adequate:	☒ Yes	☐ No	Most recent roof repair date, if applicable _____	
Inside and/or roof storage tanks/process equipment	☐ Yes	☐ No	Describe: _____	
Tanks/equipment satisfactorily controlled:	☐ Yes	☐ No	Describe: _____	
Is there use of: ☐ skids	☒ Shelving	☐ Floor Drains	☐ Covers over stock/equipment	Describe: _____
Sewer Backup claim in the last three years:	☐ Yes	☒ No	☐ Describe: _____	

COLLAPSE AND/OR SEWER BACKUP

Is there any history of collapse:	☐ Yes	☒ No	Describe: _____
Is there any history of sewer back-up:	☐ Yes	☒ No	Describe: _____
Are sewer back-up protection devices in place:	☐ Yes	☒ No	Describe: _____

ADDITIONAL PERILS

Is lightning protection in place:		☐ Yes	☒ No	Describe: _____		
Is risk located within 5 km of airport:		☐ Yes	☒ No	Beneath a flight path:	☐ Yes	☒ No
Is the yard fenced:	☒ Yes	☐ No		Are gates locked when the premises are closed:	☐ Yes	☒ No
Is the yard and the exterior of the building lit:			☒ Yes	☐ No		
I s the risk located in a high wind/hail area:		☐ Yes	☒ No	Describe:_____		
Are there visible signs of vandalism at the risk:		☐ Yes	☒ No	Describe:_____:		
	In the area:	☐ Yes	☒ No	Describe:_____		
Is the risk protected from	Automobile	☐ Yes	☒ No	Describe:_____		
Impact exposure:	Aircraft	☐ Yes	☒ No	Describe:_____		
	Train	☐ Yes	☒ No	Describe:_____		
	Boat	☐ Yes	☒ No	Describe:_____		

Comments: Yard is partially fenced on three sides excluding front of property.

11.0 BASIC PREMISES LIABILITY

The following appeared to be satisfactory:

Stairs, Ramps & Handrails:	Yes ☒	No ☐	N/A ☐	Comments: _____	
Floor Surfaces & Coverings:	Yes ☒	No ☐	N/A ☐	Comments: _____	
Walls & Ceilings:	Yes ☒	No ☐	N/A ☐	Comments: _____	
Interior & Exterior Lighting:	Yes ☒	No ☐	N/A ☐	Comments: _____	
Emergency Lighting	Yes ☐	No ☐	N/A ☒	Comments: _____	
Interior & Exterior Housekeeping:	Yes ☐	No ☒	N/A ☐	Comments: *(Rec.made)*	
Washrooms:	Yes ☒	No ☐	N/A ☐	Comments: _____	
Sidewalks, Yards & Parking Lots:	Yes ☐	No ☒	N/A ☐	Comments: *Excessive vehicle congestion.*	
Fire Exits:	Yes ☐	No ☒	N/A ☐	Comments: *None*	
Fire Alarm System (s):	Yes ☐	No ☒	N/A ☐	Comments: *None*	
Snow & Ice Removal:	Yes ☒	No ☐	N/A ☐	Comments: *Private contractor*	
Elevating devices in operation	Yes ☒	No ☐	N/A ☐	Comments: *Car Hoist*	
TV Satellite Dishes /Exterior Signs	Yes ☒	No ☐	N/A ☐	Comments: *Secure*	
CO detectors where required	Yes ☐	No ☐	N/A ☒	Comments: _____	
Swimming Pool	Yes ☐	No ☐	☐	Supplement attached	
Other	Yes ☐	No ☐	☐	Comments:_____	

12.0 BASIC CRIME

☐ Refer to Expanded Crime Supplement

Crime Experience	☒ Low	☐ Moderate	☐ High		
Type of Neighbourhood:	☒ Commercial	☒ Industrial	☐ Rural	☒ Residential	☐ Isolated
Neighbourhood appears to be:	☒ Stable Changing via:	☐ Expansion/growth		☐ Renovation	☐ Deterioration
Visible malicious damage:	☐ Yes	☒ No			

BUSINESS

Automatic Teller Machine :	☐ Yes	☒ No		
Safe on Premises:	☐ Yes	☒ No	☐ Unable to Determine	
Guard Service:	☐ Yes	☒ No	☐ Unable to Determine	Describe:
Typical Stock:	Used cars and car parts.			
Smash & Grab exposure:	☐ Yes	☒ No	☐ Unable to Determine	
Comments:				

GENERAL PROTECTION

The following appeared to be satisfactory:

Exterior Lighting:	☒Yes	☐No	☐N/A	Comments:
Interior Lighting:	☒Yes	☐No	☐N/A	Comments:
Roof Accessibility:	☒Yes	☐No	☐N/A	Comments:
Police Patrols:	☐Yes	☐No	☒N/A	Comments:
Yard Fenced:	☒Yes	☐No	☐N/A	Describe: Partial, no gate.

SECURITY ALARM SYSTEM

Premises alarm system in use:	☐ N/A	☐ Yes	☒ No	☐ Disconnected	Date Installed: (yyyy)_____	
Monitored by:	☐ULC Listed Station	☐ Unlisted Station	☐ Local Alarm	☐ Unknown to Contact	☐ Unable to Determine	

PHYSICAL PROTECTION

Door locks:	☒ Deadbolt	☐ Spring	☐ Panic	☐ Other	
Windows Protected:	☐ Yes	☒ No	☐ N/A	If **yes**, describe _____	
Other Openings:	☒ No	☐ Yes	Protected:	☐ No	☐ Yes

OTHER COMMENTS:

Confidential

GARAGE/AUTO BODY SHOP
INSPECTION REPORT SUPPLEMENT

Location Surveyed: **Date Surveyed:**	Joscona Ltd. and Honest Joe Motors Ltd. 2003-04-22	**IAO AIS No.:**	11258901

1.0 PRINCIPAL OCCUPANCY

☐ Auto Dealer	☒ Auto Repair Shop	☒ Body Shop or Paint Shop	☐ Small Engine repair
☐ Metalworker	☐ Fiberglass Worker	☐ Other	
Spray Painting Supplement Attached: ☐Yes		☐No	

AUTO REPAIR, SERVICING OR REFINISHING:

Type of Vehicles Serviced: Domestic cars/trucks				
Number of Service Bays 5				
Number of Staff: 1	Licensed: 1	Unlicensed:		Apprentices:
Number of Supervisors /Management per Shift:		Licensed Also:	☐Yes	☐No
Are checklists followed on all work performed:	☐Yes	☒No		
Is all completed work checked prior to vehicle release:	☒Yes	☐No		
Average number of customer vehicles on lot:	none			
Vehicle sales:	☒Yes	☐No	How many: 30/35 per year	
Towing Service :	☐Yes	☒No	Number of Tow trucks : 1	
Propane/Natural Gas conversion performed:	☒No	☐ Yes	Describe: _____	
Courtesy / Rental Vehicles offered	☒No	☐ Yes	Describe: _____	
Comments: Tow truck is not licensed and is used on the insured's property only.				

2.0 RECORD KEEPING

Orderly Records Maintained:	☒ Yes	☐ No		
Types:	☐ Complaints	☐ Customer Files		
	☒ Work Performed	☐ Job Specifications		
	☐ Testing Done	☐ Other		
Records Reviewed / Audited:	☒ Yes	☐ No	Frequency: Undetermined	
			Done By:	
Type of Subcontracted Work::	none			

IAO reports, prepared in compliance with commonly accepted risk control standards existing at the time services are rendered, are developed from an inspection of the premises and/or from data supplied by or on behalf of the Purchaser. IAO does not purport to list all hazards. While changes and modifications referred to in the reports are designed to upgrade protection and loss prevention of the premises, IAO assumes no responsibility for management and control of these activities. IAO will not be responsible to the Purchaser for any losses or damages, whether consequential or other, however caused, incurred of suffered, as a result of the services being provided.

3.0 SPECIAL HAZARDS

	Extent of Exposure				
	None	Slight	Moderate	Severe	Remarks
Flammable Liquids	☐	☒	☐	☐	*In approved container and for daily use only.*
Hot Work	☐	☒	☐	☐	_____
Solvent Recycling	☒	☐	☐	☐	_____
Undercoating	☒	☐	☐	☐	_____
Parts Washing	☒	☐	☐	☐	*Undetermined: (There was no parts washing container in the building at the time of this survey).*
Fiber-glassing	☒	☐	☐	☐	_____
Other: _____	☐	☐	☐	☐	_____
Comments:					

4.0 STORAGE TANKS ☒ None

Operated by:	☐ Insured	☐ Corporation	☐ Other	Hours of Operation: _____
Number of Pumps:	Gas _____	Full Service _____	Self-Serve _____	
	Diesel _____	Full Service _____	Self-Serve _____	
	Propane _____	Full Service _____	Self-Serve _____	
Propane Dispensers Licensed:	☐ Yes	☐ No		
All pumps/tanks protected by crash guards:	☐ No	☐ Yes	Remarks: _____	
Are level measurements taken:	☐ No	☐ Yes		
Frequency:	☐ Daily	☐ Other: _____	Record kept: ☐ No ☐ Yes	
Is Insured aware of who to contact in the event of a spill or emergency:	☐ No	☐ Yes		
Emergency telephone numbers posted:	☐ No	☐ Yes		
Is a non-combustible absorbent material available:	☐ No	☐ Yes	If Yes, what: _____	
Fire Extinguisher located on or near pump island:	☐ No	☐ Yes		

	Underground Tanks ☒ **None**			
	Age (years)	Capacity (litres)	Contents	Construction
1.				_____
2.				_____
3.				_____
4.				_____
5.				_____
6.				_____

	Above Ground Tanks ☒ **None**					
	Age (years)	Capacity (litres)	Contents	Capacity (litres)	Inside	Outside
1.						
2.						
3.						

5.0 TIRE STORAGE

	New	Used	Number of Tires (average)	Dollar Value
Tires stored inside		102	102	*$1,000*
Tires Stored outside		60	60	$
Stored in trailer outside:				$
Comments: There were 42 used tires stored in the electrical room and 60 used tires stored on an upper rack in the garage area. Insured says he is in the process of disposing of all used tires, "first chance he gets".				

6.0 ELECTRONIC EQUIPMENT

Specialized Diagnostic Equipment:		☐ Yes	☒ No			
Source:		☐ Local	☐ United States	☐ Foreign		
Approximate Value:		$_____	☐ Undetermined			
Availability of Replacement:		☐ Yes	☐ No			
Reciprocal Agreement for Temporary Use:		☐ Yes	☐ No			
Electronic Data Processing:	☐ Main Frame	☐ Mini System	☐ PC Stand Alone	Age: _____	Approximate Value: $	
Is equipment:	☐ Owned	☐ Leased				
Is all equipment in one room	☐ Yes	☐ No	where _____	Connected to central location:	☐ Yes	☐ No
Surge Protection:	☐ Yes	☐ No	Adequate:	☐ Yes	☐ No	
Data properly backed-up and stored:	☐ Yes	☐ No	Frequency: _____			
Data Storage/back-up copy taken off premises:	☐ Yes	☐ No				
Describe other systems & users:	*none*					

7.0 SIGNS

Exterior Signs						
Construction:	☒ Wood	☐ Metal	☐ Glass	☐ Plastic	☐ Other _____	☐ Not Applicable
Location	☒ Mounted on wall		☐ Mounted on roof		☐ Self-supported	☐ Other _____
Properly Secured:	☒ Yes		☐ No _____			
Overall Condition:	*Fair*					

Confidential

IAO Spray Painting
SUPPLEMENT

Location Surveyed: **Date Surveyed:**	Joscona Ltd. and Honest Joe Motors Ltd., 222 Bradford St. Barrie On L4N 3B6 2003-04-22	**IAO AIS No.:**	11258901

1.0 OPERATIONS/APPLICATION

Product Applied:	☒ Paint	☐ Glue	☒ Primer	☐ Undercoating	☐ Other:
Where Applied:	☐ Booth	☒ Room	☐ Open Space:		
Room or Booth:	☒ Standard	☐ Non-standard:			
	☐ Pre-fabricated (Binks, etc.)		☐ Metal	☒ Masonry	☐ Plasterboard
	☐ Other: _____				
	Adequate clearance around Booth:		☒ Yes	☐ No	
	Clear space kept clean and accessible:		☒ Yes	☐ No	
Floor Construction:	☒ Concrete	☐ Steel	☐ Wood	☐ Other:	
Frequency of Use:	☐ Continuous	☒ Batch	Hours per day used. : Once per week if required.		
Work Done:	☒ Only in Area Intended		☐ Outside Area Intended		
Equipment:	☒ Compressed Air Supply	☐ Airless Spray Gun	☐ Electrostatic	☐ Dip Tank	
	☐ Other: _____				

Ventilation Installation:				
Suitable:	☒ Yes	☐ No	_____	
Filtering System	☒ Dry Filters	☐ Dry Baffles	☐ Water Curtain	☐ Oil Curtain: ☐ Other:
Filters well maintained and in place:	☐ Yes	☒ No, *Cleaning required at time of inspection (Rec.made).*		
Motor:	Non-sparking & labeled		☒ Yes	☐ No
	In the exhaust duct		☐ Yes	☒ No
	Exposed to accumulation of combustible deposits		☐ Yes	☒ No
Exhaust Duct:	Suitable		☒ Yes	☐ No
	Adequate clearance from Combustible materials		☒ Yes	☐ No

Electrical Installation:				
Electrical equipment inside spraying area	☒ Standard	☐ Non-standard	☐ None	
Electrical equipment outside spraying area	☒ Standard	☐ Non-standard	☐ None	
Lighting labeled:	☒ Yes	☐ No		
In good repair:	☒ Yes ☐ No	☐ Protection missing	☐ Protection not provided	☐ Not airtight

Dryer Installation:	☒ Not Applicable			
Location:	☐ In the booth or room	☐ Other:		
Suitable location:	☐ Yes ☐ No	Interlocked with ventilation system	☐ Yes	☐ No
Dryers:	☐ Electric	☐ Gas	☐ Other:	
	☐ Fixed	☐ Portable	☐ Direct Heat	☐ Indirect Heat

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Flammable and Combustible Liquids							
Storage:	☐ Standard	☒ Non-standard					
	☐ Cabinets	☐ Room	☒ In the open				
	☒ In spray area	☐ Outside spray area					
Quantity:	In the spray area: *18.9 L Primer Thinner & gun cleaner, 6 L (Dupont) Chroma Clear Coat and 2 L (Omni) Enamel.*						
	Outside the spray area: *In the office area on a wooden shelf, 12 L (Omni) Paint and 2 L of Primer.*						
Handling:	☒ Safe	☐ Unsafe: _____					
Use of labeled cans:	☒ Yes	☐ No	Bonding/Grounding practices followed:	☐ Yes	☒No		
Other Hazards							
Dirty rags stored in safety containers	☐ Yes	☒ No	Spray area highly congested	☐ Yes	☒ No		
Smoking restricted:	☐ Yes	☒ No	"No Smoking" signs posted:	☐ Yes	☒ No		
Welding or cutting sufficiently removed from spraying area	☐ Yes	☐ No	☒ Not applicable				
Heating equipment sufficient distance from spraying area:	☒ Yes	☐ No					
Maintenance:	☐ Good	☒ Fair	☐ Poor				
Dip Tank used:	☐ Yes	☒ No	☐ Safe	☐ Unsafe			
Type of Protection:							
Automatic dry chemical system:	☐ None	☒ In the booth or spray room	☐ In the exhaust duct				
Automatic sprinklers:	☒ None	☐ In the booth or spray room	☐ In the exhaust duct				
Extinguisher System Alarmed:	☐ Yes	☒ No					
Portable Extinguishers: Suitable:	☒ Yes	☐ No	Well located:	☒ Yes	☐ No	Date Serviced: Undetermined, (Rec.made).	

Comments:

Cope Report - 1985 HONEST JOE MOTORS LTD 220 Bradford Street BARRIE ON L4N3B6

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COPE (Construction, Occupancy, Protection, Exposure) REPORT

Risk: HONEST JOE MOTORS LTD
220-220A BRADFORD STREET
BARRIE, ONTARIO
L4N 3B6

Reference No. 11258901 / Building No. 01

(Surveyed By G.SAMS on 18 NOV 85)

Please note that the information contained in this report was gathered during a physical inspection of the risk by an IAO Loss Control Representative.

If you wish to obtain building or contents rates for this risk, please refer to the Rate Card in the list of products available for this risk. Please call the IAO Help Desk or your local IAO Representative for help in obtaining a rate for this risk, or do it yourself by going to www.iao.ca and using the New X-rate to generate a new rate yourself.

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------ CODING ------

Industry Code:	551	- Garages, Auto Dealers (excl. Bus and Truck Garages
Construction Code:	4	- Masonry
Risk Classification:	NS	- Non-Sprinklered
Protection Code:	3	- Non-Sprinklered, Fully Protected, Gr 4
Combustibility	M3	

------ CONSTRUCTION ------

WALLS - MASONRY:
100% CONCRETE BLOCK WALLS 300mm Thick C-2 Type: W-1

MASONRY and FIRE RESISTIVE FLOOR and ROOFS:
47% CONCRETE GRAD FLOOR Hours: 3.00 Listed? L Type: D-1

FLOORS & ROOFS - COMBUSTIBLE:
53% WOOD JOIST 2ND FLR & RF C-2

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------ SECONDARY CONSTRUCTION ------

HEIGHT:
Number of Storeys: 1&
Basements: N

Combustible Storeys Without Grade Access: 1

VERTICAL OPENINGS:
1ST - 2ND OPEN Comb.: M3 Const.: 4
Type: Open (V-4) 0 Hrs-Walls/ 0 Hrs-Doors

AREA:

Grade: 603 m2 Total: 638 m2 Effective: 603 m2

L1, L2 Area 0%

ROOF SURFACE:
100 % APPROVED

BUILDING CONDITION:
GOOD Type C-.

Year Built: 1960'S Air Conditioning: NIL

Basement: NIL

Elevators: NIL

COMMON HAZARDS: 7211C1 - GAS UNITS
7211A2 - GAS HOT AIR

------ PROTECTION ------

MUNICIPAL PROTECTION:
Distance from Hydrants: STANDARD Congested Area: NO
Distance to Fire Hall: STANDARD Accessibility: GOOD
FUS Protection Class: 04
Revised Class: 04
IAO Protection Class: 04

INTERNAL PROTECTION:
MANUAL FIRE FIGHTING EQUIPMENT: Portable Fire Extinguishers
Standpipe and Hose

------ EXPOSURE ------

NONE NOTED:

------ OCCUPANCY - HONEST JOE MOTORS LTD: (#220) ------

Industry Code: 551 - Garages, Auto Dealers (excl. Bus and Truck Ga

Occupancy: 5082D - USED/AUTO DEALER/REP GAR

Location: 1&2ND Area: 380 m2 59.0% of Total

Combustibility Code: M3 - Combustible
Susceptibility Code: S3 - Moderate Damage

Special Hazard: 7303C12B - SPRAY PAINTING
7308B4B - NO FIRE DAMPER/SPRAY RM
7302C5B - 46L CL1A&B LIQUIDS STGE
7302C6B1 - MINOR DEFICIENCY
7302E2A2 - HANDLING

------ OCCUPANCY - HARRIS AUTO ELECTRIC BOOTH RIVETT LTD:-# ------

Industry Code: 357 - MANUFACTURING: Other Electrical Apparatus ex

Occupancy: 6052C - AUTO ELCT/TUNE UPS/REBLD

Location: 1ST Area: 258 m2 40.0% of Total

Combustibility Code: L2 - Limited Combustibility
Susceptibility Code: S3 - Moderate Damage

Special Hazard: 7303B2B - PAINTG/STARTER CASING
730E1C3 - 205L VARSOL HANDLING

Appendix C
Parcel Register

* CERTIFIED IN ACCORDANCE WITH THE LAND TITLES ACT * SUBJECT TO RESERVATIONS IN CROWN GRANT *

PROPERTY DESCRIPTION: PT PARKLT 15 W/S BRADFORD ST, 16 W/S BRADFORD ST, 17 W/S BRADFORD ST, 18 W/S BRADFORD ST PL 15 BARRIE PT 4 51R7586; BARRIE

PROPERTY REMARKS: PLANNING ACT CONSENT AS IN RO446911.

ESTATE/QUALIFIER:
FEE SIMPLE
LT CONVERSION QUALIFIED

RECENTLY:
RE-ENTRY FROM 58794-0250

PIN CREATION DATE:
2002/02/25

OWNERS' NAMES
CHAYELL PALM CANADA LTD.

CAPACITY SHARE

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
** PRINTOUT INCLUDES ALL DOCUMENT TYPES (DELETED INSTRUMENTS NOT INCLUDED) **						
**SUBJECT, ON FIRST REGISTRATION UNDER THE LAND TITLES ACT, TO:						
** SUBSECTION 44(1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPH 11, PARAGRAPH 14, PROVINCIAL SUCCESSION DUTIES *						
** AND ESCHEATS OR FORFEITURE TO THE CROWN.						
** THE RIGHTS OF ANY PERSON WHO WOULD, BUT FOR THE LAND TITLES ACT, BE ENTITLED TO THE LAND OR ANY PART OF						
** IT THROUGH LENGTH OF ADVERSE POSSESSION, PRESCRIPTION, MISDESCRIPTION OR BOUNDARIES SETTLED BY						
** CONVENTION.						
** ANY LEASE TO WHICH THE SUBSECTION 70(2) OF THE REGISTRY ACT APPLIES.						
**DATE OF CONVERSION TO LAND TITLES: 2002/02/25 **						
RO446912	1973/09/04	QUIT CLAIM TRNSFR	$1		TASCONA, JOSEPH	C
REMARKS: SKETCH ATTACHED.						
51R7586	1978/02/21	PLAN REFERENCE				C
SC1555986	2018/11/15	TRANSFER	$1,350,000	JOSCONA LTD.	CHAYELL PALM CANADA LTD.	C
REMARKS: PLANNING ACT STATEMENTS.						
SC1555990	2018/11/15	CHARGE	$900,000	CHAYELL PALM CANADA LTD.	JOSCONA LTD.	C
SC1556037	2018/11/15	TRANSFER OF CHARGE		JOSCONA LTD.	VITAJOE LTD.	C
REMARKS: SC1555990.						

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.



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SCALE

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PROPERTY INDEX MAP

SIMCOE(No. 51)

LEGEND

FREEHOLD PROPERTY	
LEASEHOLD PROPERTY	
LIMITED INTEREST PROPERTY	
CONDOMINIUM PROPERTY	
RETIRED PIN (MAP UPDATE PENDING)	
PROPERTY NUMBER	*0449*
BLOCK NUMBER	**08050**
GEOGRAPHIC FABRIC	
EASEMENT	

THIS IS NOT A PLAN OF SURVEY

NOTES

REVIEW THE TITLE RECORDS FOR COMPLETE PROPERTY INFORMATION AS THIS MAP MAY NOT REFLECT RECENT REGISTRATIONS

THIS MAP WAS COMPILED FROM PLANS AND DOCUMENTS RECORDED IN THE LAND REGISTRATION SYSTEM AND HAS BEEN PREPARED FOR PROPERTY INDEXING PURPOSES ONLY

FOR DIMENSIONS OF PROPERTIES BOUNDARIES SEE RECORDED PLANS AND DOCUMENTS

ONLY MAJOR EASEMENTS ARE SHOWN

REFERENCE PLANS UNDERLYING MORE RECENT REFERENCE PLANS ARE NOT ILLUSTRATED

Ontario

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Appendix D
City Directories

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

CITY DIRECTORY

Project Property: *220 Bradford Street, Barrie, Ontario*
Report Type: *City Directory*
Order No: *20190724204*
Information Source: *Vernon's Barrie, Ontario City Directory*
Date Completed: *26/07/2019*

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

City Directory Information Source
Vernon's Barrie, Ontario City Directory

PROJECT NUMBER: 20190724204	
Site Address:	220 Bradford Street, Barrie, Ontario
Year: 1998/99	
Site Listing:	-Honest Joe's Motors LTD -Harris Auto Electric (Booth & Rivett) LTD
Adjacent Properties:	
212 Bradford Street	-Simcoe Bait & Tackle II
214 Bradford Street	-No Return
218 Bradford Street	-Residential (1 Tenant)
224 Bradford Street	-Ziebart Tidycar
240 Bradford Street	-Barrie Huronia Motel
233 Innisfil Street	-Multi-Tenant Residential

149 Sanford Street	-Residential (1 Tenant)
153 Sanford Street	-Residential (1 Tenant)
157 Sanford Street	-Residential (1 Tenant)
163 Sanford Street	-Residential (4 Tenants)

PROJECT NUMBER: 20190724204	
Site Address:	220 Bradford Street, Barrie, Ontario
Year: 1994/95	
Site Listing:	-City Car Sales -Honest Joe's Motors LTD -Harris Auto Electric (Booth & Rivett) LTD
Adjacent Properties:	
212 Bradford Street	-Residential (2 Tenants)
214 Bradford Street	-No Return
218 Bradford Street	-D & B Leasing -Tascona & Brenner

	-Residential (3 Tenants)
224 Bradford Street	-Ziebart Car Improvement Specialists
240 Bradford Street	-Barrie Huronia Motel
233 Innisfil Street	-Multi-Tenant Residential -Desrocher Raymond Roofing
149 Sanford Street	-Residential (1 Tenant)
153 Sanford Street	-Residential (1 Tenant)
157 Sanford Street	-Residential (1 Tenant)
163 Sanford Street	-Residential (4 Tenants)

PROJECT NUMBER: 20190724204	
Site Address:	220 Bradford Street, Barrie, Ontario
Year: 1990	
Site Listing:	-City Car Sales -Honest Joe's Motors LTD -Harris Auto Electric (Booth & Rivett) LTD

Adjacent Properties:	
212 Bradford Street	-Johnston Bruce Mechanical -Residential (1 Tenant)
214 Bradford Street	-Residential (1 Tenant)
218 Bradford Street	-Superior Business Centre LTD -Leadley Rosenberger & Mann -Residential (1 Tenant)
224 Bradford Street	-Ziebart Car Improvement Specialists
240 Bradford Street	-Barrie Huronia Motel
233 Innisfil Street	-Multi-Tenant Residential
149 Sanford Street	-Address Not Listed
153 Sanford Street	-Residential (1 Tenant)
157 Sanford Street	-Residential (1 Tenant)
163 Sanford Street	-Residential (3 Tenants)

PROJECT NUMBER: 20190724204	
Site Address:	220 Bradford Street, Barrie, Ontario
Year: 1982	
Site Listing:	-Honest Joe's Motors LTD
Adjacent Properties:	
212 Bradford Street	-Residential (1 Tenant)
214 Bradford Street	-Residential (1 Tenant)
218 Bradford Street	-Residential (1 Tenant)
224 Bradford Street	-Ziebart Auto-Truck Rustproofing (Barrie) LTD -Meier H. LTD -Simcoe Auto Stereo LTD
240 Bradford Street	-Barrie Huronia Motel
233 Innisfil Street	-Multi-Tenant Residential
149 Sanford Street	-Residential (1 Tenant)

153 Sanford Street	-Residential (1 Tenant)
157 Sanford Street	-Residential (1 Tenant)
163 Sanford Street	-Residential (3 Tenants)

PROJECT NUMBER: 20190724204	
Site Address:	220 Bradford Street, Barrie, Ontario
Year: 1976	
Site Listing:	-Honest Joe's Motors LTD -Ray's Simcoe Motors LTD
Adjacent Properties:	
212 Bradford Street	-Residential (1 Tenant)
214 Bradford Street	-Residential (1 Tenant)
218 Bradford Street	-Residential (1 Tenant)
224 Bradford Street	-Paul's Sunoco
240 Bradford Street	-Barrie Huronia Motel

	-Residential (1 Tenant)
233 Innisfil Street	-Multi-Tenant Residential
149 Sanford Street	-Residential (1 Tenant)
153 Sanford Street	-Residential (1 Tenant)
157 Sanford Street	-Residential (2 Tenants)
163 Sanford Street	-Residential (2 Tenants)

PROJECT NUMBER: 20190724204	
Site Address:	220 Bradford Street, Barrie, Ontario
Year: 1974	
Site Listing:	-Honest Joe's Motors LTD -Ray's Simcoe Motors LTD
Adjacent Properties:	
212 Bradford Street	-Residential (1 Tenant)
214 Bradford Street	-Residential (1 Tenant)

218 Bradford Street	-Residential (1 Tenant)
224 Bradford Street	-Titterson Bros Sunoco Serv Stn
240 Bradford Street	-Barrie Huronia Motel -Residential (1 Tenant)
233 Innisfil Street	-Address Not Listed
149 Sanford Street	-Residential (1 Tenant)
153 Sanford Street	-Residential (1 Tenant)
157 Sanford Street	-Residential (1 Tenant)
163 Sanford Street	-Residential (2 Tenants)

PROJECT NUMBER: 20190724204	
Site Address:	220 Bradford Street, Barrie, Ontario
Year: 1966	
Site Listing:	-Honest Joe's Motors LTD

Adjacent Properties:	
212 Bradford Street	-Residential (1 Tenant)
214 Bradford Street	-Residential (1 Tenant)
218 Bradford Street	-Residential (1 Tenant)
224 Bradford Street	-Sinclair Sunoco Serv Stn
240 Bradford Street	-Barrie Huronia Motel -Residential (1 Tenant)
233 Innisfil Street	-Address Not Listed
149 Sanford Street	-Residential (1 Tenant)
153 Sanford Street	-Residential (1 Tenant)
157 Sanford Street	-Address Not Listed
163 Sanford Street	-Residential (2 Tenants)

PROJECT NUMBER: 20190724204	
Site Address:	220 Bradford Street, Barrie, Ontario

Year: 1961	
Site Listing:	-Honest Joe's
Adjacent Properties:	
212 Bradford Street	-Residential (1 Tenant)
214 Bradford Street	-Residential (1 Tenant)
218 Bradford Street	-Residential (1 Tenant)
224 Bradford Street	-Service Station
240 Bradford Street	-Barrie Huronia Motel -Residential (1 Tenant)
233 Innisfil Street	-Address Not Listed
149 Sanford Street	-Residential (1 Tenant)
153 Sanford Street	-Residential (1 Tenant)
157 Sanford Street	-Address Not Listed

163 Sanford Street	-Residential (2 Tenants)

PROJECT NUMBER: 20190724204	
Site Address:	220 Bradford Street, Barrie, Ontario
Year: 1952	
Site Listing:	-Crosstown Motors
Adjacent Properties:	
212 Bradford Street	-Residential (1 Tenant)
214 Bradford Street	-Residential (1 Tenant)
218 Bradford Street	-Residential (1 Tenant)
224 Bradford Street	222-226 – Sunoco Service Station
240 Bradford Street	-Address Not Listed
233 Innisfil Street	-Address Not Listed
149 Sanford Street	-Address Not Listed

153 Sanford Street	-Address Not Listed
157 Sanford Street	-Address Not Listed
163 Sanford Street	-Address Not Listed

Barrie, Ontario is listed within the city directory archives from 1952-1998/99.*

-All listings for businesses were listed as they are in the city directory.

-Listings that are residential are listed as “residential” with the number of tenants. The name of the residential tenant is not listed in the above city directory.

Appendix E
ERIS Report

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*9326-001 Phase One ESA* *220 Bradford Street* *Barrie ON L4N 3B6*
Project No:	
Report Type:	*Standard Report*
Order No:	*20190724204*
Requested by:	*Cambium Inc.*
Date Completed:	*July 31, 2019*

Environmental Risk Information Services
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Executive Summary

Property Information:

Project Property:	*9326-001 Phase One ESA* *220 Bradford Street Barrie ON L4N 3B6*
Project No:	

Coordinates:

Latitude:	*44.375711*
Longitude:	*-79.693242*
UTM Northing:	*4,914,434.00*
UTM Easting:	*604,105.00*
UTM Zone:	*UTM Zone 17T*

Elevation:	*738 FT* *224.85 M*

Order Information:

Order No:	*20190724204*
Date Requested:	*July 24, 2019*
Requested by:	*Cambium Inc.*
Report Type:	*Standard Report*

Historical/Products:

City Directory Search	*CD - Subject Site plus 10 Adjacent Properties*
Insurance Products	*Fire Insurance Maps/Inspection Reports/Site Plans*
Land Title Search	*Current Land Title Search*

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	24	24
CDRY	Dry Cleaning Facilities	Y	0	0	0
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0
CHEM	Chemical Register	Y	0	0	0
CNG	Compressed Natural Gas Stations	Y	0	0	0
COAL	Inventory of Coal Gasification Plants and Coal Tar Sites	Y	0	0	0
CONV	Compliance and Convictions	Y	0	0	0
CPU	Certificates of Property Use	Y	0	0	0
DRL	Drill Hole Database	Y	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	0	0
EBR	Environmental Registry	Y	0	1	1
ECA	Environmental Compliance Approval	Y	0	27	27
EEM	Environmental Effects Monitoring	Y	0	0	0
EHS	ERIS Historical Searches	Y	1	3	4
EIIS	Environmental Issues Inventory System	Y	0	0	0
EMHE	Emergency Management Historical Event	Y	0	0	0
EPAR	Environmental Penalty Annual Report	Y	0	0	0
EXP	List of TSSA Expired Facilities	Y	0	2	2
FCON	Federal Convictions	Y	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0
FOFT	Fisheries & Oceans Fuel Tanks	Y	0	0	0
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	1	24	25
GHG	Greenhouse Gas Emissions from Large Facilities	Y	0	0	0
HINC	TSSA Historic Incidents	Y	0	0	0
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0
INC	TSSA Incidents	Y	0	1	1
LIMO	Landfill Inventory Management Ontario	Y	0	2	2
MINE	Canadian Mine Locations	Y	0	0	0

Database	Name	Searched	Project Property	Within 0.25 km	Total
MNR	Mineral Occurrences	Y	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0
NCPL	Non-Compliance Reports	Y	0	9	9
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBP	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	15	15
OGWE	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	1	1
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	9	9
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	1	0	1
SCT	Scott's Manufacturing Directory	Y	0	2	2
SPL	Ontario Spills	Y	0	73	73
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	1	22	23
	Total:		4	215	219

Executive Summary: Site Report Summary - Project Property

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev diff (m)	Page Number
1	WWIS		BARRIE ON **Well ID:** 7260337	-/0.0	0.00	48
6	EHS		220 Bradford St Barrie ON L4N 3B6	ENE/46.6	-0.33	50
6	GEN	CHAYELL HOSPITALITY GROUP INC.	220 BRADFORD STREET BARRIE ON L4N 3B6	ENE/46.6	-0.33	50
6	RST	HARRIS AUTO ELECTRIC LTD	220A BRADFORD ST BARRIE ON L4N3B6	ENE/46.6	-0.33	50

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
2	WWIS		BARRIE ON **Well ID:** 7260336	SSE/20.6	0.01	51
3	WWIS		Barrie ON **Well ID:** 7231046	SW/44.2	0.01	53
3	WWIS		Barrie ON **Well ID:** 7231045	SW/44.2	0.01	55
4	WWIS		Barrie ON **Well ID:** 7231047	SW/45.0	0.01	57
5	WWIS		BARRIE ON **Well ID:** 7260335	E/45.4	-0.23	59
7	WWIS		ON **Well ID:** 7105808	S/52.5	-0.24	62
8	GEN	2591969 Ontario Inc	224 Bradford Street Barrie ON L4N 3B6	E/75.7	-0.90	64
8	GEN	Corporation of County of Simcoe	224 Bradford St Barrie ON L4N3B6	E/75.7	-0.90	64
8	GEN	Corporation of County of Simcoe	224 Bradford St Barrie ON L4N3B6	E/75.7	-0.90	64
9	CA	CORPORATION OF THE CITY OF BARRIE	249 BRADFORD ST. W.P.C.P. BARRIE CITY ON	NE/85.5	-0.69	65
9	CA	BARRIE CITY	249 BRADFORD ST.,BARRIE WPCP BARRIE CITY ON	NE/85.5	-0.69	65
9	CA	BARRIE CITY	249 BRADFORD ST.,BARRIE WPCP BARRIE CITY na 10/6/93 ON	NE/85.5	-0.69	65

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	CA	BARRIE CITY	249 BRADFORD ST. (WPCP) BARRIE CITY ON	NE/85.5	-0.69	66
9	CA	BARRIE CITY	249 BRADFORD ST. (WPCP) BARRIE CITY ON	NE/85.5	-0.69	66
9	CA	Barrie Water Pollution Control Centre	249 Bradford Street Barrie ON	NE/85.5	-0.69	66
9	CA	Barrie Water Pollution Control Centre	249 Bradford Street Barrie ON	NE/85.5	-0.69	66
9	CA	Barrie Water Pollution Control Centre	249 Bradford Street Barrie ON	NE/85.5	-0.69	67
9	CA	Barrie Water Pollution Control Centre	249 Bradford Street Barrie ON	NE/85.5	-0.69	67
9	CA	Barrie Well Supply	249 Bradford Street Barrie ON	NE/85.5	-0.69	67
9	CA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	68
9	CA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	68
9	CA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	68
9	CA	The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE/85.5	-0.69	69
9	CA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	69
9	CA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	69

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	CA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	70
9	CA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	70
9	EBR	The Corporation of the City of Barrie	249 Bradford Street Barrie, County of Simcoe CITY OF BARRIE ON	NE/85.5	-0.69	70
9	ECA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	71
9	ECA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	71
9	ECA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	71
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	71
9	ECA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4T5	NE/85.5	-0.69	72
9	ECA	The Corporation of the City of Barrie	240, 249 Bradford Street Barrie ON L4M 4T5	NE/85.5	-0.69	72
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	72
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	72
9	ECA	The Corporation of the City of Barrie	240, 249 Bradford Street Barrie ON L4M 4T5	NE/85.5	-0.69	73
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE/85.5	-0.69	73

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE/85.5	-0.69	73
9	ECA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	74
9	ECA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4Z2	NE/85.5	-0.69	74
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	74
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	74
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	75
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE/85.5	-0.69	75
9	ECA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4T5	NE/85.5	-0.69	75
9	ECA	The Corporation of the City of Barrie	249 Bradford St Barrie ON L4M 4T5	NE/85.5	-0.69	75
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	76
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	76
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE/85.5	-0.69	76
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4T5	NE/85.5	-0.69	76

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	ECA	The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE/85.5	-0.69	77
9	ECA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4T5	NE/85.5	-0.69	77
9	ECA	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	77
9	GEN	BARRIE, CITY OF	POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON L4N 3B2	NE/85.5	-0.69	78
9	GEN	BARRIE, CITY OF	P.W.D. POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON L4N 3B2	NE/85.5	-0.69	78
9	GEN	BARRIE, CITY OF 05-336	P.W.D. POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON L4N 3B2	NE/85.5	-0.69	78
9	GEN	BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON L4N 3B7	NE/85.5	-0.69	79
9	GEN	BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON	NE/85.5	-0.69	80
9	GEN	BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON	NE/85.5	-0.69	81
9	GEN	BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON	NE/85.5	-0.69	82
9	GEN	THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON	NE/85.5	-0.69	83
9	GEN	THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON	NE/85.5	-0.69	84

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	GEN	THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON L4N 3B7	NE/85.5	-0.69	85
9	GEN	THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON L4N 3B7	NE/85.5	-0.69	86
9	GEN	THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON L4N 3B7	NE/85.5	-0.69	87
9	GEN	THE CORPORATION OF THE CITY OF BARRIE Environmental Services	249 Bradford Street Barrie ON L4N 3B7	NE/85.5	-0.69	88
9	GEN	THE CORPORATION OF THE CITY OF BARRIE Environmental Services	249 Bradford Street Barrie ON L4N 3B7	NE/85.5	-0.69	89
9	INC		249 BRADFORD STREET, BARRIE ON	NE/85.5	-0.69	90
9	NCPL	The Corporation of the City of Barrie - Barrie WPCP	249 Bradford St. Barrie ON	NE/85.5	-0.69	91
9	NCPL	The Corporation of the City of Barrie - Barrie WPCP	249 Bradford St. Barrie ON	NE/85.5	-0.69	92
9	NCPL	The Corporation of the City of Barrie - Barrie WPCP	249 Bradford St Barrie ON	NE/85.5	-0.69	93
9	NCPL	The Corporation of the City of Barrie - Barrie Water Pollution Control Centre	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	94
9	NPRI	THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE/85.5	-0.69	94
9	NPRI	THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE/85.5	-0.69	95
9	NPRI	THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE/85.5	-0.69	97

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	NPRI	CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE/85.5	-0.69	98
9	NPRI	CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE/85.5	-0.69	99
9	NPRI	CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE/85.5	-0.69	102
9	NPRI	CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE/85.5	-0.69	104
9	NPRI	CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE/85.5	-0.69	106
9	NPRI	CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE/85.5	-0.69	108
9	NPRI	THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE/85.5	-0.69	110
9	NPRI	THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE/85.5	-0.69	113
9	NPRI	THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE/85.5	-0.69	114
9	NPRI	THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE/85.5	-0.69	116
9	NPRI	The Corporation of the City of Barrie	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE/85.5	-0.69	118
9	REC	BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE/85.5	-0.69	119
9	REC	BARRIE WPCP	249 BRADFORD ST. 165 FERNDALE DR.,P.O. BOX 647 BARRIE ON L4M 4V1	NE/85.5	-0.69	120

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	REC	BARRIE WPCP	249 BRADFORD STREET BARRIE ON	NE/85.5	-0.69	120
9	REC	BARRIE WPCP	249 BRADFORD STREET BARRIE ON	NE/85.5	-0.69	120
9	REC	BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE/85.5	-0.69	121
9	REC	BARRIE WPCP	249 BRADFORD STREET BARRIE ON	NE/85.5	-0.69	121
9	REC	BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE/85.5	-0.69	121
9	REC	BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE/85.5	-0.69	122
9	REC	BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE/85.5	-0.69	122
9	SPL	BARRIE, CITY OF	249 BRADFORD STREET BARRIE WPCP 249 BRADFORD STREET BARRIE ON	NE/85.5	-0.69	122
9	SPL	UNKNOWN	CB SOUTH OF 249 BRADFORD STREET. BARRIE CITY ON	NE/85.5	-0.69	123
9	SPL	BARRIE, CITY OF	LAKE SIMCOE, BARRIE WPCP BARRIE WPCP 249 BRADFORD STREET BARRIE CITY ON	NE/85.5	-0.69	123
9	SPL	Flags Unlimited<UNOFFICIAL>	249 Bradford Street Barrie ON	NE/85.5	-0.69	124
9	SPL	Wessuc Inc.	249 Bradford Street Barrie ON	NE/85.5	-0.69	124
9	SPL	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	125

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	SPL	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	125
9	SPL	The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE/85.5	-0.69	126
9	SPL	The Corporation of the City of Barrie	249 Bradford Street BARRIE WATER POLLUTION CONTROL CENTRE Barrie ON	NE/85.5	-0.69	126
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE/85.5	-0.69	127
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE/85.5	-0.69	127
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE/85.5	-0.69	128
9	SPL		249 Bradford St Barrie ON	NE/85.5	-0.69	128
9	SPL		249 Bradford St Barrie ON	NE/85.5	-0.69	129
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE/85.5	-0.69	129
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	130
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	130
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	131
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	131

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	132
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	132
9	SPL		249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	133
9	SPL	City of Barrie <UNOFFICIAL>	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	133
9	SPL	City of Barrie<UNOFFICIAL>	249 Bradford St. east of the digestors Barrie ON	NE/85.5	-0.69	134
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	134
9	SPL	Section 21(1)(f)	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	135
9	SPL	The Corporation of the City of Barrie	249 Bradford St Lot 26, Concession 5 Barrie ON	NE/85.5	-0.69	135
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	136
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	136
9	SPL	Wessuc Inc.	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	137
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	137
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	138

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	138
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	139
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	139
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	140
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	140
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE/85.5	-0.69	141
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	141
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE/85.5	-0.69	141
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	142
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	142
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	143
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE/85.5	-0.69	143
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	144

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	144
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE/85.5	-0.69	145
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE/85.5	-0.69	145
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE/85.5	-0.69	146
9	SPL	The Corporation of the City of Barrie	249 Bradford Street 69 Ellen St Barrie ON NA	NE/85.5	-0.69	146
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE/85.5	-0.69	147
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE/85.5	-0.69	147
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON NA	NE/85.5	-0.69	148
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE/85.5	-0.69	148
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE/85.5	-0.69	149
9	SPL	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE/85.5	-0.69	149
9	SPL		249 Bradford St Barrie ON L4M 4T5	NE/85.5	-0.69	150
9	SPL	The Corporation of the City of Barrie	249 Bradford St Barrie ON L4M 4T5	NE/85.5	-0.69	150

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
10	CA	BARRIE CITY - TEMP. DEWATERING POND	LAKESHORE DR./TIFFIN ST. WPCP BARRIE CITY ON	NE/87.0	-0.69	151
10	CA	Ellen Street, Waste Water Pollution Control Centre	69 Ellen Street and 249 Bradford Street Barrie ON	NE/87.0	-0.69	151
10	NCPL	Barrie WPCP	Barrie ON	NE/87.0	-0.69	151
10	NCPL	Barrie WPCP	Barrie ON	NE/87.0	-0.69	152
10	NCPL	BARRIE WPCP	BARRIE ON	NE/87.0	-0.69	152
10	NCPL	BARRIE WPCP	BARRIE ON	NE/87.0	-0.69	152
10	NCPL	BARRIE WPCP	BARRIE ON	NE/87.0	-0.69	153
10	SPL	Unknown<UNOFFICIAL>	IN POND BESIDE THE BARRIE WPCP ON BRADFORD ST. <UNOFFICIAL> Barrie ON	NE/87.0	-0.69	153
11	CA	Barrie Water Pollution Control Centre	549 Bradford Street, PO Box 400 Barrie ON	ENE/89.5	-0.96	153
11	ECA	The Corporation of the City of Barrie	549 Bradford Street, PO Box 400 Barrie ON	ENE/89.5	-0.96	154
11	SPL	The Corporation of the City of Barrie	549 Bradford St BARRIE WATER POLLUTION CONTROL CENTRE Barrie ON	ENE/89.5	-0.96	154
11	SPL		549 Bradford St Barrie ON L4M 4T5	ENE/89.5	-0.96	155
11	SPL	The Corporation of the City of Barrie	549 Bradford St Barrie ON L4M 4T5	ENE/89.5	-0.96	155

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
11	SPL	The Corporation of the City of Barrie	549 Bradford St Barrie ON L4M 4T5	ENE/89.5	-0.96	156
11	SPL	The Corporation of the City of Barrie	549 Bradford St Barrie ON L4M 4T5	ENE/89.5	-0.96	156
11	SPL	The Corporation of the City of Barrie	549 Bradford St Barrie ON L4M 4T5	ENE/89.5	-0.96	156
12	WWIS		ON ***Well ID:*** 7217301	ENE/95.7	-0.96	157
13	SCT	Quality Dental Craft Ltd.	208 Bradford St Barrie ON L4N 3B6	N/106.2	-0.01	158
14	WWIS		Barrie ON ***Well ID:*** 7106252	NE/107.6	-0.68	158
15	WWIS		ON ***Well ID:*** 5738378	WNW/110.8	1.01	168
16	PRT	PAUL SADLON MOTORS INC	233 BRADFORD ST BARRIE ON L4N 3B7	NNE/129.8	-0.92	172
17	WWIS		Barrie ON ***Well ID:*** 7053403	ESE/130.1	-2.30	172
18	WWIS		BARRIE ON ***Well ID:*** 7117039	ESE/136.3	-3.02	175
19	CA	The Corporation of the City of Barrie	240, 249 Bradford Street Barrie ON	E/140.1	-2.42	176
20	WWIS		ON ***Well ID:*** 7111775	ESE/140.7	-3.02	177
20	WWIS		ON	ESE/140.7	-3.02	248

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 7138391			
21	SPL	BARRIE, CITY OF	KIDD CREEK AT DONALD STREET BARRIE WPCP 249 BRADFORD STREET BARRIE CITY ON	ENE/143.3	-2.02	314
22	WWIS		ON **Well ID:** 5738379	SE/148.7	1.01	314
23	WWIS		ON **Well ID:** 7106250	NNE/149.0	-0.92	317
24	GEN	Trow Associates Inc.	242 Bradford Street Barrie ON L4N 3B6	ESE/149.8	-3.02	328
25	WWIS		BARRIE ON **Well ID:** 7044939	NNE/150.3	-0.99	328
26	WWIS		lot 26 con 5 ON **Well ID:** 7317981	WSW/163.1	0.01	331
27	WWIS		Barrie ON **Well ID:** 7209086	NNW/163.6	1.09	331
27	WWIS		Barrie ON **Well ID:** 7280991	NNW/163.6	1.09	334
28	SPL	UNKNOWN	ON BRADFORD FROM TIFFIN TO THE W.W.T.P. BARRIE ON	E/173.5	-4.08	335
29	LIMO		Lot 25 Concession 5 (Sandford & Brock Street) Barrie Barrie ON	NW/178.9	1.01	335
30	EXP	AIRGAS BARRIE	40 BROCK ST BARRIE ON	NNW/181.6	1.01	336
30	EXP	AIRGAS BARRIE	40 BROCK ST BARRIE ON	NNW/181.6	1.01	336
31	SPL	The Corporation of the City of Barrie	38 Tiffin Street Barrie ON L4N 2M7	SE/203.4	1.01	337

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
32	WWIS		BARRIE ON **Well ID:** 7186712	N/203.4	-2.72	337
33	NPRI	THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	ENE/212.8	-2.91	340
34	SPL		Tiffin Street and Innisfil Street Barrie ON	SSW/220.0	2.01	341
34	SPL	City of Barrie	Tiffan Street and Innisfil St Barrie ON	SSW/220.0	2.01	342
35	SPL	PRIVATE RESIDENCE	190 BRADFORD ST. MOTOR VEHICLE (OPERATING FLUID) BARRIE CITY ON L4N 3B5	NNW/222.5	-1.63	342
36	WWIS		Barrie ON **Well ID:** 7282888	SSW/225.2	0.93	343
37	EHS		111 Sanford St Barrie ON L4N3C6	NW/232.4	1.10	345
37	WWIS		Barrie ON **Well ID:** 7209093	NW/232.4	1.10	345
38	CA	BARRIE CITY	BROCK ST./INNISFIL ST. BARRIE CITY ON	WNW/237.9	1.01	347
38	CA	P.U.C. BARRIE	BROCK ST.N./INNISFIL ST. BARRIE CITY ON	WNW/237.9	1.01	348
38	LIMO		Lot 25 Concession 5 (Innisfil & Brock Street) Barrie Barrie ON	WNW/237.9	1.01	348
39	EHS		184 Innisfil St. Barrie ON	W/241.2	1.01	349
39	GEN	BARRIE PUBLIC UTILITIES COMMISSION	184 INNISFIL ST. C/O 15 BAYFIELD ST. BARRIE ON L4M 4V8	W/241.2	1.01	349

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
39	GEN	BARRIE PUBLIC UTILITIES COMMISSION04-319	184 INNISFIL ST. C/O 15 BAYFIELD ST. BARRIE ON L4M 4V8	W/241.2	1.01	349
40	SPL	PUC	JESSY'S COUNTRY DINER, 90 TIFFEN STREET AT TIFFEN AND INNISFIL STREETS SANITARY SEWER BARRIE CITY ON	SSW/244.5	2.01	350
41	EHS		250 Innisfil St Barrie ON L4N 4K4	SSW/248.0	2.32	350
41	SCT	SGO Designer Glass Central ON	250 Innisfil St Unit 4 Barrie ON L4N 4K4	SSW/248.0	2.32	350
42	GEN	TRISTAR PHARMACIES LIMITED	21 ESSA ROAD BARRIE ON L4N 3K4	SE/249.1	0.92	351
42	GEN	Sacksen Medicine Prof. Corp	21 Essa Rd Barrie ON	SE/249.1	0.92	351
42	GEN	Sacksen Medicine Prof. Corp	21 Essa Rd Barrie ON	SE/249.1	0.92	351
42	GEN	Sacksen Medicine Prof. Corp	21 Essa Rd Barrie ON	SE/249.1	0.92	351
43	SPL	CO-OP	ESSA RD. & TIFFIN RD. S. BARRIE CITY ON	ESE/249.4	0.01	352

Executive Summary: Summary By Data Source

CA - Certificates of Approval

A search of the CA database, dated 1985-Oct 30, 2011* has found that there are 24 CA site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
P.U.C. BARRIE	BROCK ST.N./INNISFIL ST. BARRIE CITY ON	WNW	237.90	38
BARRIE CITY	BROCK ST./INNISFIL ST. BARRIE CITY ON	WNW	237.90	38

Lower Elevation	Address	Direction	Distance (m)	Map Key
CORPORATION OF THE CITY OF BARRIE	249 BRADFORD ST. W.P.C.P. BARRIE CITY ON	NE	85.47	9
BARRIE CITY	249 BRADFORD ST.,BARRIE WPCP BARRIE CITY na 10/6/93 ON	NE	85.47	9
BARRIE CITY	249 BRADFORD ST. (WPCP) BARRIE CITY ON	NE	85.47	9
BARRIE CITY	249 BRADFORD ST. (WPCP) BARRIE CITY ON	NE	85.47	9
Barrie Water Pollution Control Centre	249 Bradford Street Barrie ON	NE	85.47	9
Barrie Water Pollution Control Centre	249 Bradford Street Barrie ON	NE	85.47	9
Barrie Water Pollution Control Centre	249 Bradford Street Barrie ON	NE	85.47	9

Barrie Water Pollution Control Centre	249 Bradford Street Barrie ON	NE	85.47	9
Barrie Well Supply	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
BARRIE CITY	249 BRADFORD ST.,BARRIE WPCP BARRIE CITY ON	NE	85.47	9
BARRIE CITY - TEMP. DEWATERING POND	LAKESHORE DR./TIFFIN ST. WPCP BARRIE CITY ON	NE	87.00	10

Ellen Street, Waste Water Pollution Control Centre	69 Ellen Street and 249 Bradford Street Barrie ON	NE	87.00	10
Barrie Water Pollution Control Centre	549 Bradford Street, PO Box 400 Barrie ON	ENE	89.46	11
The Corporation of the City of Barrie	240, 249 Bradford Street Barrie ON	E	140.10	19

EBR - Environmental Registry

A search of the EBR database, dated 1994-Jun 30, 2019 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
The Corporation of the City of Barrie	249 Bradford Street Barrie, County of Simcoe CITY OF BARRIE ON	NE	85.47	9

ECA - Environmental Compliance Approval

A search of the ECA database, dated Oct 2011-Jun 30, 2019 has found that there are 27 ECA site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4T5	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9

The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4T5	NE	85.47	9
The Corporation of the City of Barrie	240, 249 Bradford Street Barrie ON L4M 4T5	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	240, 249 Bradford Street Barrie ON L4M 4T5	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4Z2	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE	85.47	9

The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4T5	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON L4M 4T5	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4T5	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON L4M 4Z2	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	549 Bradford Street, PO Box 400 Barrie ON	ENE	89.46	11

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Apr 30, 2019 has found that there are 4 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	111 Sanford St Barrie ON L4N3C6	NW	232.43	37

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	184 Innisfil St. Barrie ON	W	241.24	39
	250 Innisfil St Barrie ON L4N 4K4	SSW	248.03	41

Lower Elevation	Address	Direction	Distance (m)	Map Key
	220 Bradford St Barrie ON L4N 3B6	ENE	46.58	6

EXP - List of TSSA Expired Facilities

A search of the EXP database, dated Feb 28, 2017 has found that there are 2 EXP site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
AIRGAS BARRIE	40 BROCK ST BARRIE ON	NNW	181.64	30
AIRGAS BARRIE	40 BROCK ST BARRIE ON	NNW	181.64	30

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-Mar 31, 2019 has found that there are 25 GEN site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
BARRIE PUBLIC UTILITIES COMMISSION04-319	184 INNISFIL ST. C/O 15 BAYFIELD ST. BARRIE ON L4M 4V8	W	241.24	39
BARRIE PUBLIC UTILITIES COMMISSION	184 INNISFIL ST. C/O 15 BAYFIELD ST. BARRIE ON L4M 4V8	W	241.24	39
TRISTAR PHARMACIES LIMITED	21 ESSA ROAD BARRIE ON L4N 3K4	SE	249.06	42

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
Sacksen Medicine Prof. Corp	21 Essa Rd Barrie ON	SE	249.06	42
Sacksen Medicine Prof. Corp	21 Essa Rd Barrie ON	SE	249.06	42
Sacksen Medicine Prof. Corp	21 Essa Rd Barrie ON	SE	249.06	42

Lower Elevation	Address	Direction	Distance (m)	Map Key
CHAYELL HOSPITALITY GROUP INC.	220 BRADFORD STREET BARRIE ON L4N 3B6	ENE	46.58	6
2591969 Ontario Inc	224 Bradford Street Barrie ON L4N 3B6	E	75.67	8
Corporation of County of Simcoe	224 Bradford St Barrie ON L4N3B6	E	75.67	8
Corporation of County of Simcoe	224 Bradford St Barrie ON L4N3B6	E	75.67	8
BARRIE, CITY OF	POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON L4N 3B2	NE	85.47	9
BARRIE, CITY OF	P.W.D. POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON L4N 3B2	NE	85.47	9
BARRIE, CITY OF 05-336	P.W.D. POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON L4N 3B2	NE	85.47	9
BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON L4N 3B7	NE	85.47	9

BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON	NE	85.47	9
BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON	NE	85.47	9
BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON L4N 3B7	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON L4N 3B7	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 Bradford Street Barrie ON L4N 3B7	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE Environmental Services	249 Bradford Street Barrie ON L4N 3B7	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE Environmental Services	249 Bradford Street Barrie ON L4N 3B7	NE	85.47	9
Trow Associates Inc.	242 Bradford Street Barrie ON L4N 3B6	ESE	149.82	24

INC - TSSA Incidents

A search of the INC database, dated Feb 28, 2017 has found that there are 1 INC site(s) within approximately 0.25 kilometers of the

project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
	249 BRADFORD STREET, BARRIE ON	NE	85.47	9

LIMO - Landfill Inventory Management Ontario

A search of the LIMO database, dated Feb 28, 2019 has found that there are 2 LIMO site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	Lot 25 Concession 5 (Sandford & Brock Street) Barrie Barrie ON	NW	178.91	29
	Lot 25 Concession 5 (Innisfil & Brock Street) Barrie Barrie ON	WNW	237.90	38

NCPL - Non-Compliance Reports

A search of the NCPL database, dated Dec 31, 2017 has found that there are 9 NCPL site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
The Corporation of the City of Barrie - Barrie WPCP	249 Bradford St. Barrie ON	NE	85.47	9
The Corporation of the City of Barrie - Barrie WPCP	249 Bradford St. Barrie ON	NE	85.47	9
The Corporation of the City of Barrie - Barrie Water Pollution Control Centre	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie - Barrie WPCP	249 Bradford St Barrie ON	NE	85.47	9
BARRIE WPCP	BARRIE ON	NE	87.00	10

BARRIE WPCP	BARRIE ON	NE	87.00	10
BARRIE WPCP	BARRIE ON	NE	87.00	10
Barrie WPCP	Barrie ON	NE	87.00	10
Barrie WPCP	Barrie ON	NE	87.00	10

NPRI - National Pollutant Release Inventory

A search of the NPRI database, dated 1993-May 2017 has found that there are 15 NPRI site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE	85.47	9
CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE	85.47	9
CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE	85.47	9
CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE	85.47	9

CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE	85.47	9
The Corporation of the City of Barrie	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NE	85.47	9
CITY OF BARRIE	249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NE	85.47	9
THE CORPORATION OF THE CITY OF BARRIE	249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	ENE	212.81	33

PRT - Private and Retail Fuel Storage Tanks

A search of the PRT database, dated 1989-1996* has found that there are 1 PRT site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
PAUL SADLON MOTORS INC	233 BRADFORD ST BARRIE ON L4N 3B7	NNE	129.82	16

REC - Ontario Regulation 347 Waste Receivers Summary

A search of the REC database, dated 1986-2016 has found that there are 9 REC site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
BARRIE WPCP	249 BRADFORD STREET BARRIE ON	NE	85.47	9
BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE	85.47	9
BARRIE WPCP	249 BRADFORD ST. 165 FERNDALE DR.,P.O. BOX 647 BARRIE ON L4M 4V1	NE	85.47	9
BARRIE WPCP	249 BRADFORD STREET BARRIE ON	NE	85.47	9
BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE	85.47	9
BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE	85.47	9
BARRIE WPCP	249 BRADFORD STREET BARRIE ON	NE	85.47	9
BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE	85.47	9
BARRIE WPCP	249 BRADFORD STREET BARRIE ON L4M 4V1	NE	85.47	9

RST - Retail Fuel Storage Tanks

A search of the RST database, dated 1999-Jan 31, 2019 has found that there are 1 RST site(s) within approximately 0.25 kilometers of the project property.

Lower Elevation	Address	Direction	Distance (m)	Map Key
HARRIS AUTO ELECTRIC LTD	220A BRADFORD ST BARRIE ON L4N3B6	ENE	46.58	6

SCT - Scott's Manufacturing Directory

A search of the SCT database, dated 1992-Mar 2011* has found that there are 2 SCT site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
SGO Designer Glass Central ON	250 Innisfil St Unit 4 Barrie ON L4N 4K4	SSW	248.03	41

Lower Elevation	Address	Direction	Distance (m)	Map Key
Quality Dental Craft Ltd.	208 Bradford St Barrie ON L4N 3B6	N	106.15	13

SPL - Ontario Spills

A search of the SPL database, dated 1988-Feb 2019 has found that there are 73 SPL site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
The Corporation of the City of Barrie	38 Tiffin Street Barrie ON L4N 2M7	SE	203.35	31
	Tiffin Street and Innisfil Street Barrie ON	SSW	219.95	34
City of Barrie	Tiffan Street and Innisfil St Barrie ON	SSW	219.95	34
PUC	JESSY'S COUNTRY DINER, 90 TIFFEN STREET AT TIFFEN AND INNISFIL STREETS SANITARY SEWER BARRIE CITY ON	SSW	244.45	40
CO-OP	ESSA RD. & TIFFIN RD. S. BARRIE CITY ON	ESE	249.42	43

Lower Elevation	Address	Direction	Distance (m)	Map Key

BARRIE, CITY OF	249 BRADFORD STREET BARRIE WPCP 249 BRADFORD STREET BARRIE ON	NE	85.47	9
UNKNOWN	CB SOUTH OF 249 BRADFORD STREET. BARRIE CITY ON	NE	85.47	9
BARRIE, CITY OF	LAKE SIMCOE, BARRIE WPCP BARRIE WPCP 249 BRADFORD STREET BARRIE CITY ON	NE	85.47	9
Flags Unlimited<UNOFFICIAL>	249 Bradford Street Barrie ON	NE	85.47	9
Wessuc Inc.	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street BARRIE WATER POLLUTION CONTROL CENTRE Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE	85.47	9

	249 Bradford St Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
City of Barrie <UNOFFICIAL>	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
City of Barrie<UNOFFICIAL>	249 Bradford St. east of the digestors Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
Section 21(1)(f)	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9

The Corporation of the City of Barrie	249 Bradford St Lot 26, Concession 5 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
	249 Bradford St Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE	85.47	9
Wessuc Inc.	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9

The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON	NE	85.47	9

The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford Street 69 Ellen St Barrie ON NA	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON NA	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie ON NA	NE	85.47	9
	249 Bradford St Barrie ON L4M 4T5	NE	85.47	9
The Corporation of the City of Barrie	249 Bradford St Barrie ON L4M 4T5	NE	85.47	9
Unknown<UNOFFICIAL>	IN POND BESIDE THE BARRIE WPCP ON BRADFORD ST. <UNOFFICIAL> Barrie ON	NE	87.00	10
The Corporation of the City of Barrie	549 Bradford St BARRIE WATER POLLUTION CONTROL CENTRE Barrie ON	ENE	89.46	11

	549 Bradford St Barrie ON L4M 4T5	ENE	89.46	11
The Corporation of the City of Barrie	549 Bradford St Barrie ON L4M 4T5	ENE	89.46	11
The Corporation of the City of Barrie	549 Bradford St Barrie ON L4M 4T5	ENE	89.46	11
The Corporation of the City of Barrie	549 Bradford St Barrie ON L4M 4T5	ENE	89.46	11
The Corporation of the City of Barrie	549 Bradford St Barrie ON L4M 4T5	ENE	89.46	11
BARRIE, CITY OF	KIDD CREEK AT DONALD STREET BARRIE WPCP 249 BRADFORD STREET BARRIE CITY ON	ENE	143.27	21
UNKNOWN	ON BRADFORD FROM TIFFIN TO THE W.W.T.P. BARRIE ON	E	173.46	28
PRIVATE RESIDENCE	190 BRADFORD ST. MOTOR VEHICLE (OPERATING FLUID) BARRIE CITY ON L4N 3B5	NNW	222.51	35

WWIS - Water Well Information System

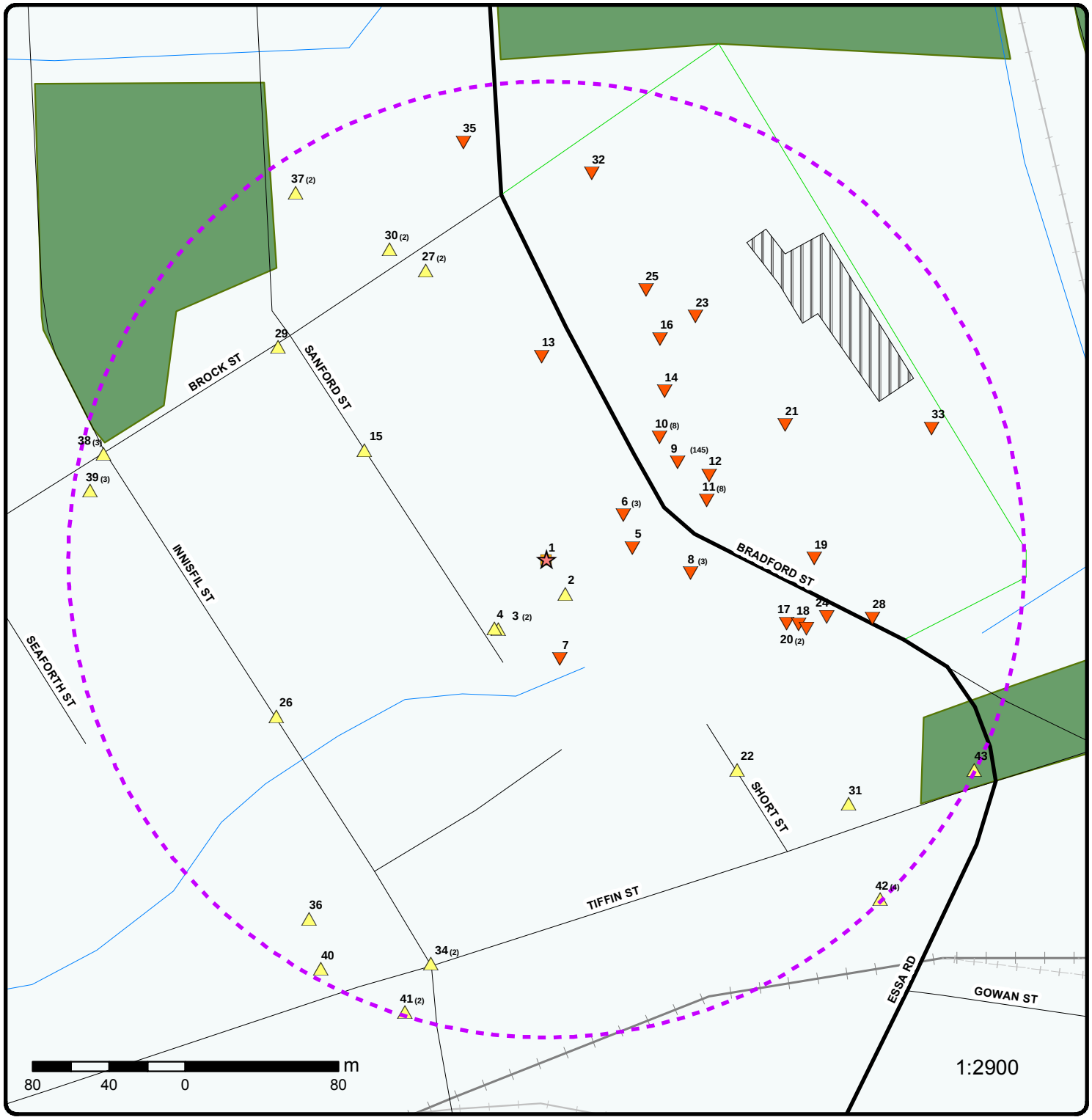
A search of the WWIS database, dated Feb 28, 2019 has found that there are 23 WWIS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	BARRIE ON ***Well ID:*** 7260337	-	0.00	1
	BARRIE ON ***Well ID:*** 7260336	SSE	20.59	2
	Barrie ON	SW	44.24	3

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	Well ID: 7231046			
	Barrie ON ***Well ID:*** 7231045	SW	44.24	3
	Barrie ON ***Well ID:*** 7231047	SW	45.00	4
	ON ***Well ID:*** 5738378	WNW	110.79	15
	ON ***Well ID:*** 5738379	SE	148.66	22
	lot 26 con 5 ON ***Well ID:*** 7317981	WSW	163.11	26
	Barrie ON ***Well ID:*** 7209086	NNW	163.62	27
	Barrie ON ***Well ID:*** 7280991	NNW	163.62	27
	Barrie ON ***Well ID:*** 7282888	SSW	225.21	36
	Barrie ON ***Well ID:*** 7209093	NW	232.43	37

Lower Elevation	Address	Direction	Distance (m)	Map Key
	BARRIE ON ***Well ID:*** 7260335	E	45.40	5
	ON	S	52.47	7

Well ID: 7105808			
ON ***Well ID:*** 7217301	ENE	95.71	**12**
Barrie ON ***Well ID:*** 7106252	NE	107.65	**14**
Barrie ON ***Well ID:*** 7053403	ESE	130.12	**17**
BARRIE ON ***Well ID:*** 7117039	ESE	136.31	**18**
ON ***Well ID:*** 7111775	ESE	140.68	**20**
ON ***Well ID:*** 7138391	ESE	140.68	**20**
ON ***Well ID:*** 7106250	NNE	149.04	**23**
BARRIE ON ***Well ID:*** 7044939	NNE	150.28	**25**
BARRIE ON ***Well ID:*** 7186712	N	203.42	**32**



Map : 0.25 Kilometer Radius

Order No: 20190724204

Address: 220 Bradford Street, Barrie, ON, L4N 3B6

ENVIRONMENTAL RISK INFORMATION SERVICES

- 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.

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79°42'W



Aerial (2016)

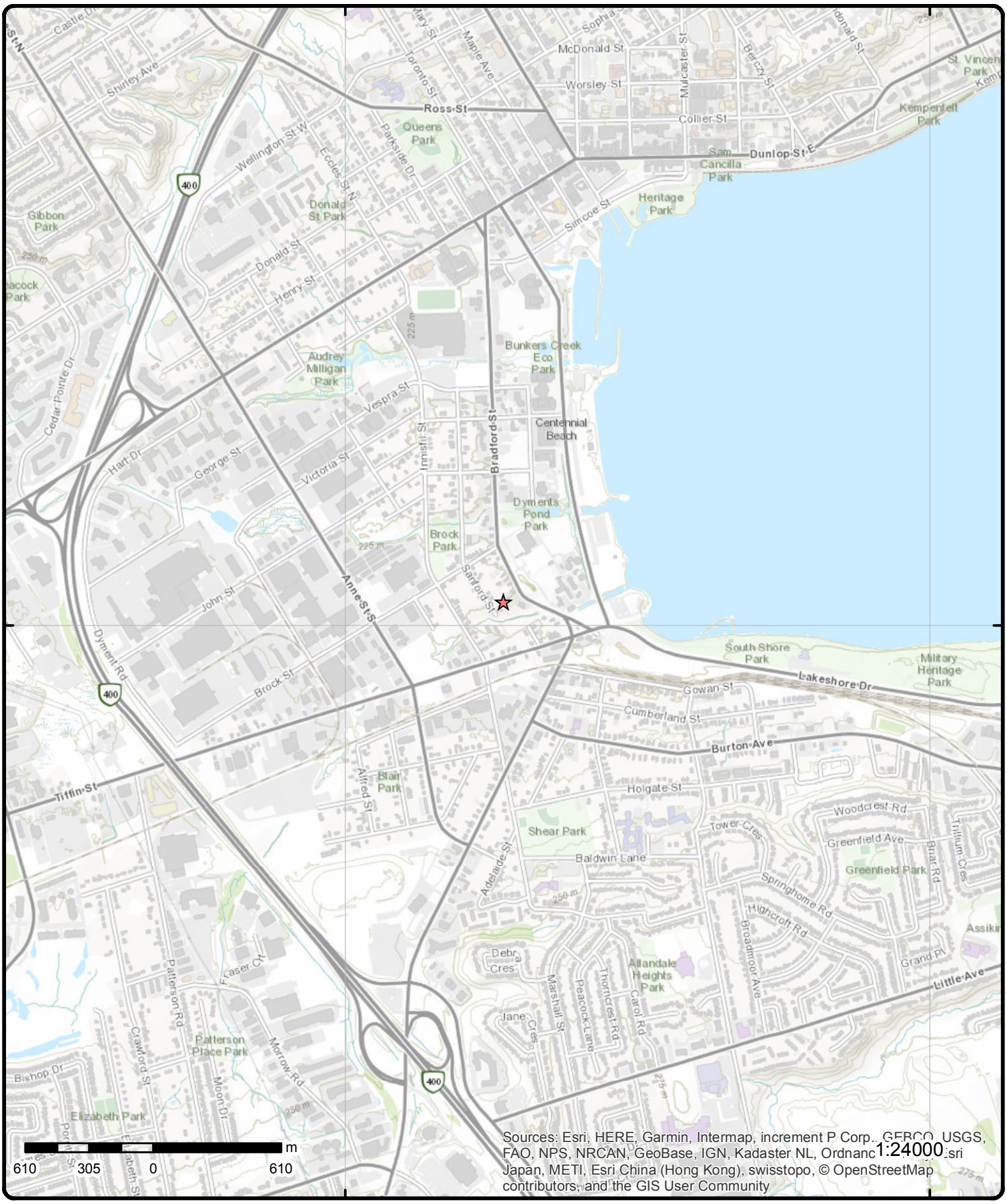
Address: 220 Bradford Street, Barrie, ON, L4N 3B6

Source: ESRI World Imagery

Order No: 20190724204

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES

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Topographic Map

Address: 220 Bradford Street, Barrie, ON, L4N 3B6

Source: ESRI World Topographic Map

Order No: 20190724204

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

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Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	-/0.0	224.9 / 0.00	BARRIE ON	WWIS

Well ID: 7260337
Construction Date:
Primary Water Use: Monitoring and Test Hole
Sec. Water Use: 0
Final Well Status: Monitoring and Test Hole
Water Type:
Casing Material:
Audit No: Z228163
Tag: A200939
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 3/31/2016
Selected Flag: Yes
Abandonment Rec:
Contractor: 7241
Form Version: 7
Owner:
Street Name: 220 BRADFORD STREET
County: SIMCOE

Municipality: BARRIE CITY (VESPRA)
Site Info: WKQ-008713 A0-A02
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1005918371
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 2/23/2016
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 225.436523
Elevrc:
Zone: 17
East83: 604105
North83: 4914434
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1006047999
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 06
Other Materials: SILT

Mat3: 85
Other Materials: SOFT
Formation Top Depth: 0
Formation End Depth: 20
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1006048008
Layer: 2
Plug From: 6
Plug To: 9
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1006048009
Layer: 3
Plug From: 9
Plug To: 20
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1006048007
Layer: 1
Plug From: 0
Plug To: 6
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction: DIRECT PUSH

Pipe Information

Pipe ID: 1006047998
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006048002
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 10
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

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

Construction Record - Screen

Screen ID:	1006048003
Layer:	1
Slot:	10
Screen Top Depth:	10
Screen End Depth:	20
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.25

Hole Diameter

Hole ID:	1006048000
Diameter:	6
Depth From:	0
Depth To:	20
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

6	*1 of 3*	*ENE/46.6*	*224.5 / -0.33*	***220 Bradford St*** ***Barrie ON L4N 3B6***	***EHS***

Order No:	20121019022	***Nearest Intersection:***	
Status:	C	***Municipality:***	Geographic Township of Vespra, now City of Barrie
Report Type:	Standard Report	***Client Prov/State:***	ON
Report Date:	23-OCT-12	***Search Radius (km):***	.25
Date Received:	19-OCT-12	***X:***	-79.692729
Previous Site Name:		***Y:***	44.375913
Lot/Building Size:	0.345 hectare (0.85 acre)		
Additional Info Ordered:	Fire Insur. Maps and/or Site Plans		

6	*2 of 3*	*ENE/46.6*	*224.5 / -0.33*	***CHAYELL HOSPITALITY GROUP INC.*** ***220 BRADFORD STREET*** ***BARRIE ON L4N 3B6***	***GEN***

Generator No:	ON5818054	***PO Box No:***	
Status:	Registered	***Country:***	Canada
Approval Years:	As of Dec 2018	***Choice of Contact:***	
Contam. Facility:		***Co Admin:***	
MHSW Facility:		***Phone No Admin:***	
SIC Code:			
SIC Description:			

Detail(s)

Waste Class:	150 L
Waste Class Desc:	Inert organic wastes

6	*3 of 3*	*ENE/46.6*	*224.5 / -0.33*	***HARRIS AUTO ELECTRIC LTD*** ***220A BRADFORD ST*** ***BARRIE ON L4N3B6***	***RST***

Headcode:	1186800
Headcode Desc:	Service Stations-Gasoline, Oil & Natural Gas
Phone:	7057261465
List Name:	
Description:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
2	1 of 1	SSE/20.6	224.9 / 0.01	BARRIE ON	WWIS

Well ID:	7260336	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring and Test Hole	**Date Received:**	3/31/2016
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Monitoring and Test Hole	**Abandonment Rec:**	
Water Type:		**Contractor:**	7241
Casing Material:		**Form Version:**	7
Audit No:	Z228164	**Owner:**	
Tag:	A200938	**Street Name:**	220 BRADFORD STREET
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	BARRIE CITY (VESPRA)
Elevation Reliability:		**Site Info:**	WKQ-008713 A0-A02
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005918368	**Elevation:**	225.295562
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604115
Code OB Desc:		**North83:**	4914416
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	2/23/2016	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006047963
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	85
Other Materials:	SOFT
Formation Top Depth:	0
Formation End Depth:	20
Formation End Depth UOM:	ft

Annular Space/Abandonment

Sealing Record

Plug ID:	1006047972
Layer:	2
Plug From:	6
Plug To:	9
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006047971
Layer:	1
Plug From:	0
Plug To:	6
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006047973
Layer:	3
Plug From:	9
Plug To:	20
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	DIRECT PUSH

Pipe Information

Pipe ID:	1006047962
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1006047966
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	10
Casing Diameter:	2
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1006047967
Layer:	1
Slot:	10
Screen Top Depth:	10
Screen End Depth:	20
Screen Material:	5

Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.25

Hole Diameter

Hole ID:	1006047964
Diameter:	6
Depth From:	0
Depth To:	20
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

---

3 ***1 of 2*** ***SW/44.2*** ***224.9 / 0.01*** ***Barrie ON*** ***WWIS***

Well ID:	7231046	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring	**Date Received:**	11/5/2014
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	7282
Casing Material:		**Form Version:**	7
Audit No:	Z191708	**Owner:**	
Tag:	A167635	**Street Name:**	163 SANFORD ST
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	BARRIE CITY (VESPRA)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005203835	**Elevation:**	225.024841
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604080
Code OB Desc:		**North83:**	4914397
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	9/30/2014	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1005278246
Layer:	1
Color:	6
General Color:	BROWN

Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	77
Other Materials:	LOOSE
Formation Top Depth:	0
Formation End Depth:	28
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1005278253
Layer:	1
Plug From:	1
Plug To:	21
Plug Depth UOM:	ft

Method of Construction & Well Use

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

Pipe Information

Pipe ID:	1005278245
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005278249
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	23
Casing Diameter:	2.067
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1005278250
Layer:	1
Slot:	10
Screen Top Depth:	23
Screen End Depth:	28
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.375

Hole Diameter

Hole ID:	1005278247

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

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3 ***2 of 2*** ***SW/44.2*** ***224.9 / 0.01*** ***Barrie ON*** ***WWIS***

Well ID:	7231045	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:	Monitoring	***Date Received:***	11/5/2014
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Observation Wells	***Abandonment Rec:***	
Water Type:		***Contractor:***	7282
Casing Material:		***Form Version:***	7
Audit No:	Z191709	***Owner:***	
Tag:	A167633	***Street Name:***	3 DEAD END SANFORD ST
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	BARRIE CITY (VESPRA)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005203832	***Elevation:***	225.041778
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604080
Code OB Desc:		***North83:***	4914398
Open Hole:		***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	9/30/2014	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1005278222
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	77
Other Materials:	LOOSE
Formation Top Depth:	0
Formation End Depth:	20

Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005278229
Layer: 1
Plug From: 1
Plug To: 9
Plug Depth UOM: ft

Method of Construction & Well Use

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

Pipe Information

Pipe ID: 1005278221
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1005278225
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 10
Casing Diameter: 2.067
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1005278226
Layer: 1
Slot: 10
Screen Top Depth: 10
Screen End Depth: 20
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.375

Hole Diameter

Hole ID: 1005278223
Diameter:
Depth From:
Depth To:
Hole Depth UOM: ft
Hole Diameter UOM: inch

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
4	1 of 1	SW/45.0	224.9 / 0.01	Barrie ON	WWIS

Well ID: 7231047
Construction Date:
Primary Water Use: Monitoring
Sec. Water Use:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: Z191710
Tag: A167634
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 11/5/2014
Selected Flag: Yes
Abandonment Rec:
Contractor: 7282
Form Version: 7
Owner:
Street Name: 163 SANFORD ST
County: SIMCOE
Municipality: BARRIE CITY (VESPRA)
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1005203838
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 9/30/2014
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 225.041137
Elevrc:
Zone: 17
East83: 604078
North83: 4914398
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1005278292
Layer: 3
Color: 2
General Color: GREY
Mat1: 28
Most Common Material: SAND
Mat2: 06
Other Materials: SILT
Mat3: 77
Other Materials: LOOSE
Formation Top Depth: 45
Formation End Depth: 73
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005278293

Layer: 4
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 05
Other Materials: CLAY
Mat3: 77
Other Materials: LOOSE
Formation Top Depth: 73
Formation End Depth: 75
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005278291
Layer: 2
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 05
Other Materials: CLAY
Mat3: 77
Other Materials: LOOSE
Formation Top Depth: 40
Formation End Depth: 45
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 1005278290
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 06
Other Materials: SILT
Mat3: 77
Other Materials: LOOSE
Formation Top Depth: 0
Formation End Depth: 40
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005278301
Layer: 2
Plug From: 60
Plug To: 62
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1005278300
Layer: 1
Plug From: 0

Plug To:	60
Plug Depth UOM:	ft

Method of Construction & Well Use

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

Pipe Information

Pipe ID:	1005278289
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005278296
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	63
Casing Diameter:	2.067
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1005278297
Layer:	1
Slot:	10
Screen Top Depth:	63
Screen End Depth:	73
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	3

Hole Diameter

Hole ID:	1005278294
Diameter:	
Depth From:	
Depth To:	
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

5 ***1 of 1*** ***E/45.4*** ***224.6 / -0.23*** ***BARRIE ON*** ***WWIS***

Well ID:	7260335	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring and Test Hole	**Date Received:**	3/31/2016
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Monitoring and Test Hole	**Abandonment Rec:**	
Water Type:		**Contractor:**	7241
Casing Material:		**Form Version:**	7

Audit No:	Z228165	**Owner:**	
Tag:	A200937	**Street Name:**	220 BRADFORD STREET
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	BARRIE CITY (VESPRA)
Elevation Reliability:		**Site Info:**	WKQ-008713 A0-A02
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1005918365	**Elevation:**	224.985519
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604150
Code OB Desc:		**North83:**	4914440
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	2/23/2016	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006047945
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	20
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006047955
Layer:	3
Plug From:	9
Plug To:	20
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006047954

Layer:	2
Plug From:	6
Plug To:	9
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006047953
Layer:	1
Plug From:	0
Plug To:	6
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	DIRECT PUSH

Pipe Information

Pipe ID:	1006047944
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1006047948
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	10
Casing Diameter:	2
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1006047949
Layer:	1
Slot:	10
Screen Top Depth:	10
Screen End Depth:	20
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.25

Hole Diameter

Hole ID:	1006047946
Diameter:	6
Depth From:	0
Depth To:	20
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
7	1 of 1	S/52.5	224.6 / -0.24	ON	WWIS

Well ID:	7105808	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring	**Date Received:**	5/30/2008
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	7201
Casing Material:		**Form Version:**	4
Audit No:	Z79966	**Owner:**	
Tag:	A045744	**Street Name:**	240 BRADFORD STREET
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	BARRIE CITY
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1001603971	**Elevation:**	224.27951
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604112
Code OB Desc:		**North83:**	4914382
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	3
Date Completed:	4/22/2008	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1001678178
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	04
Most Common Material:	PEAT
Mat2:	85
Other Materials:	SOFT
Mat3:	91
Other Materials:	WATER-BEARING
Formation Top Depth:	0
Formation End Depth:	25
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID: 1001678181
Layer: 2
Plug From: 1
Plug To: 13
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1001678180
Layer: 1
Plug From: 0
Plug To: 1
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1001678182
Layer: 3
Plug From: 13
Plug To: 24
Plug Depth UOM: ft

Method of Construction & Well Use

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

Pipe Information

Pipe ID: 1001678177
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1001678184
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 14
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1001678185
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material: 5
Screen Depth UOM:

Screen Diameter UOM:
Screen Diameter:

Hole Diameter

Hole ID: 1001678179
Diameter: 8.25
Depth From:
Depth To: 25
Hole Depth UOM: ft
Hole Diameter UOM: inch

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8 ***1 of 3*** ***E/75.7*** ***224.0 / -0.90*** ***2591969 Ontario Inc***
224 Bradford Street
Barrie ON L4N 3B6 ***GEN***

Generator No: ON4527808
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

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

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

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8 ***2 of 3*** ***E/75.7*** ***224.0 / -0.90*** ***Corporation of County of Simcoe***
224 Bradford St
Barrie ON L4N3B6 ***GEN***

Generator No: ON7439443
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 312 P
Waste Class Desc: Pathological wastes

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8 ***3 of 3*** ***E/75.7*** ***224.0 / -0.90*** ***Corporation of County of Simcoe***
224 Bradford St
Barrie ON L4N3B6 ***GEN***

Generator No: ON7439443
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

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

Detail(s)

Waste Class: 312 P
Waste Class Desc: Pathological wastes

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9 ***1 of 145*** ***NE/85.5*** ***224.2 / -0.69*** ***CORPORATION OF THE CITY OF BARRIE*** ***CA***
249 BRADFORD ST. W.P.C.P.
BARRIE CITY ON

Certificate #: 8-3278-93-
Application Year: 93
Issue Date: 8/13/1993
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: 2) BOILERS/GAS ENGINES,1) REL.GAS BURNER
Contaminants: Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, Suspended Particulate Matter
Emission Control: Flare

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9 ***2 of 145*** ***NE/85.5*** ***224.2 / -0.69*** ***BARRIE CITY*** ***CA***
249 BRADFORD ST.,BARRIE WPCP
BARRIE CITY ON

Certificate #: 3-0340-93-
Application Year: 93
Issue Date: 7/19/1993
Approval Type: Municipal sewage
Status: Revised
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

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9 ***3 of 145*** ***NE/85.5*** ***224.2 / -0.69*** ***BARRIE CITY*** ***CA***
249 BRADFORD ST.,BARRIE WPCP
BARRIE CITY na 10/6/93 ON

Certificate #: 3-0339-93-
Application Year: 93
Issue Date: 10/6/1993
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	4 of 145	NE/85.5	224.2 / -0.69	BARRIE CITY 249 BRADFORD ST. (WPCP) BARRIE CITY ON	CA

Certificate #:	3-0098-96-
Application Year:	96
Issue Date:	4/2/1996
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	5 of 145	NE/85.5	224.2 / -0.69	BARRIE CITY 249 BRADFORD ST. (WPCP) BARRIE CITY ON	CA

Certificate #:	8-5015-96-
Application Year:	96
Issue Date:	5/30/1996
Approval Type:	Industrial air
Status:	Cancelled
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	PILOT ODOUR CONTROL SYSTEM AT WPCP
Contaminants:	
Emission Control:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	6 of 145	NE/85.5	224.2 / -0.69	Barrie Water Pollution Control Centre 249 Bradford Street Barrie ON	CA

Certificate #:	1474-563HBT
Application Year:	02
Issue Date:	8/2/02
Approval Type:	Municipal & Private water
Status:	Revoked and/or Replaced
Application Type:	New Certificate of Approval
Client Name:	Corporation of the City of Barrie
Client Address:	249 Bradford Street
Client City:	Barrie
Client Postal Code:	
Project Description:	The works facilities for the City of Barrie is comprised of an integrated network of fifteen wells pumping directly into the distribution system, six booster pumping stations, three in-ground storage reservoirs and two elevated storage tanks.
Contaminants:	
Emission Control:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	7 of 145	NE/85.5	224.2 / -0.69	Barrie Water Pollution Control Centre 249 Bradford Street Barrie ON	CA

Certificate #:	9229-5DFRL7

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

Application Year: 02
Issue Date: 9/5/02
Approval Type: Municipal & Private water
Status: Amended
Application Type: Amended CofA
Client Name: The Corporation of the City of Barrie
Client Address: 249 Bradford Street
Client City: Barrie
Client Postal Code:
Project Description: Request for extension to compliance deadline for upgrade works
Contaminants:
Emission Control:

9	8 of 145	NE/85.5	224.2 / -0.69	**Barrie Water Pollution Control Centre** **249 Bradford Street** **Barrie ON**	CA

Certificate #: 3-0039-93-007
Application Year: 01
Issue Date: 3/8/01
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: Notice
Client Name: Corporation of the City of Barrie
Client Address: 70 Collier St., P.O. Box 400
Client City: Barrie
Client Postal Code: L4M 4T5
Project Description: This is an application for a notice to amend a Municipal Sewage Works Certificate of Approval to extend the expiration date.
Contaminants:
Emission Control:

9	9 of 145	NE/85.5	224.2 / -0.69	**Barrie Water Pollution Control Centre** **249 Bradford Street** **Barrie ON**	CA

Certificate #: 9396-5BAR4T
Application Year: 02
Issue Date: 7/4/02
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name: The Corporation of the City of Barrie
Client Address: 549 Bradford Street, PO Box 400
Client City: Barrie
Client Postal Code: L4M 4T5
Project Description: This application is for an approval to upgrade the WPCC. The works consist of providing additional primary treatment and grit works and upgrades of plant headworks. The application does not change the plant's rated capacity of 57, 000m3/d. The works will consist of civil, architectural, mechanical instrumentation and control system.
Contaminants:
Emission Control:

9	10 of 145	NE/85.5	224.2 / -0.69	**Barrie Well Supply** **249 Bradford Street** **Barrie ON**	CA

Certificate #: 0408-57SPS5
Application Year: 02
Issue Date: 8/2/02
Approval Type: Municipal & Private water

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

Status: Revoked and/or Replaced
Application Type: Amended CofA
Client Name: The Corporation of the City of Barrie
Client Address: 70 Collier Street
Client City: Barrie
Client Postal Code: L4M 4Z2
Project Description: This application is to amend the existing consolidated Certificate of Approval No. 1474-563HBT to incorporate one (1) diesel generator with respect to the waterworks for Well 11, Heritage Park Pumping Station and Bayview Park Pumping Station and Reservoir, and to comply with Condition 5.1(b)(vii) for the diesel generator installed at Well 14, Heritage Park.
Contaminants:
Emission Control:

9	11 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford Street** **Barrie ON**	CA

Certificate #: 0465-5ZBLQ8
Application Year: 2004
Issue Date: 6/10/2004
Approval Type: Municipal and Private Sewage Works
Status: Revoked and/or Replaced
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

9	12 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford Street** **Barrie ON**	CA

Certificate #: 1316-5MKTGU
Application Year: 2006
Issue Date: 10/23/2006
Approval Type: Air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

9	13 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford Street** **Barrie ON**	CA

Certificate #: 3046-6NQKLL
Application Year: 2006
Issue Date: 5/1/2006
Approval Type: Municipal and Private Sewage Works
Status: Revoked and/or Replaced
Application Type:
Client Name:
Client Address:

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

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

9	14 of 145	NE/85.5	224.2 / -0.69	***The Corporation of the City of Barrie*** ***249 Bradford St*** ***Barrie ON***	CA

Certificate #: 3634-757HSU
Application Year: 2007
Issue Date: 8/3/2007
Approval Type: Municipal and Private Sewage Works
Status: Amended
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

9	15 of 145	NE/85.5	224.2 / -0.69	***The Corporation of the City of Barrie*** ***249 Bradford St Reference Plan 51R-11568*** ***Barrie ON***	CA

Certificate #: 3634-757HSU
Application Year: 2008
Issue Date: 3/10/2008
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:

9	16 of 145	NE/85.5	224.2 / -0.69	***The Corporation of the City of Barrie*** ***249 Bradford Street*** ***Barrie ON***	CA

Certificate #: 9396-5BAR4T
Application Year: 2004
Issue Date: 5/5/2004
Approval Type: Municipal and Private Sewage Works
Status: Revoked and/or Replaced
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	17 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford Street Barrie ON	CA

Certificate #: 9595-5RNHAA
Application Year: 2003
Issue Date: 9/23/2003
Approval Type: Air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	18 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON	CA

Certificate #: 3634-757HSU
Application Year: 2011
Issue Date: 8/23/2011
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:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	19 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford Street Barrie, County of Simcoe CITY OF BARRIE ON	EBR

EBR Registry No: 011-3201
Ministry Ref No: 6788-88WPMC
Notice Type: Instrument Final Decision
Notice Stage: 803832964
Notice Date: April 05, 2013
Proposal Date: April 11, 2011
Decision Posted:
Posted By:
Year: 2011
Act 1:
Act 2:
Comment Period:
Section:
Site Location Map:
Company Name: The Corporation of the City of Barrie
Off Instrument Name:
Instrument Type: (EPA Part II.1-sewage) - Environmental Compliance Approval (project type: sewage)
Proponent Name:
Proponent Address:
Site Address:
Location Other:
URL:

Site Location Details:

249 Bradford Street Barrie, County of Simcoe CITY OF BARRIE

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

9 **20 of 145** **NE/85.5** **224.2 / -0.69** **The Corporation of the City of Barrie**
249 Bradford St Reference Plan 51R-11568
Barrie ON **ECA**

Approval No:	8777-96WNB5	**MOE District:**	Barrie
Approval Date:	2013-05-07	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	249 Bradford St Reference Plan 51R-11568		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/6109-96FKYV-14.pdf		

9 **21 of 145** **NE/85.5** **224.2 / -0.69** **The Corporation of the City of Barrie**
249 Bradford St Reference Plan 51R-11568
Barrie ON **ECA**

Approval No:	3921-98ZHGL	**MOE District:**	Barrie
Approval Date:	2013-08-06	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	249 Bradford St Reference Plan 51R-11568		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/0936-97SNXF-14.pdf		

9 **22 of 145** **NE/85.5** **224.2 / -0.69** **The Corporation of the City of Barrie**
249 Bradford St Reference Plan 51R-11568
Barrie ON **ECA**

Approval No:	8886-9Q3LSF	**MOE District:**	Barrie
Approval Date:	2014-11-12	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	249 Bradford St Reference Plan 51R-11568		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/0626-9NYJ3N-14.pdf		

9 **23 of 145** **NE/85.5** **224.2 / -0.69** **The Corporation of the City of Barrie**
249 Bradford Street
Barrie ON **ECA**

Approval No:	1316-5MKTGU	**MOE District:**	Barrie
Approval Date:	2006-10-23	**City:**	
Status:	Approved	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	

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

SWP Area Name: Lakes Simcoe and Couchiching/Black River **Geometry Y:**
Approval Type: ECA-AIR
Project Type: AIR
Address: 249 Bradford Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/5903-5KKPEB-14.pdf

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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	24 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4T5	ECA

Approval No: 3634-757HSU **MOE District:** Barrie
Approval Date: 2008-03-10 **City:**
Status: Revoked and/or Replaced **Longitude:** -79.69138
Record Type: ECA **Latitude:** 44.37705
Link Source: IDS **Geometry X:**
SWP Area Name: Lakes Simcoe and Couchiching/Black River **Geometry Y:**
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 249 Bradford St Reference Plan 51R-11568
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/5541-7C8MZS-14.pdf

---

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	25 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 240, 249 Bradford Street Barrie ON L4M 4T5	ECA

Approval No: 9996-7FZPU4 **MOE District:** Barrie
Approval Date: 2008-07-03 **City:**
Status: Revoked and/or Replaced **Longitude:** -79.69139
Record Type: ECA **Latitude:** 44.37554
Link Source: IDS **Geometry X:**
SWP Area Name: Lakes Simcoe and Couchiching/Black River **Geometry Y:**
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 240, 249 Bradford Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/3777-7FZJ5B-14.pdf

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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	26 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford Street Barrie ON	ECA

Approval No: 9229-5DFRL7 **MOE District:** Barrie
Approval Date: 2002-09-05 **City:**
Status: Revoked and/or Replaced **Longitude:** -79.693
Record Type: ECA **Latitude:** 44.3763
Link Source: IDS **Geometry X:**
SWP Area Name: Lakes Simcoe and Couchiching/Black River **Geometry Y:**
Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Address: 249 Bradford Street
Full Address:
Full PDF Link:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	27 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford Street Barrie ON	ECA

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

Approval No:	9323-5TDT85	**MOE District:**	Barrie
Approval Date:	2003-11-21	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.693
Record Type:	ECA	**Latitude:**	44.3763
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-Municipal Drinking Water Systems		
Project Type:	Municipal Drinking Water Systems		
Address:	249 Bradford Street		
Full Address:			
Full PDF Link:			

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9 **28 of 145** **NE/85.5** **224.2 / -0.69** **The Corporation of the City of Barrie**
240, 249 Bradford Street
Barrie ON L4M 4T5 **ECA**

Approval No:	1471-7FZQ3M	**MOE District:**	Barrie
Approval Date:	2008-07-03	**City:**	
Status:	Approved	**Longitude:**	-79.69139
Record Type:	ECA	**Latitude:**	44.37554
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-Municipal Drinking Water Systems		
Project Type:	Municipal Drinking Water Systems		
Address:	240, 249 Bradford Street		
Full Address:			
Full PDF Link:			

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9 **29 of 145** **NE/85.5** **224.2 / -0.69** **The Corporation of the City of Barrie**
249 Bradford Street
Barrie ON L4M 4Z2 **ECA**

Approval No:	0569-65FPQY	**MOE District:**	Barrie
Approval Date:	2004-10-27	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.693
Record Type:	ECA	**Latitude:**	44.3763
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-Municipal Drinking Water Systems		
Project Type:	Municipal Drinking Water Systems		
Address:	249 Bradford Street		
Full Address:			
Full PDF Link:			

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9 **30 of 145** **NE/85.5** **224.2 / -0.69** **The Corporation of the City of Barrie**
249 Bradford Street
Barrie ON L4M 4Z2 **ECA**

Approval No:	9389-5L8QKS	**MOE District:**	Barrie
Approval Date:	2003-04-24	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.693
Record Type:	ECA	**Latitude:**	44.3763
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-Municipal and Private Water Works		
Project Type:	Municipal and Private Water Works		
Address:	249 Bradford Street		
Full Address:			
Full PDF Link:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	31 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON	ECA

Approval No:	3634-757HSU	**MOE District:**	Barrie
Approval Date:	2011-08-23	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	249 Bradford St Reference Plan 51R-11568		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/0564-8JVH4J-14.pdf		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	32 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON L4M 4Z2	ECA

Approval No:	8145-8D3PZ7	**MOE District:**	Barrie
Approval Date:	2012-06-28	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		
Address:	249 Bradford St Reference Plan 51R-11568		
Full Address:			
Full PDF Link:	https://www.accessenvironment.ene.gov.on.ca/instruments/6788-88WPMC-14.pdf		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	33 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford Street Barrie ON	ECA

Approval No:	3008-5F7QQ9	**MOE District:**	Barrie
Approval Date:	2002-10-29	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.693
Record Type:	ECA	**Latitude:**	44.3763
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-Municipal and Private Water Works		
Project Type:	Municipal and Private Water Works		
Address:	249 Bradford Street		
Full Address:			
Full PDF Link:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	34 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford Street Barrie ON	ECA

Approval No:	0465-5ZBLQ8	**MOE District:**	Barrie
Approval Date:	2004-06-10	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	
Approval Type:	ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS		
Project Type:	MUNICIPAL AND PRIVATE SEWAGE WORKS		

Address: 249 Bradford Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/8265-5WNR7J-14.pdf

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9 | **35 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford Street
Barrie ON | **ECA**

Approval No:	9396-5BAR4T	**MOE District:**	Barrie
Approval Date:	2002-07-04	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 249 Bradford Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/1008-59JRJR-14.pdf

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9 | **36 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford Street
Barrie ON L4M 4Z2 | **ECA**

Approval No:	9396-5BAR4T	**MOE District:**	Barrie
Approval Date:	2004-05-05	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 249 Bradford Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/2495-5XDP4M-14.pdf

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9 | **37 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford St Reference Plan 51R-11568
Barrie ON L4M 4T5 | **ECA**

Approval No:	3-0039-93-007	**MOE District:**	Barrie
Approval Date:	2001-03-08	**City:**	
Status:	Approved	**Longitude:**	-79.69138
Record Type:	ECA	**Latitude:**	44.37705
Link Source:	IDS	**Geometry X:**	
SWP Area Name:	Lakes Simcoe and Couchiching/Black River	**Geometry Y:**	

Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 249 Bradford St Reference Plan 51R-11568
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/4704-4S6QCF-14.pdf

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9 | **38 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford St
Barrie ON L4M 4T5 | **ECA**

Approval No:	3634-757HSU	**MOE District:**	Barrie
Approval Date:	2007-08-03	**City:**	
Status:	Revoked and/or Replaced	**Longitude:**	-79.69138

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

Record Type: ECA
Link Source: IDS
SWP Area Name: Lakes Simcoe and Couchiching/Black River
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 249 Bradford St
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/7281-72CNJL-14.pdf
Latitude: 44.37705
Geometry X:
Geometry Y:

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9 | **39 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford Street
Barrie ON | **ECA**

Approval No: 3046-6NQKLL
Approval Date: 2006-05-01
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name: Lakes Simcoe and Couchiching/Black River
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 249 Bradford Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0649-6MVR8V-14.pdf
MOE District: Barrie
City:
Longitude: -79.69138
Latitude: 44.37705
Geometry X:
Geometry Y:

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9 | **40 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford Street
Barrie ON | **ECA**

Approval No: 1474-563HBT
Approval Date: 2002-08-02
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name: Lakes Simcoe and Couchiching/Black River
Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Address: 249 Bradford Street
Full Address:
Full PDF Link:
MOE District: Barrie
City:
Longitude: -79.693
Latitude: 44.3763
Geometry X:
Geometry Y:

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9 | **41 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford Street
Barrie ON L4M 4Z2 | **ECA**

Approval No: 0408-57SPS5
Approval Date: 2002-08-02
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name: Lakes Simcoe and Couchiching/Black River
Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Address: 249 Bradford Street
Full Address:
Full PDF Link:
MOE District: Barrie
City:
Longitude: -79.693
Latitude: 44.3763
Geometry X:
Geometry Y:

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9 | **42 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford Street | **ECA**

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
				Barrie ON L4M 4T5	

Approval No: 9595-5RNHAA
Approval Date: 2003-09-23
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Lakes Simcoe and Couchiching/Black River
Approval Type: ECA-AIR
Project Type: AIR
Address: 249 Bradford Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/7883-5QVKBH-14.pdf

MOE District: Barrie
City:
Longitude: -79.693
Latitude: 44.3763
Geometry X:
Geometry Y:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	43 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford Street** **Barrie ON L4M 4Z2**	ECA

Approval No: 5384-5JMQSD
Approval Date: 2003-02-28
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name: Lakes Simcoe and Couchiching/Black River
Approval Type: ECA-Municipal and Private Water Works
Project Type: Municipal and Private Water Works
Address: 249 Bradford Street
Full Address:
Full PDF Link:

MOE District: Barrie
City:
Longitude: -79.693
Latitude: 44.3763
Geometry X:
Geometry Y:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	44 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford St Reference Plan 51R-11568** **Barrie ON L4M 4T5**	ECA

Approval No: 2377-ALXPQL
Approval Date: 2017-07-07
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name: Lakes Simcoe and Couchiching/Black River
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 249 Bradford St Reference Plan 51R-11568
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/8057-AEHPT5-14.pdf

MOE District: Barrie
City:
Longitude: -79.69138
Latitude: 44.37705
Geometry X:
Geometry Y:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	45 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford St Reference Plan 51R-11568** **Barrie ON**	ECA

Approval No: 0284-B2ML52
Approval Date: 2018-08-24
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Lakes Simcoe and Couchiching/Black River
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 249 Bradford St Reference Plan 51R-11568
Full Address:

MOE District: Barrie
City:
Longitude: -79.69138
Latitude: 44.37705
Geometry X:
Geometry Y:

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

Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/0239-AR6JU8-14.pdf

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9 **46 of 145** **NE/85.5** **224.2 / -0.69** **BARRIE, CITY OF**
POLLUTION CONTROL CENTRE 249
BRADFORD STREET
BARRIE ON L4N 3B2 **GEN**

Generator No: ON0310601
Status:
Approval Years: 86,87,88
Contam. Facility:
MHSW Facility:
SIC Code: 0000
SIC Description: *** NOT DEFINED ***

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

---

9 **47 of 145** **NE/85.5** **224.2 / -0.69** **BARRIE, CITY OF**
P.W.D. POLLUTION CONTROL CENTRE 249
BRADFORD STREET
BARRIE ON L4N 3B2 **GEN**

Generator No: ON0310601
Status:
Approval Years: 89,90,92,93,97,98,99,00,01
Contam. Facility:
MHSW Facility:
SIC Code: 8373
SIC Description: ENVIRON. ADMIN.

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

Detail(s)

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

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

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

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 221
Waste Class Desc: LIGHT FUELS

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

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9 **48 of 145** **NE/85.5** **224.2 / -0.69** **BARRIE, CITY OF 05-336**
P.W.D. POLLUTION CONTROL CENTRE 249
BRADFORD STREET
BARRIE ON L4N 3B2 **GEN**

Generator No: ON0310601
Status:
Approval Years: 94,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 8373

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

SIC Description: ENVIRON. ADMIN.

Detail(s)

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

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

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

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 221
Waste Class Desc: LIGHT FUELS

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

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9 | ***49 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***BARRIE, CORPORATION OF THE CITY OF WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON L4N 3B7*** | ***GEN***

Generator No: ON0310601
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:

Detail(s)

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 133
Waste Class Desc: BRINES, CHLOR-ALKALI WASTES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 262
Waste Class Desc: DETERGENTS/SOAPS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

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

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

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 221
Waste Class Desc: LIGHT FUELS

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

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 233
Waste Class Desc: OTHER POLYMERIC WASTES

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

9	50 of 145	NE/85.5	224.2 / -0.69	BARRIE, CORPORATION OF THE CITY OF WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON	GEN

Generator No: ON0310601
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 221320
SIC Description: Sewage Treatment Facilities

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

Detail(s)

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

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

Waste Class: 262
Waste Class Desc: DETERGENTS/SOAPS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

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

Waste Class: 133
Waste Class Desc: BRINES, CHLOR-ALKALI WASTES

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

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 233
Waste Class Desc: OTHER POLYMERIC WASTES

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9 | **51 of 145** | **NE/85.5** | **224.2 / -0.69** | **BARRIE, CORPORATION OF THE CITY OF WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON** | **GEN**

Generator No: ON0310601
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 221320
SIC Description: Sewage Treatment Facilities

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

Detail(s)

Waste Class: 262
Waste Class Desc: DETERGENTS/SOAPS

Waste Class: 233
Waste Class Desc: OTHER POLYMERIC WASTES

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

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 133
Waste Class Desc: BRINES, CHLOR-ALKALI WASTES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 145

Waste Class Desc: PAINT/PIGMENT/COATING RESIDUES

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

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

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

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9 | ***52 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***BARRIE, CORPORATION OF THE CITY OF WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE ON*** | ***GEN***

Generator No: ON0310601
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 221320
SIC Description: Sewage Treatment Facilities

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

Detail(s)

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 133
Waste Class Desc: BRINES, CHLOR-ALKALI WASTES

Waste Class: 262
Waste Class Desc: DETERGENTS/SOAPS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

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

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

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

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

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

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

Waste Class: 233
Waste Class Desc: OTHER POLYMERIC WASTES

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

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9 | **53 of 145** | **NE/85.5** | **224.2 / -0.69** | **THE CORPORATION OF THE CITY OF BARRIE**
249 Bradford Street
Barrie ON | **GEN**

Generator No: ON0310601
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 221320
SIC Description: Sewage Treatment Facilities

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

Detail(s)

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 133
Waste Class Desc: BRINES, CHLOR-ALKALI WASTES

Waste Class: 221
Waste Class Desc: LIGHT FUELS

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

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 262

Waste Class Desc: DETERGENTS/SOAPS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

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

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

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

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 233
Waste Class Desc: OTHER POLYMERIC WASTES

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9 | ***54 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***THE CORPORATION OF THE CITY OF BARRIE***
249 Bradford Street
Barrie ON | ***GEN***

Generator No: ON0310601
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 221320
SIC Description: SEWAGE TREATMENT FACILITIES

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

Detail(s)

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

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

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

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 133
Waste Class Desc: BRINES, CHLOR-ALKALI WASTES

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

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

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 262
Waste Class Desc: DETERGENTS/SOAPS

Waste Class: 233
Waste Class Desc: OTHER POLYMERIC WASTES

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9 | ***55 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***THE CORPORATION OF THE CITY OF BARRIE***
249 Bradford Street
Barrie ON L4N 3B7 | ***GEN***

Generator No: ON0310601
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 221320
SIC Description: SEWAGE TREATMENT FACILITIES

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Carl Darby
Phone No Admin: 705-739-4220 Ext.4558

Detail(s)

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 262
Waste Class Desc: DETERGENTS/SOAPS

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

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

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

Waste Class: 233
Waste Class Desc: OTHER POLYMERIC WASTES

Waste Class: 133
Waste Class Desc: BRINES, CHLOR-ALKALI WASTES

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

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

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	56 of 145	NE/85.5	224.2 / -0.69	**THE CORPORATION OF THE CITY OF BARRIE** **249 Bradford Street** **Barrie ON L4N 3B7**	GEN

Generator No: ON0310601
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 221320
SIC Description: SEWAGE TREATMENT FACILITIES

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Carl Darby
Phone No Admin: 705-739-4220 Ext.4558

Detail(s)

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

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 133
Waste Class Desc: BRINES, CHLOR-ALKALI WASTES

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

Waste Class: 262

Waste Class Desc: DETERGENTS/SOAPS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 233
Waste Class Desc: OTHER POLYMERIC WASTES

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

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

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

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

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9 | ***57 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***THE CORPORATION OF THE CITY OF BARRIE*** | ***GEN***

249 Bradford Street
Barrie ON L4N 3B7

Generator No:	ON0310601	***PO Box No:***	
Status:		***Country:***	Canada
Approval Years:	2014	***Choice of Contact:***	CO_OFFICIAL
Contam. Facility:	No	***Co Admin:***	Carl Darby
MHSW Facility:	No	***Phone No Admin:***	705-739-4220 Ext.4558
SIC Code:	221320		
SIC Description:	SEWAGE TREATMENT FACILITIES		

Detail(s)

Waste Class: 146
Waste Class Desc: OTHER SPECIFIED INORGANICS

Waste Class: 112
Waste Class Desc: ACID WASTE - HEAVY METALS

Waste Class: 113
Waste Class Desc: ACID WASTE - OTHER METALS

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Waste Class: 133
Waste Class Desc: BRINES, CHLOR-ALKALI WASTES

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

Waste Class: 331
Waste Class Desc: WASTE COMPRESSED GASES

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

Waste Class: 263
Waste Class Desc: ORGANIC LABORATORY CHEMICALS

Waste Class: 233
Waste Class Desc: OTHER POLYMERIC WASTES

Waste Class: 262
Waste Class Desc: DETERGENTS/SOAPS

Waste Class: 221
Waste Class Desc: LIGHT FUELS

Waste Class: 211
Waste Class Desc: AROMATIC SOLVENTS

Waste Class: 148
Waste Class Desc: INORGANIC LABORATORY CHEMICALS

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

Waste Class: 212
Waste Class Desc: ALIPHATIC SOLVENTS

Waste Class: 213
Waste Class Desc: PETROLEUM DISTILLATES

Waste Class: 232
Waste Class Desc: POLYMERIC RESINS

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9 | ***58 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***GEN***

THE CORPORATION OF THE CITY OF BARRIE
Environmental Services
249 Bradford Street
Barrie ON L4N 3B7

Generator No: ON0310601
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 112 C
Waste Class Desc: Acid solutions - containing heavy metals

Waste Class: 113 C

Waste Class Desc: Acid solutions - containing other metals and non-metals

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

Waste Class: 146 T
Waste Class Desc: Other specified inorganic sludges, slurries or solids

Waste Class: 148 C
Waste Class Desc: Misc. wastes and inorganic chemicals

Waste Class: 213 I
Waste Class Desc: Petroleum distillates

Waste Class: 232 L
Waste Class Desc: Polymeric resins

Waste Class: 241 L
Waste Class Desc: Halogenated solvents and residues

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

Waste Class: 262 L
Waste Class Desc: Detergents and soaps

Waste Class: 263 I
Waste Class Desc: Misc. waste organic chemicals

Waste Class: 263 L
Waste Class Desc: Misc. waste organic chemicals

Waste Class: 331 I
Waste Class Desc: Waste compressed gases including cylinders

9	59 of 145	NE/85.5	224.2 / -0.69	THE CORPORATION OF THE CITY OF BARRIE Environmental Services 249 Bradford Street Barrie ON L4N 3B7	GEN

Generator No: ON0310601
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 241 L
Waste Class Desc: Halogenated solvents and residues

Waste Class: 262 L
Waste Class Desc: Detergents and soaps

Waste Class: 113 C
Waste Class Desc: Acid solutions - containing other metals and non-metals

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

Waste Class: 148 C
Waste Class Desc: Misc. wastes and inorganic chemicals

Waste Class: 213 I
Waste Class Desc: Petroleum distillates

Waste Class: 146 T
Waste Class Desc: Other specified inorganic sludges, slurries or solids

Waste Class: 112 C
Waste Class Desc: Acid solutions - containing heavy metals

Waste Class: 263 I
Waste Class Desc: Misc. waste organic chemicals

Waste Class: 232 L
Waste Class Desc: Polymeric resins

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

Waste Class: 263 L
Waste Class Desc: Misc. waste organic chemicals

Waste Class: 331 I
Waste Class Desc: Waste compressed gases including cylinders

9	60 of 145	NE/85.5	224.2 / -0.69	249 BRADFORD STREET, BARRIE ON	INC

Incident No: 1082030
Incident ID:
Attribute Category: FS-Perform L1 Incident Insp
Status Code:
Incident Location: 249 BRADFORD STREET, BARRIE - FIRE
Drainage System:
Sub Surface Contam.:
Aff. Prop. Use Water:
Contam. Migrated:
Contact Natural Env.:
Near Body of Water:
Approx. Quant. Rel.:
Equipment Model:
Serial No:
Residential App. Type:
Commercial App. Type:
Industrial App. Type:
Institutional App. Type:
Venting Type:
Vent Connector Mater:
Vent Chimney Mater:
Pipeline Type:
Pipeline Involved:
Pipe Material:
Depth Ground Cover:
Regulator Location:
Regulator Type:
Operation Pressure:
Liquid Prop Make:
Liquid Prop Model:
Liquid Prop Serial No:
Equipment Type:
Cylinder Capacity:
Cylinder Capac. Units:
Cylinder Material Type:
Tank Capacity:
Fuels Occurence Type: Fire

Fuel Type Involved:	Fuel Oil
Date of Occurence:	2013/04/13 00:00:00
Time of Occurence:	18:50:00
Occur Insp Start Date:	2013/04/15 00:00:00
Any Health Impact:	No
Any Environmental Impact:	No
Was Service Interrupted:	Yes
Was Property Damaged:	Yes
Operation Type Involved:	Commercial (e.g. restaurant, business unit, etc)
Enforcement Policy:	NULL
Prc Escalation Required:	NULL
Task No:	4433663
Notes:	
Occurence Narrative:	COMPRESSOR CAUGHT FIRE
Tank Material Type:	
Tank Storage Type:	
Tank Location Type:	
Pump Flow Rate Capac:	
Liquid Prop Notes:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	61 of 145	NE/85.5	224.2 / -0.69	***The Corporation of the City of Barrie - Barrie WPCP*** ***249 Bradford St.*** ***Barrie ON***	NCPL

Year:	2005
Site Name:	
Facility Owner:	
Discharge Type:	Mun. Private Sewage
Sector:	Sewage Municipal
District Area:	Barrie
Type of Concern:	C of A Non-Compliance
Contaminant:	AMMONIA
Status Report:	

Details

Incident Date:	9/30/2005
Exceedance Start Date:	8/1/2005
Exceedance End Date:	9/30/2005
Limit/Unit/Freq:	228.4 kg/d
Quantity Min/Max:	392\403.2
Facility Action:	Conducting Study
Ministry Action:	Voluntary Abatement Program Underway

Details

Incident Date:	2/28/2005
Exceedance Start Date:	2/1/2005
Exceedance End Date:	2/28/2005
Limit/Unit/Freq:	10 mg/L
Quantity Min/Max:	10.6\
Facility Action:	Operational Process Modification
Ministry Action:	Voluntary Abatement Program Underway

Details

Incident Date:	10/31/2005
Exceedance Start Date:	10/1/2005
Exceedance End Date:	10/31/2005
Limit/Unit/Freq:	4 mg/L

Quantity Min/Max: 5.78\
Facility Action: Conducting Study
Ministry Action: Voluntary Abatement Program Underway

Details

Incident Date: 4/30/2005
Exceedance Start Date: 4/1/2005
Exceedance End Date: 4/30/2005
Limit/Unit/Freq: 10 mg/L
Quantity Min/Max: 11.16\
Facility Action: Operational Process Modification
Ministry Action: Voluntary Abatement Program Underway

Details

Incident Date: 4/30/2005
Exceedance Start Date: 4/1/2005
Exceedance End Date: 4/30/2005
Limit/Unit/Freq: 571 kg/d
Quantity Min/Max: 649.8\
Facility Action: Operational Process Modification
Ministry Action: Voluntary Abatement Program Underway

Details

Incident Date: 9/30/2005
Exceedance Start Date: 7/1/2005
Exceedance End Date: 9/30/2005
Limit/Unit/Freq: 4 mg/L
Quantity Min/Max: 4.66\8.39
Facility Action: Conducting Study
Ministry Action: Voluntary Abatement Program Underway

Details

Incident Date: 10/31/2005
Exceedance Start Date: 10/1/2005
Exceedance End Date: 10/31/2005
Limit/Unit/Freq: 228.4 kg/d
Quantity Min/Max: 293.4\
Facility Action: Conducting Study
Ministry Action: Voluntary Abatement Program Underway

9	62 of 145	NE/85.5	224.2 / -0.69	***The Corporation of the City of Barrie - Barrie WPCP*** ***249 Bradford St.*** ***Barrie ON***	NCPL

Year: 2005
Site Name:
Facility Owner:
Discharge Type: Mun. Private Sewage
Sector: Sewage Municipal
District Area: Barrie
Type of Concern: C of A Non-Compliance
Contaminant: PHOSPHORUS
Status Report:

Details

Incident Date:	8/31/2005
Exceedance Start Date:	7/1/2005
Exceedance End Date:	8/31/2005
Limit/Unit/Freq:	13.7 kg/d
Quantity Min/Max:	14.5\15.3
Facility Action:	Conducting Study
Ministry Action:	Voluntary Abatement Program Underway

Details

Incident Date:	4/30/2005
Exceedance Start Date:	4/1/2005
Exceedance End Date:	4/30/2005
Limit/Unit/Freq:	13.7 kg/d
Quantity Min/Max:	13.9\
Facility Action:	Operational Process Modification
Ministry Action:	Voluntary Abatement Program Underway

Details

Incident Date:	8/31/2005
Exceedance Start Date:	7/1/2005
Exceedance End Date:	8/31/2005
Limit/Unit/Freq:	0.24 mg/L
Quantity Min/Max:	0.3\0.32
Facility Action:	Conducting Study
Ministry Action:	Voluntary Abatement Program Underway

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9 | ***63 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***The Corporation of the City of Barrie - Barrie WPCP***
249 Bradford St
Barrie ON | ***NCPL***

Year:	2006
Site Name:	
Facility Owner:	
Discharge Type:	Private Sewage
Sector:	Sewage Municipal
District Area:	Barrie
Type of Concern:	C of A/Permit Non-Compliance
Contaminant:	AMMONIA
Status Report:	

Details

Incident Date:	2/28/2006
Exceedance Start Date:	2/1/2006
Exceedance End Date:	2/28/2006
Limit/Unit/Freq:	10 mg/L
Quantity Min/Max:	10.32/10.32
Facility Action:	Equipment Modified, Repaired, Replaced or Re-calibrated
Ministry Action:	Assessment Complete - No Action Required

Details

Incident Date:	4/30/2006
Exceedance Start Date:	4/1/2006
Exceedance End Date:	4/30/2006
Limit/Unit/Freq:	10 mg/L
Quantity Min/Max:	10.32/10.32
Facility Action:	Equipment Modified, Repaired, Replaced or Re-calibrated
Ministry Action:	Assessment Complete - No Action Required

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

Details

Incident Date:	4/30/2006
Exceedance Start Date:	4/1/2006
Exceedance End Date:	4/30/2006
Limit/Unit/Freq:	571 kg/d
Quantity Min/Max:	615/615
Facility Action:	Equipment Modified, Repaired, Replaced or Re-calibrated
Ministry Action:	Assessment Complete - No Action Required

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	64 of 145	NE/85.5	224.2 / -0.69	***The Corporation of the City of Barrie - Barrie Water Pollution Control Centre 249 Bradford St Reference Plan 51R-11568 Barrie ON***	NCPL

Year:	2008
Site Name:	
Facility Owner:	
Discharge Type:	Private Sewage
Sector:	Municipal Sewage
District Area:	Barrie
Type of Concern:	CofA/Permit Non-Compliance
Contaminant:	PHOSPHORUS
Status Report:	

Details

Incident Date:	1/31/2008
Exceedance Start Date:	1/1/2008
Exceedance End Date:	1/31/2008
Limit/Unit/Freq:	0.24 mg/L
Quantity Min/Max:	0.31/0.31
Facility Action:	Operational Process Modification
Ministry Action:	Assessment Complete - No Action Required

Details

Incident Date:	1/31/2008
Exceedance Start Date:	1/1/2008
Exceedance End Date:	1/31/2008
Limit/Unit/Freq:	13.7 kg/d
Quantity Min/Max:	17.8/17.8
Facility Action:	Operational Process Modification
Ministry Action:	Assessment Complete - No Action Required

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	65 of 145	NE/85.5	224.2 / -0.69	***THE CORPORATION OF THE CITY OF BARRIE 249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5***	NPRI

NPRI ID:	5986	***Org ID:***	69176
Other ID:	*	***Submit Date:***	6/25/2002
No Other ID:	0.00	***Last Modified:***	5/29/2015 3:28:24 PM
Track ID:	17893	***Contact ID:***	201043
Report ID:		***Cont Type:***	MED
Report Type:	NPRI	***Contact Title:***	
Rpt Type ID:	1	***Cont First Name:***	RALPH
Report Year:	2001	***Cont Last Name:***	DESHEVY
Not-Current Rpt?:	No	***Contact Position:***	POLLUTION CONTROL MANAGER
Yr of Last Filed Rpt:	2014	***Contact Fax:***	7057394253
Fac ID:	128705	***Contact Ph.:***	7057394221
Fac Name:	BARRIE WATER POLLUTION CONTROL	***Cont Area Code:***	705

CENTRE

Fac Address1:	249 BRADFORD STREET	***Contact Tel.:***	57394221
Fac Address2:	PO BOX 400	***Contact Ext.:***	
Fac Postal Zip:	L4M4T5	***Cont Fax Area Cde:***	705
Facility Lat:	44.3763	***Contact Fax:***	57394253
Facility Long:	-79.6907	***Contact Email:***	RDESHEVY@CITY.BARRIE.ON.CA
DLS (Last Filed Rpt):		***Latitude:***	44.3763
Facility DLS:		***Longitude:***	-79.6907
Datum:	1983	***UTM Zone:***	
Facility Cmnts:	No	***UTM Northing:***	
URL:		***UTM Easting:***	
No of Empl.:	15	***Waste Streams:***	Yes
Parent Co.:	*	***No Streams:***	1.00
No Parent Co.:	1.00	***Waste Off Sites:***	Yes
Pollut Prev Cmnts:	No	***No Off Sites:***	46.00
Stacks:		***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	39.4
Unit:	tonnes
Basis of Estimate Cd:	M
Basis of Estimate Desc:	M- Monitoring or Direct Measurement - In use from 1994 to 2002

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Nitrate ion in solution at pH >= 6.0
Chem (fr):	Nitrate (ion en sol. à un pH de >= 6.0)
Quantity:	161.5
Unit:	tonnes
Basis of Estimate Cd:	M
Basis of Estimate Desc:	M- Monitoring or Direct Measurement - In use from 1994 to 2002

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9 | ***66 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***THE CORPORATION OF THE CITY OF BARRIE 249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5*** | ***NPRI***

NPRI ID:	5986	***Org ID:***	69176
Other ID:	*	***Submit Date:***	11/13/2003
No Other ID:	0	***Last Modified:***	5/29/2015 3:28:24 PM
Track ID:	77516	***Contact ID:***	201043
Report ID:	162319	***Cont Type:***	MED
Report Type:	NPRI	***Contact Title:***	

Rpt Type ID:	1	***Cont First Name:***	RALPH
Report Year:	2002	***Cont Last Name:***	DESHEVY
Not-Current Rpt?:	No	***Contact Position:***	POLLUTION CONTROL MANAGER
Yr of Last Filed Rpt:	2014	***Contact Fax:***	7057394253
Fac ID:	128705	***Contact Ph.:***	7057394221
Fac Name:	BARRIE WATER POLLUTION CONTROL CENTRE	***Cont Area Code:***	705
Fac Address1:	249 BRADFORD STREET	***Contact Tel.:***	57394221
Fac Address2:	PO BOX 400	***Contact Ext.:***	
Fac Postal Zip:	L4M4T5	***Cont Fax Area Cde:***	705
Facility Lat:	44.3763	***Contact Fax:***	57394253
Facility Long:	-79.6907	***Contact Email:***	RDESHEVY@CITY.BARRIE.ON.CA
DLS (Last Filed Rpt):		***Latitude:***	44.3763
Facility DLS:		***Longitude:***	-79.6907
Datum:	1983	***UTM Zone:***	
Facility Cmnts:	False	***UTM Northing:***	
URL:		***UTM Easting:***	
No of Empl.:	21	***Waste Streams:***	Fals
Parent Co.:	*	***No Streams:***	1
No Parent Co.:	1	***Waste Off Sites:***	Fals
Pollut Prev Cmnts:	False	***No Off Sites:***	36
Stacks:	False	***Shutdown:***	False
No of Stacks:		***No of Shutdown:***	0
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Nitrate ion in solution at pH >= 6.0
Chem (fr):	Nitrate (ion en sol. à un pH de >= 6.0)
Quantity:	966.394
Unit:	tonnes
Basis of Estimate Cd:	M
Basis of Estimate Desc:	M- Monitoring or Direct Measurement - In use from 1994 to 2002

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	50.2
Unit:	tonnes
Basis of Estimate Cd:	M
Basis of Estimate Desc:	M- Monitoring or Direct Measurement - In use from 1994 to 2002

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

Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	38.72
Unit:	tonnes
Basis of Estimate Cd:	E
Basis of Estimate Desc:	E- Emission Factor - In use from 1994 to 2002

9 | **67 of 145** | **NE/85.5** | **224.2 / -0.69** | **THE CORPORATION OF THE CITY OF BARRIE**
249 BRADFORD STREET PO BOX 400
BARRIE ON L4M4T5 | **NPRI**

NPRI ID:	5986	**Org ID:**	101692
Other ID:	*	**Submit Date:**	5/31/2004
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	74046	**Contact ID:**	201043
Report ID:	153852	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	RALPH
Report Year:	2003	**Cont Last Name:**	DESHEVY
Not-Current Rpt?:	No	**Contact Position:**	POLLUTION CONTROL MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	7057394253
Fac ID:	128705	**Contact Ph.:**	7057394221
Fac Name:	BARRIE WATER POLLUTION CONTROL CENTRE	**Cont Area Code:**	705
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	57394221
Fac Address2:	PO BOX 400	**Contact Ext.:**	
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	705
Facility Lat:	44.3763	**Contact Fax:**	57394253
Facility Long:	-79.6907	**Contact Email:**	RDESHEVY@CITY.BARRIE.ON.CA
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	False	**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	20	**Waste Streams:**	True
Parent Co.:	*	**No Streams:**	1
No Parent Co.:	1	**Waste Off Sites:**	Fals
Pollut Prev Cmnts:	False	**No Off Sites:**	1
Stacks:	True	**Shutdown:**	True
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Nitrate ion in solution at pH >= 6.0
Chem (fr):	Nitrate (ion en sol. à un pH de >= 6.0)
Quantity:	1303.835
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)
Chem (fr):	Phosphore (total)
Quantity:	2.033
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	38.676
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	67.522
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

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9 | ***68 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***CITY OF BARRIE***
249 BRADFORD STREET PO BOX 400
BARRIE ON L4M4T5 | ***NPRI***

NPRI ID:	5986	**Org ID:**	42717
Other ID:	*	**Submit Date:**	5/31/2005
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	27237	**Contact ID:**	201043
Report ID:	86803	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	RALPH
Report Year:	2004	**Cont Last Name:**	DESHEVY
Not-Current Rpt?:	No	**Contact Position:**	POLLUTION CONTROL MANAGER
Yr of Last Filed Rpt:	2014	**Contact Fax:**	7057394253
Fac ID:	128705	**Contact Ph.:**	7057394221
Fac Name:	BARRIE WATER POLLUTION CONTROL CENTRE	**Cont Area Code:**	705
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	57394221
Fac Address2:	PO BOX 400	**Contact Ext.:**	
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	705
Facility Lat:	44.3763	**Contact Fax:**	57394253
Facility Long:	-79.6907	**Contact Email:**	RDESHEVY@CITY.BARRIE.ON.CA
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	True	**UTM Northing:**	
URL:	www.city.barrie.on.ca	**UTM Easting:**	
No of Empl.:	20	**Waste Streams:**	Fals

Parent Co.:	N	***No Streams:***	1.00
No Parent Co.:		***Waste Off Sites:***	Fals
Pollut Prev Cmnts:	True	***No Off Sites:***	1
Stacks:	No	***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	73.305
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)
Chem (fr):	Phosphore (total)
Quantity:	2.872
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Nitrate ion in solution at pH >= 6.0
Chem (fr):	Nitrate (ion en sol. à un pH de >= 6.0)
Quantity:	1362.55
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	69 of 145	NE/85.5	224.2 / -0.69	***CITY OF BARRIE*** ***249 BRADFORD STREET PO BOX 400*** ***BARRIE ON L4M4T5***	***NPRI***

NPRI ID:	5986	***Org ID:***	42717
Other ID:	Y	***Submit Date:***	9/25/2007
No Other ID:	2	***Last Modified:***	5/29/2015 3:28:24 PM
Track ID:	51781	***Contact ID:***	201043
Report ID:	102614	***Cont Type:***	MED
Report Type:	NPRI	***Contact Title:***	

Rpt Type ID:	1	***Cont First Name:***	RALPH
Report Year:	2005	***Cont Last Name:***	DESHEVY
Not-Current Rpt?:	No	***Contact Position:***	POLLUTION CONTROL MANAGER
Yr of Last Filed Rpt:	2014	***Contact Fax:***	7057394253
Fac ID:	128705	***Contact Ph.:***	7057394221
Fac Name:	BARRIE WATER POLLUTION CONTROL CENTRE	***Cont Area Code:***	705
Fac Address1:	249 BRADFORD STREET	***Contact Tel.:***	57394221
Fac Address2:	PO BOX 400	***Contact Ext.:***	
Fac Postal Zip:	L4M4T5	***Cont Fax Area Cde:***	705
Facility Lat:	44.3763	***Contact Fax:***	57394253
Facility Long:	-79.6907	***Contact Email:***	RDESHEVY@CITY.BARRIE.ON.CA
DLS (Last Filed Rpt):		***Latitude:***	44.3763
Facility DLS:		***Longitude:***	-79.6907
Datum:	1983	***UTM Zone:***	
Facility Cmnts:	False	***UTM Northing:***	
URL:	www.city.barrie.on.ca	***UTM Easting:***	
No of Empl.:	23	***Waste Streams:***	Fals
Parent Co.:	N	***No Streams:***	1
No Parent Co.:		***Waste Off Sites:***	Fals
Pollut Prev Cmnts:	False	***No Off Sites:***	41.00
Stacks:	False	***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr):	PM2,5 - Matière particulaire <= 2,5 microns
Quantity:	.33
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	5.78
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

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

Chem:	Volatile Organic Compounds (VOCs)
Chem (fr):	Composés organiques volatils (COV)
Quantity:	19.9
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Nitrate ion in solution at pH >= 6.0
Chem (fr):	Nitrate (ion en sol. à un pH de >= 6.0)
Quantity:	1237.327
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	PM10 - Particulate Matter <= 10 Microns
Chem (fr):	PM10 - Matière particulaire <= 10 microns
Quantity:	1
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	1.9
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	142.218
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)
Chem (fr):	Phosphore (total)
Quantity:	4.118
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	70 of 145	NE/85.5	224.2 / -0.69	CITY OF BARRIE 249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NPRI

NPRI ID:	5986	**Org ID:**	42717
Other ID:	Y	**Submit Date:**	5/28/2007
No Other ID:	2	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	44978	**Contact ID:**	139637
Report ID:	108536	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	DAVID
Report Year:	2006	**Cont Last Name:**	QUENNEVILLE
Not-Current Rpt?:	No	**Contact Position:**	MANAGER OF WASTEWATER OPERATIONS
Yr of Last Filed Rpt:	2014	**Contact Fax:**	7057394253
Fac ID:	128705	**Contact Ph.:**	7057394221
Fac Name:	BARRIE WATER POLLUTION CONTROL CENTRE	**Cont Area Code:**	705
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	57394221
Fac Address2:	PO BOX 400	**Contact Ext.:**	5231
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	705
Facility Lat:	44.3763	**Contact Fax:**	57394253
Facility Long:	-79.6907	**Contact Email:**	DQUENNEVILLE@BARRIE.CA
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	False	**UTM Northing:**	
URL:	www.city.barrie.on.ca	**UTM Easting:**	
No of Empl.:	27	**Waste Streams:**	True
Parent Co.:	N	**No Streams:**	1.00
No Parent Co.:		**Waste Off Sites:**	Fals
Pollut Prev Cmnts:	False	**No Off Sites:**	26.00
Stacks:	True	**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Volatile Organic Compounds (VOCs)
Chem (fr):	Composés organiques volatils (COV)
Quantity:	20.792
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	

Chem: PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr): PM2,5 - Matière particulaire <= 2,5 microns
Quantity: .31
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 7
Category Type Desc: Direct Discharges
Category Type Desc (fr): Évacuation directes
Grouping: Total Water
Trans Code: WatD
Chem: Nitrate ion in solution at pH >= 6.0
Chem (fr): Nitrate (ion en sol. à un pH de >= 6.0)
Quantity: 1424.519
Unit: tonnes
Basis of Estimate Cd: E1
Basis of Estimate Desc: E1- Site Specific Emission Factors - In use from 2003 and onward

Category Type ID: 7
Category Type Desc: Direct Discharges
Category Type Desc (fr): Évacuation directes
Grouping: Total Water
Trans Code: WatD
Chem: Ammonia (total)
Chem (fr): Ammoniac (total)
Quantity: 89.803
Unit: tonnes
Basis of Estimate Cd: M3
Basis of Estimate Desc: M3- Source Testing - In use from 2003 and onward

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .93
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Toluene
Chem (fr): Toluène
Quantity: 6.043
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Xylene (all isomers)
Chem (fr): Xylène (tous les isomères)
Quantity: 1.982
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)
Chem (fr):	Phosphore (total)
Quantity:	3.256
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

9 | **71 of 145** | **NE/85.5** | **224.2 / -0.69** | **CITY OF BARRIE**
249 BRADFORD STREET PO BOX 400
BARRIE ON L4M4T5 | **NPRI**

NPRI ID:	5986	**Org ID:**	42717
Other ID:	Y	**Submit Date:**	6/27/2008
No Other ID:	2.00	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	60778	**Contact ID:**	139637
Report ID:	121309	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	DAVID
Report Year:	2007	**Cont Last Name:**	QUENNEVILLE
Not-Current Rpt?:	No	**Contact Position:**	MANAGER OF WASTEWATER OPERATIONS
Yr of Last Filed Rpt:	2014	**Contact Fax:**	7057394253
Fac ID:	128705	**Contact Ph.:**	7057394221
Fac Name:	BARRIE WATER POLLUTION CONTROL CENTRE	**Cont Area Code:**	705
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	57394221
Fac Address2:	PO BOX 400	**Contact Ext.:**	5231
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	705
Facility Lat:	44.3763	**Contact Fax:**	57394253
Facility Long:	-79.6907	**Contact Email:**	DQUENNEVILLE@BARRIE.CA
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	False	**UTM Northing:**	
URL:	www.city.barrie.on.ca	**UTM Easting:**	
No of Empl.:	24	**Waste Streams:**	True
Parent Co.:	N	**No Streams:**	1.00
No Parent Co.:		**Waste Off Sites:**	True
Pollut Prev Cmnts:	False	**No Off Sites:**	36.00
Stacks:	True	**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

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

Chem: Volatile Organic Compounds (VOCs)
Chem (fr): Composés organiques volatils (COV)
Quantity: 20.663
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .998
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Toluene
Chem (fr): Toluène
Quantity: 6.005
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 7
Category Type Desc: Direct Discharges
Category Type Desc (fr): Évacuation directes
Grouping: Total Water
Trans Code: WatD
Chem: Ammonia (total)
Chem (fr): Ammoniac (total)
Quantity: 35.467
Unit: tonnes
Basis of Estimate Cd: M3
Basis of Estimate Desc: M3- Source Testing - In use from 2003 and onward

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: PM2.5 - Particulate Matter <= 2.5 Microns
Chem (fr): PM2,5 - Matière particulaire <= 2,5 microns
Quantity: .333
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 7
Category Type Desc: Direct Discharges
Category Type Desc (fr): Évacuation directes
Grouping: Total Water
Trans Code: WatD
Chem: Phosphorus (total)
Chem (fr): Phosphore (total)
Quantity: 2.274
Unit: tonnes
Basis of Estimate Cd: M3
Basis of Estimate Desc: M3- Source Testing - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Xylene (all isomers)
Chem (fr):	Xylène (tous les isomères)
Quantity:	1.97
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Nitrate ion in solution at pH >= 6.0
Chem (fr):	Nitrate (ion en sol. à un pH de >= 6.0)
Quantity:	1613.504
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	72 of 145	NE/85.5	224.2 / -0.69	CITY OF BARRIE 249 BRADFORD STREET PO BOX 400 BARRIE ON L4M4T5	NPRI

NPRI ID:	5986	**Org ID:**	42717
Other ID:	Y	**Submit Date:**	6/1/2009
No Other ID:	2	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	69359	**Contact ID:**	139637
Report ID:	123111	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	DAVID
Report Year:	2008	**Cont Last Name:**	QUENNEVILLE
Not-Current Rpt?:	No	**Contact Position:**	MANAGER OF WASTEWATER OPERATIONS
Yr of Last Filed Rpt:	2014	**Contact Fax:**	7057394253
Fac ID:	128705	**Contact Ph.:**	7057394221
Fac Name:	BARRIE WATER POLLUTION CONTROL CENTRE	**Cont Area Code:**	705
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	57394221
Fac Address2:	PO BOX 400	**Contact Ext.:**	5231
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	705
Facility Lat:	44.3763	**Contact Fax:**	57394253
Facility Long:	-79.6907	**Contact Email:**	DQUENNEVILLE@BARRIE.CA
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	No	**UTM Northing:**	
URL:	www.city.barrie.on.ca	**UTM Easting:**	
No of Empl.:	26	**Waste Streams:**	Yes
Parent Co.:	N	**No Streams:**	1
No Parent Co.:		**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	No	**No Off Sites:**	26
Stacks:	No	**Shutdown:**	No
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		

NAICS 4 Description: Water, sewage and other systems
NAICS Code (6 digit): 221320
NAICS 6 Description: Sewage treatment facilities

Substance Release Report

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .815
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Volatile Organic Compounds (VOCs)
Chem (fr): Composés organiques volatils (COV)
Quantity: 20.559
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Ammonia (total)
Chem (fr): Ammoniac (total)
Quantity: 43.89
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 7
Category Type Desc: Direct Discharges
Category Type Desc (fr): Évacuation directes
Grouping: Total Water
Trans Code: WatD
Chem: Nitrate ion in solution at pH >= 6.0
Chem (fr): Nitrate (ion en sol. à un pH de >= 6.0)
Quantity: 1540.052
Unit: tonnes
Basis of Estimate Cd: E1
Basis of Estimate Desc: E1- Site Specific Emission Factors - In use from 2003 and onward

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Xylene (all isomers)
Chem (fr): Xylène (tous les isomères)
Quantity: 1.964
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)
Chem (fr):	Phosphore (total)
Quantity:	2.451
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	5.986
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	30.543
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

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9 | ***73 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***CITY OF BARRIE***
249 BRADFORD STREET PO BOX 400
BARRIE ON L4M4T5 | ***NPRI***

NPRI ID:	5986	**Org ID:**	42717
Other ID:	Y	**Submit Date:**	6/1/2010
No Other ID:	2	**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	82797	**Contact ID:**	139637
Report ID:	136634	**Cont Type:**	MED
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	DAVID
Report Year:	2009	**Cont Last Name:**	QUENNEVILLE
Not-Current Rpt?:	No	**Contact Position:**	MANAGER OF WASTEWATER OPERATIONS
Yr of Last Filed Rpt:	2014	**Contact Fax:**	7057394253
Fac ID:	128705	**Contact Ph.:**	7057394221
Fac Name:	BARRIE WATER POLLUTION CONTROL CENTRE	**Cont Area Code:**	705
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	57394221
Fac Address2:	PO BOX 400	**Contact Ext.:**	5231
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	705
Facility Lat:	44.3763	**Contact Fax:**	57394253
Facility Long:	-79.6907	**Contact Email:**	DQUENNEVILLE@BARRIE.CA
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	No	**UTM Northing:**	
URL:	www.city.barrie.on.ca	**UTM Easting:**	
No of Empl.:	26	**Waste Streams:**	Yes

Parent Co.:	N	***No Streams:***	1
No Parent Co.:		***Waste Off Sites:***	Yes
Pollut Prev Cmnts:	No	***No Off Sites:***	17
Stacks:	No	***Shutdown:***	No
No of Stacks:		***No of Shutdown:***	

Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 22
NAICS 2 Description: Utilities
NAICS Code (4 digit): 2213
NAICS 4 Description: Water, sewage and other systems
NAICS Code (6 digit): 221320
NAICS 6 Description: Sewage treatment facilities

Substance Release Report

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: PM10 - Particulate Matter <= 10 Microns
Chem (fr): PM10 - Matière particulaire <= 10 microns
Quantity: .64
Unit: tonnes
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID: 7
Category Type Desc: Direct Discharges
Category Type Desc (fr): Évacuation directes
Grouping: Total Water
Trans Code: WatD
Chem: Phosphorus (total)
Chem (fr): Phosphore (total)
Quantity: 1.538
Unit: tonnes
Basis of Estimate Cd: M3
Basis of Estimate Desc: M3- Source Testing - In use from 2003 and onward

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem: Xylene (all isomers)
Chem (fr): Xylène (tous les isomères)
Quantity: 1.931
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 7
Category Type Desc: Direct Discharges
Category Type Desc (fr): Évacuation directes
Grouping: Total Water
Trans Code: WatD
Chem: Ammonia (total)
Chem (fr): Ammoniac (total)
Quantity: 24.367
Unit: tonnes
Basis of Estimate Cd: M3
Basis of Estimate Desc: M3- Source Testing - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Toluene
Chem (fr):	Toluène
Quantity:	5.886
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Nitrate ion in solution at pH >= 6.0
Chem (fr):	Nitrate (ion en sol. à un pH de >= 6.0)
Quantity:	1650.477
Unit:	tonnes
Basis of Estimate Cd:	E1
Basis of Estimate Desc:	E1- Site Specific Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Volatile Organic Compounds (VOCs)
Chem (fr):	Composés organiques volatils (COV)
Quantity:	20.599
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	43.16
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	74 of 145	NE/85.5	224.2 / -0.69	THE CORPORATION OF THE CITY OF BARRIE 249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NPRI

NPRI ID:	5986	***Org ID:***	101692
Other ID:	Y	***Submit Date:***	6/24/2011
No Other ID:	4	***Last Modified:***	5/29/2015 3:28:24 PM
Track ID:	89137	***Contact ID:***	139637
Report ID:	143195	***Cont Type:***	MED
Report Type:	NPRI	***Contact Title:***	
Rpt Type ID:	1	***Cont First Name:***	DAVID
Report Year:	2010	***Cont Last Name:***	QUENNEVILLE
Not-Current Rpt?:	No	***Contact Position:***	MANAGER OF WASTEWATER OPERATIONS
Yr of Last Filed Rpt:	2014	***Contact Fax:***	7057394253
Fac ID:	128708	***Contact Ph.:***	7057394221
Fac Name:	WATER POLLUTION CONTROL CENTRE	***Cont Area Code:***	705

Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	57394221
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	5231
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	705
Facility Lat:	0	**Contact Fax:**	57394253
Facility Long:	0	**Contact Email:**	DQUENNEVILLE@BARRIE.CA
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:	Yes	**UTM Northing:**	
URL:	www.barrie.ca	**UTM Easting:**	
No of Empl.:	30	**Waste Streams:**	Yes
Parent Co.:	*	**No Streams:**	1
No Parent Co.:		**Waste Off Sites:**	Yes
Pollut Prev Cmnts:	No	**No Off Sites:**	29
Stacks:	No	**Shutdown:**	No
No of Stacks:		**No of Shutdown:**	

Canadian SIC Code (2 digit):
Canadian SIC Code:
SIC Code Description:
American SIC Code:
NAICS Code (2 digit): 22
NAICS 2 Description: Utilities
NAICS Code (4 digit): 2213
NAICS 4 Description: Water, sewage and other systems
NAICS Code (6 digit): 221320
NAICS 6 Description: Sewage treatment facilities

Substance Release Report

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Copper (and its compounds)
Chem (fr): Cuivre (et ses composés)
Quantity: 0
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Zinc (and its compounds)
Chem (fr): Zinc (et ses composés)
Quantity: 0
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

Category Type ID: 13
Category Type Desc: All Media
Category Type Desc (fr): Rejets à tous les médias
Grouping: Total All Media<1t
Trans Code:
Chem: Cadmium (and its compounds)
Chem (fr): Cadmium (et ses composés)
Quantity: .0007
Unit: kg
Basis of Estimate Cd:
Basis of Estimate Desc:

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	41.9
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Volatile Organic Compounds (VOCs)
Chem (fr):	Composés organiques volatils (COV)
Quantity:	19.8
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Mercury (and its compounds)
Chem (fr):	Mercure (et ses composés)
Quantity:	.0002
Unit:	kg
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Arsenic (and its compounds)
Chem (fr):	Arsenic (et ses composés)
Quantity:	.0001
Unit:	kg
Basis of Estimate Cd:	
Basis of Estimate Desc:	

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	19.5
Unit:	tonnes
Basis of Estimate Cd:	M3
Basis of Estimate Desc:	M3- Source Testing - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)

Chem (fr):	Phosphore (total)
Quantity:	1.42
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates
Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Chlorine
Chem (fr):	Chlore
Quantity:	0
Unit:	tonnes
Basis of Estimate Cd:	
Basis of Estimate Desc:	

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249 BRADFORD STREET NOT AVAILABLE
BARRIE ON L4M4T5 | **NPRI**

NPRI ID:	5986	**Org ID:**	101692
Other ID:		**Submit Date:**	10/17/2013
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	78120	**Contact ID:**	
Report ID:	25691	**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2011	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	128708	**Contact Ph.:**	
Fac Name:	WATER POLLUTION CONTROL CENTRE	**Cont Area Code:**	
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	
Facility Lat:	0	**Contact Fax:**	
Facility Long:	0	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:	www.barrie.ca	**UTM Easting:**	
No of Empl.:	30	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	3

Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	45.975
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	17.015
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	13
Category Type Desc:	All Media
Category Type Desc (fr):	Rejets à tous les médias
Grouping:	Total All Media<1t
Trans Code:	
Chem:	Cadmium (and its compounds)
Chem (fr):	Cadmium (et ses composés)
Quantity:	.002
Unit:	kg
Basis of Estimate Cd:	NA
Basis of Estimate Desc:	NA- Not Applicable

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Volatile Organic Compounds (VOCs)
Chem (fr):	Composés organiques volatils (COV)
Quantity:	21.75
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)
Chem (fr):	Phosphore (total)
Quantity:	1.346
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	76 of 145	NE/85.5	224.2 / -0.69	THE CORPORATION OF THE CITY OF BARRIE 249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NPRI

NPRI ID:	5986	**Org ID:**	101692
Other ID:		**Submit Date:**	5/29/2014

No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	122879	**Contact ID:**	
Report ID:	36943	**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2012	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	128708	**Contact Ph.:**	
Fac Name:	WATER POLLUTION CONTROL CENTRE	**Cont Area Code:**	
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	
Facility Lat:	0	**Contact Fax:**	
Facility Long:	0	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:	www.barrie.ca	**UTM Easting:**	
No of Empl.:	30	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)
Chem (fr):	Phosphore (total)
Quantity:	1.136
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Volatile Organic Compounds (VOCs)
Chem (fr):	Composés organiques volatils (COV)
Quantity:	21.156
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive

Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Cadmium (and its compounds)
Chem (fr):	Cadmium (et ses composés)
Quantity:	.0013
Unit:	kg
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	44.527
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Mercury (and its compounds)
Chem (fr):	Mercure (et ses composés)
Quantity:	.0003
Unit:	kg
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	16.036
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

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9 | ***77 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***THE CORPORATION OF THE CITY OF BARRIE 249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5*** | ***NPRI***

NPRI ID:	5986	**Org ID:**	101692
Other ID:		**Submit Date:**	5/29/2014
No Other ID:		**Last Modified:**	5/29/2015 3:28:24 PM
Track ID:	116216	**Contact ID:**	
Report ID:	30365	**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2013	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	128708	**Contact Ph.:**	
Fac Name:	WATER POLLUTION CONTROL CENTRE	**Cont Area Code:**	
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	

Facility Lat:	0	***Contact Fax:***	
Facility Long:	0	***Contact Email:***	
DLS (Last Filed Rpt):		***Latitude:***	44.3763
Facility DLS:		***Longitude:***	-79.6907
Datum:	1983	***UTM Zone:***	
Facility Cmnts:		***UTM Northing:***	
URL:	www.barrie.ca	***UTM Easting:***	
No of Empl.:	30	***Waste Streams:***	
Parent Co.:		***No Streams:***	
No Parent Co.:		***Waste Off Sites:***	
Pollut Prev Cmnts:		***No Off Sites:***	
Stacks:		***Shutdown:***	
No of Stacks:		***No of Shutdown:***	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)
Chem (fr):	Phosphore (total)
Quantity:	1.52
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Volatile Organic Compounds (VOCs)
Chem (fr):	Composés organiques volatils (COV)
Quantity:	22.8
Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	48.4
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes

Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	37.7
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Mercury (and its compounds)
Chem (fr):	Mercure (et ses composés)
Quantity:	.0004
Unit:	kg
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward

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9 | **78 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 BRADFORD STREET NOT AVAILABLE
BARRIE ON L4M4T5 | **NPRI**

NPRI ID:	5986	**Org ID:**	105168
Other ID:		**Submit Date:**	5/31/2016
No Other ID:		**Last Modified:**	11/18/2016 8:28:05 AM
Track ID:	137294	**Contact ID:**	
Report ID:	70693	**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2015	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	222610	**Contact Ph.:**	
Fac Name:	WASTEWATER TREATMENT FACILITY	**Cont Area Code:**	
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	
Facility Lat:	0	**Contact Fax:**	
Facility Long:	0	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:		**UTM Easting:**	
No of Empl.:	34	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

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

Substance Release Report

Category Type ID: 7
Category Type Desc: Direct Discharges
Category Type Desc (fr): Évacuation directes
Grouping: Total Water
Trans Code: WatD
Chem:
Chem (fr):
Quantity: 21.4353
Unit: tonnes
Basis of Estimate Cd: C
Basis of Estimate Desc: C- Mass Balance

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem:
Chem (fr):
Quantity: 45.7168
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 7
Category Type Desc: Direct Discharges
Category Type Desc (fr): Évacuation directes
Grouping: Total Water
Trans Code: WatD
Chem:
Chem (fr):
Quantity: 1.2878
Unit: tonnes
Basis of Estimate Cd: O
Basis of Estimate Desc: O- Engineering Estimates

Category Type ID: 3
Category Type Desc: Fugitive
Category Type Desc (fr): Émissions fugitives
Grouping: Total Air
Trans Code: VOCs
Chem:
Chem (fr):
Quantity: 21.7637
Unit: tonnes
Basis of Estimate Cd: E2
Basis of Estimate Desc: E2- Published Emission Factors - In use from 2003 and onward

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9	***79 of 145***	***NE/85.5***	***224.2 / -0.69***	***BARRIE WPCP*** ***249 BRADFORD STREET*** ***BARRIE ON L4M 4V1***	***REC***

Rec Op Div:
Co Admin:
Phone No Admin:
Rec Div:
Rec Op Name:
Choice of Contact:
Site Bldg:
Site PO Box:
Receiver #: W120578
Facility Type: WATER POLLUTION CONTROL PLANT
Approval Yrs: 01,02,03,04,05,06,07,08,09

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

--Details--
Waste Code: 149
Waste Description: LANDFILL LEACHATES

9	80 of 145	NE/85.5	224.2 / -0.69	**BARRIE WPCP** **249 BRADFORD ST. 165 FERNDALE DR.,P.O. BOX 647** **BARRIE ON L4M 4V1**	REC

Rec Op Div:
Co Admin:
Phone No Admin:
Rec Div:
Rec Op Name:
Choice of Contact:
Site Bldg:
Site PO Box:
Receiver #: W120578
Facility Type: WATER POLLUTION CONTROL PLANT
Approval Yrs: 86,94,95,96,97,98,99,00

--Details--
Waste Code: 149
Waste Description: LANDFILL LEACHATES

9	81 of 145	NE/85.5	224.2 / -0.69	**BARRIE WPCP** **249 BRADFORD STREET** **BARRIE ON**	REC

Rec Op Div:
Co Admin:
Phone No Admin:
Rec Div:
Rec Op Name:
Choice of Contact:
Site Bldg:
Site PO Box:
Receiver #: W120578
Facility Type: WATER POLL. CONTROL PLANT
Approval Yrs: 2010

--Details--
Waste Code: 149
Waste Description: LANDFILL LEACHATES

9	82 of 145	NE/85.5	224.2 / -0.69	**BARRIE WPCP** **249 BRADFORD STREET** **BARRIE ON**	REC

Rec Op Div:
Co Admin:
Phone No Admin:
Rec Div:
Rec Op Name:
Choice of Contact:
Site Bldg:
Site PO Box:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
Receiver #:		W120578			
Facility Type:		WATER POLL. CONTROL PLANT			
Approval Yrs:		2011			
--Details--					
Waste Code:		149			
Waste Description:		LANDFILL LEACHATES			
9	***83 of 145***	***NE/85.5***	***224.2 / -0.69***	***BARRIE WPCP*** ***249 BRADFORD STREET*** ***BARRIE ON L4M 4V1***	***REC***
Rec Op Div:					
Co Admin:					
Phone No Admin:					
Rec Div:					
Rec Op Name:					
Choice of Contact:					
Site Bldg:					
Site PO Box:					
Receiver #:		W120578			
Facility Type:		WATER POLL. CONTROL PLANT			
Approval Yrs:		2012			
--Details--					
Waste Code:		149			
Waste Description:		LANDFILL LEACHATES			
9	***84 of 145***	***NE/85.5***	***224.2 / -0.69***	***BARRIE WPCP*** ***249 BRADFORD STREET*** ***BARRIE ON***	***REC***
Rec Op Div:					
Co Admin:					
Phone No Admin:					
Rec Div:					
Rec Op Name:					
Choice of Contact:					
Site Bldg:					
Site PO Box:					
Receiver #:		W120578			
Facility Type:		WATER POLL. CONTROL PLANT			
Approval Yrs:		2013			
--Details--					
Waste Code:		149			
Waste Description:		LANDFILL LEACHATES			
9	***85 of 145***	***NE/85.5***	***224.2 / -0.69***	***BARRIE WPCP*** ***249 BRADFORD STREET*** ***BARRIE ON L4M 4V1***	***REC***
Rec Op Div:					
Co Admin:					
Phone No Admin:					
Rec Div:					
Rec Op Name:					
Choice of Contact:		CO_ADMIN			

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

Site Bldg:
Site PO Box:
Receiver #: W120578
Facility Type: WATER POLL. CONTROL PLANT
Approval Yrs: 2016

--Details--
Waste Code: 149
Waste Description: LANDFILL LEACHATES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	86 of 145	NE/85.5	224.2 / -0.69	BARRIE WPCP 249 BRADFORD STREET BARRIE ON L4M 4V1	REC

Rec Op Div:
Co Admin:
Phone No Admin:
Rec Div:
Rec Op Name:
Choice of Contact: CO_ADMIN
Site Bldg:
Site PO Box:
Receiver #: W120578
Facility Type: WATER POLL. CONTROL PLANT
Approval Yrs: 2014

--Details--
Waste Code: 149
Waste Description: LANDFILL LEACHATES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	87 of 145	NE/85.5	224.2 / -0.69	BARRIE WPCP 249 BRADFORD STREET BARRIE ON L4M 4V1	REC

Rec Op Div:
Co Admin:
Phone No Admin:
Rec Div:
Rec Op Name:
Choice of Contact: CO_ADMIN
Site Bldg:
Site PO Box:
Receiver #: W120578
Facility Type: WATER POLL. CONTROL PLANT
Approval Yrs: 2015

--Details--
Waste Code: 149
Waste Description: LANDFILL LEACHATES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	88 of 145	NE/85.5	224.2 / -0.69	BARRIE, CITY OF 249 BRADFORD STREET BARRIE WPCP 249 BRADFORD STREET BARRIE ON	SPL

Ref No: 191242
Site No:
Incident Dt: 11/28/2000
Discharger Report:
Material Group:
Health/Env Conseq:

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

Year:		**Client Type:**	
Incident Cause:	PIPE/HOSE LEAK	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	POSSIBLE	**Site Municipality:**	70101
Nature of Impact:	Water course or lake	**Site Lot:**	
Receiving Medium:	WATER	**Site Conc:**	
Receiving Env:		**Northing:**	4914400.00
MOE Response:		**Easting:**	604720.00
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	11/29/2000	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	OTHER	**Source Type:**	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	CITY OF BARRIE--SPILL OF 54,000 L WATER/SEWAGE MIXTO CREEK.RUPTURED SEWER		
Contaminant Qty:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	89 of 145	NE/85.5	224.2 / -0.69	UNKNOWN CB SOUTH OF 249 BRADFORD STREET. BARRIE CITY ON	SPL

Ref No:	220322	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	1/24/2002	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	UNKNOWN	**Sector Type:**	
Incident Event:		**Agency Involved:**	CITY WORKS
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	NOT ANTICIPATED	**Site Municipality:**	70101
Nature of Impact:		**Site Lot:**	
Receiving Medium:	LAND / WATER	**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	1/24/2002	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	UNKNOWN	**Source Type:**	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	SOURCE UKN-USED MOTOR OILFOUND ON ROAD,SOME TO CB,CLEANED-UP BY CITY.		
Contaminant Qty:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	90 of 145	NE/85.5	224.2 / -0.69	BARRIE, CITY OF LAKE SIMCOE, BARRIE WPCP BARRIE WPCP 249 BRADFORD STREET BARRIE CITY ON	SPL

Ref No:	224131	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	4/17/2002	**Health/Env Conseq:**	
Year:		**Client Type:**	

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

Incident Cause:	WASTEWATER DISCHARGE TO WATERCOURSE	**Sector Type:**	
Incident Event:		**Agency Involved:**	HEALTH UNIT
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	POSSIBLE	**Site Municipality:**	70101
Nature of Impact:	Water course or lake	**Site Lot:**	
Receiving Medium:	LAND / WATER	**Site Conc:**	
Receiving Env:		**Northing:**	4914400
MOE Response:		**Easting:**	604720
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	4/17/2002	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	EQUIPMENT FAILURE	**Source Type:**	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BARRIE WPCP: SPILL OF 250 M3 UNCHLOR. SEWAGE TO GROUND, L. SIMCOE.		
Contaminant Qty:			

9	91 of 145	NE/85.5	224.2 / -0.69	**Flags Unlimited<UNOFFICIAL>** **249 Bradford Street** **Barrie ON**	SPL

Ref No:	2487-5P4RJF	**Discharger Report:**	
Site No:		**Material Group:**	Chemical
Incident Dt:	7/3/2003	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:	24	**Nearest Watercourse:**	
Contaminant Name:	SOLVENT (N.O.S.)	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	Southwestern
Environment Impact:	Possible	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Water	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:		**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	7/3/2003	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:		**Source Type:**	
Site Name:	BARRIE WATER POLLUTION CONTROL CENTRE		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Flags Unlimited:discharging solvents to sani		
Contaminant Qty:			

9	92 of 145	NE/85.5	224.2 / -0.69	**Wessuc Inc.** **249 Bradford Street** **Barrie ON**	SPL

Ref No:	2753-67GU5P	**Discharger Report:**	
Site No:		**Material Group:**	Waste
Incident Dt:	12/8/2004	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Treatment

Incident Event:				**Agency Involved:**	
Contaminant Code:	41			**Nearest Watercourse:**	
Contaminant Name:	WASTEWATER (HIGH BOD)			**Site Address:**	
Contaminant Limit 1:				**Site District Office:**	Barrie
Contam Limit Freq 1:				**Site Postal Code:**	
Contaminant UN No 1:				**Site Region:**	Southwestern
Environment Impact:	Not Anticipated			**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution			**Site Lot:**	
Receiving Medium:	Water			**Site Conc:**	
Receiving Env:				**Northing:**	4914465
MOE Response:				**Easting:**	604348
Dt MOE Arvl on Scn:				**Site Geo Ref Accu:**	
MOE Reported Dt:	12/8/2004			**Site Map Datum:**	
Dt Document Closed:				**SAC Action Class:**	Spill to Inland Watercourses
Incident Reason:	Negligence (Apparent) - Caused by lack of diligence			**Source Type:**	
Site Name:	BARRIE WATER POLLUTION CONTROL CENTRE				
Site County/District:					
Site Geo Ref Meth:					
Incident Summary:	Wessuc: biosolids to Hodgekins Creek				
Contaminant Qty:					

9	93 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford Street** **Barrie ON**	SPL

Ref No:	1740-69UPEY	**Discharger Report:**	0
Site No:		**Material Group:**	Chemical
Incident Dt:	2/22/2005	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Other Plant - Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:	OXYGEN (PRESSURIZED LIQUID)	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Human Health/Safety	**Site Lot:**	
Receiving Medium:	Land	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:		**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2/22/2005	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Spills
Incident Reason:		**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: Oxygen tank spill, evacuation.		
Contaminant Qty:			

9	94 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford Street** **Barrie ON**	SPL

Ref No:	4282-6DSKXU	**Discharger Report:**	0
Site No:		**Material Group:**	Waste
Incident Dt:	6/28/2005	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Other Discharges	**Sector Type:**	Other Plant - Sewage Municipal
Incident Event:		**Agency Involved:**	

Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,SECONDARY UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	Barrie
Nature of Impact:	Other Impact(s)	**Site Lot:**	
Receiving Medium:	Land	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:		**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	6/28/2005	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Spills to Land
Incident Reason:	Unknown - Reason not determined	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: 1L/min spill of 2nd effluent to grnd,contd		
Contaminant Qty:			

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249 Bradford Street
Barrie ON | **SPL**

Ref No:	7615-6E7NTQ	**Discharger Report:**	0
Site No:		**Material Group:**	Waste
Incident Dt:	7/11/2005	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Other Plant - Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,FINAL EFFLUENT UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Water	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:		**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	7/11/2005	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Spills to Watercourses
Incident Reason:	Other - Reason not otherwise defined	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BP: Barrie WPCC-Tertiary effluent to Lk Simcoe		
Contaminant Qty:	unknown		

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249 Bradford Street BARRIE WATER POLLUTION CONTROL CENTRE
Barrie ON | **SPL**

Ref No:	7847-6SYPSG	**Discharger Report:**	
Site No:		**Material Group:**	Wastes
Incident Dt:	8/24/2006	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Other Plant - Sewage Municipal
Incident Event:		**Agency Involved:**	

Contaminant Code:	41	**Nearest Watercourse:**	
Contaminant Name:	SLUDGE (N.O.S.)	**Site Address:**	249 BRADFORD STREET
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Water	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:		**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	8/24/2006	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	Equipment Failure - Malfunction of system components	**Source Type:**	
Site Name:	249 BRADFORD STREET		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: seconday sludge to Lake Simcoe		
Contaminant Qty:	Unknown		

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Ref No:	7403-6X9JNN	**Discharger Report:**	
Site No:		**Material Group:**	Oil
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Unknown	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	13	**Nearest Watercourse:**	
Contaminant Name:	DIESEL FUEL	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Soil Contamination; Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Land & Water	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	1/8/2007	**Site Map Datum:**	
Dt Document Closed:	1/24/2007	**SAC Action Class:**	
Incident Reason:		**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: ~1-2 L diesel to parking lot		
Contaminant Qty:	2 L		

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Ref No:	7151-72MPW4	**Discharger Report:**	
Site No:		**Material Group:**	Other
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	99	**Nearest Watercourse:**	

Contaminant Name:	SEWAGE	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Water	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	4/26/2007	**Site Map Datum:**	
Dt Document Closed:	5/23/2007	**SAC Action Class:**	
Incident Reason:	Other - Reason not otherwise defined	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BP: Barrie WPCC - part.tertiary sewage to L. Simcoe		
Contaminant Qty:	unknown unknown		

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Ref No:	3088-6ZJKFK	**Discharger Report:**	
Site No:		**Material Group:**	Waste
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,SECONDARY UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Water	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	3/22/2007	**Site Map Datum:**	
Dt Document Closed:	4/30/2007	**SAC Action Class:**	
Incident Reason:		**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCC: spill 4.6 m3 sec treated swg to lake		
Contaminant Qty:	4.6 m3		

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Ref No:	7032-6ZJS73	**Discharger Report:**	
Site No:		**Material Group:**	Oil
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Pipe Or Hose Leak	**Sector Type:**	Other Motor Vehicle
Incident Event:		**Agency Involved:**	
Contaminant Code:	15	**Nearest Watercourse:**	
Contaminant Name:	HYDRAULIC OIL	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	

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

Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Soil Contamination; Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Land & Water	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	3/22/2007	**Site Map Datum:**	
Dt Document Closed:	5/3/2007	**SAC Action Class:**	
Incident Reason:		**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Frith Regional: 15 L of hydr oil to grnd, creek		
Contaminant Qty:	15 L		

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Ref No:	2418-6Y46QR	**Discharger Report:**	
Site No:		**Material Group:**	Waste
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,SECONDARY UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Water	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2/3/2007	**Site Map Datum:**	
Dt Document Closed:	2/19/2007	**SAC Action Class:**	
Incident Reason:	Process upset	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: process upset, high SS to lake.		
Contaminant Qty:	8250 m3		

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Ref No:	7350-6ZWL6F	**Discharger Report:**	
Site No:		**Material Group:**	Waste
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	Tertiary and UV treated sewage	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	

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

Receiving Medium:	Water	**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	Planned Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:	4/4/2007	**Site Geo Ref Accu:**	
MOE Reported Dt:	4/3/2007	**Site Map Datum:**	
Dt Document Closed:	5/10/2007	**SAC Action Class:**	
Incident Reason:	Process upset	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BP: Barrie WPCP, 13.1 m3 of tert UV sewage to Lk. Simcoe		
Contaminant Qty:	13.1 m3		

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Ref No:	3027-7AR2GZ	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,SECONDARY UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	1/10/2008	**Site Map Datum:**	
Dt Document Closed:	2/25/2008	**SAC Action Class:**	Watercourse Spills
Incident Reason:	Equipment Failure - Malfunction of system components	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BP-Barrie WPCP-Sand filter bypass,Filter Fail.		
Contaminant Qty:	16 m3		

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Ref No:	5481-7AR8PX	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,SECONDARY UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	

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

Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	1/11/2008	**Site Map Datum:**	
Dt Document Closed:	2/25/2008	**SAC Action Class:**	Watercourse Spills
Incident Reason:	Equipment Failure - Malfunction of system components	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BP-Barrie WPCP-Sand filter bypass,Filter Fail.		
Contaminant Qty:			

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Ref No:	0180-7AUS2R	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,SECONDARY UV DISINFECTED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	1/14/2008	**Site Map Datum:**	
Dt Document Closed:	2/25/2008	**SAC Action Class:**	Sewage Bypasses / Overflows
Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCC: secondary, UV treated sewage to Lake Simcoe		
Contaminant Qty:	29.7 m3		

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Ref No:	8321-7CDUTW	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,PRIMARY UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465

MOE Response:		**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	3/3/2008	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Watercourse Spills
Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie STP, primary uv treated, non chlor sewage, Lk Simcoe		
Contaminant Qty:	548.8 m3		

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Ref No:	7378-7DAJTX	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Other Discharges	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,SECONDARY CHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Soil Contamination	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	4/1/2008	**Site Map Datum:**	
Dt Document Closed:	5/12/2008	**SAC Action Class:**	Land Spills
Incident Reason:	Ice/Snow/Rain	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP-2 m3 of sec. effluent to ground, clng.		
Contaminant Qty:	2 m3		

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9 | ***108 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON*** | ***SPL***

Ref No:	0834-7DPMYK	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	

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

MOE Reported Dt:	4/14/2008	**Site Map Datum:**	
Dt Document Closed:	6/13/2008	**SAC Action Class:**	Watercourse Spills
Incident Reason:	Error- Operator error	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: Water line Hit- Drinking water to Dyments Crk.		
Contaminant Qty:			

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9 | **109 of 145** | **NE/85.5** | **224.2 / -0.69** | **249 Bradford St Reference Plan 51R-11568 Barrie ON** | **SPL**

Ref No:	5460-7EAK3F	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Other Discharges	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	5/3/2008	**Site Map Datum:**	
Dt Document Closed:	7/3/2008	**SAC Action Class:**	Pollution Incident Reports (PIRs) and ¿Other¿ calls
Incident Reason:		**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Oil slick around WPCC, Kempenfelt Bay, Barrie		
Contaminant Qty:			

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9 | **110 of 145** | **NE/85.5** | **224.2 / -0.69** | **City of Barrie <UNOFFICIAL> 249 Bradford St Reference Plan 51R-11568 Barrie ON** | **SPL**

Ref No:	2076-7GJKPJ	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:	Tertiary sewage	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	7/14/2008	**Site Map Datum:**	
Dt Document Closed:	7/23/2008	**SAC Action Class:**	Watercourse Spills

Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCC - 20m3 tert sewage to Kem Bay		
Contaminant Qty:	20 m3		

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9 | **111 of 145** | **NE/85.5** | **224.2 / -0.69** | **City of Barrie<UNOFFICIAL>**
249 Bradford St. east of the digestors
Barrie ON | **SPL**

Ref No:	5651-7HERWX	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Other
Incident Event:		**Agency Involved:**	
Contaminant Code:	99	**Nearest Watercourse:**	
Contaminant Name:	SILT	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	8/11/2008	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Watercourse Spills
Incident Reason:	Storm/Flood - Resulting from storm/flood/lightening	**Source Type:**	
Site Name:	Construciton Site B <UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Cty Barrie: silt to Kemp Bay. Barrie		
Contaminant Qty:	280 mg/L		

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9 | **112 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford St Reference Plan 51R-11568
Barrie ON | **SPL**

Ref No:	7522-7LRPXY	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,FINAL EFFLUENT UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	11/26/2008	**Site Map Datum:**	
Dt Document Closed:	1/16/2009	**SAC Action Class:**	Sewage Bypasses / Overflows

Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCC: 700m³ , undis final effluent to Kempenfelt Bay.		
Contaminant Qty:	700 m3		

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9 | ***113 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***Section 21(1)(f)*** | ***SPL***

249 Bradford St Reference Plan 51R-11568
Barrie ON

Ref No:	0684-7LSLN2	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Municipal
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,FINAL EFFLUENT UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	11/27/2008	**Site Map Datum:**	
Dt Document Closed:	1/16/2009	**SAC Action Class:**	Watercourse Spills
Incident Reason:	Power Interruption - Loss of electrical power	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCC - 100m3 effluent to Kempenfelt Bay		
Contaminant Qty:	100 m3		

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9 | ***114 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***The Corporation of the City of Barrie*** | ***SPL***

249 Bradford St Lot 26, Concession 5
Barrie ON

Ref No:	5803-8265ZV	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,SECONDARY UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914652
MOE Response:	No Field Response	**Easting:**	604115
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	1/28/2010	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Watercourse Spills
Incident Reason:	Equipment Failure	**Source Type:**	

Site Name: 249 Bradford Street - Dewatering by Sump and Pump
Site County/District:
Site Geo Ref Meth:
Incident Summary: Barrie WPCP: 1m3 sec. treated sewage to L.Simcoe.
Contaminant Qty: 1 m3

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9 | **115 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford St Reference Plan 51R-11568
Barrie ON | **SPL**

Ref No:	2426-7S9NW5	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Overflow (Tanks Lagoons)	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,RAW UNCHLORINATED	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Soil Contamination; Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	5/21/2009	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Land Spills
Incident Reason:	Other - Reason not otherwise defined	**Source Type:**	

Site Name: Barrie Water Pollution Control Centre
Site County/District:
Site Geo Ref Meth:
Incident Summary: Barrier WPCC: raw sewage to ground, possibly ck
Contaminant Qty: 0 other - see incident description

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9 | **116 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford St Reference Plan 51R-11568
Barrie ON | **SPL**

Ref No:	5387-7S2FGY	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Other Discharges	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:	SLUDGE (N.O.S.)	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	Barrie
Nature of Impact:	Soil Contamination	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	5/14/2009	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Land Spills
Incident Reason:	Unknown - Reason not determined	**Source Type:**	

Site Name: Barrie Water Pollution Control Centre
Site County/District:

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

Site Geo Ref Meth:
Incident Summary: Barrie WPCP-76.46 M3 Sludge onto Grass.
Contaminant Qty: 76.46 m3

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9 | **117 of 145** | **NE/85.5** | **224.2 / -0.69** | **Wessuc Inc.**
249 Bradford St Reference Plan 51R-11568
Barrie ON | **SPL**

Ref No: 6883-7RBNUX
Site No:
Incident Dt:
Year:
Incident Cause:
Incident Event:
Contaminant Code:
Contaminant Name: BIO-SOLIDS (N.O.S.)
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: Possible
Nature of Impact: Other Impact(s)
Receiving Medium:
Receiving Env:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 4/21/2009
Dt Document Closed:
Incident Reason:
Site Name: Barrie Water Pollution Control Centre
Site County/District:
Site Geo Ref Meth:
Incident Summary: Wessuc Inc: 8L biosolids to grnd, clnd
Contaminant Qty: 8 L

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type:
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: Barrie
Site Lot:
Site Conc:
Northing: 4914465
Easting: 604348
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class: Land Spills
Source Type:

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9 | **118 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford St Reference Plan 51R-11568
Barrie ON | **SPL**

Ref No: 3817-829PEH
Site No:
Incident Dt:
Year:
Incident Cause: Other Discharges
Incident Event:
Contaminant Code: 44
Contaminant Name: SEWAGE,RAW UNCHLORINATED
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: Confirmed
Nature of Impact: Surface Water Pollution
Receiving Medium:
Receiving Env:
MOE Response: No Field Response
Dt MOE Arvl on Scn:
MOE Reported Dt: 2/1/2010
Dt Document Closed: 4/20/2010
Incident Reason:
Site Name: Barrie Water Pollution Control Centre
Site County/District:
Site Geo Ref Meth:
Incident Summary: City of Barrie: 0.5 m 3 raw sewage to snow/parking lot

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type: Sewage Treatment
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality:
Site Lot:
Site Conc:
Northing: 4914465
Easting: 604348
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class: Land Spills
Source Type:

Contaminant Qty: 0.5 m3

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9 | **119 of 145** | **NE/85.5** | **224.2 / -0.69** | **The Corporation of the City of Barrie**
249 Bradford St Reference Plan 51R-11568
Barrie ON | **SPL**

Ref No:	2740-869LGN	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge or Emission to Air	**Sector Type:**	Other
Incident Event:		**Agency Involved:**	
Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	METHANE GAS	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	
Nature of Impact:	Air Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	6/9/2010	**Site Map Datum:**	
Dt Document Closed:	6/23/2010	**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Equipment Failure - Malfunction of system components	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: Methane gas vented to atm for 10min.		
Contaminant Qty:	10 min (duration)		

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249 Bradford St Reference Plan 51R-11568
Barrie ON | **SPL**

Ref No:	3550-8AW82T	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge or Emission to Air	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:	36	**Nearest Watercourse:**	
Contaminant Name:	OXYGEN (COMPRESSED GAS)	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	
Nature of Impact:	Air Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	11/5/2010	**Site Map Datum:**	
Dt Document Closed:	11/24/2010	**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Other - Reason not otherwise defined	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: spill to air of 80% pure oxygen		
Contaminant Qty:	300 kg		

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

9	121 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON	SPL

Ref No:	6628-8ETQXA	Discharger Report:	
Site No:		Material Group:	
Incident Dt:	3/10/2011	Health/Env Conseq:	
Year:		Client Type:	
Incident Cause:		Sector Type:	
Incident Event:		Agency Involved:	
Contaminant Code:	36	Nearest Watercourse:	
Contaminant Name:	DIGESTER GAS	Site Address:	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		Site District Office:	
Contam Limit Freq 1:		Site Postal Code:	
Contaminant UN No 1:		Site Region:	
Environment Impact:	Confirmed	Site Municipality:	Barrie
Nature of Impact:	Air Pollution	Site Lot:	
Receiving Medium:		Site Conc:	
Receiving Env:		Northing:	4914465
MOE Response:	No Field Response	Easting:	604348
Dt MOE Arvl on Scn:		Site Geo Ref Accu:	
MOE Reported Dt:	3/10/2011	Site Map Datum:	
Dt Document Closed:	4/9/2011	SAC Action Class:	Notifications
Incident Reason:		Source Type:	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCC: venting digester gas		
Contaminant Qty:	0 other - see incident description		

9	122 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON	SPL

Ref No:	8362-8HW6GW	Discharger Report:	
Site No:		Material Group:	
Incident Dt:	6/16/2011	Health/Env Conseq:	
Year:		Client Type:	
Incident Cause:	Discharge Or Bypass To A Watercourse	Sector Type:	Sewage Treatment
Incident Event:		Agency Involved:	
Contaminant Code:	44	Nearest Watercourse:	
Contaminant Name:	SEWAGE,SECONDARY CHLORINATED	Site Address:	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		Site District Office:	
Contam Limit Freq 1:		Site Postal Code:	
Contaminant UN No 1:		Site Region:	
Environment Impact:	Confirmed	Site Municipality:	Barrie
Nature of Impact:	Surface Water Pollution	Site Lot:	
Receiving Medium:		Site Conc:	
Receiving Env:		Northing:	4914465
MOE Response:	No Field Response	Easting:	604348
Dt MOE Arvl on Scn:		Site Geo Ref Accu:	
MOE Reported Dt:	6/16/2011	Site Map Datum:	
Dt Document Closed:	6/25/2011	SAC Action Class:	Sewage Bypasses / Overflows
Incident Reason:	Unknown - Reason not determined	Source Type:	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BP Barrie WPCC, sec-treated chl swg to L Simcoe, equip fail		
Contaminant Qty:	0 other - see incident description		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	123 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON	SPL

Ref No:	0328-8JRJ5X	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	7/14/2011	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge Or Bypass To A Watercourse	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,RAW CHLORINATED	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	7/14/2011	**Site Map Datum:**	
Dt Document Closed:	10/8/2011	**SAC Action Class:**	Sewage Bypasses / Overflows
Incident Reason:	Unknown - Reason not determined	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: filter overflow to Kempenfelt		
Contaminant Qty:	0 other - see incident description		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	124 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON	SPL

Ref No:	6365-92QRMG	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	06-DEC-12	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Leak/Break	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:	45	**Nearest Watercourse:**	
Contaminant Name:	BIO-SOLIDS (N.O.S.)	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Soil Contamination	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	06-DEC-12	**Site Map Datum:**	NAD83
Dt Document Closed:	08-JAN-13	**SAC Action Class:**	Land Spills
Incident Reason:	Operator/Human Error	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	City of Barrie WWTP: 2 L biosolids to soil		
Contaminant Qty:	2 L		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	125 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Barrie ON	SPL

Ref No:	1862-8Z7RN8	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	18-OCT-12	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,RAW UNCHLORINATED	**Site Address:**	249 Bradford St
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Soil Contamination	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:	No Further Response (PR-PIR Table A)	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	NA
MOE Reported Dt:	18-OCT-12	**Site Map Datum:**	NA
Dt Document Closed:	25-OCT-12	**SAC Action Class:**	Land Spills
Incident Reason:	Maintenance	**Source Type:**	
Site Name:	249 Bradford Street		
Site County/District:			
Site Geo Ref Meth:	NA		
Incident Summary:	City of Barrie- Biosolids to ground.		
Contaminant Qty:	20 L		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	126 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St Reference Plan 51R-11568 Barrie ON	SPL

Ref No:	6342-98XQL9	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	23-JUN-13	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Overflow/Surcharge	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,SECONDARY CHLORINATED	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:		**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	23-JUN-13	**Site Map Datum:**	NAD83
Dt Document Closed:		**SAC Action Class:**	Sewage Bypasses / Overflows
Incident Reason:	Unknown / N/A	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	Barrie: Dry weather bypass, secondary cl		
Contaminant Qty:	0 other - see incident description		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	127 of 145	NE/85.5	224.2 / -0.69	The Corporation of the City of Barrie 249 Bradford St	SPL

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

Ref No:	1880-97XNAT	Discharger Report:	
Site No:		Material Group:	
Incident Dt:	21-MAY-13	Health/Env Conseq:	
Year:		Client Type:	
Incident Cause:	Leak/Break	Sector Type:	Sewage Treatment
Incident Event:		Agency Involved:	
Contaminant Code:	28	Nearest Watercourse:	
Contaminant Name:	SODIUM HYPOCHLORITE	Site Address:	249 Bradford St
Contaminant Limit 1:		Site District Office:	
Contam Limit Freq 1:		Site Postal Code:	
Contaminant UN No 1:		Site Region:	
Environment Impact:	Confirmed	Site Municipality:	Barrie
Nature of Impact:	Surface Water Pollution	Site Lot:	
Receiving Medium:		Site Conc:	
Receiving Env:		Northing:	NA
MOE Response:	No Field Response	Easting:	NA
Dt MOE Arvl on Scn:		Site Geo Ref Accu:	NA
MOE Reported Dt:	22-MAY-13	Site Map Datum:	NA
Dt Document Closed:		SAC Action Class:	Watercourse Spills
Incident Reason:	Unknown / N/A	Source Type:	
Site Name:	249 Bradford Street		
Site County/District:			
Site Geo Ref Meth:	NA		
Incident Summary:	Barrie WPCP: 1705 L sodium hypochlorite to Kempenfelt Bay		
Contaminant Qty:	1705 L		

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Ref No:	1732-96QW38	Discharger Report:	
Site No:		Material Group:	
Incident Dt:	13-APR-13	Health/Env Conseq:	
Year:		Client Type:	
Incident Cause:	Other	Sector Type:	Other
Incident Event:		Agency Involved:	
Contaminant Code:	27	Nearest Watercourse:	
Contaminant Name:	FIRE SUPPRESSANT	Site Address:	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		Site District Office:	
Contam Limit Freq 1:		Site Postal Code:	
Contaminant UN No 1:		Site Region:	
Environment Impact:	Confirmed	Site Municipality:	Barrie
Nature of Impact:	Soil Contamination	Site Lot:	
Receiving Medium:		Site Conc:	
Receiving Env:		Northing:	4914465
MOE Response:		Easting:	604348
Dt MOE Arvl on Scn:		Site Geo Ref Accu:	GPS
MOE Reported Dt:	13-APR-13	Site Map Datum:	NAD83
Dt Document Closed:		SAC Action Class:	Land Spills
Incident Reason:	Unknown / N/A	Source Type:	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	Barrie WPCC: 200 L of firewater to ground		
Contaminant Qty:	200 L		

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

Ref No:	7748-9EEVLY	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	2013/12/15	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Other	***Sector Type:***	Sewage Treatment
Incident Event:		***Agency Involved:***	
Contaminant Code:	36	***Nearest Watercourse:***	
Contaminant Name:	DIGESTER GAS	***Site Address:***	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Confirmed	***Site Municipality:***	Barrie
Nature of Impact:	Air Pollution	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	4914465
MOE Response:	No Field Response	***Easting:***	604348
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	2013/12/15	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Air Spills - Gases and Vapours
Incident Reason:	Other	***Source Type:***	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCC: potential gas release from digester		
Contaminant Qty:	0 other - see incident description		

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Ref No:	3866-9E83L6	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	2013/12/08	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Leak/Break	***Sector Type:***	Sewage Treatment
Incident Event:		***Agency Involved:***	
Contaminant Code:	44	***Nearest Watercourse:***	
Contaminant Name:	SEWAGE,RAW UNCHLORINATED	***Site Address:***	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Not Anticipated	***Site Municipality:***	Barrie
Nature of Impact:	Other Impact(s)	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	4914465
MOE Response:	No Field Response	***Easting:***	604348
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	2013/12/08	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Sewage Incident Report Flowchart
Incident Reason:	Equipment Failure	***Source Type:***	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: 1 m3 of sewage to parking lot/drain		
Contaminant Qty:	1 m^3		

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Ref No:	6611-9BXJJJ	***Discharger Report:***	
Site No:		***Material Group:***	

Incident Dt:	2013/09/27	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Leak/Break	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE SLUDGE	**Site Address:**	249 Bradford St
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Soil Contamination	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:	No Field Response	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2013/09/27	**Site Map Datum:**	
Dt Document Closed:	2013/10/11	**SAC Action Class:**	Land Spills
Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	249 Bradford Street		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Wessec Truck, 5L swg spill, cleaned up		
Contaminant Qty:	5 L		

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Ref No:	0277-9EKMSL	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	2013/12/20	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Leak/Break	**Sector Type:**	Sewage Treatment
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,RAW UNCHLORINATED	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Other Impact(s)	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:		**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2013/12/20	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	Land Spills
Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: 20 m3 raw swg to parking lot		
Contaminant Qty:	20 m^3		

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Ref No:	6002-9XPDAH	**Discharger Report:**	
Site No:	3567-4RXMAH	**Material Group:**	
Incident Dt:	6/21/2015	**Health/Env Conseq:**	
Year:		**Client Type:**	

Incident Cause:	Leak/Break	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	Lake Simcoe
Contaminant Name:	SEWAGE,RAW UNCHLORINATED	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:	Surface Water	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	N	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	6/21/2015	**Site Map Datum:**	NAD83
Dt Document Closed:		**SAC Action Class:**	Watercourse Spills
Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	2 cubic meters of raw sewage to Diamond Creek due to pump failure		
Contaminant Qty:	2 m^3		

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Ref No:	2237-9U5LUW	**Discharger Report:**	
Site No:	2497-8JVH7N	**Material Group:**	
Incident Dt:	2/27/2015	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Leak/Break	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:	36	**Nearest Watercourse:**	
Contaminant Name:	OXYGEN (COMPRESSED GAS)	**Site Address:**	249 Bradford St
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:	Air	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:	N	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	NA
MOE Reported Dt:	2/27/2015	**Site Map Datum:**	NA
Dt Document Closed:	5/5/2015	**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Unknown / N/A	**Source Type:**	
Site Name:	249 Bradford Street		
Site County/District:			
Site Geo Ref Meth:	NA		
Incident Summary:	City of Barrie WWTP: venting of high purity oxygen		
Contaminant Qty:	0 other - see incident description		

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Ref No:	2021-9KSHQ6	**Discharger Report:**	
Site No:	3567-4RXMAH	**Material Group:**	
Incident Dt:	2014/06/05	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Overflow/Surcharge	**Sector Type:**	Sewer (Private or Municipal)
Incident Event:		**Agency Involved:**	

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

Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,FINAL EFFLUENT CHLORINATED	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No Field Response	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	2014/06/05	**Site Map Datum:**	NAD83
Dt Document Closed:	2014/08/28	**SAC Action Class:**	Sewage Bypasses / Overflows
Incident Reason:	Power Interruption/Loss	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	DWMD WW Spill		
Contaminant Qty:	407 m³		

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Ref No:	2550-A2EMY9	**Discharger Report:**	
Site No:	3567-4RXMAH	**Material Group:**	
Incident Dt:	9/16/2015	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Miscellaneous Industrial
Incident Event:		**Agency Involved:**	
Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	METHANE GAS	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	4914465
MOE Response:	No	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	9/16/2015	**Site Map Datum:**	NAD83
Dt Document Closed:	10/13/2015	**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Maintenance	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	Barrie WPCP- venting methane		
Contaminant Qty:	4.5 m³		

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Ref No:	1342-AACMNH	**Discharger Report:**	
Site No:	7442-4MCNWA	**Material Group:**	
Incident Dt:	2016/05/26	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Miscellaneous Communal
Incident Event:	Unknown / N/A	**Agency Involved:**	
Contaminant Code:	27	**Nearest Watercourse:**	
Contaminant Name:	DYE N.O.S.	**Site Address:**	249 Bradford Street 69 Ellen St

Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Surface Water; Source Water Zone	**Northing:**	NA
MOE Response:	No	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	NA
MOE Reported Dt:	2016/05/27	**Site Map Datum:**	NA
Dt Document Closed:		**SAC Action Class:**	Sewage Incident Report Flowchart
Incident Reason:	Unknown / N/A	**Source Type:**	
Site Name:	Ellen Street Waste Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	NA		
Incident Summary:	C of Barrie, WPCP: unknown green dye in the effluent, investigating		
Contaminant Qty:	0 other - see incident description		

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Ref No:	5153-A7MTFR	**Discharger Report:**	
Site No:	3567-4RXMAH	**Material Group:**	
Incident Dt:	2016/02/26	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Municipal Sewage
Incident Event:	Leak/Break	**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	DIGESTER SLUDGE	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Land	**Northing:**	4914465
MOE Response:	No	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	2016/03/01	**Site Map Datum:**	NAD83
Dt Document Closed:	2016/05/20	**SAC Action Class:**	Land Spills
Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	Barrie WPCP: separated pipe joint, digester sludge spilt underground		
Contaminant Qty:	0 L		

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Ref No:	4007-AAJH4Q	**Discharger Report:**	
Site No:	3567-4RXMAH	**Material Group:**	
Incident Dt:	2016/06/02	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Municipal Sewage
Incident Event:	Start up/Shut down	**Agency Involved:**	
Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	NATURAL GAS (METHANE)	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA

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

Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Air	**Northing:**	4914465
MOE Response:	No	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	2016/06/02	**Site Map Datum:**	NAD83
Dt Document Closed:		**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Maintenance	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	Planned discharge of methane gas carbon tower 1		
Contaminant Qty:	0 other - see incident description		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	140 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford St** **Barrie ON NA**	SPL

Ref No:	8700-A6QLUB	**Discharger Report:**	
Site No:	2497-8JVH7N	**Material Group:**	
Incident Dt:	2016/02/01	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Miscellaneous Communal
Incident Event:	Process Upset/Malfunction	**Agency Involved:**	
Contaminant Code:	36	**Nearest Watercourse:**	
Contaminant Name:	DIGESTER GAS	**Site Address:**	249 Bradford St
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Air	**Northing:**	NA
MOE Response:	No	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	NA
MOE Reported Dt:	2016/02/01	**Site Map Datum:**	NA
Dt Document Closed:		**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	249 Bradford Street		
Site County/District:			
Site Geo Ref Meth:	NA		
Incident Summary:	WWTP Barrie - digester mixer failure, ~30min. biogas venting, ~1441 m3		
Contaminant Qty:	108 m^3		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	141 of 145	NE/85.5	224.2 / -0.69	**The Corporation of the City of Barrie** **249 Bradford St Reference Plan 51R-11568** **Barrie ON NA**	SPL

Ref No:	6706-AAJHB5	**Discharger Report:**	
Site No:	3567-4RXMAH	**Material Group:**	
Incident Dt:	2016/06/02	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Municipal Sewage
Incident Event:	Start up/Shut down	**Agency Involved:**	
Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	NATURAL GAS (METHANE)	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie

Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Air	**Northing:**	4914465
MOE Response:	No	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	2016/06/02	**Site Map Datum:**	NAD83
Dt Document Closed:		**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Maintenance	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	Planned discharge of methane gas carbon tower 2		
Contaminant Qty:	0 other - see incident description		

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9 | ***142 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***The Corporation of the City of Barrie***
249 Bradford St Reference Plan 51R-11568
Barrie ON NA | ***SPL***

Ref No:	4030-AJKPAL	**Discharger Report:**	
Site No:	3567-4RXMAH	**Material Group:**	
Incident Dt:	2/14/2017	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Miscellaneous Industrial
Incident Event:	Operator/Human error	**Agency Involved:**	
Contaminant Code:	28	**Nearest Watercourse:**	
Contaminant Name:	SODIUM HYPOCHLORITE	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	NA
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Air	**Northing:**	4914465
MOE Response:	No	**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	2/14/2017	**Site Map Datum:**	NAD83
Dt Document Closed:		**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Operator/Human Error	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	Barrie WPCC: 500L of bleach spilled inside, cntnd, but odour outside		
Contaminant Qty:	500 L		

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9 | ***143 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***The Corporation of the City of Barrie***
249 Bradford St Reference Plan 51R-11568
Barrie ON NA | ***SPL***

Ref No:	1178-AMQLKA	**Discharger Report:**	
Site No:	NA	**Material Group:**	
Incident Dt:	5/26/2017	**Health/Env Conseq:**	2 - Minor Environment
Year:		**Client Type:**	Municipal Government
Incident Cause:		**Sector Type:**	Municipal Sewage
Incident Event:	Process Upset/Malfunction	**Agency Involved:**	
Contaminant Code:	35	**Nearest Watercourse:**	
Contaminant Name:	METHANE GAS	**Site Address:**	249 Bradford St Reference Plan 51R-11568
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:	n/a	**Site Region:**	Central
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	NA

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

Receiving Env:	Air	**Northing:**	4914465
MOE Response:		**Easting:**	604348
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	GPS
MOE Reported Dt:	5/26/2017	**Site Map Datum:**	NAD83
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	Equipment Failure	**Source Type:**	Sewage Treatment
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:	County of Simcoe		
Site Geo Ref Meth:	1-10 metres eg. Good Quality GPS		
Incident Summary:	DWMD WW Spill Barrie WPCP: Methane to atm, pilot light out		
Contaminant Qty:	16 m³		

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9 | ***144 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***249 Bradford St Barrie ON L4M 4T5*** | ***SPL***

Ref No:	8327-AQBGXP	**Discharger Report:**	
Site No:	2497-8JVH7N	**Material Group:**	
Incident Dt:	8/17/2017	**Health/Env Conseq:**	2 - Minor Environment
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Municipal Sewage
Incident Event:	Leak/Break	**Agency Involved:**	
Contaminant Code:	36	**Nearest Watercourse:**	
Contaminant Name:	DIGESTER GAS	**Site Address:**	249 Bradford St
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	L4M 4T5
Contaminant UN No 1:	n/a	**Site Region:**	Central
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	NA
Receiving Env:	Air	**Northing:**	NA
MOE Response:	No	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	NA
MOE Reported Dt:	8/17/2017	**Site Map Datum:**	NA
Dt Document Closed:	8/24/2017	**SAC Action Class:**	TSSA - Fuel Safety Branch - Hydrocarbon Fuel Release/Spill
Incident Reason:	Material Failure - Poor Design/Substandard Material	**Source Type:**	Valve/Fitting/Piping
Site Name:	249 Bradford Street		
Site County/District:	County of Simcoe		
Site Geo Ref Meth:	NA		
Incident Summary:	TSSA FSB: Bradford WWTP/~1.3 m3 digester biogas/planned purge/repairs		
Contaminant Qty:	1.3 m		

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9 | ***145 of 145*** | ***NE/85.5*** | ***224.2 / -0.69*** | ***The Corporation of the City of Barrie 249 Bradford St Barrie ON L4M 4T5*** | ***SPL***

Ref No:	7045-AZ8G9R	**Discharger Report:**	
Site No:	2497-8JVH7N	**Material Group:**	
Incident Dt:	2018/05/29	**Health/Env Conseq:**	2 - Minor Environment
Year:		**Client Type:**	Municipal Government
Incident Cause:		**Sector Type:**	Miscellaneous Industrial
Incident Event:	Other	**Agency Involved:**	
Contaminant Code:	36	**Nearest Watercourse:**	
Contaminant Name:	DIGESTER GAS	**Site Address:**	249 Bradford St
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:	n/a	**Site Postal Code:**	L4M 4T5
Contaminant UN No 1:	n/a	**Site Region:**	Central
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	NA
Receiving Env:	Air	**Northing:**	NA

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

MOE Response: No
Dt MOE Arvl on Scn:
MOE Reported Dt: 2018/05/29
Dt Document Closed:
Incident Reason: Deliberate Act
Site Name: 249 Bradford Street
Site County/District: County of Simcoe
Site Geo Ref Meth: NA
Incident Summary: Barrie WPCP: Release of digester gas due to maintenance
Contaminant Qty: 24.4 m³
Easting: NA
Site Geo Ref Accu: NA
Site Map Datum: NA
SAC Action Class: Air Spills - Gases and Vapours
Source Type: Valve/Fitting/Piping

10	1 of 8	NE/87.0	224.2 / -0.69	**BARRIE CITY - TEMP. DEWATERING POND** **LAKESHORE DR./TIFFIN ST. WPCP** **BARRIE CITY ON**	CA

Certificate #: 3-0580-92-
Application Year: 92
Issue Date: 7/14/1992
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

10	2 of 8	NE/87.0	224.2 / -0.69	**Ellen Street, Waste Water Pollution Control Centre** **69 Ellen Street and 249 Bradford Street** **Barrie ON**	CA

Certificate #: 3513-4MMHFV
Application Year: 00
Issue Date: 8/1/00
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name: Corporation of the City of Barrie
Client Address: 70 Collier St., P.O. Box 400
Client City: Barrie
Client Postal Code: L4M 4T5
Project Description: Installation of Sanitary Sewers to service Ellen Street and the Water Pollution Control Centre.
Contaminants:
Emission Control:

10	3 of 8	NE/87.0	224.2 / -0.69	**Barrie WPCP** **Barrie ON**	NCPL

Year: 1996
Site Name:
Facility Owner:
Discharge Type: Wastewater
Sector: Municipal
District Area:
Type of Concern: Certificate of Approval
Contaminant: see "Status Report"

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

Status Report: Exceeded total phosphorus limit once. One clarifier had been removed from service for repairs, compliance anticipated for 1997.

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10 **4 of 8** **NE/87.0** **224.2 / -0.69** **Barrie WPCP** **NCPL**

Barrie ON

Year: 1995
Site Name:
Facility Owner:
Discharge Type: Wastewater
Sector: Municipal
District Area:
Type of Concern: Control Order/Certificate of Approval
Contaminant: see "Status Report"
Status Report: Exceeded the Certificate of Approval total phosphorus limit for three months due to a local industry's discharge. The industry has since initiated changes to reduce their total phosphorus loading to the plant.

---

10 **5 of 8** **NE/87.0** **224.2 / -0.69** **BARRIE WPCP** **NCPL**

BARRIE ON

Year: 2001
Site Name:
Facility Owner:
Discharge Type: Wastewater
Sector: Municipal Sewage
District Area: Barrie
Type of Concern: C of A
Contaminant: Ammonia
Status Report:

Details

Incident Date:
Exceedance Start Date:
Exceedance End Date:
Limit/Unit/Freq:
Quantity Min/Max:
Facility Action: none
Ministry Action: Assessment complete - no further action required

---

10 **6 of 8** **NE/87.0** **224.2 / -0.69** **BARRIE WPCP** **NCPL**

BARRIE ON

Year: 2002
Site Name:
Facility Owner:
Discharge Type: Wastewater
Sector: Municipal Sewage
District Area: Barrie
Type of Concern: C of A
Contaminant: nitrite+nitrate
Status Report:

Details

Incident Date:
Exceedance Start Date:
Exceedance End Date:
Limit/Unit/Freq:

Quantity Min/Max:
Facility Action: other
Ministry Action: Assessment complete - no further action required

---

10 **7 of 8** **NE/87.0** **224.2 / -0.69** **BARRIE WPCP** **NCPL**

BARRIE ON

Year: 1999
Site Name:
Facility Owner:
Discharge Type: Wastewater
Sector: Municipal Non-Compliance
District Area: Barrie
Type of Concern: C of A
Contaminant: phosphorus
Status Report:

Details

Incident Date:
Exceedance Start Date:
Exceedance End Date:
Limit/Unit/Freq:
Quantity Min/Max:
Facility Action: new equipment installed
Ministry Action: Assessment complete - no further action required

---

10 **8 of 8** **NE/87.0** **224.2 / -0.69** **Unknown<UNOFFICIAL>** **SPL**

IN POND BESIDE THE BARRIE WPCP ON BRADFORD ST. <UNOFFICIAL>
Barrie ON

Ref No:	8816-6QF24J	**Discharger Report:**	
Site No:		**Material Group:**	Oils
Incident Dt:	6/3/2006	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Container Leak (Fuel Tank Barrels)	**Sector Type:**	other plant
Incident Event:		**Agency Involved:**	
Contaminant Code:	13	**Nearest Watercourse:**	
Contaminant Name:	DIESEL FUEL	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:	Water	**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	6/3/2006	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	Unknown - Reason not determined	**Source Type:**	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			

Incident Summary: Bus (N.O.S.) - diesel fuel to sewer & pond.
Contaminant Qty: not provided

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11 **1 of 8** **ENE/89.5** **223.9 / -0.96** **Barrie Water Pollution Control Centre** **CA**

549 Bradford Street, PO Box 400

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

Certificate #: 3-0339-93-007
Application Year: 02
Issue Date: 5/21/02
Approval Type: Municipal & Private sewage
Status: Approved
Application Type: Notice
Client Name: The Corporation of the City of Barrie
Client Address: 549 Bradford Street, PO Box 400
Client City: Barrie
Client Postal Code: L4M 4T5
Project Description: Amendment to dual digestion conditional approval
Contaminants:
Emission Control:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	2 of 8	ENE/89.5	223.9 / -0.96	The Corporation of the City of Barrie 549 Bradford Street, PO Box 400 Barrie ON	ECA

Approval No: 3-0339-93-007
Approval Date: 2002-05-21
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name: Lakes Simcoe and Couchiching/Black River
MOE District: Barrie
City:
Longitude: -79.68474599999999
Latitude: 44.389927
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: 549 Bradford Street, PO Box 400
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/7050-55DRZG-14.pdf

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Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	3 of 8	ENE/89.5	223.9 / -0.96	The Corporation of the City of Barrie 549 Bradford St BARRIE WATER POLLUTION CONTROL CENTRE Barrie ON	SPL

Ref No: 6811-6UAP2R
Site No:
Incident Dt: 10/5/2006
Year:
Incident Cause:
Incident Event:
Contaminant Code: 27
Contaminant Name: SEWAGE,RAW UNCHLORINATED
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: Not Anticipated
Nature of Impact: Soil Contamination
Receiving Medium: Land
Receiving Env:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 10/5/2006
Dt Document Closed:
Incident Reason:
Site Name: 549 BRADFORD ST
Site County/District:
Site Geo Ref Meth:
Incident Summary: Barrie WPCP,60 L sewage to driveway of WPCP,clnd up
Contaminant Qty: 60 L
Discharger Report:
Material Group: Chemicals
Health/Env Conseq:
Client Type:
Sector Type: Transport Truck
Agency Involved:
Nearest Watercourse:
Site Address: 549 BRADFORD ST
Site District Office: Barrie
Site Postal Code:
Site Region:
Site Municipality: Barrie
Site Lot:
Site Conc:
Northing: NA
Easting: NA
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class:
Source Type:

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

11	4 of 8	ENE/89.5	223.9 / -0.96	549 Bradford St Barrie ON L4M 4T5	SPL

Ref No:	2484-7DZRWJ	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:	No Field Response	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	4/24/2008	**Site Map Datum:**	
Dt Document Closed:	6/17/2008	**SAC Action Class:**	Notifications
Incident Reason:		**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie WPCP: Silt to Hodgekiss Cr. and Dynement Cr.		
Contaminant Qty:			

11	5 of 8	ENE/89.5	223.9 / -0.96	The Corporation of the City of Barrie 549 Bradford St Barrie ON L4M 4T5	SPL

Ref No:	1313-7XQCJE	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:		**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Discharge or Emission to Air	**Sector Type:**	Other
Incident Event:		**Agency Involved:**	
Contaminant Code:	n/a	**Nearest Watercourse:**	
Contaminant Name:	Odour	**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	
Nature of Impact:	Air Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:	No Field Response	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	11/12/2009	**Site Map Datum:**	
Dt Document Closed:	1/4/2010	**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Process upset	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Aeration and aerobic tanks gas vented to atm at Barrie WPCP		
Contaminant Qty:			

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	6 of 8	ENE/89.5	223.9 / -0.96	The Corporation of the City of Barrie 549 Bradford St Barrie ON L4M 4T5	SPL

Ref No:	3864-8GYMDF	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	5/18/2011	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Process Upset	**Sector Type:**	Other
Incident Event:		**Agency Involved:**	
Contaminant Code:	41	**Nearest Watercourse:**	
Contaminant Name:	SLUDGE (N.O.S.)	**Site Address:**	549 Bradford St
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Not Anticipated	**Site Municipality:**	Barrie
Nature of Impact:	Other Impact(s)	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:	No Field Response	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	5/18/2011	**Site Map Datum:**	
Dt Document Closed:	6/1/2011	**SAC Action Class:**	Land Spills
Incident Reason:	Spill	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	City of Barrie: 2 m3 sludge to cement, clning		
Contaminant Qty:	2 m^3		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	7 of 8	ENE/89.5	223.9 / -0.96	The Corporation of the City of Barrie 549 Bradford St Barrie ON L4M 4T5	SPL

Ref No:	6880-9WDUZ8	**Discharger Report:**	
Site No:	9182-55DS2J	**Material Group:**	
Incident Dt:	5/10/2015	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Process Upset/Malfunction	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:	36	**Nearest Watercourse:**	
Contaminant Name:	DIGESTER GAS	**Site Address:**	549 Bradford St
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	L4M 4T5
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:	Air	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:	N	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	NA
MOE Reported Dt:	5/10/2015	**Site Map Datum:**	NA
Dt Document Closed:		**SAC Action Class:**	Air Spills - Gases and Vapours
Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	NA		
Incident Summary:	Barrie WPCP- Digester Gas to atmos		
Contaminant Qty:	0 other - see incident description		

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
11	8 of 8	ENE/89.5	223.9 / -0.96	The Corporation of the City of Barrie 549 Bradford St	SPL

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

Barrie ON L4M 4T5

Ref No:	5478-9PNQS3	**Discharger Report:**	
Site No:	9182-55DS2J	**Material Group:**	
Incident Dt:	2014/10/06	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	Bypass	**Sector Type:**	Valve/Fitting/Piping
Incident Event:		**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,PRIMARY CHLORINATED	**Site Address:**	549 Bradford St
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	L4M 4T5
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Barrie
Nature of Impact:	Surface Water Pollution	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	NA
MOE Response:	No Field Response	**Easting:**	NA
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	NA
MOE Reported Dt:	2014/10/07	**Site Map Datum:**	NA
Dt Document Closed:		**SAC Action Class:**	Primary Assessment of Incident
Incident Reason:	Operator/Human Error	**Source Type:**	
Site Name:	Barrie Water Pollution Control Centre		
Site County/District:			
Site Geo Ref Meth:	NA		
Incident Summary:	Barrie WPCP; bypassed due to open valve		
Contaminant Qty:	0 other - see incident description		

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12 **1 of 1** **ENE/95.7** **223.9 / -0.96** **ON** **WWIS**

Well ID:	7217301	**Data Entry Status:**	Yes
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	3/6/2014
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:		**Abandonment Rec:**	
Water Type:		**Contractor:**	7282
Casing Material:		**Form Version:**	8
Audit No:	C21511	**Owner:**	
Tag:	A143869	**Street Name:**	
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	BARRIE CITY
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1004717942	**Elevation:**	224.358489
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604190
Code OB Desc:		**North83:**	4914478
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	7/19/2013	**UTMRC Desc:**	margin of error : 30 m - 100 m

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

Remarks: ***Location Method:*** digit
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

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13 | ***1 of 1*** | ***N/106.2*** | ***224.8 / -0.01*** | ***Quality Dental Craft Ltd.*** ***208 Bradford St*** ***Barrie ON L4N 3B6*** | ***SCT***

Established: 01-AUG-89
Plant Size (ft²):
Employment:

--Details--
Description: Medical Equipment and Supplies Manufacturing
SIC/NAICS Code: 339110

Description: Medical Equipment and Supplies Manufacturing
SIC/NAICS Code: 339110

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14 | ***1 of 1*** | ***NE/107.6*** | ***224.2 / -0.68*** | ***Barrie ON*** | ***WWIS***

Well ID: 7106252
Construction Date:
Primary Water Use: Monitoring
Sec. Water Use:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: M01887
Tag: A065729
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 6/11/2008
Selected Flag: Yes
Abandonment Rec:
Contractor: 6875
Form Version: 5
Owner:
Street Name: 249 BRADFORD ST.
County: SIMCOE
Municipality: BARRIE CITY
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1002701571
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 3/11/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:

Elevation: 223.483108
Elevrc:
Zone: 17
East83: 604100
North83: 4914662
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1002701575
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: JETTING

Pipe Information

Pipe ID: 1002701576
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002701578
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 10.5
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002701577
Layer:
Slot:
Screen Top Depth: 10.5
Screen End Depth: 11
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002701579
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:

Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002701573
Diameter: 15
Depth From:
Depth To: 12
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002701553
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 3/7/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 224.835235
Elevrc:
Zone: 17
East83: 604167
North83: 4914522
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002701557
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: JETTING

Pipe Information

Pipe ID: 1002701558
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002701560
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 10.5
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002701559
Layer:
Slot:
Screen Top Depth: 10.5
Screen End Depth: 11
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002701561
Pump Set At:
Static Level: 3.65
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002701555
Diameter: 15
Depth From:
Depth To: 12
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002701562
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 3/7/2008
Remarks:

Elevation: 224.743896
Elevrc:
Zone: 17
East83: 604122
North83: 4914593
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1002701566
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: JETTING

Pipe Information

Pipe ID: 1002701567
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002701569
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 10.5
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002701568
Layer:
Slot:
Screen Top Depth: 10.5
Screen End Depth: 11
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002701570
Pump Set At:
Static Level: 3.6
Final Level After Pumping:

Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002701564
Diameter: 15
Depth From:
Depth To: 12
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002701589
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 3/7/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 220.92575
Elevrc:
Zone: 17
East83: 604328
North83: 4914609
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002701593
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: JETTING

Pipe Information

Pipe ID: 1002701594
Casing No: 0
Comment:

Alt Name:

Construction Record - Casing

Casing ID: 1002701596
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 9.5
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002701595
Layer:
Slot:
Screen Top Depth: 9.5
Screen End Depth: 11
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002701597
Pump Set At:
Static Level: 5.32
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002701591
Diameter: 15
Depth From:
Depth To: 11
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002701580
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Elevation: 221.378097
Elevrc:
Zone: 17
East83: 604175
North83: 4914713
Org CS: UTM83

Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	3/7/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002701584
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	JETTING

Pipe Information

Pipe ID:	1002701585
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002701587
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	10.5
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002701586
Layer:	
Slot:	
Screen Top Depth:	10.5
Screen End Depth:	11
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002701588

Pump Set At:
Static Level: 1.99
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002701582
Diameter: 15
Depth From:
Depth To: 12
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1001613545
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole: N
Cluster Kind:
Date Completed: 3/7/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 224.835235
Elevrc:
Zone: 17
East83: 604167
North83: 4914522
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1002701601
Layer: 2
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3: 84
Other Materials: SILTY
Formation Top Depth: 4
Formation End Depth: 9
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1002701602
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 34
Other Materials: TILL
Mat3:
Other Materials:
Formation Top Depth: 9
Formation End Depth: 11
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1002701600
Layer: 1
Color: 6
General Color: BROWN
Mat1: 01
Most Common Material: FILL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 4
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002701604
Layer: 1
Plug From: 0
Plug To: 6
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 8
Method Construction: Jetting
Other Method Construction:

Pipe Information

Pipe ID: 1002701598
Casing No: 0
Comment:
Alt Name:

Construction Record - Screen

Screen ID: 1002701606
Layer: 1
Slot: 20
Screen Top Depth:

Screen End Depth:	
Screen Material:	5
Screen Depth UOM:	m
Screen Diameter UOM:	cm
Screen Diameter:	5.1

Results of Well Yield Testing

Pump Test ID:	1002701599
Pump Set At:	
Static Level:	3.7
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	m
Rate UOM:	
Water State After Test Code:	0
Water State After Test:	
Pumping Test Method:	0
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Water Details

Water ID:	1002701605
Layer:	1
Kind Code:	
Kind:	
Water Found Depth:	3.7
Water Found Depth UOM:	m

Hole Diameter

Hole ID:	1002701603
Diameter:	20
Depth From:	0
Depth To:	11
Hole Depth UOM:	m
Hole Diameter UOM:	cm

---

15 ***1 of 1*** ***WNW/110.8*** ***225.9 / 1.01*** ***ON*** ***WWIS***

Well ID:	5738378	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Not Used	**Date Received:**	12/1/2003
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	6809
Casing Material:		**Form Version:**	2
Audit No:	159685	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	BARRIE CITY
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	

Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	11099892	***Elevation:***	226.79396
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	604010
Code OB Desc:	Overburden	***North83:***	4914491
Open Hole:		***Org CS:***	N83a
Cluster Kind:		***UTMRC:***	9
Date Completed:	9/23/2003	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	wc
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932950816
Layer:	5
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	61
Other Materials:	CLAYEY
Mat3:	
Other Materials:	
Formation Top Depth:	14
Formation End Depth:	15
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932950812
Layer:	1
Color:	
General Color:	
Mat1:	01
Most Common Material:	FILL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	5
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932950813
Layer:	2

Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 5
Formation End Depth: 10
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932950815
Layer: 4
Color: 2
General Color: GREY
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 13
Formation End Depth: 14
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932950814
Layer: 3
Color: 2
General Color: GREY
Mat1: 06
Most Common Material: SILT
Mat2: 81
Other Materials: SANDY
Mat3:
Other Materials:
Formation Top Depth: 10
Formation End Depth: 13
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933247278
Layer: 2
Plug From: 0
Plug To: 6
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933247279
Layer: 3
Plug From: 6
Plug To: 10

Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933247277
Layer: 1
Plug From: 0
Plug To: 3
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 0
Method Construction: Not Known
Other Method Construction:

Pipe Information

Pipe ID: 11103607
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930835714
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 4
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930835715
Layer: 2
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 10
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933407371
Layer: 1
Slot: 010
Screen Top Depth: 10
Screen End Depth: 13
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2

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

Water Details

Water ID:	934045200
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	4
Water Found Depth UOM:	ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
16	1 of 1	NNE/129.8	223.9 / -0.92	PAUL SADLON MOTORS INC 233 BRADFORD ST BARRIE ON L4N 3B7	PRT

Location ID:	1285
Type:	private
Expiry Date:	1993-10-31
Capacity (L):	0.00
Licence #:	0014679002

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
17	1 of 1	ESE/130.1	222.6 / -2.30	Barrie ON	WWIS

Well ID:	7053403	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	12/10/2007
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Observation Wells	***Abandonment Rec:***	
Water Type:		***Contractor:***	7201
Casing Material:		***Form Version:***	3
Audit No:	Z57691	***Owner:***	
Tag:	A049037	***Street Name:***	240 Bradford st
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	BARRIE CITY
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	23053403	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	
Code OB:		***East83:***	
Code OB Desc:		***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	5/22/2007	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	30153403
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	73
Other Materials:	HARD
Mat3:	68
Other Materials:	DRY
Formation Top Depth:	0
Formation End Depth:	15
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	30253403
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	85
Other Materials:	SOFT
Formation Top Depth:	15
Formation End Depth:	25
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	44008209
Layer:	1
Plug From:	0
Plug To:	1
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	44008210
Layer:	3
Plug From:	19
Plug To:	25
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	44008211
Layer:	2
Plug From:	1
Plug To:	19
Plug Depth UOM:	ft

Method of Construction & Well Use

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

Pipe Information

Pipe ID: 29053403
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 42153403
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 20
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 43153403
Layer: 1
Slot: 10
Screen Top Depth: 20
Screen End Depth: 25
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.5

Construction Record - Screen

Screen ID: 43253403
Layer: 2
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 6.5

Hole Diameter

Hole ID: 46006356
Diameter: 8.25
Depth From: 0
Depth To: 25
Hole Depth UOM: ft
Hole Diameter UOM: inch

Hole Diameter

Hole ID: 46006355
Diameter: 14.25
Depth From: 0
Depth To: 25
Hole Depth UOM: ft
Hole Diameter UOM: inch

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18 **1 of 1** **ESE/136.3** **221.8 / -3.02** **BARRIE ON** **WWIS**

Well ID: 7117039
Construction Date:
Primary Water Use: Dewatering
Sec. Water Use:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: Z77843
Tag: A049037
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 12/18/2008
Selected Flag: Yes
Abandonment Rec: Yes
Contractor: 7201
Form Version: 4
Owner:
Street Name: 240 BRADFORD ST. 249 BRADFORD ST.
County: SIMCOE
Municipality: BARRIE CITY (VESPRA)
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1001916710
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 9/18/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 222.047576
Elevrc:
Zone: 17
East83: 604237
North83: 4914400
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1002535366
Layer: 1
Color:
General Color:
Mat1:
Most Common Material:
Mat2:
Other Materials:
Mat3:
Other Materials:

Formation Top Depth: 0
Formation End Depth:
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002603888
Layer: 3
Plug From: 2
Plug To: 30
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002603887
Layer: 2
Plug From: 1
Plug To: 2
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002535367
Layer: 1
Plug From: 0
Plug To: 1
Plug Depth UOM: m

Method of Construction & Well Use

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

Pipe Information

Pipe ID: 1002535365
Casing No: 0
Comment:
Alt Name:

Construction Record - Screen

Screen ID: 1002535369
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

19	*1 of 1*	*E/140.1*	*222.4 / -2.42*	***The Corporation of the City of Barrie 240, 249 Bradford Street***	*CA*

Barrie ON

Certificate #: 9996-7FZPU4
Application Year: 2008
Issue Date: 7/3/2008
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:

---

20 ***1 of 2*** ***ESE/140.7*** ***221.8 / -3.02*** ***ON*** ***WWIS***

Well ID: 7111775
Construction Date:
Primary Water Use: Dewatering
Sec. Water Use:
Final Well Status: Dewatering
Water Type:
Casing Material:
Audit No: M03456
Tag: A066187
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 9/22/2008
Selected Flag: Yes
Abandonment Rec:
Contractor: 6926
Form Version: 5
Owner:
Street Name: BRADFORD ST., WEST OF ESSA RD.
County: SIMCOE
Municipality: BARRIE CITY
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1001804035
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole: N
Cluster Kind:
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 221.975997
Elevrc:
Zone: 17
East83: 604241
North83: 4914398
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1002780276

Layer: 2
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 91
Other Materials: WATER-BEARING
Mat3:
Other Materials:
Formation Top Depth: 1.5
Formation End Depth: 4.2
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1002780277
Layer: 3
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3: 66
Other Materials: DENSE
Formation Top Depth: 4.2
Formation End Depth: 9.1
Formation End Depth UOM: m

Overburden and Bedrock Materials Interval

Formation ID: 1002780275
Layer: 1
Color: 6
General Color: BROWN
Mat1: 01
Most Common Material: FILL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 1.5
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002780279
Layer: 1
Plug From: 0
Plug To: 0.5
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002780280
Layer: 2
Plug From: 0.5

Plug To: 2
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1002780281
Layer: 3
Plug From: 2
Plug To: 9.1
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: E
Method Construction: Auger
Other Method Construction:

Pipe Information

Pipe ID: 1002780274
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780283
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 7.1
Casing Diameter: 5.6
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780284
Layer: 1
Slot: 20
Screen Top Depth:
Screen End Depth:
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 5.7

Water Details

Water ID: 1002780282
Layer: 1
Kind Code: 5
Kind: Not stated
Water Found Depth: 2
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1002780278
Diameter: 20.32
Depth From: 0
Depth To: 9.1
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002779937
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 221.952224
Elevrc:
Zone: 17
East83: 604239
North83: 4914394
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002779941
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779942
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779944
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID:	1002779943
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002779945
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1002779939
Diameter:	20.32
Depth From:	
Depth To:	9
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1002779974	***Elevation:***	221.998031
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604234
Code OB Desc:		***North83:***	4914389
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/6/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID: 1002779978
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779979
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779981
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002779980
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002779982
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:

Flowing:

Hole Diameter

Hole ID: 1002779976
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780037
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 222.317489
Elevrc:
Zone: 17
East83: 604220
North83: 4914384
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780041
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780042
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780044
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7

Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780043
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780045
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780039
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780092
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 223.344268
Elevrc:
Zone: 17
East83: 604207
North83: 4914379
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID:	1002780096
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002780097
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002780099
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002780098
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002780100
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	

Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780094
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002779874
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 221.852401
Elevrc:
Zone: 17
East83: 604269
North83: 4914411
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002779878
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779879
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779881
Layer:
Material: 5

Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002779880
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002779882
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1002779876
Diameter:	20.32
Depth From:	
Depth To:	9
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1002779992	***Elevation:***	222.045364
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604229
Code OB Desc:		***North83:***	4914385
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/8/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			

Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1002779996
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779997
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779999
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002779998
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780000
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:

Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002779994
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780083
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.142517
Elevrc:
Zone: 17
East83: 604210
North83: 4914380
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780087
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780088
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780090
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780089
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780091
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780085
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780119
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:

Elevation: 223.823486
Elevrc:
Zone: 17
East83: 604198
North83: 4914376
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1002780123
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780124
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780126
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780125
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780127
Pump Set At:
Static Level:
Final Level After Pumping:

Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780121
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780219
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/9/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.56668
Elevrc:
Zone: 17
East83: 604171
North83: 4914369
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780223
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780224
Casing No: 0
Comment:

Alt Name:

Construction Record - Casing

Casing ID: 1002780226
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780225
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780227
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780221
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002779928
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Elevation: 221.957534
Elevrc:
Zone: 17
East83: 604240
North83: 4914396
Org CS: UTM83

Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/6/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002779932
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002779933
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002779935
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002779934
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002779936

Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002779930
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002779983
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 222.03717
Elevrc:
Zone: 17
East83: 604230
North83: 4914387
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002779987
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779988
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779990
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002779989
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002779991
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002779985
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780010 ***Elevation:*** 222.236541
DP2BR: ***Elevrc:***
Spatial Status: ***Zone:*** 17

Code OB:		***East83:***	604227
Code OB Desc:		***North83:***	4914384
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/8/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002780014
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002780015
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002780017
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002780016
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002780018
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1002780012
Diameter:	20.32
Depth From:	
Depth To:	9
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1002780065	***Elevation:***	222.928146
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604214
Code OB Desc:		***North83:***	4914381
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/8/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002780069
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002780070
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002780072
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002780071
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002780073
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1002780067
Diameter:	20.32
Depth From:	
Depth To:	9
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1002780110	**Elevation:**	223.685699
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604201
Code OB Desc:		**North83:**	4914377
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	3
Date Completed:	9/8/2008	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002780114
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002780115
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002780117
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002780116
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m

Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780118
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780112
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780128
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 223.944992
Elevrc:
Zone: 17
East83: 604195
North83: 4914375
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780132
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:

Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780133
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780135
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780134
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780136
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780130
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID:	1002780192	***Elevation:***	223.450439
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604172
Code OB Desc:		***North83:***	4914370
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/9/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002780196
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002780197
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002780199
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002780198
Layer:	
Slot:	
Screen Top Depth:	7

Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780200
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780194
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780247
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/9/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.757598
Elevrc:
Zone: 17
East83: 604164
North83: 4914367
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780251
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well

Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780252
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780254
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780253
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780255
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780249
Diameter: 20.32
Depth From:

Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID:	1002779856	**Elevation:**	221.830551
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604273
Code OB Desc:		**North83:**	4914413
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	3
Date Completed:	9/6/2008	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr

Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1002779860
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779861
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779863
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002779862

Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002779864
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002779858
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002779956
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 221.970504
Elevrc:
Zone: 17
East83: 604237
North83: 4914392
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002779960
Layer:
Plug From:
Plug To:

Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779961
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779963
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002779962
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002779964
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002779958
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID:	1002780147	**Elevation:**	223.918655
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604190
Code OB Desc:		**North83:**	4914373
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	3
Date Completed:	9/9/2008	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID: 1002780151
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780152
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780154
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID:	1002780153
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002780155
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1002780149
Diameter:	20.32
Depth From:	
Depth To:	9
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1002779901	***Elevation:***	221.959793
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604249
Code OB Desc:		***North83:***	4914403
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/6/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002779905

Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779906
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779908
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002779907
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002779909
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID:	1002779903
Diameter:	20.32
Depth From:	
Depth To:	9
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1002779919	***Elevation:***	221.958572
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604244
Code OB Desc:		***North83:***	4914399
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/6/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002779923
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002779924
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002779926
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	

Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002779925
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002779927
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002779921
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002779965
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 221.988754
Elevrc:
Zone: 17
East83: 604235
North83: 4914390
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment

Sealing Record

Plug ID:	1002779969
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002779970
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002779972
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002779971
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002779973
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	

Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002779967
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780001
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 222.223876
Elevrc:
Zone: 17
East83: 604228
North83: 4914384
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780005
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780006
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780008
Layer:
Material: 5
Open Hole or Material: PLASTIC

Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780007
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780009
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780003
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780019
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:

Elevation: 222.086532
Elevrc:
Zone: 17
East83: 604225
North83: 4914385
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1002780023
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780024
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780026
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780025
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780027
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:

Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780021
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780028
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 222.272995
Elevrc:
Zone: 17
East83: 604224
North83: 4914384
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780032
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780033
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780035
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780034
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780036
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780030
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780074
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:

Elevation: 222.945861
Elevrc:
Zone: 17
East83: 604212
North83: 4914381
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1002780078
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780079
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780081
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780080
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780082
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:

Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780076
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002779865
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 221.841629
Elevrc:
Zone: 17
East83: 604271
North83: 4914412
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002779869
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779870
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID:	1002779872
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002779871
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002779873
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1002779867
Diameter:	20.32
Depth From:	
Depth To:	9
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1002779910	***Elevation:***	221.965118
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604246
Code OB Desc:		***North83:***	4914401
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3

Date Completed: 9/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002779914
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779915
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779917
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002779916
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002779918
Pump Set At:

Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002779912
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780238
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/9/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 223.763656
Elevrc:
Zone: 17
East83: 604166
North83: 4914367
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780242
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780243

Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780245
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780244
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780246
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780240
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780047
DP2BR:
Spatial Status:
Code OB:
Elevation: 222.519775
Elevrc:
Zone: 17
East83: 604218

Code OB Desc:		***North83:***	4914383
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/8/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002780051
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002780052
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002780054
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002780053
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID: 1002780055
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780049
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780056
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/8/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 222.712295
Elevrc:
Zone: 17
East83: 604217
North83: 4914382
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780060
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780061
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780063
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780062
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780064
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780058
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780101 ***Elevation:*** 223.527999

DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604203
Code OB Desc:		**North83:**	4914378
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	3
Date Completed:	9/8/2008	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002780105
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002780106
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002780108
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002780107
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002780109
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1002780103
Diameter:	20.32
Depth From:	
Depth To:	9
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1002780138	***Elevation:***	223.953765
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604193
Code OB Desc:		***North83:***	4914374
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/8/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002780142
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	

Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780143
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780145
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780144
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780146
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780140
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID:	1002780165	***Elevation:***	223.842391
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604186
Code OB Desc:		***North83:***	4914372
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/9/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002780169
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002780170
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002780172
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002780171
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	

Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780173
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780167
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780174
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/9/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 223.79042
Elevrc:
Zone: 17
East83: 604183
North83: 4914371
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780178
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780179
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780181
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780180
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780182
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780176
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m

Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID:	1002780201	**Elevation:**	223.558639
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604175
Code OB Desc:		**North83:**	4914369
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	3
Date Completed:	9/9/2008	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID: 1002780205
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780206
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780208
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780207
Layer:
Slot:

Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780209
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780203
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780256
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/9/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 223.123611
Elevrc:
Zone: 17
East83: 604171
North83: 4914373
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780260
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780261
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780263
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780262
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780264
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780258
Diameter: 20.32

Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780265
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/9/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 222.078384
Elevrc:
Zone: 17
East83: 604226
North83: 4914387
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780269
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780270
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780272
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780271
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780273
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780267
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002779883
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 221.907516
Elevrc:
Zone: 17
East83: 604256
North83: 4914405
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002779887
Layer:
Plug From:

Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779888
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779890
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002779889
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002779891
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002779885
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002779892
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 221.928756
Elevrc:
Zone: 17
East83: 604253
North83: 4914404
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002779896
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002779897
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002779899
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID:	1002779898
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002779900
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1002779894
Diameter:	20.32
Depth From:	
Depth To:	9
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Bore Hole Information

Bore Hole ID:	1002780156	***Elevation:***	223.823516
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604188
Code OB Desc:		***North83:***	4914373
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	9/9/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID: 1002780160
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780161
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780163
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780162
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780164
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:

Flowing:

Hole Diameter

Hole ID: 1002780158
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780183
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/9/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 223.610031
Elevrc:
Zone: 17
East83: 604180
North83: 4914371
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780187
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780188
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780190
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 7

Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780189
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780191
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780185
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780210
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/9/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 223.562667
Elevrc:
Zone: 17
East83: 604173
North83: 4914369
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID:	1002780214
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	AUGER

Pipe Information

Pipe ID:	1002780215
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002780217
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	7
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002780216
Layer:	
Slot:	
Screen Top Depth:	7
Screen End Depth:	9
Screen Material:	
Screen Depth UOM:	m
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1002780218
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	

Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780212
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002780229
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 9/9/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.675994
Elevrc:
Zone: 17
East83: 604170
North83: 4914368
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002780233
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: AUGER

Pipe Information

Pipe ID: 1002780234
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002780236
Layer:
Material: 5

Open Hole or Material: PLASTIC
Depth From:
Depth To: 7
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002780235
Layer:
Slot:
Screen Top Depth: 7
Screen End Depth: 9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002780237
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002780231
Diameter: 20.32
Depth From:
Depth To: 9
Hole Depth UOM: m
Hole Diameter UOM: cm

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20 ***2 of 2*** ***ESE/140.7*** ***221.8 / -3.02*** ***ON*** ***WWIS***

Well ID: 7138391
Construction Date:
Primary Water Use: Dewatering
Sec. Water Use:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: M03465
Tag: A066187
Construction Method:
Elevation (m):
Elevation Reliability:

Data Entry Status:
Data Src:
Date Received: 1/21/2010
Selected Flag: Yes
Abandonment Rec: Yes
Contractor: 6926
Form Version: 5
Owner:
Street Name: BRADFORD ST. WEST OF ESSA ROAD
County: SIMCOE
Municipality: BARRIE CITY
Site Info:

Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1003249925
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 221.852401
Elevrc:
Zone: 17
East83: 604269
North83: 4914411
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003249929
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003249930
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003249932
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003249931
Layer:
Slot:
Screen Top Depth:
Screen End Depth:

Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003249933
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003249927
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250033
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 222.045364
Elevrc:
Zone: 17
East83: 604229
North83: 4914385
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250037
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250038
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250040
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250039
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250041
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250035
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250060
DP2BR:
Spatial Status:
Elevation: 222.086532
Elevrc:
Zone: 17

Code OB:		**East83:**	604225
Code OB Desc:		**North83:**	4914385
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	4
Date Completed:	10/14/2009	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250064
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250065
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250067
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250066
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250068
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	

Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250062
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250150
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.685699
Elevrc:
Zone: 17
East83: 604201
North83: 4914377
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250154
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250155
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250157
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:

Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250156
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250158
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250152
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250168
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 223.944992
Elevrc:
Zone: 17
East83: 604195
North83: 4914375
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment

Sealing Record

Plug ID:	1003250172
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250173
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250175
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250174
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250176
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1003250170
Diameter:	

Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID:	1003250177	***Elevation:***	223.953765
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604193
Code OB Desc:		***North83:***	4914374
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr

Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1003250181
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250182
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250184
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250183
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID:	1003250185
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1003250179
Diameter:	
Depth From:	
Depth To:	9.5
Hole Depth UOM:	m
Hole Diameter UOM:	

Bore Hole Information

Bore Hole ID:	1003250186	***Elevation:***	223.918655
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604190
Code OB Desc:		***North83:***	4914373
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250190
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250191
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250193
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250192
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250194
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1003250188
Diameter:	
Depth From:	
Depth To:	9.5
Hole Depth UOM:	m
Hole Diameter UOM:	

Bore Hole Information

Bore Hole ID:	1003250195	***Elevation:***	223.823516
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604188
Code OB Desc:		***North83:***	4914373
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4

Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250199
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250200
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250202
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250201
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250203
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:

Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250197
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250213
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.79042
Elevrc:
Zone: 17
East83: 604183
North83: 4914371
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250217
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250218
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250220
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID:	1003250219
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250221
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1003250215
Diameter:	
Depth From:	
Depth To:	9.5
Hole Depth UOM:	m
Hole Diameter UOM:	

Bore Hole Information

Bore Hole ID:	1003250294	***Elevation:***	223.123611
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604171
Code OB Desc:		***North83:***	4914373
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250298

Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID:	1003250299
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250301
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250300
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250302
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1003250296
Diameter:	
Depth From:	
Depth To:	9.5
Hole Depth UOM:	m

Hole Diameter UOM:

Bore Hole Information

Bore Hole ID:	1003249916	***Elevation:***	221.841629
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604271
Code OB Desc:		***North83:***	4914412
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003249920
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003249921
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003249923
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003249922
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID: 1003249924
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003249918
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003249997
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 221.970504
Elevrc:
Zone: 17
East83: 604237
North83: 4914392
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250001
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250002
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250004
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250003
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250005
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003249999
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250087
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:

Elevation: 222.519775
Elevrc:
Zone: 17
East83: 604218
North83: 4914383
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1003250091
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250092
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250094
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250093
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250095
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:

Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250089
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250132
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.344268
Elevrc:
Zone: 17
East83: 604207
North83: 4914379
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250136
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250137
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250139
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250138
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250140
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250134
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250141
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 223.527999
Elevrc:
Zone: 17
East83: 604203
North83: 4914378
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250145
Layer:
Plug From:

Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250146
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250148
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250147
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250149
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250143
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID:	1003250258	***Elevation:***	223.56668
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604171
Code OB Desc:		***North83:***	4914369
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250262
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250263
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250265
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250264
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250266

Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250260
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003249943
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 221.928756
Elevrc:
Zone: 17
East83: 604253
North83: 4914404
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003249947
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003249948
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003249950

Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003249949
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003249951
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003249945
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003249979
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Elevation: 221.957534
Elevrc:
Zone: 17
East83: 604240
North83: 4914396
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1003249983
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003249984
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003249986
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003249985
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003249987
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:

Flowing:

Hole Diameter

Hole ID: 1003249981
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003249961
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 221.965118
Elevrc:
Zone: 17
East83: 604246
North83: 4914401
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003249965
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003249966
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003249968
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003249967
Layer:

Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003249969
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003249963
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003249970
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 221.958572
Elevrc:
Zone: 17
East83: 604244
North83: 4914399
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003249974
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003249975
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003249977
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003249976
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003249978
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003249972
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID:	1003250006	**Elevation:**	221.988754
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604235
Code OB Desc:		**North83:**	4914390
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	4
Date Completed:	10/14/2009	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250010
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250011
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250013
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250012
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250014
Pump Set At:	
Static Level:	

Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250008
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250051
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 222.236541
Elevrc:
Zone: 17
East83: 604227
North83: 4914384
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250055
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250056
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250058
Layer:
Material: 5

Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250057
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250059
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250053
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250069
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:

Elevation: 222.272995
Elevrc:
Zone: 17
East83: 604224
North83: 4914384
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1003250073
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250074
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250076
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250075
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250077
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID:	1003250071
Diameter:	
Depth From:	
Depth To:	9.5
Hole Depth UOM:	m
Hole Diameter UOM:	

Bore Hole Information

Bore Hole ID:	1002925168	***Elevation:***	221.975997
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604241
Code OB Desc:		***North83:***	4914398
Open Hole:	N	***Org CS:***	UTM83
Cluster Kind:		***UTMRC:***	4
Date Completed:	9/6/2008	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1003250314
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	91
Other Materials:	WATER-BEARING
Mat3:	08
Other Materials:	FINE SAND
Formation Top Depth:	1.5
Formation End Depth:	4.2
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1003250315
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	66
Other Materials:	DENSE
Formation Top Depth:	4.2
Formation End Depth:	9.1
Formation End Depth UOM:	m

Overburden and Bedrock

Materials Interval

Formation ID:	1003250313
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	01
Most Common Material:	FILL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	1.5
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1003250318
Layer:	2
Plug From:	0.5
Plug To:	2
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1003250319
Layer:	3
Plug From:	2
Plug To:	9.1
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1003250317
Layer:	1
Plug From:	0
Plug To:	0.5
Plug Depth UOM:	m

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	E
Method Construction:	Auger
Other Method Construction:	

Pipe Information

Pipe ID:	1003250312
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250321

Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 7.1
Casing Diameter: 56
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1003250322
Layer: 1
Slot: 20
Screen Top Depth:
Screen End Depth:
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 57

Hole Diameter

Hole ID: 1003250316
Diameter: 20.32
Depth From: 0
Depth To: 9.1
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1003250114
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 222.945861
Elevrc:
Zone: 17
East83: 604212
North83: 4914381
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250118
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250119
Casing No: 0
Comment:

Alt Name:

Construction Record - Casing

Casing ID: 1003250121
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250120
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250122
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250116
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250123
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Elevation: 223.142517
Elevrc:
Zone: 17
East83: 604210
North83: 4914380
Org CS: UTM83

Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250127
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250128
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250130
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250129
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250131
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	

Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250125
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250231
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.552337
Elevrc:
Zone: 17
East83: 604177
North83: 4914370
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250235
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250236
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250238
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250237
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250239
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250233
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003249907
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 221.830551
Elevrc:
Zone: 17
East83: 604273
North83: 4914413
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003249911

Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID:	1003249912
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003249914
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003249913
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003249915
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1003249909
Diameter:	
Depth From:	
Depth To:	9.5
Hole Depth UOM:	m

Hole Diameter UOM:

Bore Hole Information

Bore Hole ID:	1003250042	***Elevation:***	222.223876
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604228
Code OB Desc:		***North83:***	4914384
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250046
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250047
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250049
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250048
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID: 1003250050
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250044
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250078
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 222.317489
Elevrc:
Zone: 17
East83: 604220
North83: 4914384
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250082
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250083
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250085
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250084
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250086
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250080
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250096
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:

Elevation: 222.712295
Elevrc:
Zone: 17
East83: 604217
North83: 4914382
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1003250100
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250101
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250103
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250102
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250104
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:

Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250098
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250105
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 222.928146
Elevrc:
Zone: 17
East83: 604214
North83: 4914381
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250109
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250110
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250112
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250111
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250113
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250107
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250240
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.558639
Elevrc:
Zone: 17
East83: 604175
North83: 4914369
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250244
Layer:
Plug From:

Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250245
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250247
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250246
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250248
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250242
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID:	1003250276	***Elevation:***	223.763656
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604166
Code OB Desc:		***North83:***	4914367
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250280
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250281
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250283
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250282
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250284

Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250278
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003249934
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 221.907516
Elevrc:
Zone: 17
East83: 604256
North83: 4914405
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003249938
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003249939
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003249941

Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003249940
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003249942
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003249936
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250015
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Elevation: 221.998031
Elevrc:
Zone: 17
East83: 604234
North83: 4914389
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1003250019
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250020
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250022
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250021
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250023
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:

Flowing:

Hole Diameter

Hole ID: 1003250017
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250024
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 222.03717
Elevrc:
Zone: 17
East83: 604230
North83: 4914387
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250028
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250029
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250031
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250030
Layer:

Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250032
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250026
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250267
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.675994
Elevrc:
Zone: 17
East83: 604170
North83: 4914368
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250271
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID:	1003250272
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250274
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250273
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250275
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1003250269
Diameter:	
Depth From:	
Depth To:	9.5
Hole Depth UOM:	m
Hole Diameter UOM:	

Bore Hole Information

Bore Hole ID:	1003250285	**Elevation:**	223.757598
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604164
Code OB Desc:		**North83:**	4914367
Open Hole:		**Org CS:**	UTM83
Cluster Kind:	This is a record from cluster log sheet	**UTMRC:**	4
Date Completed:	10/14/2009	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250289
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250290
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250292
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250291
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250293
Pump Set At:	
Static Level:	

Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250287
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250303
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 222.078384
Elevrc:
Zone: 17
East83: 604226
North83: 4914387
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250307
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250308
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250310
Layer:
Material: 5

Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250309
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250311
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250305
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003249952
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:

Elevation: 221.959793
Elevrc:
Zone: 17
East83: 604249
North83: 4914403
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Source Revision Comment:
Supplier Comment:

Annular Space/Abandonment Sealing Record

Plug ID: 1003249956
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003249957
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003249959
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003249958
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003249960
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID:	1003249954
Diameter:	
Depth From:	
Depth To:	9.5
Hole Depth UOM:	m
Hole Diameter UOM:	

Bore Hole Information

Bore Hole ID:	1003249988	***Elevation:***	221.952224
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604239
Code OB Desc:		***North83:***	4914394
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003249992
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003249993
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003249995
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003249994
Layer:	
Slot:	
Screen Top Depth:	

Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003249996
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003249990
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250159
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.823486
Elevrc:
Zone: 17
East83: 604198
North83: 4914376
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250163
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250164
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250166
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250165
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250167
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250161
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250204 ***Elevation:*** 223.842391
DP2BR: ***Elevrc:***

Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604186
Code OB Desc:		***North83:***	4914372
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250208
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250209
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250211
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250210
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250212
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	

Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250206
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID: 1003250222
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 10/14/2009
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.610031
Elevrc:
Zone: 17
East83: 604180
North83: 4914371
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1003250226
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Pipe Information

Pipe ID: 1003250227
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1003250229
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To:

Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM:

Construction Record - Screen

Screen ID: 1003250228
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1003250230
Pump Set At:
Static Level:
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM:
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1003250224
Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

Bore Hole Information

Bore Hole ID:	1003250249	***Elevation:***	223.562667
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604173
Code OB Desc:		***North83:***	4914369
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	4
Date Completed:	10/14/2009	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1003250253
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Pipe Information

Pipe ID:	1003250254
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003250256
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	

Construction Record - Screen

Screen ID:	1003250255
Layer:	
Slot:	
Screen Top Depth:	
Screen End Depth:	
Screen Material:	
Screen Depth UOM:	
Screen Diameter UOM:	
Screen Diameter:	

Results of Well Yield Testing

Pump Test ID:	1003250257
Pump Set At:	
Static Level:	
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	
Rate UOM:	
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Hole Diameter

Hole ID:	1003250251

Diameter:
Depth From:
Depth To: 9.5
Hole Depth UOM: m
Hole Diameter UOM:

---

21 ***1 of 1*** ***ENE/143.3*** ***222.8 / -2.02*** ***SPL***

BARRIE, CITY OF
KIDD CREEK AT DONALD STREET BARRIE
WPCP 249 BRADFORD STREET
BARRIE CITY ON

Ref No: 135488
Site No:
Incident Dt: //
Year:
Incident Cause: PIPE/HOSE LEAK
Incident Event:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: POSSIBLE
Nature of Impact: Water course or lake
Receiving Medium: WATER
Receiving Env:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 12/20/1996
Dt Document Closed:
Incident Reason: MATERIAL FAILURE
Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary: BARRIE PUC: SANITARY SEWAGE DRIP TO KIDD CREEK NOTED TODAY.
Contaminant Qty:

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type:
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: 70101
Site Lot:
Site Conc:
Northing: 4914400.00
Easting: 604720.00
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class:
Source Type:

---

22 ***1 of 1*** ***SE/148.7*** ***225.9 / 1.01*** ***WWIS***

ON

Well ID: 5738379
Construction Date:
Primary Water Use: Not Used
Sec. Water Use:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: 159678
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: 12/1/2003
Selected Flag: Yes
Abandonment Rec:
Contractor: 6809
Form Version: 2
Owner:
Street Name:
County: SIMCOE
Municipality: BARRIE CITY
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	11099893	**Elevation:**	226.391464
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	o	**East83:**	604205
Code OB Desc:	Overburden	**North83:**	4914324
Open Hole:		**Org CS:**	N83a
Cluster Kind:		**UTMRC:**	9
Date Completed:	9/22/2003	**UTMRC Desc:**	unknown UTM
Remarks:		**Location Method:**	wc
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932950820
Layer:	4
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	28
Other Materials:	SAND
Mat3:	
Other Materials:	
Formation Top Depth:	12
Formation End Depth:	16
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932950818
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	06
Most Common Material:	SILT
Mat2:	81
Other Materials:	SANDY
Mat3:	
Other Materials:	
Formation Top Depth:	1
Formation End Depth:	7
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932950819
Layer:	3
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	
Other Materials:	
Mat3:	

Other Materials:
Formation Top Depth: 7
Formation End Depth: 12
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932950817
Layer: 1
Color:
General Color:
Mat1: 01
Most Common Material: FILL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 1
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933247280
Layer: 1
Plug From: 0
Plug To: 4
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933247281
Layer: 2
Plug From: 0
Plug To: 8
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933247282
Layer: 3
Plug From: 8
Plug To: 12
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 0
Method Construction: Not Known
Other Method Construction:

Pipe Information

Pipe ID: 11103608
Casing No: 1

Comment:
Alt Name:

Construction Record - Casing

Casing ID:	930835717
Layer:	2
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	13
Casing Diameter:	2
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930835716
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	4
Casing Diameter:	2
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	933407372
Layer:	1
Slot:	010
Screen Top Depth:	13
Screen End Depth:	16
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2

Water Details

Water ID:	934045201
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	5
Water Found Depth UOM:	ft

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23 ***1 of 1*** ***NNE/149.0*** ***223.9 / -0.92*** ***ON*** ***WWIS***

Well ID:	7106250	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:	Dewatering	***Date Received:***	6/11/2008
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Dewatering	***Abandonment Rec:***	
Water Type:		***Contractor:***	6875
Casing Material:		***Form Version:***	5
Audit No:	M01886	***Owner:***	
Tag:	A065728	***Street Name:***	249 BRADFORD ST.
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	BARRIE CITY

Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1002700359
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 3/3/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 224.390441
Elevrc:
Zone: 17
East83: 604183
North83: 4914561
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002700363
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: JETTING

Pipe Information

Pipe ID: 1002700364
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002700366
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 5.2
Casing Diameter:
Casing Diameter UOM:

Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002700365
Layer:
Slot:
Screen Top Depth: 5.2
Screen End Depth: 8.2
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002700367
Pump Set At:
Static Level: 2.53
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002700361
Diameter: 20
Depth From:
Depth To: 8.2
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002700368
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 3/3/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 224.27272
Elevrc:
Zone: 17
East83: 604197
North83: 4914542
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002700372
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: JETTING

Pipe Information

Pipe ID: 1002700373
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002700375
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 4.9
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002700374
Layer:
Slot:
Screen Top Depth: 4.9
Screen End Depth: 7.9
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002700376
Pump Set At:
Static Level: 2.11
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:

Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002700370
Diameter: 20
Depth From:
Depth To: 7.9
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002700377
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 3/4/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 224.190093
Elevrc:
Zone: 17
East83: 604204
North83: 4914519
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002700381
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: JETTING

Pipe Information

Pipe ID: 1002700382
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002700384
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:

Depth To: 6.1
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002700383
Layer:
Slot:
Screen Top Depth: 6.1
Screen End Depth: 7.6
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002700385
Pump Set At:
Static Level: 2.14
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002700379
Diameter: 20
Depth From:
Depth To: 7.6
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1001613539
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole: N
Cluster Kind:
Date Completed: 3/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 224.390441
Elevrc:
Zone: 17
East83: 604183
North83: 4914561
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID:	1002700408
Layer:	3
Color:	2
General Color:	GREY
Mat1:	05
Most Common Material:	CLAY
Mat2:	34
Other Materials:	TILL
Mat3:	84
Other Materials:	SILTY
Formation Top Depth:	8.2
Formation End Depth:	8.3
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1002700406
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	01
Most Common Material:	FILL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	3
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1002700407
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	84
Other Materials:	SILTY
Mat3:	
Other Materials:	
Formation Top Depth:	3
Formation End Depth:	8.2
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1002700410
Layer:	1
Plug From:	0
Plug To:	2
Plug Depth UOM:	m

Method of Construction & Well

Use

Method Construction ID:
Method Construction Code: 8
Method Construction: Jetting
Other Method Construction:

Pipe Information

Pipe ID: 1002700404
Casing No: 0
Comment:
Alt Name:

Construction Record - Screen

Screen ID: 1002700412
Layer: 1
Slot: 20
Screen Top Depth:
Screen End Depth:
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 10.5

Results of Well Yield Testing

Pump Test ID: 1002700405
Pump Set At:
Static Level: 2.5
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code: 0
Water State After Test:
Pumping Test Method: 0
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Water Details

Water ID: 1002700411
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 2.5
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1002700409
Diameter: 20
Depth From: 0
Depth To: 8.3
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID:	1002700395	***Elevation:***	223.845657
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	604220
Code OB Desc:		***North83:***	4914494
Open Hole:		***Org CS:***	UTM83
Cluster Kind:	This is a record from cluster log sheet	***UTMRC:***	3
Date Completed:	3/7/2008	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Annular Space/Abandonment Sealing Record

Plug ID:	1002700399
Layer:	
Plug From:	
Plug To:	
Plug Depth UOM:	

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	
Method Construction:	
Other Method Construction:	JETTING

Pipe Information

Pipe ID:	1002700400
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1002700402
Layer:	
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	
Depth To:	5.2
Casing Diameter:	
Casing Diameter UOM:	
Casing Depth UOM:	m

Construction Record - Screen

Screen ID:	1002700401
Layer:	
Slot:	
Screen Top Depth:	5.2

Screen End Depth: 8.2
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002700403
Pump Set At:
Static Level: 3.27
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002700397
Diameter: 20
Depth From:
Depth To: 8.2
Hole Depth UOM: m
Hole Diameter UOM: cm

Bore Hole Information

Bore Hole ID: 1002700386
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind: This is a record from cluster log sheet
Date Completed: 3/6/2008
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 223.848266
Elevrc:
Zone: 17
East83: 604221
North83: 4914503
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1002700390
Layer:
Plug From:
Plug To:
Plug Depth UOM:

Method of Construction & Well

Use

Method Construction ID:
Method Construction Code:
Method Construction:
Other Method Construction: JETTING

Pipe Information

Pipe ID: 1002700391
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1002700393
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 4.6
Casing Diameter:
Casing Diameter UOM:
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1002700392
Layer:
Slot:
Screen Top Depth: 4.6
Screen End Depth: 7.6
Screen Material:
Screen Depth UOM: m
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1002700394
Pump Set At:
Static Level: 2.56
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate:
Levels UOM: m
Rate UOM:
Water State After Test Code:
Water State After Test:
Pumping Test Method:
Pumping Duration HR:
Pumping Duration MIN:
Flowing:

Hole Diameter

Hole ID: 1002700388
Diameter: 20
Depth From:

Depth To: 7.6
Hole Depth UOM: m
Hole Diameter UOM: cm

---

24 **1 of 1** **ESE/149.8** **221.8 / -3.02** **Trow Associates Inc.** **GEN**
242 Bradford Street
Barrie ON L4N 3B6

Generator No: ON5507609
Status:
Approval Years: 07,08
Contam. Facility:
MHSW Facility:
SIC Code: 541330
SIC Description: Engineering Services

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

Detail(s)

Waste Class: 221
Waste Class Desc: LIGHT FUELS

---

25 **1 of 1** **NNE/150.3** **223.9 / -0.99** **BARRIE ON** **WWIS**

Well ID: 7044939
Construction Date:
Primary Water Use: Municipal
Sec. Water Use:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: Z51750
Tag: A050771
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 6/14/2007
Selected Flag: Yes
Abandonment Rec:
Contractor: 7075
Form Version: 3
Owner:
Street Name: 249 BRADFORD ST
County: SIMCOE
Municipality: BARRIE CITY
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 11767440
DP2BR:
Spatial Status:
Code OB: o
Code OB Desc: Overburden
Open Hole:
Cluster Kind:
Date Completed: 3/20/2007
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 224.615585
Elevrc:
Zone: 17
East83: 604157
North83: 4914575
Org CS: UTM83
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID:	933104448
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	
Other Materials:	
Formation Top Depth:	1
Formation End Depth:	25
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	933104447
Layer:	1
Color:	8
General Color:	BLACK
Mat1:	02
Most Common Material:	TOPSOIL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	1
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	933321042
Layer:	1
Plug From:	0
Plug To:	20
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	4
Method Construction:	Rotary (Air)
Other Method Construction:	

Pipe Information

Pipe ID:	11775130
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930900885

Layer:	2
Material:	1
Open Hole or Material:	STEEL
Depth From:	19
Depth To:	21
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930900884
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	-1.5
Depth To:	21
Casing Diameter:	6.125
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	933424990
Layer:	1
Slot:	12
Screen Top Depth:	21
Screen End Depth:	25
Screen Material:	1
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	5.25

Results of Well Yield Testing

Pump Test ID:	11779238
Pump Set At:	
Static Level:	7.3
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	

Water Details

Water ID:	934086968
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	20
Water Found Depth UOM:	ft

Hole Diameter

Hole ID: 11854087
Diameter: 7
Depth From: 20
Depth To: 25
Hole Depth UOM: ft
Hole Diameter UOM: inch

Hole Diameter

Hole ID: 11854088
Diameter: 9
Depth From: 0
Depth To: 20
Hole Depth UOM: ft
Hole Diameter UOM: inch

---

26 | ***1 of 1*** | ***WSW/163.1*** | ***224.9 / 0.01*** | ***lot 26 con 5 ON*** | ***WWIS***

Well ID: 7317981
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status:
Water Type:
Casing Material:
Audit No: Z293617
Tag: A245723
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: Yes
Data Src:
Date Received: 9/7/2018
Selected Flag: Yes
Abandonment Rec:
Contractor: 7360
Form Version: 7
Owner:
Street Name:
County: SIMCOE
Municipality: BARRIE CITY (VESPRA)
Site Info:
Lot: 026
Concession: 05
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1007283799
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 8/8/2018
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83: 603964
North83: 4914352
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

---

27 | ***1 of 2*** | ***NNW/163.6*** | ***225.9 / 1.09*** | ***Barrie ON*** | ***WWIS***

Well ID: 7209086
Data Entry Status:

Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring	**Date Received:**	10/3/2013
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	7282
Casing Material:		**Form Version:**	7
Audit No:	Z161888	**Owner:**	
Tag:	A150957	**Street Name:**	NORTH SIDE OF BROCK ST. RD. ALLOWANCE SOUTH OF 42 BROCK ST.
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	BARRIE CITY (VESPRA)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1004596386	**Elevation:**	225.853759
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604042
Code OB Desc:		**North83:**	4914585
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	7/26/2013	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1004639707
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	77
Other Materials:	LOOSE
Formation Top Depth:	0
Formation End Depth:	13.5
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1004639714
Layer:	1
Plug From:	0
Plug To:	7

Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1004639715
Layer: 2
Plug From: 7
Plug To: 13.5
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: B
Method Construction: Other Method
Other Method Construction: HYDRO VAC.

Pipe Information

Pipe ID: 1004639706
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004639710
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 8.5
Casing Diameter: 2.049
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1004639711
Layer: 1
Slot: 10
Screen Top Depth: 8.5
Screen End Depth: 13.5
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.375

Hole Diameter

Hole ID: 1004639708
Diameter: 16
Depth From: 0
Depth To: 13.5
Hole Depth UOM: ft
Hole Diameter UOM: inch

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
27	2 of 2	NNW/163.6	225.9 / 1.09	Barrie ON	WWIS

Well ID: 7280991
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: Z210756
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:
Date Received: 2/13/2017
Selected Flag: Yes
Abandonment Rec: Yes
Contractor: 7282
Form Version: 7
Owner:
Street Name: 43 BROCK ST
County: SIMCOE
Municipality: BARRIE CITY (VESPRA)
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1006351712
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 7/6/2016
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 225.853759
Elevrc:
Zone: 17
East83: 604042
North83: 4914585
Org CS: UTM83
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Pipe Information

Pipe ID: 1006575619
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006575623
Layer:
Material:
Open Hole or Material:
Depth From:
Depth To:
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1006575624
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Water Details

Water ID: 1006575622
Layer: 1
Kind Code:
Kind:
Water Found Depth: 11.5
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1006575621
Diameter: 8
Depth From: 0
Depth To: 13.5
Hole Depth UOM: ft
Hole Diameter UOM: inch

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28 | ***1 of 1*** | ***E/173.5*** | ***220.8 / -4.08*** | ***UNKNOWN***
ON BRADFORD FROM TIFFIN TO THE W.W.T.P.
BARRIE ON | ***SPL***

Ref No: 184858
Site No:
Incident Dt: 8/12/2000
Year:
Incident Cause: UNKNOWN
Incident Event:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: NOT ANTICIPATED
Nature of Impact:
Receiving Medium: LAND
Receiving Env:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 8/12/2000
Dt Document Closed:
Incident Reason: UNKNOWN
Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary: SOURCE UKN-UKN QTY USED MOTOR OIL TO ROADWAY OVER110 METERS,SWEPT-UP
Contaminant Qty:

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type:
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: 70101
Site Lot:
Site Conc:
Northing:
Easting:
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class:
Source Type:

---

29 | ***1 of 1*** | ***NW/178.9*** | ***225.9 / 1.01*** | ***Lot 25 Concession 5 (Sandford & Brock Street)***
Barrie Barrie
ON | ***LIMO***

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

ECA/Instrument No:	X4104	***Natural Attenuation:***	
Oper Status 2016:	Historic	***Liners:***	
C of A Issue Date:		***Cover Material:***	
C of A Issued to:		***Leachate Off-Site:***	
Lndfl Gas Mgmt (P):		***Leachate On Site:***	
Lndfl Gas Mgmt (F):		***Req Coll Lndfll Gas:***	
Lndfl Gas Mgmt (E):		***Lndfll Gas Coll:***	
Lndfl Gas Mgmt Sys:		***Total Waste Rec:***	
Landfill Gas Mntr:		***TWR Methodology:***	
Leachate Coll Sys:		***TWR Unit:***	
ERC Est Vol (m3):		***Tot Aprv Cap Unit:***	
ERC Volume Unit:		***Financial Assurance:***	
ERC Dt Last Det:		***Last Report Year:***	
Landfill Type:		***MOE Region:***	
Source File Type:	Historic and Closed Landfills	***MOE District:***	
Fill Rate:		***Site County:***	
Fill Rate Unit:		***Lot:***	
Tot Fill Area (ha):		***Concession:***	
Tot Site Area (ha):		***Latitude:***	
Footprint:		***Longitude:***	
Tot Apprv Cap (m3):		***Easting:***	
Contam Atten Zone:		***Northing:***	
Grndwtr Mntr:		***UTM Zone:***	
Surf Wtr Mntr:		***Data Source:***	
Air Emis Monitor:			
Approved Waste Type:			
Client Site Name:			
ERC Methodology:			
Site Name:			
Site Location Details:	Lot 25 Concession 5 (Sandford & Brock Street) Barrie Barrie		
Service Area:			
Page URL:			

30	***1 of 2***	***NNW/181.6***	***225.9 / 1.01***	***AIRGAS BARRIE*** ***40 BROCK ST*** ***BARRIE ON***	***EXP***

Instance No:	10209656
Instance ID:	13820
Instance Type:	FS Facility
Description:	FS Propane Refill Cntr - Cylr Fill
Status:	EXPIRED
TSSA Program Area:	
Maximum Hazard Rank:	
Facility Type:	
Expired Date:	

30	***2 of 2***	***NNW/181.6***	***225.9 / 1.01***	***AIRGAS BARRIE*** ***40 BROCK ST*** ***BARRIE ON***	***EXP***

Instance No:	11525477
Instance ID:	89043
Instance Type:	FS Propane Tank
Description:	FS Propane Tank
Status:	EXPIRED
TSSA Program Area:	
Maximum Hazard Rank:	
Facility Type:	
Expired Date:	

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
31	1 of 1	SE/203.4	225.9 / 1.01	The Corporation of the City of Barrie 38 Tiffin Street Barrie ON L4N 2M7	SPL

Ref No:	3020-A73LH9	**Discharger Report:**	
Site No:	NA	**Material Group:**	
Incident Dt:	2016/02/11	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Miscellaneous Communal
Incident Event:	Leak/Break	**Agency Involved:**	
Contaminant Code:	44	**Nearest Watercourse:**	
Contaminant Name:	SEWAGE,RAW UNCHLORINATED	**Site Address:**	38 Tiffin Street
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	L4N 2M7
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Land	**Northing:**	4914312
MOE Response:	No	**Easting:**	604268
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2016/02/12	**Site Map Datum:**	
Dt Document Closed:	2016/02/20	**SAC Action Class:**	Land Spills
Incident Reason:	Equipment Failure	**Source Type:**	
Site Name:	Residential Site<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	C of Barrie: sewage to land from broken lateral, cntd & clnd		
Contaminant Qty:	0 other - see incident description		

32	1 of 1	N/203.4	222.1 / -2.72	BARRIE ON	WWIS

Well ID:	7186712	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring	**Date Received:**	9/6/2012
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	7282
Casing Material:		**Form Version:**	4
Audit No:	Z62894	**Owner:**	
Tag:	A132070	**Street Name:**	249 BRADFORD ST.
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	BARRIE CITY (VESPRA)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1004150223	**Elevation:**	223.623916
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	604129

Code OB Desc:		**North83:**	4914636
Open Hole:	Y	**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	3
Date Completed:	8/21/2012	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1004176003
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	85
Other Materials:	SOFT
Formation Top Depth:	0
Formation End Depth:	13.7
Formation End Depth UOM:	m

Overburden and Bedrock Materials Interval

Formation ID:	1004176004
Layer:	2
Color:	2
General Color:	GREY
Mat1:	06
Most Common Material:	SILT
Mat2:	
Other Materials:	
Mat3:	85
Other Materials:	SOFT
Formation Top Depth:	13.7
Formation End Depth:	14.3
Formation End Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1004176006
Layer:	1
Plug From:	0
Plug To:	3.7
Plug Depth UOM:	m

Annular Space/Abandonment Sealing Record

Plug ID:	1004176008
Layer:	3
Plug From:	10.1
Plug To:	10.7

Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004176007
Layer: 2
Plug From: 3.7
Plug To: 10.1
Plug Depth UOM: m

Method of Construction & Well Use

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

Pipe Information

Pipe ID: 1004176002
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004176010
Layer:
Material: 5
Open Hole or Material: PLASTIC
Depth From:
Depth To: 11.3
Casing Diameter: 0.05
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1004176011
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material: 5
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Hole Diameter

Hole ID: 1004176005
Diameter: 20.9
Depth From:
Depth To: 14.3
Hole Depth UOM: m
Hole Diameter UOM: cm

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
33	1 of 1	ENE/212.8	221.9 / -2.91	THE CORPORATION OF THE CITY OF BARRIE 249 BRADFORD STREET NOT AVAILABLE BARRIE ON L4M4T5	NPRI

NPRI ID:	5986	**Org ID:**	101692
Other ID:		**Submit Date:**	5/28/2015
No Other ID:		**Last Modified:**	6/10/2015 10:59:04 AM
Track ID:	128921	**Contact ID:**	
Report ID:	53978	**Cont Type:**	
Report Type:	NPRI	**Contact Title:**	
Rpt Type ID:	1	**Cont First Name:**	
Report Year:	2014	**Cont Last Name:**	
Not-Current Rpt?:	No	**Contact Position:**	
Yr of Last Filed Rpt:	2014	**Contact Fax:**	
Fac ID:	222610	**Contact Ph.:**	
Fac Name:	WASTEWATER TREATMENT FACILITY	**Cont Area Code:**	
Fac Address1:	249 BRADFORD STREET	**Contact Tel.:**	
Fac Address2:	NOT AVAILABLE	**Contact Ext.:**	
Fac Postal Zip:	L4M4T5	**Cont Fax Area Cde:**	
Facility Lat:	0	**Contact Fax:**	
Facility Long:	0	**Contact Email:**	
DLS (Last Filed Rpt):		**Latitude:**	44.3763
Facility DLS:		**Longitude:**	-79.6907
Datum:	1983	**UTM Zone:**	
Facility Cmnts:		**UTM Northing:**	
URL:	www.barrie.ca	**UTM Easting:**	
No of Empl.:	33	**Waste Streams:**	
Parent Co.:		**No Streams:**	
No Parent Co.:		**Waste Off Sites:**	
Pollut Prev Cmnts:		**No Off Sites:**	
Stacks:		**Shutdown:**	
No of Stacks:		**No of Shutdown:**	
Canadian SIC Code (2 digit):			
Canadian SIC Code:			
SIC Code Description:			
American SIC Code:			
NAICS Code (2 digit):	22		
NAICS 2 Description:	Utilities		
NAICS Code (4 digit):	2213		
NAICS 4 Description:	Water, sewage and other systems		
NAICS Code (6 digit):	221320		
NAICS 6 Description:	Sewage treatment facilities		

Substance Release Report

Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	48.6873
Unit:	tonnes
Basis of Estimate Cd:	C
Basis of Estimate Desc:	C- Mass Balance

Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Volatile Organic Compounds (VOCs)
Chem (fr):	Composés organiques volatils (COV)
Quantity:	22.5195

Unit:	tonnes
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward
Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Ammonia (total)
Chem (fr):	Ammoniac (total)
Quantity:	47.5277
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates
Category Type ID:	3
Category Type Desc:	Fugitive
Category Type Desc (fr):	Émissions fugitives
Grouping:	Total Air
Trans Code:	VOCs
Chem:	Mercury (and its compounds)
Chem (fr):	Mercure (et ses composés)
Quantity:	.0003
Unit:	kg
Basis of Estimate Cd:	E2
Basis of Estimate Desc:	E2- Published Emission Factors - In use from 2003 and onward
Category Type ID:	7
Category Type Desc:	Direct Discharges
Category Type Desc (fr):	Évacuation directes
Grouping:	Total Water
Trans Code:	WatD
Chem:	Phosphorus (total)
Chem (fr):	Phosphore (total)
Quantity:	.8606
Unit:	tonnes
Basis of Estimate Cd:	O
Basis of Estimate Desc:	O- Engineering Estimates

34 **1 of 2** **SSW/220.0** **226.9 / 2.01** **Tiffin Street and Innisfil Street**
Barrie ON **SPL**

Ref No:	5862-AEFKNS	**Discharger Report:**	
Site No:	NA	**Material Group:**	
Incident Dt:	10/5/2016	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:		**Sector Type:**	Miscellaneous Industrial
Incident Event:	Leak/Break	**Agency Involved:**	
Contaminant Code:	27	**Nearest Watercourse:**	
Contaminant Name:	PAINT OR PAINT RELATED N.O.S.	**Site Address:**	Tiffin Street and Innisfil Street
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Land	**Northing:**	4914225
MOE Response:		**Easting:**	604046
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	10/5/2016	**Site Map Datum:**	
Dt Document Closed:	10/7/2016	**SAC Action Class:**	Land Spills
Incident Reason:	Unknown / N/A	**Source Type:**	
Site Name:	.<UNOFFICIAL>		
Site County/District:			

Site Geo Ref Meth:
Incident Summary: City of Barrie: 5 L White paint to roadway and 2 cbs, cntnd, clng
Contaminant Qty: 5 L

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34 | **2 of 2** | **SSW/220.0** | **226.9 / 2.01** | **City of Barrie**
Tiffan Street and Innisfil St
Barrie ON | **SPL**

Ref No:	2443-AYZN4B	**Discharger Report:**	
Site No:	NA	**Material Group:**	
Incident Dt:	2018/05/22	**Health/Env Conseq:**	2 - Minor Environment
Year:		**Client Type:**	Other (Describe)
Incident Cause:		**Sector Type:**	Miscellaneous Communal
Incident Event:	Collision/Accident	**Agency Involved:**	
Contaminant Code:	12	**Nearest Watercourse:**	
Contaminant Name:	GASOLINE	**Site Address:**	Tiffan Street and Innisfil St
Contaminant Limit 1:		**Site District Office:**	Barrie
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:	1203	**Site Region:**	Central
Environment Impact:		**Site Municipality:**	Barrie
Nature of Impact:		**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:	Land; Surface Water	**Northing:**	4914222.54
MOE Response:	No	**Easting:**	604044.48
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	2018/05/22	**Site Map Datum:**	
Dt Document Closed:	2018/05/25	**SAC Action Class:**	Watercourse Spills
Incident Reason:	Unknown / N/A	**Source Type:**	Motor Vehicle

Site Name: Impacted North CB<UNOFFICIAL>
Site County/District: County of Simcoe
Site Geo Ref Meth:
Incident Summary: City of Barrie: Hydrocarbon sheen in cb, cntd.
Contaminant Qty: 0 L

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35 | **1 of 1** | **NNW/222.5** | **223.2 / -1.63** | **PRIVATE RESIDENCE**
190 BRADFORD ST. MOTOR VEHICLE
(OPERATING FLUID)
BARRIE CITY ON L4N 3B5 | **SPL**

Ref No:	97768	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	3/24/1994	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	OTHER CONTAINER LEAK	**Sector Type:**	
Incident Event:		**Agency Involved:**	
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	POSSIBLE	**Site Municipality:**	70101
Nature of Impact:	Water course or lake	**Site Lot:**	
Receiving Medium:	LAND / WATER	**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	WORKS
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	3/24/1994	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	NEGLIGENCE (APPARENT)	**Source Type:**	

Site Name:
Site County/District:
Site Geo Ref Meth:

Incident Summary: RESIDENT: TRANSMISSION FLUID LEAK TO ROAD, SEWER& DIAMOND CREEK
Contaminant Qty:

---

36 **1 of 1** **SSW/225.2** **225.8 / 0.93** **Barrie ON** **WWIS**

Well ID:	7282888	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Test Hole	**Date Received:**	3/13/2017
Sec. Water Use:	Monitoring	**Selected Flag:**	Yes
Final Well Status:	Monitoring and Test Hole	**Abandonment Rec:**	
Water Type:		**Contractor:**	7241
Casing Material:		**Form Version:**	7
Audit No:	Z253429	**Owner:**	
Tag:	A185473	**Street Name:**	108-120 TIFFIN ST
Construction Method:		**County:**	SIMCOE
Elevation (m):		**Municipality:**	BARRIE CITY (VESPRA)
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	
Well Depth:		**Concession:**	
Overburden/Bedrock:		**Concession Name:**	
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1006366169	**Elevation:**	226.619232
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	603981
Code OB Desc:		**North83:**	4914246
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	2/5/2017	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1006586091
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	10
Formation End Depth:	18
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1006586090
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	11
Other Materials:	GRAVEL
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	10
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006586099
Layer:	1
Plug From:	0
Plug To:	7
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1006586100
Layer:	2
Plug From:	7
Plug To:	18
Plug Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	
Method Construction Code:	D
Method Construction:	Direct Push
Other Method Construction:	

Pipe Information

Pipe ID:	1006586089
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1006586094
Layer:	1
Material:	5
Open Hole or Material:	PLASTIC
Depth From:	0
Depth To:	8
Casing Diameter:	2
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1006586095
Layer:	1
Slot:	.10
Screen Top Depth:	8
Screen End Depth:	18
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2.25

Hole Diameter

Hole ID:	1006586092
Diameter:	3.75
Depth From:	0
Depth To:	18
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

---

37 ***1 of 2*** ***NW/232.4*** ***226.0 / 1.10*** ***111 Sanford St Barrie ON L4N3C6*** ***EHS***

Order No:	20151222004	***Nearest Intersection:***	
Status:	C	***Municipality:***	
Report Type:	Custom Report	***Client Prov/State:***	ON
Report Date:	29-DEC-15	***Search Radius (km):***	.25
Date Received:	22-DEC-15	***X:***	-79.694887
Previous Site Name:		***Y:***	44.377733
Lot/Building Size:			
Additional Info Ordered:			

---

37 ***2 of 2*** ***NW/232.4*** ***226.0 / 1.10*** ***Barrie ON*** ***WWIS***

Well ID:	7209093	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:	Monitoring	***Date Received:***	10/3/2013
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Observation Wells	***Abandonment Rec:***	
Water Type:		***Contractor:***	7282
Casing Material:		***Form Version:***	7
Audit No:	Z161881	***Owner:***	
Tag:	A143863	***Street Name:***	EAST SIDE OF SANDFORD ST. RD. ALLOWANCE WEST OF 111 SANDSFORD ST
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	BARRIE CITY (VESPRA)
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	
Well Depth:		***Concession:***	
Overburden/Bedrock:		***Concession Name:***	
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1004596419	**Elevation:**	226.400024
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	603974
Code OB Desc:		**North83:**	4914626
Open Hole:		**Org CS:**	UTM83
Cluster Kind:		**UTMRC:**	4
Date Completed:	7/26/2013	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	wwr
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1004639837
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	91
Other Materials:	WATER-BEARING
Formation Top Depth:	5
Formation End Depth:	13
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	1004639836
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	06
Other Materials:	SILT
Mat3:	77
Other Materials:	LOOSE
Formation Top Depth:	0
Formation End Depth:	5
Formation End Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID:	1004639844
Layer:	1
Plug From:	0
Plug To:	2
Plug Depth UOM:	ft

Annular Space/Abandonment Sealing Record

Plug ID: 1004639845
Layer: 2
Plug From: 2
Plug To: 13
Plug Depth UOM: ft

Method of Construction & Well Use

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

Pipe Information

Pipe ID: 1004639835
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004639840
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 3
Casing Diameter: 2.049
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1004639841
Layer: 1
Slot: 10
Screen Top Depth: 3
Screen End Depth: 13
Screen Material: 5
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2.375

Hole Diameter

Hole ID: 1004639838
Diameter: 8.25
Depth From: 0
Depth To: 13
Hole Depth UOM: ft
Hole Diameter UOM: inch

38	*1 of 3*	*WNW/237.9*	*225.9 / 1.01*	***BARRIE CITY*** ***BROCK ST./INNISFIL ST.*** ***BARRIE CITY ON***	***CA***

Certificate #: 3-0932-94-
Application Year: 94

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

Issue Date: 7/26/1994
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

---

38 **2 of 3** **WNW/237.9** **225.9 / 1.01** **P.U.C. BARRIE**
BROCK ST.N./INNISFIL ST.
BARRIE CITY ON **CA**

Certificate #: 7-0726-94-
Application Year: 94
Issue Date: 7/28/1994
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

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38 **3 of 3** **WNW/237.9** **225.9 / 1.01** **Lot 25 Concession 5 (Innisfil & Brock Street)**
Barrie Barrie
ON **LIMO**

ECA/Instrument No: X4105
Oper Status 2016: Historic
C of A Issue Date:
C of A Issued to:
Lndfl Gas Mgmt (P):
Lndfl Gas Mgmt (F):
Lndfl Gas Mgmt (E):
Lndfl Gas Mgmt Sys:
Landfill Gas Mntr:
Leachate Coll Sys:
ERC Est Vol (m3):
ERC Volume Unit:
ERC Dt Last Det:
Landfill Type:
Source File Type: Historic and Closed Landfills
Fill Rate:
Fill Rate Unit:
Tot Fill Area (ha):
Tot Site Area (ha):
Footprint:
Tot Apprv Cap (m3):
Contam Atten Zone:
Grndwtr Mntr:
Surf Wtr Mntr:
Air Emis Monitor:
Approved Waste Type:
Client Site Name:
ERC Methodology:

Natural Attenuation:
Liners:
Cover Material:
Leachate Off-Site:
Leachate On Site:
Req Coll Lndfll Gas:
Lndfll Gas Coll:
Total Waste Rec:
TWR Methodology:
TWR Unit:
Tot Aprv Cap Unit:
Financial Assurance:
Last Report Year:
MOE Region:
MOE District:
Site County:
Lot:
Concession:
Latitude:
Longitude:
Easting:
Northing:
UTM Zone:
Data Source:

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

Site Name:
Site Location Details: Lot 25 Concession 5 (Innisfil & Brock Street) Barrie

Barrie

Service Area:
Page URL:

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39 **1 of 3** **W/241.2** **225.9 / 1.01** **184 Innisfil St. Barrie ON** **EHS**

Order No: 20110725034
Status: C
Report Type: Standard Report
Report Date: 7/29/2011
Date Received: 7/25/2011 4:02:53 PM
Previous Site Name:
Lot/Building Size:
Additional Info Ordered: Fire Insur. Maps and/or Site Plans; City Directory

Nearest Intersection: Innisfil St and Brock St
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -79.696315
Y: 44.375946

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39 **2 of 3** **W/241.2** **225.9 / 1.01** **BARRIE PUBLIC UTILITIES COMMISSION 184 INNISFIL ST. C/O 15 BAYFIELD ST. BARRIE ON L4M 4V8** **GEN**

Generator No: ON0519706
Status:
Approval Years: 89
Contam. Facility:
MHSW Facility:
SIC Code: 4911
SIC Description: ELECT. POWER SYS.

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

Detail(s)

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

Waste Class: 122
Waste Class Desc: ALKALINE WASTES - OTHER METALS

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39 **3 of 3** **W/241.2** **225.9 / 1.01** **BARRIE PUBLIC UTILITIES COMMISSION04-319 184 INNISFIL ST. C/O 15 BAYFIELD ST. BARRIE ON L4M 4V8** **GEN**

Generator No: ON0519706
Status:
Approval Years: 92,93,94,95,96,97,98
Contam. Facility:
MHSW Facility:
SIC Code: 4911
SIC Description: ELECT. POWER SYS.

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

Detail(s)

Waste Class: 122
Waste Class Desc: ALKALINE WASTES - OTHER METALS

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

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
40	1 of 1	SSW/244.5	226.9 / 2.01	PUC JESSY'S COUNTRY DINER, 90 TIFFEN STREET AT TIFFEN AND INNISFIL STREETS SANITARY SEWER BARRIE CITY ON	SPL

Ref No: 75069
Site No:
Incident Dt: 8/21/1992
Year:
Incident Cause: PIPE/HOSE LEAK
Incident Event:
Contaminant Code:
Contaminant Name:
Contaminant Limit 1:
Contam Limit Freq 1:
Contaminant UN No 1:
Environment Impact: NOT ANTICIPATED
Nature of Impact:
Receiving Medium: LAND / WATER
Receiving Env:
MOE Response:
Dt MOE Arvl on Scn:
MOE Reported Dt: 8/21/1992
Dt Document Closed:
Incident Reason: UNKNOWN
Site Name:
Site County/District:
Site Geo Ref Meth:
Incident Summary: JESSY'S COUNTRY DINER - GASOLINE ODOUR FROM TOILET DRAIN.
Contaminant Qty:

Discharger Report:
Material Group:
Health/Env Conseq:
Client Type:
Sector Type:
Agency Involved:
Nearest Watercourse:
Site Address:
Site District Office:
Site Postal Code:
Site Region:
Site Municipality: 70101
Site Lot:
Site Conc:
Northing:
Easting:
Site Geo Ref Accu:
Site Map Datum:
SAC Action Class:
Source Type:

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
41	1 of 2	SSW/248.0	227.2 / 2.32	250 Innisfil St Barrie ON L4N 4K4	EHS

Order No: 20100902011
Status: C
Report Type: Site Report
Report Date: 9/3/2010
Date Received: 9/2/2010
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -79.694099
Y: 44.373424

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
41	2 of 2	SSW/248.0	227.2 / 2.32	SGO Designer Glass Central ON 250 Innisfil St Unit 4 Barrie ON L4N 4K4	SCT

Established: 01-FEB-06
Plant Size (ft²): 1250
Employment:

--Details--
Description: Glass Product Manufacturing from Purchased Glass
SIC/NAICS Code: 327215

Description: Glass and Glazing Contractors
SIC/NAICS Code: 238150

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
42	1 of 4	SE/249.1	225.8 / 0.92	TRISTAR PHARMACIES LIMITED 21 ESSA ROAD BARRIE ON L4N 3K4	GEN

Generator No: ON1838400
Status:
Approval Years: 94,95,96,97,98,99,00,01,02,03,04,05
Contam. Facility:
MHSW Facility:
SIC Code: 6031
SIC Description: PHARMACIES

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

Detail(s)

Waste Class: 261
Waste Class Desc: PHARMACEUTICALS

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
42	2 of 4	SE/249.1	225.8 / 0.92	Sacksen Medicine Prof. Corp 21 Essa Rd Barrie ON	GEN

Generator No: ON6349136
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 621110
SIC Description: OFFICES OF PHYSICIANS

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

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
42	3 of 4	SE/249.1	225.8 / 0.92	Sacksen Medicine Prof. Corp 21 Essa Rd Barrie ON	GEN

Generator No: ON6349136
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 621110
SIC Description: Offices of Physicians

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

Detail(s)

Waste Class: 312
Waste Class Desc: PATHOLOGICAL WASTES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
42	4 of 4	SE/249.1	225.8 / 0.92	Sacksen Medicine Prof. Corp 21 Essa Rd Barrie ON	GEN

Generator No: ON6349136
Status:
Approval Years: 2012

PO Box No:
Country:
Choice of Contact:

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

Contam. Facility:		**Co Admin:**	
MHSW Facility:		**Phone No Admin:**	
SIC Code:	621110		
SIC Description:	Offices of Physicians		

Detail(s)

Waste Class:	312
Waste Class Desc:	PATHOLOGICAL WASTES

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43 | ***1 of 1*** | ***ESE/249.4*** | ***224.9 / 0.01*** | ***CO-OP***
ESSA RD. & TIFFIN RD. S.
BARRIE CITY ON | ***SPL***

Ref No:	216149	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	11/15/2001	**Health/Env Conseq:**	
Year:		**Client Type:**	
Incident Cause:	VALVE/FITTING LEAK OR FAILURE	**Sector Type:**	
Incident Event:		**Agency Involved:**	CITY OF BARRIE
Contaminant Code:		**Nearest Watercourse:**	
Contaminant Name:		**Site Address:**	
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site Postal Code:**	
Contaminant UN No 1:		**Site Region:**	
Environment Impact:	Possible	**Site Municipality:**	70101
Nature of Impact:	Multi Media Pollution	**Site Lot:**	
Receiving Medium:	Land, Water	**Site Conc:**	
Receiving Env:		**Northing:**	
MOE Response:		**Easting:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Accu:**	
MOE Reported Dt:	11/15/2001	**Site Map Datum:**	
Dt Document Closed:		**SAC Action Class:**	
Incident Reason:	ERROR	**Source Type:**	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	CO-OP: 757 L 12% SODIUM HYPOCHLORIDE TO GROUND AND SANITARY SEWER		
Contaminant Qty:			

Unplottable Summary

Total: 86 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	STOLP HOMES (BARRIE) DEVELOPERS INC.	ESSA RD. AT ENTRANCE 1	BARRIE CITY ON	
CA	LAFARGE CANADA INC.	TIFFIN STREET	BARRIE CITY ON	
CA	KEMPSIDE PROPERTIES LTD.	BROCK ST.	BARRIE CITY ON	
CA	BARRIE CITY	LAKESHORE DR.	BARRIE CITY ON	
CA	BARRIE CITY	TIFFIN ST/ANNE ST/SHORT ST.	BARRIE CITY ON	
CA	The Corporation of the City of Barrie	Lakeshore Dr	Barrie ON	
CA	287175 ONTARIO LTD.-STOLP HOMES	EASEMENT-W. OF ESSA RD.	BARRIE CITY ON	
CA	CHAU VAN LUU	SANFORD STREET	BARRIE CITY ON	
CA	BARRIE PUBLIC UTILITIES COMMISSION	LAKESHORE DRIVE	BARRIE CITY ON	
CA	BARRIE MUNICIPAL NON-PROFIT HOUSING CORP	FIFTY APARTM. UNITS ESSA RD.	BARRIE CITY ON	
CA	BARRIE MUNICIPAL NON-PROFIT HOUSING	ESSA RD.	BARRIE CITY ON	
CA	BARRIE CITY	LAKESHORE DR. TRUNK SANITARY	BARRIE CITY ON	
CA		South Half Lots 6 & 7, Concession 14	Barrie ON	
CA	P.U.C. BARRIE - PUC WELL #15	LAKESHORE DRIVE	BARRIE CITY cl sent 1/11/93 ON	
CA	METROLINX	South/East Corner of Essa Road/Tiffin Street and Lakeshore Drive	Barrie ON	
CA	P.U.C. BARRIE	INNISFIL ST.PUMPING STATION	BARRIE ON	
ECA	The Corporation of the City of Barrie	Lakeshore Dr	Barrie ON	L4M 4T5
ECA	The Corporation of the City of Barrie	Lakeshore Dr Lakeshore Drive from Toronto Street to Tiffin Street	Barrie ON	L4M 4T5

ECA	The Corporation of the City of Barrie	Lot 8 and 9, Concession 14	Barrie ON	L4M 4T5
EHS		Tiffin St.	Barrie ON	
EHS		Lakeshore Drive	Barrie ON	
EXP	ARAGAIN LODGE LTD	LOT 25 CON 5	BARRIE ON	K1C 7E2
EXP	GOHLER ARAGAIN LODGE LTD	LOT 25 CON 5	BARRIE TWP ON	M1V 1S9
EXP	GOHLER ARAGAIN LODGE LTD	LOT 25 CON 5	BARRIE TWP ON	M1V 1S9
EXP	GOHLER ARAGAIN LODGE LTD	LOT 25 CON 5	BARRIE TWP ON	
EXP	GOHLER ARAGAIN LODGE LTD	LOT 25 CON 5	BARRIE TWP ON	
GEN	The Corporation of the City of Barrie	Tiffin Street	Barrie ON	
GEN	The Corporation of the City of Barrie	Tiffin Street	Barrie ON	L4M 4T5
GEN	The City of Barrie	Tiffin Street	Barrie ON	L4N 2N4
GEN	The City of Barrie	Tiffin Street	Barrie ON	L4N 2N4
GEN	The City of Barrie	Sanford Street	Barrie ON	L4N 3C5
GEN	The City of Barrie	Sanford Street	Barrie ON	L4N 3C5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Tiffin Street	Barrie ON	L4N 2N4
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4N 3C5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	
GEN	THE CORPORATION OF THE CITY OF BARRIE	Tiffin Street	Barrie ON	
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4N 3C5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4M 4V1
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4M 4V1
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4M 4V1

GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4N 3C5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4M 4V1
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4N 3C5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4M 4V1
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4N 3C5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4N 3C5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	L4M 4V1
GEN	THE CORPORATION OF THE CITY OF BARRIE	Innisfil Street	Barrie ON	
GEN	THE CORPORATION OF THE CITY OF BARRIE	Sanford Street	Barrie ON	
GEN	THE CORPORATION OF THE CITY OF BARRIE	Tiffin Street	Barrie ON	L4N 2N4
GEN	THE CORPORATION OF THE CITY OF BARRIE	Tiffin Street	Barrie ON	L4N 2N4
GEN	THE CORPORATION OF THE CITY OF BARRIE	Tiffin Street	Barrie ON	L4N 2N4
GEN	THE CORPORATION OF THE CITY OF BARRIE	Innisfil Street	Barrie ON	L4N 4K5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Innisfil Street	Barrie ON	L4N 4K5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Innisfil Street	Barrie ON	L4N 4K5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Tiffin Street	Barrie ON	L4N 2N4
GEN	THE CORPORATION OF THE CITY OF BARRIE	Innisfil Street	Barrie ON	L4N 4K5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Innisfil Street	Barrie ON	L4N 4K5
GEN	THE CORPORATION OF THE CITY OF BARRIE	Innisfil Street	Barrie ON	
GEN	THE CORPORATION OF THE CITY OF BARRIE	Tiffin Street	Barrie ON	L4N 2N4

GEN	THE CORPORATION OF THE CITY OF BARRIE	Innisfil Street	Barrie ON	L4N 4K5
NPCB	CKVR TELEVISION	ESSA RD	BARRIE ON	
PRT	ARAGAIN LODGE LTD	LOT 25 CON 5	BARRIE ON	
PRT	GOHLER ARAGAIN LODGE LTD	LOT 25 CON 5	BARRIE TWP ON	
RST	CITY OF BARRIE MARINA	LAKESHORE DR	BARRIE ON	
SPL	The Corporation of the City of Barrie	Innisfil, Tiffin, Essa, Brock	Barrie ON	
SPL	PRIVATE BUSINESS	DITCH ALONG TIFFIN ROAD FUEL STORAGE TANK	BARRIE CITY ON	
SPL	PETRO-CANADA	HWY 11 PETRO-CAN BULK PLANT BULK PLANT/TERMINAL	BARRIE CITY ON	
SPL	ONTARIO HYDRO	TIFFIN STREET MOTOR VEHICLE (OPERATING FLUID)	BARRIE CITY ON	
SPL	The Corporation of the City of Barrie	Lakeshore Dr.	Barrie ON	
SPL	The Corporation of the City of Barrie	Lakeshore Drive	Barrie ON	
SPL	UNKNOWN	BRADFORD-HWY 11 SOUTH OF BRADFORD, NORTHOF RIVER	BARRIE CITY ON	
SPL		ESSA RD. CLOSE TO HARVEY<UNOFFICIAL>	Barrie ON	
SPL		Tiffin Launch Ramp	Barrie ON	
SPL	UNKNOWN	BRADFORD STREET	BARRIE CITY ON	
SPL	BARRIE, CITY OF	BRADFORD ST INFRONT OF AD BRADFORD COMMERCIAL OUTLET. SANITARY SEWER	BARRIE CITY ON	
SPL	Bill Crampton-Barrie Flying Club<UNOFFICIAL>	Lakeshore Dr	Barrie ON	
SPL	CO-OP	MOTOR VEHICLE (OPERATING FLUID)	BARRIE CITY ON	
WWIS		lot 25	ON	
WWIS		lot 25	ON	
WWIS		lot 26	ON	
WWIS		lot 8	ON	

WWIS		BARRIE ON
WWIS	lot 7	ON
WWIS	lot 26	ON

Unplottable Report

Site: ***STOLP HOMES (BARRIE) DEVELOPERS INC.***
ESSA RD. AT ENTRANCE 1 BARRIE CITY ON

Database: ***CA***

Certificate #:	7-0536-90-
Application Year:	90
Issue Date:	5/2/1990
Approval Type:	Municipal water
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***LAFARGE CANADA INC.***
TIFFIN STREET BARRIE CITY ON

Database: ***CA***

Certificate #:	8-5176-95-977
Application Year:	95
Issue Date:	4/8/97
Approval Type:	Industrial air
Status:	First Ammendment in 1997
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	READY-MIX CONCRETE MFG. FACILITY
Contaminants:	Suspended Particulate Matter
Emission Control:	Baghouse (Incl Vent Fil.)

Site: ***KEMPSIDE PROPERTIES LTD.***
BROCK ST. BARRIE CITY ON

Database: ***CA***

Certificate #:	3-1553-89-
Application Year:	89
Issue Date:	8/3/1989
Approval Type:	Municipal sewage
Status:	Approved
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***BARRIE CITY***
LAKESHORE DR. BARRIE CITY ON

Database: ***CA***

Certificate #:	3-2126-88-
Application Year:	88

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

Site: ***BARRIE CITY***
TIFFIN ST/ANNE ST/SHORT ST. BARRIE CITY ON

Database: ***CA***

Certificate #: 3-0868-96-
Application Year: 96
Issue Date: 8/7/1996
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 Barrie***
Lakeshore Dr Barrie ON

Database: ***CA***

Certificate #: 7290-7FPQ8K
Application Year: 2008
Issue Date: 6/18/2008
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: ***287175 ONTARIO LTD.-STOLP HOMES***
EASEMENT-W. OF ESSA RD. BARRIE CITY ON

Database: ***CA***

Certificate #: 3-0252-90-
Application Year: 90
Issue Date: 3/22/1990
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***CHAU VAN LUU***
SANFORD STREET BARRIE CITY ON

Database: ***CA***

Certificate #: 7-0577-96-
Application Year: 96
Issue Date: 7/17/1996
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***BARRIE PUBLIC UTILITIES COMMISSION***
LAKESHORE DRIVE BARRIE CITY ON

Database: ***CA***

Certificate #: 8-3236-92-
Application Year: 92
Issue Date: 10/27/1992
Approval Type: Industrial air
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description: 230 KW DIESEL GEN-SET FOR WELL NO. 15
Contaminants: Nitrogen Oxides
Emission Control: No Controls

Site: ***BARRIE MUNICIPAL NON-PROFIT HOUSING CORP***
FIFTY APARTM. UNITS ESSA RD. BARRIE CITY ON

Database: ***CA***

Certificate #: 3-1557-88-
Application Year: 88
Issue Date: 12/1/1988
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***BARRIE MUNICIPAL NON-PROFIT HOUSING***
ESSA RD. BARRIE CITY ON

Database: ***CA***

Certificate #: 7-1678-88-
Application Year: 88
Issue Date: 1/17/1989
Approval Type: Municipal water
Status: Approved in 1989
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:

Contaminants:
Emission Control:

Site: ***BARRIE CITY***
LAKESHORE DR. TRUNK SANITARY BARRIE CITY ON

Database: ***CA***

Certificate #: 3-1622-86-
Application Year: 86
Issue Date: 12/1/1986
Approval Type: Municipal sewage
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site:
South Half Lots 6 & 7, Concession 14 Barrie ON

Database: ***CA***

Certificate #: 0377-4URK5F
Application Year: 01
Issue Date: 3/12/01
Approval Type: Industrial sewage
Status: Approved
Application Type: New Certificate of Approval
Client Name: A Plus Self Storage Ltd.
Client Address: 25 Morrow Road, Unit #109
Client City: Barrie
Client Postal Code: L4N 3V7
Project Description: This application is for the construction of a stormwater management pond to service a commercial self-storage development facility.
Contaminants:
Emission Control:

Site: ***P.U.C. BARRIE - PUC WELL #15***
LAKESHORE DRIVE BARRIE CITY cl sent 1/11/93 ON

Database: ***CA***

Certificate #: 7-0203-92-
Application Year: 92
Issue Date: 8/28/1992
Approval Type: Municipal water
Status: Approved
Application Type:
Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Site: ***METROLINX***
South/East Corner of Essa Road/Tiffin Street and Lakeshore Drive Barrie ON

Database: ***CA***

Certificate #: 2614-8L2KBD
Application Year: 2011
Issue Date: 8/25/2011
Approval Type: Air
Status: Approved
Application Type:

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

Site: ***P.U.C. BARRIE***
INNISFIL ST.PUMPING STATION BARRIE ON

Database: ***CA***

Certificate #: 7-0970-98-
Application Year: 98
Issue Date: 10/29/1998
Approval Type: Municipal water
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 Barrie***
Lakeshore Dr Barrie ON L4M 4T5

Database: ***ECA***

Approval No: 7290-7FPQ8K
Approval Date: 2008-06-18
Status: Revoked and/or Replaced
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: Lakeshore Dr
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/9998-7FJLEB-14.pdf

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Site: ***The Corporation of the City of Barrie***
Lakeshore Dr Lakeshore Drive from Toronto Street to Tiffin Street Barrie ON L4M 4T5

Database: ***ECA***

Approval No: 0291-9L5PHM
Approval Date: 2014-06-30
Status: Approved
Record Type: ECA
Link Source: IDS
SWP Area Name:
MOE District:
City:
Longitude:
Latitude:
Geometry X:
Geometry Y:
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: Lakeshore Dr Lakeshore Drive from Toronto Street to Tiffin Street
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/5291-9ESQ2J-14.pdf

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Site: ***The Corporation of the City of Barrie***
Lot 8 and 9, Concession 14 Barrie ON L4M 4T5

Database: ***ECA***

Approval No: 2475-93KSNE
Approval Date: 2013-01-02
Status: Approved
Record Type: ECA
Link Source: IDS
MOE District:
City:
Longitude:
Latitude:
Geometry X:

SWP Area Name: ***Geometry Y:***
Approval Type: ECA-MUNICIPAL AND PRIVATE SEWAGE WORKS
Project Type: MUNICIPAL AND PRIVATE SEWAGE WORKS
Address: Lot 8 and 9, Concession 14
Full Address:
Full PDF Link: https://www.accessenvironment.ene.gov.on.ca/instruments/3019-8VUP8V-14.pdf

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Site: ***Database:*** ***EHS***
Tiffin St. Barrie ON

Order No: 20020211007
Status: C
Report Type: Custom Report
Report Date: 2/19/02
Date Received: 2/11/02
Previous Site Name:
Lot/Building Size:
Additional Info Ordered:
Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.90
X: -79.701906
Y: 1

Site: ***Database:*** ***EHS***
Lakeshore Drive Barrie ON

Order No: 20041126002
Status: C
Report Type: Custom Report
Report Date: 12/2/04
Date Received: 11/26/04
Previous Site Name:
Lot/Building Size:
Additional Info Ordered: Aerials Photos and/or Topographical Maps
Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -79.688591
Y: 44.373394

Site: ***ARAGAIN LODGE LTD*** ***Database:*** ***EXP***
LOT 25 CON 5 BARRIE ON K1C 7E2

Instance No: 9819532
Instance ID:
Instance Type: FS Facility
Description:
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date: 3/19/1994

Site: ***GOHLER ARAGAIN LODGE LTD*** ***Database:*** ***EXP***
LOT 25 CON 5 BARRIE TWP ON M1V 1S9

Instance No: 10559256
Instance ID:
Instance Type: FS Liquid Fuel Tank
Description: FS Gasoline Station - Self Serve
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type: FS Liquid Fuel Tank
Expired Date: 4/16/1992

Site: ***GOHLER ARAGAIN LODGE LTD*** ***Database:*** ***EXP***
LOT 25 CON 5 BARRIE TWP ON M1V 1S9

Instance No: 9813480
Instance ID:

Instance Type: FS Facility
Description:
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date: 4/16/1992

Site: ***GOHLER ARAGAIN LODGE LTD***
LOT 25 CON 5 BARRIE TWP ON

Database: ***EXP***

Instance No: 10559256
Instance ID: 26820
Instance Type: FS Liquid Fuel Tank
Description: FS Liquid Fuel Tank
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date:

Site: ***GOHLER ARAGAIN LODGE LTD***
LOT 25 CON 5 BARRIE TWP ON

Database: ***EXP***

Instance No: 10559272
Instance ID: 29022
Instance Type: FS Piping
Description: FS Piping
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date:

Site: ***The Corporation of the City of Barrie***
Tiffin Street Barrie ON

Database: ***GEN***

Generator No: ON6276624
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 913910
SIC Description: Other Local Municipal and Regional Public Administration

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

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***The Corporation of the City of Barrie***
Tiffin Street Barrie ON L4M 4T5

Database: ***GEN***

Generator No: ON6276624
Status:
Approval Years: 07,08
Contam. Facility:
MHSW Facility:
SIC Code: 913910
SIC Description: Other Local Municipal and Regional Public Administration

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

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***The City of Barrie***
Tiffin Street Barrie ON L4N 2N4

Database: ***GEN***

Generator No: ON7678693
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description: Municipal Regulatory Services

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

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***The City of Barrie***
Tiffin Street Barrie ON L4N 2N4

Database: ***GEN***

Generator No: ON7678693
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description: Municipal Regulatory Services

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

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***The City of Barrie***
Sanford Street Barrie ON L4N 3C5

Database: ***GEN***

Generator No: ON7906569
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description: Municipal Regulatory Services

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

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***The City of Barrie***
Sanford Street Barrie ON L4N 3C5

Database: ***GEN***

Generator No: ON7906569
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description: Municipal Regulatory Services

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

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Tiffin Street Barrie ON L4N 2N4

Database: ***GEN***

Generator No: ON7678693
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 241 L
Waste Class Desc: Halogenated solvents and residues

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4N 3C5

Database: ***GEN***

Generator No: ON7906569
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 241 L
Waste Class Desc: Halogenated solvents and residues

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON

Database: ***GEN***

Generator No: ON6718161
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description: Municipal Regulatory Services

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

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Tiffin Street Barrie ON

Database: ***GEN***

Generator No: ON7678693
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description:

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

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4N 3C5

Database: ***GEN***

Generator No: ON7906569
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4M 4V1

Database: ***GEN***

Generator No: ON6718161
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 149 L
Waste Class Desc: Landfill leachate

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4M 4V1

Database: ***GEN***

Generator No: ON6718161
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 149
Waste Class Desc: LANDFILL LEACHATES

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4M 4V1

Database: ***GEN***

Generator No: ON6718161
Status: Registered
Approval Years: As of Dec 2017
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 149 L
Waste Class Desc: Landfill leachate

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4N 3C5

Database: ***GEN***

Generator No: ON7906569
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4M 4V1

Database: ***GEN***

Generator No: ON6718161
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 149 L
Waste Class Desc: Landfill leachate

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4N 3C5

Database: ***GEN***

Generator No: ON7906569
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 241 L
Waste Class Desc: Halogenated solvents and residues

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON

Database: ***GEN***

Generator No: ON6718161
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description:

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

Detail(s)

Waste Class: 149
Waste Class Desc: LANDFILL LEACHATES

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4M 4V1

Database: ***GEN***

Generator No: ON6718161
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 149
Waste Class Desc: LANDFILL LEACHATES

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4N 3C5

Database: ***GEN***

Generator No: ON7906569
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description: Municipal Regulatory Services

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

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4N 3C5

Database: ***GEN***

Generator No: ON7906569
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON L4M 4V1

Database: ***GEN***

Generator No: ON6718161
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 149
Waste Class Desc: LANDFILL LEACHATES

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Innisfil Street Barrie ON

Database: ***GEN***

Generator No: ON4117713
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description: Municipal Regulatory Services

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

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Sanford Street Barrie ON

Database: ***GEN***

Generator No: ON7906569
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description:

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

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Tiffin Street Barrie ON L4N 2N4

Database: ***GEN***

Generator No: ON7678693
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Tiffin Street Barrie ON L4N 2N4

Database: ***GEN***

Generator No: ON7678693
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Tiffin Street Barrie ON L4N 2N4

Database: ***GEN***

Generator No: ON7678693
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:

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

SIC Code: 913150
SIC Description: Municipal Regulatory Services

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Innisfil Street Barrie ON L4N 4K5

Database: ***GEN***

Generator No: ON4117713
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 149 L
Waste Class Desc: Landfill leachate

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Innisfil Street Barrie ON L4N 4K5

Database: ***GEN***

Generator No: ON4117713
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 149
Waste Class Desc: LANDFILL LEACHATES

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Innisfil Street Barrie ON L4N 4K5

Database: ***GEN***

Generator No: ON4117713
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 149
Waste Class Desc: LANDFILL LEACHATES

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Tiffin Street Barrie ON L4N 2N4

Database: ***GEN***

Generator No: ON7678693
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

SIC Code: 913150
SIC Description: 913150

Detail(s)

Waste Class: 241
Waste Class Desc: HALOGENATED SOLVENTS

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Innisfil Street Barrie ON L4N 4K5

Database: ***GEN***

Generator No: ON4117713
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 913150
SIC Description: 913150

PO Box No:
Country: Canada
Choice of Contact: CO_OFFICIAL
Co Admin: Lee Roberts
Phone No Admin: 705-739-4220 Ext.5810

Detail(s)

Waste Class: 149
Waste Class Desc: LANDFILL LEACHATES

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Innisfil Street Barrie ON L4N 4K5

Database: ***GEN***

Generator No: ON4117713
Status: Registered
Approval Years: As of Dec 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 149 L
Waste Class Desc: Landfill leachate

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Innisfil Street Barrie ON

Database: ***GEN***

Generator No: ON4117713
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 913150
SIC Description:

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

Detail(s)

Waste Class: 149
Waste Class Desc: LANDFILL LEACHATES

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Tiffin Street Barrie ON L4N 2N4

Database: ***GEN***

Generator No: ON7678693
Status: Registered
Approval Years: As of Mar 2019
Contam. Facility:
MHSW Facility:

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

SIC Code:
SIC Description:

Detail(s)

Waste Class: 241 L
Waste Class Desc: Halogenated solvents and residues

Site: ***THE CORPORATION OF THE CITY OF BARRIE***
Innisfil Street Barrie ON L4N 4K5

Database: ***GEN***

Generator No: ON4117713
Status: Registered
Approval Years: As of Dec 2017
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

Detail(s)

Waste Class: 149 L
Waste Class Desc: Landfill leachate

Site: ***CKVR TELEVISION***
ESSA RD BARRIE ON

Database: ***NPCB***

Company Code: O3290
Industry: TELEPHONE/TELECOMMUNICATION
Site Status: ITEMS SENT TO SWAN HILLS
Transaction Date: 5/29/1996
Inspection Date: 4/9/1993

Site: ***ARAGAIN LODGE LTD***
LOT 25 CON 5 BARRIE ON

Database: ***PRT***

Location ID: 1318
Type: retail
Expiry Date: 1995-03-31
Capacity (L): 4546
Licence #: 0076415421

Site: ***GOHLER ARAGAIN LODGE LTD***
LOT 25 CON 5 BARRIE TWP ON

Database: ***PRT***

Location ID: 1358
Type: retail
Expiry Date: 1991-10-31
Capacity (L): 4550
Licence #: 0055458001

Site: ***CITY OF BARRIE MARINA***
LAKESHORE DR BARRIE ON

Database: ***RST***

Headcode: 00824400
Headcode Desc: MARINAS
Phone: 7057394218
List Name:
Description:

Site: ***The Corporation of the City of Barrie***

Database:

Innisfil, Tiffin, Essa, Brock Barrie ON **SPL**

Ref No:	4433-87WN5Y	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:		***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:	15	***Nearest Watercourse:***	
Contaminant Name:	TRANSMISSION OIL	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:		***Site Municipality:***	
Nature of Impact:		***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	8/1/2010	***Site Map Datum:***	
Dt Document Closed:	8/25/2010	***SAC Action Class:***	Land Spills
Incident Reason:		***Source Type:***	
Site Name:	City of Barrie<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Transmission fluid trail on roads.		
Contaminant Qty:	other - see incident description		

Site: ***PRIVATE BUSINESS*** **Database:**
DITCH ALONG TIFFIN ROAD FUEL STORAGE TANK BARRIE CITY ON **SPL**

Ref No:	69965	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	5/1/1992	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	UNDERGROUND TANK LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	CONFIRMED	***Site Municipality:***	70101
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND / WATER	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	CITY OF BARRIE,MOE.
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	5/2/1992	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	UNKNOWN	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BARRIE FRAME - OILY MATERIAL IN DITCH FOR 200 M. CLEANUP ONGOING.		
Contaminant Qty:			

Site: ***PETRO-CANADA*** **Database:**
HWY 11 PETRO-CAN BULK PLANT BULK PLANT/TERMINAL BARRIE CITY ON **SPL**

Ref No:	108101	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	12/7/1994	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	PIPE/HOSE LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	

Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	70101
Nature of Impact:	Soil contamination	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	MCCR
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	12/8/1994	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	ERROR	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	PETRO-CANADA BULK PLANT - 68 L OF COLOURED DIESEL TO SNOW COVERED GRAVEL		
Contaminant Qty:			

Site: ***ONTARIO HYDRO***
TIFFIN STREET MOTOR VEHICLE (OPERATING FLUID) BARRIE CITY ON

Database: ***SPL***

Ref No:	44011	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	5/11/1990	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	COOLING SYSTEM LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	CONFIRMED	***Site Municipality:***	70101
Nature of Impact:	Other kill	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	ONTARIO HUMANE SOCIETY, POLICE
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	11/15/1990	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	OTHER	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BACKENTRY:ONTARIO HYDRO- .5L TRANSFORMER OIL SPILLED TO GROUND.		
Contaminant Qty:			

Site: ***The Corporation of the City of Barrie***
Lakeshore Dr. Barrie ON

Database: ***SPL***

Ref No:	4557-8BBTDW	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Discharge Or Bypass To A Watercourse	***Sector Type:***	Unknown
Incident Event:		***Agency Involved:***	
Contaminant Code:	27	***Nearest Watercourse:***	
Contaminant Name:	OIL ADDITIVES	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Confirmed	***Site Municipality:***	
Nature of Impact:	Surface Water Pollution	***Site Lot:***	
Receiving Medium:		***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	

Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	11/18/2010	***Site Map Datum:***	
Dt Document Closed:	11/30/2010	***SAC Action Class:***	Watercourse Spills
Incident Reason:	Unknown - Reason not determined	***Source Type:***	
Site Name:	Hotchkiss Creek<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Spill on oily sub to Hotchkiss Ck. Barrie		
Contaminant Qty:	0 other - see incident description		

Site: ***The Corporation of the City of Barrie***
Lakeshore Drive Barrie ON

Database: ***SPL***

Ref No:	0558-8W6PLR	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	13-JUL-12	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:		***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:	15	***Nearest Watercourse:***	
Contaminant Name:	OIL (PETROLEUM BASED, NOT SPECIFIED)	***Site Address:***	Lakeshore Drive
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	Confirmed	***Site Municipality:***	Barrie
Nature of Impact:	Surface Water Pollution	***Site Lot:***	
Receiving Medium:	Sewage - Municipal/Private and Commercial	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:	No Field Response	***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	13-JUL-12	***Site Map Datum:***	
Dt Document Closed:	31-JUL-12	***SAC Action Class:***	Watercourse Spills
Incident Reason:		***Source Type:***	
Site Name:	Barrie Marina<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie Marina: 5 L oil in water, cleaning w pads		
Contaminant Qty:			

Site: ***UNKNOWN***
BRADFORD-HWY 11 SOUTH OF BRADFORD, NORTHOF RIVER BARRIE CITY ON

Database: ***SPL***

Ref No:	3854	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	4/28/1988	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	UNKNOWN	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:		***Site Municipality:***	70101
Nature of Impact:		***Site Lot:***	
Receiving Medium:	AIR	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	MOE, FIRE DEPT.
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	4/27/1988	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	FIRE/EXPLOSION	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	INDUS.COMMERCIAL BUILDINGFIRE HAZARD PRODUCE BLACKSMOKE		
Contaminant Qty:			

Site: ***Database:*** ***SPL***

ESSA RD. CLOSE TO HARVEY<UNOFFICIAL> Barrie ON

Ref No:	7653-5ZUR4E	***Discharger Report:***	
Site No:		***Material Group:***	Oil
Incident Dt:	6/11/2004	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Unknown	***Sector Type:***	Other Motor Vehicle
Incident Event:		***Agency Involved:***	
Contaminant Code:	15	***Nearest Watercourse:***	
Contaminant Name:	HYDRAULIC OIL	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	Barrie
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	Southwestern
Environment Impact:	Possible	***Site Municipality:***	Barrie
Nature of Impact:	Soil Contamination	***Site Lot:***	
Receiving Medium:	Land	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	6/11/2004	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Spill to Land
Incident Reason:	Fire/Explosion - Resulting from fires/explosions (Not occurrences which cause a fire or explosion)	***Source Type:***	
Site Name:	ESSA RD. CLOSE TO HARVEY<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Barrie: 5 L hydraulic oil to roadside ditch		
Contaminant Qty:	5 L		

Site: ***Database:*** ***SPL***

Tiffin Launch Ramp Barrie ON

Ref No:	8862-5NYF2T	***Discharger Report:***	
Site No:		***Material Group:***	Oil
Incident Dt:	6/29/2003	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	Discharge Or Bypass To A Watercourse	***Sector Type:***	Other
Incident Event:		***Agency Involved:***	
Contaminant Code:	12	***Nearest Watercourse:***	
Contaminant Name:	GASOLINE	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	Barrie
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	Southwestern
Environment Impact:	Possible	***Site Municipality:***	Barrie
Nature of Impact:	Surface Water Pollution	***Site Lot:***	
Receiving Medium:	Water	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	6/29/2003	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	Spill to Inland Watercourses
Incident Reason:	Vandalism - Illegal/deliberate (incl. sabotage)	***Source Type:***	
Site Name:	TIFFIN LAUNCH RAMP - KEMPENFELT BAY, LAKE SIMCOE<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	MVA - car in kempenfelt Bay, some fuel to Lk.		
Contaminant Qty:			

Site: ***UNKNOWN*** ***Database:*** ***SPL***

BRADFORD STREET BARRIE CITY ON

Ref No:	54328	***Discharger Report:***	

Site No:		***Material Group:***	
Incident Dt:	//	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	UNKNOWN	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	NOT ANTICIPATED	***Site Municipality:***	70101
Nature of Impact:		***Site Lot:***	
Receiving Medium:	WATER	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	BARRIE PUC
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	7/5/1991	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	UNKNOWN	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BACKENTRY: HEAVY RAINS FLUSHED OIL TO RETENTION POND FROM UNKNOWN SOURCE.		
Contaminant Qty:			

Site: ***BARRIE, CITY OF***
BRADFORD ST INFRONT OF AD BRADFORD COMMERCIAL OUTLET. SANITARY SEWER BARRIE CITY ON

Database: ***SPL***

Ref No:	224519	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:		***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	CONTAINER OVERFLOW	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	NOT ANTICIPATED	***Site Municipality:***	70101
Nature of Impact:		***Site Lot:***	
Receiving Medium:	LAND / WATER	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	5/1/2002	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	EQUIPMENT FAILURE	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	CITY OF BARRIE-SANITARY PLUGGED/OVERFLOWED,SMALL QUANT SEWAGE TO 2 S.S.		
Contaminant Qty:			

Site: ***Bill Crampton-Barrie Flying Club<UNOFFICIAL>***
Lakeshore Dr Barrie ON

Database: ***SPL***

Ref No:	8152-5NS5HC	***Discharger Report:***	
Site No:		***Material Group:***	Oil
Incident Dt:	6/22/2003	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:		***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:	13	***Nearest Watercourse:***	
Contaminant Name:	FUEL (N.O.S.)	***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	Barrie
Contam Limit Freq 1:		***Site Postal Code:***	

Contaminant UN No 1:		***Site Region:***	Southwestern
Environment Impact:	Possible	***Site Municipality:***	Barrie
Nature of Impact:	Surface Water Pollution	***Site Lot:***	
Receiving Medium:	Water	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	6/22/2003	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:		***Source Type:***	
Site Name:	BREAK WALL CENTENNIAL PARK<UNOFFICIAL>		
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	Ultra-light plane crashed into water, cleaning		
Contaminant Qty:			

Site: ***CO-OP***
MOTOR VEHICLE (OPERATING FLUID) BARRIE CITY ON

Database: ***SPL***

Ref No:	106084	***Discharger Report:***	
Site No:		***Material Group:***	
Incident Dt:	10/7/1994	***Health/Env Conseq:***	
Year:		***Client Type:***	
Incident Cause:	PIPE/HOSE LEAK	***Sector Type:***	
Incident Event:		***Agency Involved:***	
Contaminant Code:		***Nearest Watercourse:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site Postal Code:***	
Contaminant UN No 1:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	70101
Nature of Impact:	Multi Media Pollution	***Site Lot:***	
Receiving Medium:	LAND	***Site Conc:***	
Receiving Env:		***Northing:***	
MOE Response:		***Easting:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Accu:***	
MOE Reported Dt:	10/7/1994	***Site Map Datum:***	
Dt Document Closed:		***SAC Action Class:***	
Incident Reason:	UNKNOWN	***Source Type:***	
Site Name:			
Site County/District:			
Site Geo Ref Meth:			
Incident Summary:	BARRIE CO-OP.: 274 L OF GASOLINE TO HWY FROM LEAKIN FUEL LINE.		
Contaminant Qty:			

Site:
lot 25 ON

Database: ***WWIS***

Well ID:	5733829	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	11/27/1998
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	7061
Casing Material:		***Form Version:***	1
Audit No:	191160	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	VESPRA TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	025
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:	10411361	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	
Code OB Desc:	Overburden	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	3/21/1998	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932405775
Layer:	4
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	05
Other Materials:	CLAY
Mat3:	
Other Materials:	
Formation Top Depth:	50
Formation End Depth:	60
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932405773
Layer:	2
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	05
Other Materials:	CLAY
Mat3:	
Other Materials:	
Formation Top Depth:	25
Formation End Depth:	38
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	932405772
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	

Other Materials:
Formation Top Depth: 0
Formation End Depth: 25
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932405774
Layer: 3
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 38
Formation End Depth: 50
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932405776
Layer: 5
Color:
General Color:
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 60
Formation End Depth: 70
Formation End Depth UOM: ft

Method of Construction & Well Use

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

Pipe Information

Pipe ID: 10959931
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930666475
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 65
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID:	933379470
Layer:	1
Slot:	010
Screen Top Depth:	66
Screen End Depth:	70
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	6

Results of Well Yield Testing

Pump Test ID:	995733829
Pump Set At:	
Static Level:	32
Final Level After Pumping:	63
Recommended Pump Depth:	63
Pumping Rate:	8
Flowing Rate:	
Recommended Pump Rate:	8
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	
Pumping Duration HR:	1
Pumping Duration MIN:	30
Flowing:	N

Draw Down & Recovery

Pump Test Detail ID:	935102318
Test Type:	
Test Duration:	60
Test Level:	63
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934578619
Test Type:	
Test Duration:	30
Test Level:	63
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934321573
Test Type:	
Test Duration:	15
Test Level:	63
Test Level UOM:	ft

Draw Down & Recovery

Pump Test Detail ID:	934843746
Test Type:	
Test Duration:	45
Test Level:	63
Test Level UOM:	ft

Water Details

Water ID: 933893958
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 61
Water Found Depth UOM: ft

Water Details

Water ID: 933893959
Layer: 2
Kind Code: 1
Kind: FRESH
Water Found Depth: 70
Water Found Depth UOM: ft

Site:
lot 25 ON

Database:
WWIS

Well ID: 5733830
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 191162
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: 11/27/1998
Selected Flag: Yes
Abandonment Rec:
Contractor: 7061
Form Version: 1
Owner:
Street Name:
County: SIMCOE
Municipality: VESPRA TOWNSHIP
Site Info:
Lot: 025
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10411362
DP2BR:
Spatial Status:
Code OB: o
Code OB Desc: Overburden
Open Hole:
Cluster Kind:
Date Completed: 3/23/1998
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932405779
Layer: 3
Color:
General Color:
Mat1: 28

Most Common Material: SAND
Mat2: 05
Other Materials: CLAY
Mat3:
Other Materials:
Formation Top Depth: 50
Formation End Depth: 62
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932405780
Layer: 4
Color:
General Color:
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 62
Formation End Depth: 72
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932405778
Layer: 2
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 35
Formation End Depth: 50
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932405777
Layer: 1
Color:
General Color:
Mat1: 05
Most Common Material: CLAY
Mat2: 28
Other Materials: SAND
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 35
Formation End Depth UOM: ft

Method of Construction & Well Use

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

Other Method Construction:

Pipe Information

Pipe ID: 10959932
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930666476
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 66
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933379471
Layer: 1
Slot: 010
Screen Top Depth: 68
Screen End Depth: 72
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 6

Results of Well Yield Testing

Pump Test ID: 995733830
Pump Set At:
Static Level: 33
Final Level After Pumping: 65
Recommended Pump Depth: 65
Pumping Rate: 10
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 30
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934321574
Test Type:
Test Duration: 15
Test Level: 65
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934843747
Test Type:
Test Duration: 45

Test Level: 65
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934578620
Test Type:
Test Duration: 30
Test Level: 65
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935102319
Test Type:
Test Duration: 60
Test Level: 65
Test Level UOM: ft

Water Details

Water ID: 933893960
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 62
Water Found Depth UOM: ft

Water Details

Water ID: 933893961
Layer: 2
Kind Code: 1
Kind: FRESH
Water Found Depth: 72
Water Found Depth UOM: ft

Site:
lot 26 ON

Database: ***WWIS***

Well ID: 5724047
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 38128
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: 11/8/1988
Selected Flag: Yes
Abandonment Rec:
Contractor: 3660
Form Version: 1
Owner:
Street Name:
County: SIMCOE
Municipality: BARRIE CITY
Site Info:
Lot: 026
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10401652
DP2BR:

Elevation:
Elevrc:

Spatial Status:
Code OB: o
Code OB Desc: Overburden
Open Hole:
Cluster Kind:
Date Completed: 10/17/1988
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932358232
Layer: 2
Color: 6
General Color: BROWN
Mat1: 09
Most Common Material: MEDIUM SAND
Mat2: 91
Other Materials: WATER-BEARING
Mat3:
Other Materials:
Formation Top Depth: 52
Formation End Depth: 58
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932358231
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 52
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933189189
Layer: 1
Plug From: 5
Plug To: 15
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933189190
Layer: 2
Plug From: 53
Plug To: 55
Plug Depth UOM: ft

Method of Construction & Well Use

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

Pipe Information

Pipe ID: 10950222
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930654448
Layer: 2
Material:
Open Hole or Material:
Depth From:
Depth To: 58
Casing Diameter:
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930654447
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 55
Casing Diameter: 5
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933373916
Layer: 1
Slot: 012
Screen Top Depth: 55
Screen End Depth: 58
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 5

Results of Well Yield Testing

Pump Test ID: 995724047
Pump Set At:
Static Level: 28
Final Level After Pumping: 40
Recommended Pump Depth: 40
Pumping Rate: 12
Flowing Rate:
Recommended Pump Rate: 12
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: N

Draw Down & Recovery

Pump Test Detail ID: 934583042
Test Type: Recovery
Test Duration: 30
Test Level: 28
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935099016
Test Type: Recovery
Test Duration: 60
Test Level: 28
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934832769
Test Type: Recovery
Test Duration: 45
Test Level: 28
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934307897
Test Type: Recovery
Test Duration: 15
Test Level: 28
Test Level UOM: ft

Water Details

Water ID: 933883877
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 52
Water Found Depth UOM: ft

Site:
lot 8 ON

Database:
WWIS

Well ID: 2216840
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: 205708
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:

Data Entry Status:
Data Src: 1
Date Received: 7/4/2000
Selected Flag: Yes
Abandonment Rec:
Contractor: 3651
Form Version: 1
Owner:
Street Name:
County: FRONTENAC
Municipality: BARRIE TOWNSHIP
Site Info:
Lot: 008
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:

Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10111202
DP2BR: 2
Spatial Status:
Code OB: r
Code OB Desc: Bedrock
Open Hole:
Cluster Kind:
Date Completed: 6/7/2000
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 18
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 931302463
Layer: 3
Color: 7
General Color: RED
Mat1: 26
Most Common Material: ROCK
Mat2: 71
Other Materials: FRACTURED
Mat3:
Other Materials:
Formation Top Depth: 54
Formation End Depth: 65
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931302464
Layer: 4
Color: 7
General Color: RED
Mat1: 21
Most Common Material: GRANITE
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 65
Formation End Depth: 80
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931302462
Layer: 2
Color: 2
General Color: GREY
Mat1: 21
Most Common Material: GRANITE
Mat2:

Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 54
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931302461
Layer: 1
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 2
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933131485
Layer: 1
Plug From: 0
Plug To: 20
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 4
Method Construction: Rotary (Air)
Other Method Construction:

Pipe Information

Pipe ID: 10659772
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930182500
Layer: 2
Material: 2
Open Hole or Material: GALVANIZED
Depth From:
Depth To:
Casing Diameter: 6
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 930182499
Layer: 1
Material: 1

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

Results of Well Yield Testing

Pump Test ID: 992216840
Pump Set At:
Static Level: 10
Final Level After Pumping: 30
Recommended Pump Depth: 70
Pumping Rate: 10
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN:
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934428336
Test Type: Draw Down
Test Duration: 30
Test Level: 30
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934685964
Test Type: Draw Down
Test Duration: 45
Test Level: 30
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934945573
Test Type: Draw Down
Test Duration: 60
Test Level: 30
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934150724
Test Type: Draw Down
Test Duration: 15
Test Level: 30
Test Level UOM: ft

Water Details

Water ID: 933558286
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 55

Water Found Depth UOM: ft

Water Details

Water ID: 933558287
Layer: 2
Kind Code: 1
Kind: FRESH
Water Found Depth: 64
Water Found Depth UOM: ft

Site:
BARRIE ON

Database: ***WWIS***

Well ID: 7235510
Construction Date:
Primary Water Use: Monitoring
Sec. Water Use:
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: Z200626
Tag: A172479
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Data Entry Status:
Data Src:
Date Received: 1/16/2015
Selected Flag: Yes
Abandonment Rec:
Contractor: 7472
Form Version: 7
Owner:
Street Name: TIFFIN STREET
County:
Municipality:
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1005283266
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 10/27/2014
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone:
East83:
North83:
Org CS: UTM83
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1005522304
Layer: 1
Color: 6
General Color: BROWN
Mat1: 08
Most Common Material: FINE SAND
Mat2:
Other Materials:
Mat3: 79
Other Materials: PACKED
Formation Top Depth: 0

Formation End Depth: 7.6
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1005522311
Layer: 1
Plug From: 0
Plug To: 4.3
Plug Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1005522312
Layer: 2
Plug From: 4.3
Plug To: 7.6
Plug Depth UOM: m

Method of Construction & Well Use

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

Pipe Information

Pipe ID: 1005522303
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1005522307
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 4.6
Casing Diameter: 5.2
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1005522308
Layer: 1
Slot: 10
Screen Top Depth: 4.6
Screen End Depth: 7.6
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 6.4

Hole Diameter

Hole ID: 1005522305
Diameter: 21

Depth From:	0
Depth To:	7.6
Hole Depth UOM:	m
Hole Diameter UOM:	cm

Site:
lot 7 ON

Database:
WWIS

Well ID:	5734301	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Domestic	***Date Received:***	7/9/1999
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	1467
Casing Material:		***Form Version:***	1
Audit No:	199664	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	SIMCOE
Elevation (m):		***Municipality:***	BARRIE CITY
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:	10411831	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	
Code OB Desc:	Overburden	***North83:***	
Open Hole:		***Org CS:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	7/6/1999	***UTMRC Desc:***	unknown UTM
Remarks:		***Location Method:***	na
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	932408045
Layer:	8
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	05
Other Materials:	CLAY
Mat3:	
Other Materials:	
Formation Top Depth:	148
Formation End Depth:	266
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID: 932408047
Layer: 10
Color: 2
General Color: GREY
Mat1: 11
Most Common Material: GRAVEL
Mat2: 05
Other Materials: CLAY
Mat3:
Other Materials:
Formation Top Depth: 271
Formation End Depth: 271
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932408043
Layer: 6
Color: 2
General Color: GREY
Mat1: 28
Most Common Material: SAND
Mat2: 11
Other Materials: GRAVEL
Mat3:
Other Materials:
Formation Top Depth: 93
Formation End Depth: 118
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932408042
Layer: 5
Color: 2
General Color: GREY
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 88
Formation End Depth: 93
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932408046
Layer: 9
Color: 2
General Color: GREY
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 266
Formation End Depth: 271
Formation End Depth UOM: ft

Overburden and Bedrock

Materials Interval

Formation ID: 932408040
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 68
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932408044
Layer: 7
Color: 2
General Color: GREY
Mat1: 11
Most Common Material: GRAVEL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 118
Formation End Depth: 148
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932408038
Layer: 1
Color: 6
General Color: BROWN
Mat1: 11
Most Common Material: GRAVEL
Mat2: 01
Other Materials: FILL
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 1
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932408039
Layer: 2
Color: 8
General Color: BLACK
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 1
Formation End Depth: 2
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID:	932408041
Layer:	4
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	08
Other Materials:	FINE SAND
Mat3:	
Other Materials:	
Formation Top Depth:	68
Formation End Depth:	88
Formation End Depth UOM:	ft

Method of Construction & Well Use

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

Pipe Information

Pipe ID:	10960401
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930667064
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	267
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	933379765
Layer:	1
Slot:	014
Screen Top Depth:	267
Screen End Depth:	271
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	5

Results of Well Yield Testing

Pump Test ID:	995734301
Pump Set At:	
Static Level:	41
Final Level After Pumping:	73
Recommended Pump Depth:	115
Pumping Rate:	8
Flowing Rate:	

Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 16
Pumping Duration MIN: 0
Flowing: N

Draw Down & Recovery

Pump Test Detail ID: 934589447
Test Type: Draw Down
Test Duration: 30
Test Level: 73
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934845934
Test Type: Draw Down
Test Duration: 45
Test Level: 73
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 934322243
Test Type: Draw Down
Test Duration: 15
Test Level: 69
Test Level UOM: ft

Draw Down & Recovery

Pump Test Detail ID: 935103947
Test Type: Draw Down
Test Duration: 60
Test Level: 73
Test Level UOM: ft

Water Details

Water ID: 933894440
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 266
Water Found Depth UOM: ft

Site:
lot 26 ON

Database:
WWIS

Well ID: 5721240
Construction Date:
Primary Water Use: Domestic
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: NA
Tag:
Construction Method:
Elevation (m):

Data Entry Status:
Data Src: 1
Date Received: 1/9/1987
Selected Flag: Yes
Abandonment Rec:
Contractor: 1583
Form Version: 1
Owner:
Street Name:
County: SIMCOE
Municipality: BARRIE CITY

Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:

Site Info:
Lot: 026
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 10398866
DP2BR:
Spatial Status:
Code OB: o
Code OB Desc: Overburden
Open Hole:
Cluster Kind:
Date Completed: 11/27/1986
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation:
Elevrc:
Zone: 17
East83:
North83:
Org CS:
UTMRC: 9
UTMRC Desc: unknown UTM
Location Method: na

Overburden and Bedrock Materials Interval

Formation ID: 932345550
Layer: 7
Color:
General Color:
Mat1: 08
Most Common Material: FINE SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 160
Formation End Depth: 185
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932345545
Layer: 2
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 2
Formation End Depth: 7
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932345548

Layer: 5
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 34
Formation End Depth: 136
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932345546
Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 7
Formation End Depth: 24
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932345544
Layer: 1
Color:
General Color:
Mat1: 02
Most Common Material: TOPSOIL
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 2
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932345549
Layer: 6
Color:
General Color:
Mat1: 08
Most Common Material: FINE SAND
Mat2: 06
Other Materials: SILT
Mat3:
Other Materials:
Formation Top Depth: 136
Formation End Depth: 160
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932345547
Layer: 4
Color:
General Color:
Mat1: 09
Most Common Material: MEDIUM SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 24
Formation End Depth: 34
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 932345551
Layer: 8
Color:
General Color:
Mat1: 08
Most Common Material: FINE SAND
Mat2: 06
Other Materials: SILT
Mat3:
Other Materials:
Formation Top Depth: 185
Formation End Depth: 200
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933188100
Layer: 2
Plug From: 8
Plug To: 126
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 933188099
Layer: 1
Plug From: 0
Plug To: 8
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID:
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 10947436
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID:	930650821
Layer:	1
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	172
Casing Diameter:	6
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Casing

Casing ID:	930650822
Layer:	2
Material:	1
Open Hole or Material:	STEEL
Depth From:	
Depth To:	172
Casing Diameter:	5
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	933372484
Layer:	1
Slot:	008
Screen Top Depth:	172
Screen End Depth:	179
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	6

Results of Well Yield Testing

Pump Test ID:	995721240
Pump Set At:	
Static Level:	120
Final Level After Pumping:	155
Recommended Pump Depth:	165
Pumping Rate:	20
Flowing Rate:	
Recommended Pump Rate:	10
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	1
Water State After Test:	CLEAR
Pumping Test Method:	1
Pumping Duration HR:	2
Pumping Duration MIN:	30
Flowing:	N

Water Details

Water ID:	933881009
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	180
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 2018

Abandoned Mine Information System: Provincial AMIS

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Government Publication Date: 1800-Oct 2018

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Jan 31, 2019

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2018

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Dry Cleaning Facilities: Federal CDRY

List of dry cleaning facilities made available by Environment and Climate Change Canada. Environment and Climate Change Canada's Tetrachloroethylene (Use in Dry Cleaning and Reporting Requirements) Regulations (SOR/2003-79) are intended to reduce releases of tetrachloroethylene to the environment from dry cleaning facilities.

Government Publication Date: Jan 2004-Dec 2017

Commercial Fuel Oil Tanks: Provincial CFOT

List of commercial underground fuel oil tanks made available by the Fuels Safety Program of the Technical Standards & Safety Authority (TSSA). Ontario Regulation 213/01 of the Technical Standards and Safety Act (2000) requires that all underground tanks be registered with the TSSA. Note: the Fuels Safety Division does not register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of commercial fuel tanks in the province. The TSSA updates information in its system on an ongoing basis; this listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Chemical Register: Private CHEM

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

Government Publication Date: 1999-Jan 31, 2019

Compressed Natural Gas Stations: Private CNG

Canada has a network of public access compressed natural gas (CNG) refuelling stations. These stations dispense natural gas in compressed form at 3,000 pounds per square inch (psi), the pressure which is allowed within the current Canadian codes and standards. The majority of natural gas refuelling is located at existing retail gasoline that have a separate refuelling island for natural gas. This list of stations is made available by the Canadian Natural Gas Vehicle Alliance.

Government Publication Date: Dec 2012 - Mar 2019

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-May 2019

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994-Jun 30, 2019

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 - Oct 2018

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-Jun 31, 2019

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-Jun 30, 2019

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-Jun 30, 2019

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-Apr 30, 2019

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

Environmental Penalty Annual Report: Provincial EPAR

This database contains data from Ontario's annual environmental penalty report published by the Ministry of the Environment and Climate Change. These reports provide information on environmental penalties for land or water violations issued to companies in one of the nine industrial sectors covered by the Municipal Industrial Strategy for Abatement (MISA) regulations.

Government Publication Date: Jan 1, 2011 - Dec 31, 2018

List of TSSA Expired Facilities: Provincial EXP

List of facilities and tanks - for which there was once a registration - no longer 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 from the ground are included in the expired facilities inventory held by the TSSA. Notes: the Fuels Safety Division did not register private fuel underground/aboveground storage tanks prior to January of 1990, or furnace oil tanks prior to May 1, 2002; nor does the Division register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of expired tanks/tank facilities in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

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-May 2019

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 2018

Fuel Storage Tank: Provincial FST

List of registered private and retail fuel storage tanks made available by the Fuels Safety Program of the Technical Standards & Safety Authority (TSSA). Ontario Regulation 213/01 of the Technical Standards and Safety Act (2000) requires that all underground tanks be registered with the TSSA. Notes: the Fuels Safety Division did not register private fuel underground/aboveground storage tanks prior to January of 1990, or furnace oil tanks prior to May 1, 2002; nor does the Division register waste oil tanks in apartments, office buildings, residences, etc., or aboveground gas or diesel tanks. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of fuel storage tanks/tank facilities in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

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-Mar 31, 2019

Greenhouse Gas Emissions from Large Facilities: Federal GHG

List of greenhouse gas emissions from large facilities made available by Environment Canada. Greenhouse gas emissions in kilotonnes of carbon dioxide equivalents (kt CO2 eq).

Government Publication Date: 2013-Dec 2017

TSSA Historic Incidents: Provincial HINC

List of historic incidences of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen recorded by the TSSA in their previous incident tracking system. The TSSA's Fuels Safety Program administers the Technical Standards & Safety Act 2000, providing fuel-related safety services associated with the safe transportation, storage, handling and use of fuels such as gasoline, diesel, propane, natural gas and hydrogen. Under this Act, the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of historical fuel spills and leaks in the province. This listing is a copy of the data captured at one moment in time and is hence limited by the record date provided here.

Government Publication Date: 2006-June 2009*

Indian & Northern Affairs Fuel Tanks: Federal IAFT

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

Government Publication Date: 1950-Aug 2003*

TSSA Incidents: Provincial INC

List of spills and leaks of diesel, fuel oil, gasoline, natural gas, propane, and hydrogen reported to the Spills Action Centre (SAC) and made available by the Technical Standards and Safety Authority (TSSA). Under the Technical Standards & Safety Act (2000), the 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. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of fuel-related leaks, spills, and incidents in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Landfill Inventory Management Ontario: Provincial LIMO

The Landfill Inventory Management Ontario (LIMO) database is updated every year, as the ministry compiles new and updated information. The inventory will include small and large landfills. Additionally, each year the ministry will request operators of the larger landfills complete a landfill data collection form that will be used to update LIMO and will include the following information from the previous operating year. This will include additional information such as estimated amount of total waste received, landfill capacity, estimated total remaining landfill capacity, fill rates, engineering designs, reporting and monitoring details, size of location, service area, approved waste types, leachate of site treatment, contaminant attenuation zone and more. The small landfills will include information such as site owner, site location and certificate of approval # and status.

Government Publication Date: Feb 28, 2019

Canadian Mine Locations: Private MINE

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Government Publication Date: 1998-2009*

Mineral Occurrences: Provincial MNR

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the plan metric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Government Publication Date: 1846-Jan 2019

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, 2017

National Defense & Canadian Forces Fuel Tanks: Federal NDFT

The Department of National Defense and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. This database will no longer be updated due to the new National Security protocols which have prohibited any release of this database.

Government Publication Date: Up to May 2001*

National Defense & Canadian Forces Spills: Federal NDSP

The Department of National Defense and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

Government Publication Date: Mar 1999-Apr 2018

National Defence & Canadian Forces Waste Disposal Sites: Federal NDWD

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

Government Publication Date: 2001-Apr 2007*

National Energy Board Pipeline Incidents: Federal NEBI

Locations of pipeline incidents from 2008 to present, made available by the 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-Dec 31, 2018

National Energy Board Wells: Federal NEBP

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGWE

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-May 31, 2019

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-May 2018

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-Jun 30, 2019

Canadian Pulp and Paper: Private PAP

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Government Publication Date: 1999, 2002, 2004, 2005, 2009-2014

Parks Canada Fuel Storage Tanks: Federal PCFT

Canadian Heritage maintains an inventory of known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Government Publication Date: 1920-Jan 2005*

Pesticide Register: Provincial PES

The Ontario Ministry of the Environment and Climate Change maintains a database of licensed operators and vendors of registered pesticides.

Government Publication Date: 1988-Mar 2019

TSSA Pipeline Incidents: Provincial PINC

List of pipeline incidents (strikes, leaks, spills) made available by the Technical Standards and Safety Authority (TSSA). Under the Technical Standards & Safety Act (2000), the TSSA regulates fuel suppliers, storage facilities, transport trucks, pipelines, contractors, and equipment or appliances that use fuels. Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of pipeline incidents in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

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-Jun 30, 2019

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-May 2019

Retail Fuel Storage Tanks: Private RST

This database includes an inventory of retail fuel outlet locations (including marinas) that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Government Publication Date: 1999-Jan 31, 2019

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-Feb 2019

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2017

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Aug 2018

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.
Records are not verified for accuracy or completeness. This is not a comprehensive or complete inventory of tank variances in the province. The TSSA updates information in its system on an ongoing basis; this listing is hence limited by the record date provided here.

Government Publication Date: Feb 28, 2017

Waste Disposal Sites - MOE CA Inventory: Provincial WDS

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number. All new Environmental Compliance Approvals handed out after Oct 31, 2011 for Waste Disposal Sites will still be found in this database.

Government Publication Date: Oct 2011-Jun 31, 2019

Waste Disposal Sites - MOE 1991 Historical Approval Inventory: Provincial WDSH

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Government Publication Date: Up to Oct 1990*

Water Well Information System: Provincial WWIS

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. It includes such information as coordinates, construction date, well depth, primary and secondary use, pump rate, static water level, well status, etc. Also included are detailed stratigraphy information, approximate depth to bedrock and the approximate depth to the water table.

Government Publication Date: Feb 28, 2019

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix F
Freedom of Information

Ministry of the Environment, Conservation and Parks

Access and Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075
Fax: (416) 314-4285

Ministère de l'Environnement, de la Protection de la nature et des Parcs

Bureau de l'accès à l'information et de la protection de la vie privée

12e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél. : (416) 314-4075

Ontario

October 22, 2019

Natalie Wright
Cambium Inc.
74 Cedar Pointe Drive, Unit 1009
Barrie, ON L4N 5R7

Dear Natalie Wright:

RE: *Freedom of Information and Protection of Privacy Act* Request
Our File # A-2019-05457, Your Reference 9326-001

This letter is further to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 220 Bradford Street, Barrie.

Attached is a copy of the records.

If you have any questions regarding this matter, please contact Christine Gorman at 416-314-6211 or christine.gorman@ontario.ca.

Yours truly,

Janet Dadufalza
Manager, Access and Privacy

Attachment

Ontario

Ministry of the Environment, Conservation and Parks

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User Management | Company Mgmt | Manifests | Site Data | HELP | Logout

hwin

Administration



Go

Generator Details

Registration/Notification Number

ON5818054

Legal Company Name

Primary Name:	CHAYELL HOSPITALITY GROUP INC.	Division Name:	NA

Company Operating Name

Primary Name:	CHAYELL HOSPITALITY GROUP INC	Division Name:	NA

Mailing Address

Division Building:	NA	Post Box Number:	NA
Address Line 1:	7815 KENT BOULEVARD	Address Line 2:	NA
Town/City:	BROCKVILLE	Postal Code / Zip Code:	K6V 6N7
County: (if inside Ontario)	PETERBOROUGH	Province/State (If inside Canada/US)	ONTARIO
County: (if outside Ontario)	NA	Province / State (If outside Canada / US)	NA
Country:	Canada		

Site Location

This should be the street address of the site that is being registered. You are required to register each site that generates hazardous waste separately.

Division Building:	NA	Post Box Number:	NA
Address Line 1:	220 BRADFORD STREET		
Address Line 2:	NA		
Town/City:	BARRIE	Postal Code / Zip Code:	L4N 3B6
County: (if inside Ontario)	PARRY SOUND DISTRICT	Province / State (If inside Canada / US)	ONTARIO
County: (if outside Ontario)	NA	Province / State (If outside Canada / US)	NA
Country:	Canada		

Ontario

Ministry of the Environment, Conservation and Parks

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hwin Administration



Search Go

Company Name: CHAYELL HOSPITALITY GROUP INC.
Company Number: ON5818054 (Generator)

Active Waste Classes

Active Waste Class Listing

Add New Waste Class Inactive waste classes

Active Off-site Waste Classes

Waste Class	View Details	Hazardous Waste Number (per waste stream)	Reg. 347 Schedules	Disposal Method	Part 2B required	Part 2B complete	Physical State	Off-Site	Status	Un Register Waste Class
150 - L	View Details	N/A					Liquid	Off-Site	Active	

Back

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SE SE BA BR 1410

Kaasalainen, John (MECP)

From:	Kaasalainen, John (MECP)
Sent:	January-21-19 4:16 PM
To:	'celeste.kitsemetry@barrie.ca'
Cc:	Hood, Cindy (MECP); Dmytrenko, Matthew (MECP); Allen, Brad (MECP)
Subject:	Pre-Consultation - 220 Bradford Street - Proposed Condominium and Commercial Development - File No. D28-003-2019
Attachments:	RE: 220 Bradford St. - Residential Project

Hi Celeste,

The ministry has received a copy of the January 15, 2019 Memorandum and Plans from the City's Planning and Building Services Department in relation to the above noted proposed development.

Please note that the ministry does not typically review these types of proposals. However, due to the proximity of the proposed development to the City's municipal waste water treatment facility it was deemed prudent to resend our previous comments that were provided prior to the rezoning of the property in 2013 (see attached email), including the need for filing of a Record of Site Condition (RSC) for the proposed change in use from a less sensitive use ("commercial") to a more sensitive use ('residential"). Based on a current search of the Ministry's Brownfields Environmental Site Registry, it does not appear that a RSC has been filed for this property as yet.

If you have any questions or would like to discuss this further, please feel free to contact me.

Thanks.
JK

John Kaasalainen, P.Eng.
District Engineer
Barrie District Office - Central Region
Ministry of the Environment,
Conservation and Parks
1201-54 Cedar Pointe Drive
Barrie ON L4N 5R7
Phone: (705) 739-6402
Fax: (705) 739-6440

please consider the environment before printing this email

Barrie

Planning and Building Services

MEMORANDUM

TO:	**Site Plan Review Committee**
FROM:	**Janice Sadgrove, Secretary-Treasurer, Committee of Adjustment**
FILE MANAGER:	**Celeste Kitsemetry, Planner – Celeste.Kitsemetry@Barrie.ca**
DATE:	**Tuesday, January 15, 2019**
FILE:	**D28-003-2019**
SUBJECT:	**Pre-Consultation – Abdul Rehman – 220 Bradford Street**

BARRIE DISTRICT OFFICE
JAN 16 2019

Attached are the concept plans for a proposed 13 storey (116 units) condominium apartment building, 13 storey condominium apartment building (133 units), 4 storey parking and 2 storey commercial building.

Please review these plans and provide written comments to the File Manager no later than 4:00 p.m. Friday, February 22, 2019. A meeting has been scheduled with the applicant to be held **Thursday, February 28, 2019 at 1:30 p.m.** at City Hall in the 9th floor board room. Technical staff from the Engineering, Parks and Building Departments are required to attend the meeting.

If you have any concerns or are unable to attend, please contact Celeste Kitsemetry, Development Planner at extension 4430 by Friday, February 22, 2019. The plans can be viewed in the Planning and Building Services Department for those that were circulated the memo only.

DISTRIBUTION
C. Maher, Landscape Architectural Planner
J. Sharp, Supervisor of Traffic & Community Safety (digital copy)
F. Palka, Manager of Approvals (Eng.) (digital copy)
J. Reid, Supervisor of Technical, Stormwater & Rail Operations (digital copy)
B. Perreault, Supervisor Development Services (Eng.)
C. Grexton, Supervisor of Building Services (Acting)
J. Zimmerman , Supervisor of Transit Operations and Infrastructure (digital copy)
A. Miller, Surface Water Treatment Plant (Water)
Engineering Administration, Alectra Utilities
T. Stevenson, Chief Fire Prevention Officer
A. Singh, Supervisor of Technology Services (Include if over three storeys and with full site plan; otherwise memo only)
L. Hywarren, Supervisor of Environmental Compliance
C. Dillon, Accessibility Committee (digital copy)
M. Snow, Planner (Zoning) (digital copy)
M. Munshaw, Railway Operations (Engineering 6th Flr)
M.Bessey, LSRCA
Hydro One- LandUsePlanning@HydroOne.com
C. Hood, Ministry of Environment and Climate Change
Bell- circulations@mmm.ca
Members of Council
Councillor Aylwin, Ward 2 Councillor

MEMO ONLY
M. Prowse, Chief Administrator Officer
A. Bourrie, Acting General Manager of Infrastructure and Growth Management
A. Bourrie, Director of Planning & Building
M. Banfield, Manager of Intensification & Land Use Policy
B. Araniyasundaran, Director of Engineering
B. Forsyth, Director of Transit & Parking Strategy
I. Peters, Director of Legal Services
S. Diemert, Manager of Design
C. Morton, Manager of Roads, Stormwater & Rail Operations
K. Cunninham, Supervisor, Building Services
S. Rose, Manager of Traffic & Parking
Z. Lifshiz, Executive Director of Invest Barrie
S. Schlichter, Director of Business Development
K. Thompson, Risk Management Official
N. Myers, Development Charges Administrator (Finance)
Pam Childs, Finance Department
J. Roberts, D. Williams, O. Sanchez, GIS Department
N. Singh, Canada Post- Nadya.Singh@canadapost.postecanada.ca

Kaasalainen, John (MECP)

From:	John Kaasalainen [redacted] **s.21**
Sent:	January-17-19 1:46 PM
To:	Kaasalainen, John (MECP)
Subject:	Fw: 220 Bradford Street Photos - Jan 17, 2019
Attachments:	IMG_20190117_110940.jpg; IMG_20190117_110937.jpg

Original Message
From: Kaasalainen, John (MECP) <John.kaasalainen@ontario.ca>
Sent: Thursday, January 17, 2019 1:44 PM
To: John (ENE) Kaasalainen
Subject: 220 Bradford Street Photos - Jan 17, 2019

John Kaasalainen, P.Eng.
MECP - Barrie District Office

Sent from my BlackBerry.





220 Bradford Street, Barrie



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0 0.035 0.07 0.14 km

1:2,257

COUNTY OF SIMCOE

000007

January 16, 2018

Kaasalainen, John (MECP)

From: Eves, Susan (ENE)
Sent: February-26-13 4:59 PM
To: 'Celeste Terry'; Dave Caspick; Graeme King; Sandy Coulter
Cc: Stephen Naylor; Ryan Windle; Kaasalainen, John (MECP); Hyde, Chris (MECP)
Subject: RE: 220 Bradford St. - Residential Project

Hi Celeste

As noted in our previous discussions, it is recommended that certain separation distances are met between any sensitive development and a sewage treatment plant, as stated in sections 3.1 and 3.4 of the Ministry of the Environment's D-2 Guideline – Compatibility between Sewage Treatment and Sensitive Land Use.

As you have indicated, the property will require rezoning from General Commercial to City Centre Commercial to allow for the use of the property as a residential apartment building. In addition to the required zoning change, it should be noted that the proponent will be required to file a record of site condition on the ministry's Brownfields Environmental Site Registry, all in accordance with Ontario Regulation 153/04 – Records of Site Condition – Part XV.1 of the Act, as amended, as the property use will be changing from a less sensitive use (i.e. commercial property use) to a more sensitive use (i.e. residential use) as defined under the regulation.

Once the RSC has been filed with the ministry and if the City of Barrie chooses to allow the developer to proceed with the rezoning and construction of a 100 unit apartment building directly across from the sewage treatment plant, which does not meet the recommended separation distances as outlined in the guideline, some requirements that the city may want to explore to try to minimize impacts from the sewage treatment plant on the residents of the proposed apartment building may be to: 1) ensure the design of the building includes windows that do not open to reduce the potential for odour and noise impacts; 2) the use of triple pane windows to reduce noise impacts; 3) the use of berms or other noise attenuation methods to reduce the potential for noise impacts. Overall, it is suggested that the City require as part of their approval process that the proponent provide their proposed mitigation measures to ensure that there will be no adverse impacts on the residents of the proposed apartment building from the existing/expanded sewage treatment plant.

To ensure the safety of the residents, the local public health unit is the better agency to contact with regard to any health related impacts if this particular development were to be built.

I hope this answers your questions related to this particular development. I can be reached at 705-739-6359 if you have any further questions.

Regards

Susan

From: Celeste Terry [mailto:CTerry@barrie.ca]
Sent: February 19, 2013 1:27 PM
To: Dave Caspick; Graeme King; Sandy Coulter; Eves, Susan (ENE)
Cc: Stephen Naylor; Ryan Windle
Subject: 220 Bradford St. - Residential Project

Good Afternoon.
This e-mail is a follow-up to our brief discussions to confirm that we have a consistent opinion of the requirements for this project prior to considering the application complete. The owner of the property (Dennis Tascona) has submitted an application to rezone 220 Bradford Street from General Commercial (C4) to City Centre Commercial (C2-SP) to permit the development of a 100 unit apartment building. The property is located directly across the street from the sewage

treatment plant. I have a general concern with the location of a sensitive land use in the vicinity of the plant and the MOE D2 Separation Guidelines obviously cannot be met. However, I am not a technical expert regarding noise and odour. If I could get your assistance with this assessment it would be greatly appreciated. My question is as follows:
Should we require additional information from the applicant to ensure that the introduction of a new residential use at this location is: safe for the residents, will not impact the operation of the plant, and will not impact the potential future expansion of operations? And if so, what would that be?
As always, we are limited with our timing to review the application for completeness and/or identify to the applicant that additional information is necessary.
Please reply as soon as you are able and thanks in advance.
Regards,
Celeste

Celeste Terry, MCIP, RPP
Senior Planner
City of Barrie
Central Ontario's Premier Waterfront Community

Planning Services Department
70 Collier Street
Barrie ON L4M 4T5
Tel: 705-739-4220 ext. 4430
Fax: 705-739-4270

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Please consider the environment before printing this email.

Kaasalainen, John (MECP)

From: Dmytrenko, Matthew (MOECC)
Sent: May-26-17 10:39 AM
To: Allen, Brad (MECP)
Cc: Munce, Carly (MECP); Athron, Greg (MECP); Kaasalainen, John (MECP); Hyde, Chris (MECP)
Subject: RE: Semi-Media/Political contact notice - 220 Bradford Street - [redacted]

s.21

[redacted] had left a voicemail message on my phone 05/24 which I was not able to return until this morning.

[redacted] has advised that he has undertaken a Phase I and II ESA of his site, slated for sale. Phase II ESA undertaken by T. Harris Environmental Management in 2016, determined that there were groundwater exceedances detected in the three monitoring wells punched in on the site for the parameters of trichlorethylene, dichlorethylene, and vinyl chloride. [redacted] surmised over a possible link between the residential sewage connection and the groundwater exceedances determined by the 2016 Phase II ESA. When asked if [redacted] consultant is undertaking further work to delineate the plume or file a record of site condition for the site, he responded in the negative.

Matthew Dmytrenko
Environmental Officer, Barrie District Office
Ontario Ministry of the Environment and Climate Change
matthew.dmytrenko@ontario.ca tel. 705-739-6399

From: Hyde, Chris (MOECC)
Sent: Thursday, January 05, 2017 15:30
To: Dmytrenko, Matthew (MOECC)
Subject: RE: Semi-Media/Political contact notice - 220 Bradford Street - [redacted] **s.21**

Thanks Matt.

Chris

Chris Hyde
District Supervisor
Barrie District Office
Ministry of the Environment and Climate Change
705-739-6417

From: Dmytrenko, Matthew (MOECC)
Sent: January 5, 2017 1:43 PM
To: Athron, Greg (MOECC); Hyde, Chris (MOECC)
Cc: Stuhlemmer, Brian (MOECC)
Subject: RE: Semi-Media/Political contact notice - 220 Bradford Street - [redacted] **s.21**

[redacted] contacted me this afternoon to discuss the matter again. He stated that he was not willing to [redacted] and reiterated that he wanted the Ministry to do something about it(the
s.21 sewage pipe) I advised him that this was not a matter that the Ministry would be involved with. He then replied "ok, bye" and terminated the call.

FYI

Matthew Dmytrenko
Environmental Officer, Barrie District Office
Ontario Ministry of the Environment and Climate Change
matthew.dmytrenko@ontario.ca tel. 705-739-6399

From: Athron, Greg (MOECC)
Sent: Wednesday, January 04, 2017 11:24
To: Hyde, Chris (MOECC)
Cc: Dmytrenko, Matthew (MOECC)
s.21 **Subject:** Semi-Media/Political contact notice - 220 Bradford Street - [redacted]

Chris

In late November 2016, I was Duty Office and dealt with [redacted] at the front counter (walk-in situation). [redacted] had concerns as a house on Sanford Street (downtown Barrie) reportedly had a sewage line running across the full length of his property at 220 Bradford Street, before discharging into the municipal sewage collection system (on the Bradford Street right of way).

This sewage line was/is reported to be the only building drain/sewer line for the residence at 163 Sanford Street. [redacted] reports that he was unaware of the sewer pipe running across his family property. The issue was referred to the area EO (Matt Dmytrenko). Matt did a site visit and wrote up the IR. (See IR # 1107-AG8JJS).

This morning at approximately 9:20 am. [redacted] call in and wanted to discuss what the MOECC would be doing about the sewage line crossing his property. [redacted] was told that this issue appears to be a civil issue and not one that the MOECC would typically get involved with. [redacted] expressed his belief that the situation was one where MOECC should be involved as he has concerns about the structure of the pipe that crosses his property, is concerned about the potential for contamination of his property should the pipe be leaking and feels that this issue is one where the MOECC should be telling the owners of 163 Sanford Street to remove the pipe on his property.

It was explained to [redacted] that the issue appears to be a civil issue (regarding the long
s.21 established pipe on the 220 Bradford Street property) and not an environmental issue. The issue of the potential for "adverse possession" was discussed with this issue being referred to [redacted] informed that he should be contacting Matt Dmytrenko, as this issue is within the City of Barrie.

Greg Athron
Senior Environmental Officer
Barrie District Office

Kaasalainen, John (MECP)

From: Dmytrenko, Matthew (MOECC)
Sent: January-04-17 12:22 PM
To: Kaasalainen, John (MOECC); Stuhlemmer, Brian (MOECC)
Subject: FW: Semi-Media/Political contact notice - 220 Bradford Street - [redacted] **s.21**

Over to you, John.

From: Stuhlemmer, Brian (MOECC)
Sent: Wednesday, January 04, 2017 12:19
To: Dmytrenko, Matthew (MOECC)
Subject: RE: Semi-Media/Political contact notice - 220 Bradford Street - [redacted] **s.21**

Thanks Matt.

All things considered, I would be more concerned with soil contamination on the former site of 'Honest Joe's Motors' and would hope that an Environmental Site Assessment be conducted should it be sold or re-developed.

Regards,
Brian-in-Barrie

From: Dmytrenko, Matthew (MOECC)
Sent: January 04, 2017 11:38 AM
To: Stuhlemmer, Brian (MOECC)
Subject: FW: Semi-Media/Political contact notice - 220 Bradford Street - [redacted]

s.21

FYI, as I copied you on findings re: 163 Sanford St/220 Bradford St in the past.

IR 1107-AG8JJS



[redacted]

Page 14

is a duplicate

est un duplicata

Records of site condition and transition notices

Search Records of Site Condition and Transition Notices

Change

Search criteria:	**Site Municipality** is *BARRIE*.

Press 'Number', 'Filing Date' or 'Municipality' to sort search results by that criterion.

Page 1 of 1

Number	Filing Owner	Filing Date
	RSC Property Address	Municipality
s.N/R	[redacted]	
s.N/R	[redacted]	[redacted]

No RSC for 220 Bradford St Barrie

Page 16

is not relevant

est non pertinente

Pages 17 to / à 19

are withheld pursuant to section

sont retenues en vertu de l'article

17

of the Freedom of Information and Protection of Privacy Act

de la Freedom of Information and Protection of Privacy Act

CITY HALL
70 COLLIER STREET
TEL. (705) 739-4220
FAX (705) 739-4206

The City of BARRIE

P.O. BOX 400
BARRIE, ONTARIO
L4M 4T5

THE CORPORATION OF THE CITY OF BARRIE
Legislative and Court Services Department
"Committed to Service Excellence"

October 25, 2019

File: A17-2019/0042

Cambium Inc.
Attention: Natalie Wright
74 Cedar Pointe Drive, Unit 1009
Barrie, ON L4N 5R7

Dear Ms. Wright:

The purpose of this letter is to provide details pertaining to your request for access under the Municipal Freedom of Information and Protection of Privacy Act, which was received in the Legislative and Court Services Department on August 7, 2019. You have requested copies of records pertaining to 220 Bradford Street from 1942 to 2019 including:

1. Building Permits and retaining wall permits including supporting documentation;
2. Environmental investigations and/or responses; and
3. Most recent report regarding the Voluntary Municipal Groundwater Monitoring Program to assess chlorinated solvents (most notably trichloroethylene and vinyl chloride) in groundwater in the vicinity of the Wastewater Treatment Facility at Bradford Street.

The City of Barrie provided official notice to the third party involved that they had 30 days from the date of the access decision to appeal the City's decision to partially release the information. The due date for this appeal was October 21, 2019. The City of Barrie has not received a notice of an appeal from the Information and Privacy Commissioner of Ontario for this request.

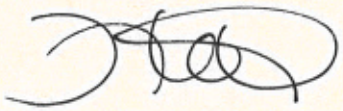
In accordance with Section 45 of the Act and Regulation 823 as amended, the following fees apply:

Search time:	3 hours and 5 minutes @$7.50 per 15 mins	$92.50
Preparation time:	20 minutes @$7.50 per 15 mins	$10.00
Photocopies	400 pages @$0.20 per 8.5' x 11' page	$80.00
	Less Deposit Fee Received September 16th	-$148.65
	TOTAL AMOUNT DUE:	**$33.85**

The records identified for release in the decision letter dated September 20, 2019 will be provided upon payment of the above-noted fee. Please treat this decision letter as an invoice for payment purposes. Payment can be made at Service Barrie, 1st Floor, City Hall, 70 Collier Street, Barrie, Ontario from 8:30 a.m. to 4:30 p.m., Monday to Friday. If providing a cheque, please include the number of the request, #2019/0042 in the information line.

In accordance with Section 22, Subsection 1, Paragraph b, Sub-paragraph (iv) and Section 45, Subsection (5), of the Act, you have the right to appeal this decision. Please consult the Information and Privacy Commissioner of Ontario's website (www.ipc.on.ca) for further details regarding the Appeals Process including fees, requirements and deadlines for submission of appeals.

Sincerely,



Wendy Cooke
Director of Legislative and Court Services/City Clerk

Section 14 (2)(f)(h)

(MOE) [redacted] - [redacted]

- Honest Joe's Motors
  - L shaped between residential property
  - strong fuel or oil odour
  - potential spill
  - many abandoned vehicles

[redacted]

Municipal Works Department
Environmental Services Division

AUTOMOTIVE

WASTE SURVEY REPORT

SECTION 1 - GENERAL INFORMATION

a) Name of Person submitting Report: _____

HONEST JOE
(company name, corporation, owner)

728-5430
(telephone number)

220 BRADFORD ST
(postal address)

WAS VERY UNCOOPERATIVE
WILL NOT SIGN THE W.S.R.

(b) Company Officer responsible for effluent Cont

JOE TASCONA
(name)

(c) Location of Premises:

220 BRADFORD STREE
(number, street, or road, municipality)

THE INFORMATION CONTAINED IN THIS REPORT TO THE BEST OF MY KNOWLEDGE AND BELIEF IS TRUE, COMPLETE AND ACCURATE.

_____
(Authorized Representative)

OWNER.
(title)

JUNE/4/1999
(date)

SECTION 2 - PRODUCT OR SERVICE INFORMATION

.(a) Indicate the appropriate Standard Industrial Classification Codes (SIC):

i)	Garages (General Repairs)	6351 {✓}
ii)	Paint and Body Repair Shops	6352 { }
iii)	Muffler Replacement Shops	6353 { }
iv)	Motor Vehicle Glass Replacement Shops	6354 { }
v)	Motor Vehicle Transmission Repair	6355 { }
vi)	Other Motor Vehicle Repair Shops - air conditioning installation and repair - brake repair shops - electrical repair shops - front end alignment shops - motor vehicle suspension shops - motor vehicle upholstery shops - radiator repair shops	6359 { }
vii)	Car Washes - car washing service - mobile truck wash service	6391 { }
viii)	Other Motor Vehicle Services - customizing vans - diagnostic centre - rust proofing - surface treating - towing - undercoating	6399 { }

(b) Number of employees:

Plant: 1 Office: _____

(c) Number of shifts per day: whenever Number of days per week: 7

(d) Is the service activity subject to seasonal variation:

{ } Yes {✓} No

If yes, briefly describe seasonal activity cycle:

_____

_____

(e) Is there a special clean-up period: { } Yes {✓} No

If yes, briefly describe clean-up period activities and chemicals used (if applicable):

_____

_____

SECTION 3 - WASTE CHARACTERISTICS

(a) Sources of water supply:

Private Well { } P.U.C. {✓}

(b) Type of water usage (check all that apply):
(to determine water consumption, refer to P.U.C. invoice if applicable)

Type	Ave. Flow (m^3/month)	
{✓} sanitary (domestic only)	____ { } estimated	{ } measured
{ } non contact cooling	____ { } estimated	{ } measured
{ } contact cooling	____ { } estimated	{ } measured
{ } sanitary (excl. domestic)	____ { } estimated	{ } measured
{ } product water	____ { } estimated	{ } measure
{ } other	____ { } estimated	{ } measured

(c) Wastes are discharged to (check all that apply):

Type	Ave. Flow (m^3/month)	
{✓} sanitary #1	____ { } estimated	{ } measured
{ } sanitary #2	____ { } estimated	{ } measured
{ } storm sewer #1	____ { } estimated	{ } measured
{ } storm sewer #2	____ { } estimated	{ } measured
{ } ground water (leaching pit)	____ { } estimated	{ } measured
{ } surface water (watercourse)	____ { } estimated	{ } measured
{ } septic tank	____ { } estimated	{ } measured

SECTION 4 - PHYSICAL LAY-OUT

Layout sketch of property (to scale or approximate) to co-ordinate buildings, pretreatment works, property boundaries, effluent lines, and sanitary and storm sewer connections including catchbasins and manholes. (Number sewers so that they can be related to Pollutant Information Sheets; Section 7,8 & 9).

SECTION 5 - PRETREATMENT

Pretreatment devices or processes used for treating wastes or sludges before discharge to the sanitary sewer system (check as many any appropriate).

{ } Filtration
{ } Flow equalization
{ } Grease or oil separation, type: _____
{ } Grit Removal
{ } Neutralization, pH correction
{ } Screening
{ } Sedimentation
{ } Solvent separation
{ } Sump
{X} No Treatment provided

SECTION 6 - WASTE DISPOSAL TECHNIQUES

DESCRIPTION OF WASTE STREAM	REGISTERED* (Y/N)	METHOD OF WASTE DISPOSAL
1. Waste Oil		
2. Parts Washer Fluid		
3. Oil Interceptor Waste		
4. Paints/Solvents		
5. Grit Trap Material		
6. Others not listed above		

Generator Registration Number: _____

*Registered under Ontario Regulation 347 (previously Regulation 309)

SECTIONS 7, 8 & 9: INFORMATION

1. The parameters listed in these Sections are defined in Sections 2 and 3 of the Sewer Use By-Law 89-167. Further information can be obtained from Provincial Regulation 347.

2. Consult Material Safety Data Sheets for specific product information. They will assist in determining whether a certain parameter is likely to be present in a discharge to the storm or sanitary sewer systems.

3. If the discharge to sanitary consists of sanitary (domestic only), or non-contact cooling in the case of a storm sewer, simply indicate this at the top of the page.

4. Check known present or suspected present only if a discharge to a storm or sanitary sewer is occurring.

5. Complete one form for each sewer connection.

SECTION 7 - POLLUTANT INFORMATION SHEET (CONTROLLED MATTER)

Information for: { } sanitary sewer { } storm sewer
Sewer number _____

Indicate by placing an "X" in the appropriate box for each listed parameter whether it is "suspected to be absent", "known to be absent", "suspected to be present" or "known to be present" and the expected concentration in milligrams per litre.

	Parameter	Known Present	Suspected Present	Known Absent	Suspected Absent	Concentration mg/Litre
1	Barium	{ }	{ }	{ }	{ }	_____
2	Chlorides	{ }	{ }	{ }	{ }	_____
3	Sulphates	{ }	{ }	{ }	{ }	_____
4	Aluminum	{ }	{ }	{ }	{ }	_____
5	Iron	{ }	{ }	{ }	{ }	_____
6	Fluoride	{ }	{ }	{ }	{ }	_____
7	Phosphorus	{ }	{ }	{ }	{ }	_____
8	Antimony	{ }	{ }	{ }	{ }	_____
9	Bismuth	{ }	{ }	{ }	{ }	_____
10	Chromium	{ }	{ }	{ }	{ }	_____
11	Cobalt	{ }	{ }	{ }	{ }	_____
12	Lead	{ }	{ }	{ }	{ }	_____
13	Manganese	{ }	{ }	{ }	{ }	_____
14	Molybdenum	{ }	{ }	{ }	{ }	_____
15	Selenium	{ }	{ }	{ }	{ }	_____
16	Silver	{ }	{ }	{ }	{ }	_____
17	Gold	{ }	{ }	{ }	{ }	_____
18	Tin	{ }	{ }	{ }	{ }	_____
19	Titanium	{ }	{ }	{ }	{ }	_____
20	Platinum	{ }	{ }	{ }	{ }	_____
21	Vanadium	{ }	{ }	{ }	{ }	_____
22	Rhodium	{ }	{ }	{ }	{ }	_____
23	Copper	{ }	{ }	{ }	{ }	_____
24	Cyanide	{ }	{ }	{ }	{ }	_____
25	Nickel	{ }	{ }	{ }	{ }	_____
26	Zinc	{ }	{ }	{ }	{ }	_____
27	Arsenic	{ }	{ }	{ }	{ }	_____
28	Cadmium	{ }	{ }	{ }	{ }	_____
29	Phenolic Compounds	{ }	{ }	{ }	{ }	_____
30	Mercury	{ }	{ }	{ }	{ }	_____
31	Sulphides	{ }	{ }	{ }	{ }	_____
32	BOD	{ }	{ }	{ }	{ }	_____
33	TSS	{ }	{ }	{ }	{ }	_____
34	Oil & Grease (animal/veg)	{ }	{ }	{ }	{ }	_____
35	Oil & Grease (mineral/syn)	{ }	{ }	{ }	{ }	_____
36	Kjeldahl Nitrogen	{ }	{ }	{ }	{ }	_____

SECTION 8 - POLLUTANT INFORMATION SHEET

Information for: { } sanitary sewer { } storm sewer
Sewer number _____

Indicate by placing an "X" in the appropriate box for each listed parameter whether it is "suspected to be absent", "known to be absent", "suspected to be present", or "known to be present" and the known or expected quantity in mg/Litre.

	Parameter	Known Present	Suspected Present	Known Absent	Suspected Absent	Concentration mg/Litre
1	pesticides	{ }	{ }	{ }	{ }	_____
2	herbicides	{ }	{ }	{ }	{ }	_____
3	acute hazardous waste chemicals	{ }	{ }	{ }	{ }	_____
4	fuels	{ }	{ }	{ }	{ }	_____
5	hazardous industrial waste	{ }	{ }	{ }	{ }	_____
6	hazardous waste chemicals	{ }	{ }	{ }	{ }	_____
7	ignitable waste	{ }	{ }	{ }	{ }	_____
8	explosive products or substances	{ }	{ }	{ }	{ }	_____
9	pathological wastes	{ }	{ }	{ }	{ }	_____
10	PCB wastes	{ }	{ }	{ }	{ }	_____
11	Reactive wastes	{ }	{ }	{ }	{ }	_____
12	severly toxic materials	{ }	{ }	{ }	{ }	_____
13	waste radio-active materials	{ }	{ }	{ }	{ }	_____

SECTION 9 - POLLUTANT INFORMATION SHEET (ORGANICS)

Information for: { } sanitary sewer { } storm sewer

Sewer number _____

Indicate by placing an "X" in the appropriate box for each listed parameter whether it is "suspected to be absent", "known to be absent", "suspected to be present" or "known to be present" and the expected concentration in milligrams per litre.

	Parameter	Known Present	Suspected Present	Known Absent	Suspected Absent	Concentration mg/Litre
1	Tetrachloroethylene	{ }	{ }	{ }	{ }	_____
2	Trichloroethylene	{ }	{ }	{ }	{ }	_____
3	Methylene Chloride	{ }	{ }	{ }	{ }	_____
4	1,1,1 - Trichloroethane	{ }	{ }	{ }	{ }	_____
5	Carbon Tetrachloride	{ }	{ }	{ }	{ }	_____
6	Chlorobenzenes	{ }	{ }	{ }	{ }	_____
7	Xylene	{ }	{ }	{ }	{ }	_____
8	Acetone	{ }	{ }	{ }	{ }	_____
9	Ethyl Acetate	{ }	{ }	{ }	{ }	_____
10	Ethyl Benzene	{ }	{ }	{ }	{ }	_____
11	Ethyl Ether	{ }	{ }	{ }	{ }	_____
12	Methyl Isobutyl Ketone	{ }	{ }	{ }	{ }	_____
13	N-Butyl Alcohol	{ }	{ }	{ }	{ }	_____
14	Cyclohexanone	{ }	{ }	{ }	{ }	_____
15	Methanol	{ }	{ }	{ }	{ }	_____
16	Cresols	{ }	{ }	{ }	{ }	_____
17	Cresylic Acid	{ }	{ }	{ }	{ }	_____
18	Nitrobenzene	{ }	{ }	{ }	{ }	_____
19	Toluene	{ }	{ }	{ }	{ }	_____
20	Benzene	{ }	{ }	{ }	{ }	_____
21	Methyl Ethyl Ketone	{ }	{ }	{ }	{ }	_____
22	Carbon Disulphide	{ }	{ }	{ }	{ }	_____
23	Isobutanol	{ }	{ }	{ }	{ }	_____
24	Pyridine	{ }	{ }	{ }	{ }	_____
25	Chloroform	{ }	{ }	{ }	{ }	_____
26	Formaldehyde	{ }	{ }	{ }	{ }	_____

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12 years.

TOMOTIVE

SURVEY REPORT

SECTION 1 - GENERAL INFORMATION

CHECH LANDLORD & HOLE IN GROUND MIGHT BE CONNECTED TO SUMP IN GARAGE

a) Name of Person submitting Report _____

_____ _____
(company name, corporation, o) (telephone number)

_____ _____
(postal address) (e)

TOLD THE LANDLORD TO CLOSE IT UP. 7

(b) Company Officer responsible for effluent Control:

_____ _____
(name) (telephone number)

(c) Location of Premises:

_____
(number, street, or road, municipality)

THE INFORMATION CONTAINED IN THIS REPORT TO THE BEST OF MY KNOWLEDGE AND BELIEF IS TRUE, COMPLETE AND ACCURATE.

Paul K. Harris
(Authorized Representative)

PRES. June 4/99
(title) (date)

SECTION 2 - PRODUCT OR SERVICE INFORMATION

(a) Indicate the appropriate Standard Industrial Classification Codes (SIC):

i)	Garages (General Repairs)	6351 { ✓ }	TOWUP & ELETRICAL SHOP
ii)	Paint and Body Repair Shops	6352 { }	
iii)	Muffler Replacement Shops	6353 { }	
iv)	Motor Vehicle Glass Replacement Shops	6354 { }	
v)	Motor Vehicle Transmission Repair	6355 { }	
vi)	Other Motor Vehicle Repair Shops	6359 { }	
	- air conditioning installation and repair		
	- brake repair shops		
	- electrical repair shops		
	- front end alignment shops		
	- motor vehicle suspension shops		
	- motor vehicle upholstery shops		
	- radiator repair shops		
vii)	Car Washes	6391 { }	
	- car washing service		
	- mobile truck wash service		
viii)	Other Motor Vehicle Services	6399 { }	
	- customizing vans		
	- diagnostic centre		
	- rust proofing		
	- surface treating		
	- towing		
	- undercoating		

oil changing of own car ✓

(b) Number of employees:

Plant: 1 Office: _____

(c) Number of shifts per day: 1 Number of days per week: 5

(d) Is the service activity subject to seasonal variation:

{ ✓ } Yes { } No

If yes, briefly describe seasonal activity cycle:

Summer tim oct to Feb.

(e) Is there a special clean-up period: { ✓ } Yes { } No

If yes, briefly describe clean-up period activities and chemicals used (if applicable):

Car clean product I pick up every 2 years. (SAFTY CLEAN)

one a year Solvent I sils take to city.

Ant Freeze recycle

SECTION 3 - WASTE CHARACTERISTICS

(a) Sources of water supply:

Private Well { } P.U.C. { ✓ }

(b) Type of water usage (check all that apply):
(to determine water consumption, refer to P.U.C. invoice if applicable)

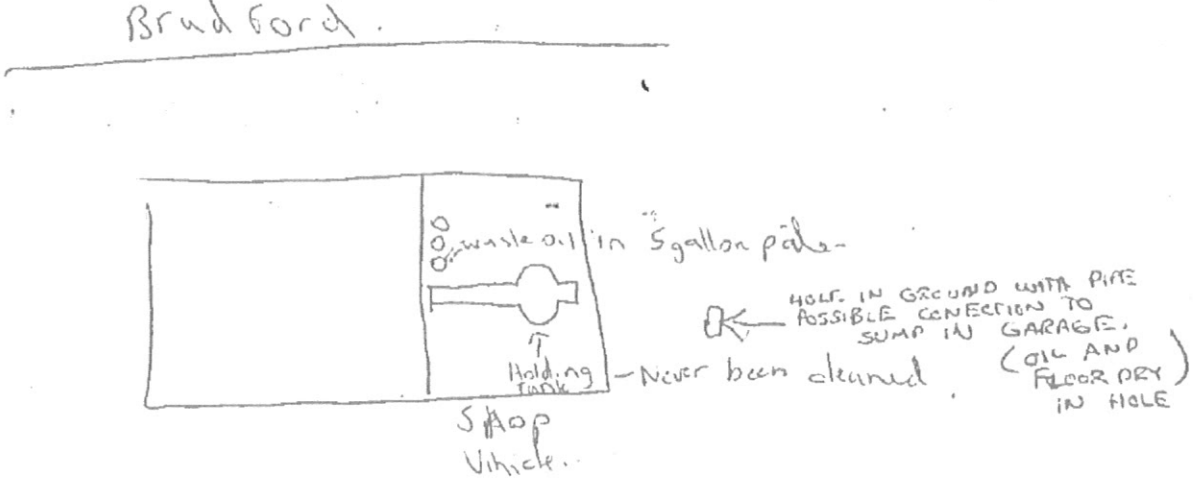
Type		Ave. Flow (m^3/month)	
{ ✓ } sanitary (domestic only)	____	{ } estimated	{ } measured
{ } non contact cooling	____	{ } estimated	{ } measured
{ } contact cooling	____	{ } estimated	{ } measured
{ } sanitary (excl. domestic)	____	{ } estimated	{ } measured
{ } product water	____	{ } estimated	{ } measure
{ } other	____	{ } estimated	{ } measured

(c) Wastes are discharged to (check all that apply):

Type		Ave. Flow (m^3/month)	
{ ✓ } sanitary #1	____	{ } estimated	{ } measured
{ } sanitary #2	____	{ } estimated	{ } measured
{ } storm sewer #1	____	{ } estimated	{ } measured
{ } storm sewer #2	____	{ } estimated	{ } measured
{ } ground water (leaching pit)	____	{ } estimated	{ } measured
{ } surface water (watercourse)	____	{ } estimated	{ } measured
{ } septic tank	____	{ } estimated	{ } measured

SECTION 4 - PHYSICAL LAY-OUT

Layout sketch of property (to scale or approximate) to co-ordinate buildings, pretreatment works, property boundaries, effluent lines, and sanitary and storm sewer connections including catchbasins and manholes. (Number sewers so that they can be related to Pollutant Information Sheets; Section 7,8 & 9).



SECTION 5 - PRETREATMENT

Pretreatment devices or processes used for treating wastes or sludges before discharge to the sanitary sewer system (check as many any appropriate).

{ } Filtration
{ } Flow equalization
{ } Grease or oil separation, type: Sump
{ } Grit Removal
{ } Neutralization, pH correction
{ } Screening
{ } Sedimentation
{ } Solvent separation
{ } Sump
{ } No Treatment provided

SECTION 6 - WASTE DISPOSAL TECHNIQUES

DESCRIPTION OF WASTE STREAM	REGISTERED* (Y/N)	METHOD OF WASTE DISPOSAL
1. Waste Oil	Y	PERSONAL REMOVAL
2. Parts Washer Fluid	Y	SAFETY CLEAN
3. Oil Interceptor Waste		
4. Paints/Solvents	Y	VARSAL PERSONAL
5. Grit Trap Material		
6. Others not listed above		

Generator Registration Number: _____

*Registered under Ontario Regulation 347 (previously Regulation 309)

SECTIONS 7, 8 & 9: INFORMATION

1. The parameters listed in these Sections are defined in Sections 2 and 3 of the Sewer Use By-Law 89-167. Further information can be obtained from Provincial Regulation 347.

2. Consult Material Safety Data Sheets for specific product information. They will assist in determining whether a certain parameter is likely to be present in a discharge to the storm or sanitary sewer systems.

3. If the discharge to sanitary consists of sanitary (domestic only), or non-contact cooling in the case of a storm sewer, simply indicate this at the top of the page.

4. Check known present or suspected present only if a discharge to a storm or sanitary sewer is occurring.

5. Complete one form for each sewer connection.

SECTION 7 - POLLUTANT INFORMATION SHEET (CONTROLLED MATTER)

Information for: { } sanitary sewer { } storm sewer
Sewer number _____

Indicate by placing an "X" in the appropriate box for each listed parameter whether it is "suspected to be absent", "known to be absent", "suspected to be present" or "known to be present" and the expected concentration in milligrams per litre.

	Parameter	Known Present	Suspected Present	Known Absent	Suspected Absent	Concentration mg/Litre
1	Barium	{ }	{ }	{ }	{ }	_____
2	Chlorides	{ }	{ }	{ }	{ }	_____
3	Sulphates	{ }	{ }	{ }	{ }	_____
4	Aluminum	{ }	{ }	{ }	{ }	_____
5	Iron	{ }	{ }	{ }	{ }	_____
6	Fluoride	{ }	{ }	{ }	{ }	_____
7	Phosphorus	{ }	{ }	{ }	{ }	_____
8	Antimony	{ }	{ }	{ }	{ }	_____
9	Bismuth	{ }	{ }	{ }	{ }	_____
10	Chromium	{ }	{ }	{ }	{ }	_____
11	Cobalt	{ }	{ }	{ }	{ }	_____
12	Lead	{ }	{ }	{ }	{ }	_____
13	Manganese	{ }	{ }	{ }	{ }	_____
14	Molybdenum	{ }	{ }	{ }	{ }	_____
15	Selenium	{ }	{ }	{ }	{ }	_____
16	Silver	{ }	{ }	{ }	{ }	_____
17	Gold	{ }	{ }	{ }	{ }	_____
18	Tin	{ }	{ }	{ }	{ }	_____
19	Titanium	{ }	{ }	{ }	{ }	_____
20	Platinum	{ }	{ }	{ }	{ }	_____
21	Vanadium	{ }	{ }	{ }	{ }	_____
22	Rhodium	{ }	{ }	{ }	{ }	_____
23	Copper	{ }	{ }	{ }	{ }	_____
24	Cyanide	{ }	{ }	{ }	{ }	_____
25	Nickel	{ }	{ }	{ }	{ }	_____
26	Zinc	{ }	{ }	{ }	{ }	_____
27	Arsenic	{ }	{ }	{ }	{ }	_____
28	Cadmium	{ }	{ }	{ }	{ }	_____
29	Phenolic Compounds	{ }	{ }	{ }	{ }	_____
30	Mercury	{ }	{ }	{ }	{ }	_____
31	Sulphides	{ }	{ }	{ }	{ }	_____
32	BOD	{ }	{ }	{ }	{ }	_____
33	TSS	{ }	{ }	{ }	{ }	_____
34	Oil & Grease (animal/veg)	{ }	{ }	{ }	{ }	_____
35	Oil & Grease (mineral/syn)	{✓}	{ }	{ }	{ }	_____
36	Kjeldahl Nitrogen	{ }	{ }	{ }	{ }	_____

SECTION 8 - POLLUTANT INFORMATION SHEET

Information for: { } sanitary sewer { } storm sewer
Sewer number _____

Indicate by placing an "X" in the appropriate box for each listed parameter whether it is "suspected to be absent", "known to be absent", "suspected to be present", or "known to be present" and the known or expected quantity in mg/Litre.

	Parameter	Known Present	Suspected Present	Known Absent	Suspected Absent	Concentration mg/Litre
1	pesticides	{ }	{ }	{ }	{ }	_____
2	herbicides	{ }	{ }	{ }	{ }	_____
3	acute hazardous waste chemicals	{ }	{ }	{ }	{ }	_____
4	fuels	{ }	{ }	{ }	{ }	_____
5	hazardous industrial waste	{ }	{ }	{ }	{ }	_____
6	hazardous waste chemicals	{ }	{ }	{ }	{ }	_____
7	ignitable waste	{ }	{ }	{ }	{ }	_____
8	explosive products or substances	{ }	{ }	{ }	{ }	_____
9	pathological wastes	{ }	{ }	{ }	{ }	_____
10	PCB wastes	{ }	{ }	{ }	{ }	_____
11	Reactive wastes	{ }	{ }	{ }	{ }	_____
12	severly toxic materials	{ }	{ }	{ }	{ }	_____
13	waste radio-active materials	{ }	{ }	{ }	{ }	_____

Section 14 (2)(f)(h)

[redacted]

DATE: JUNE 4/99

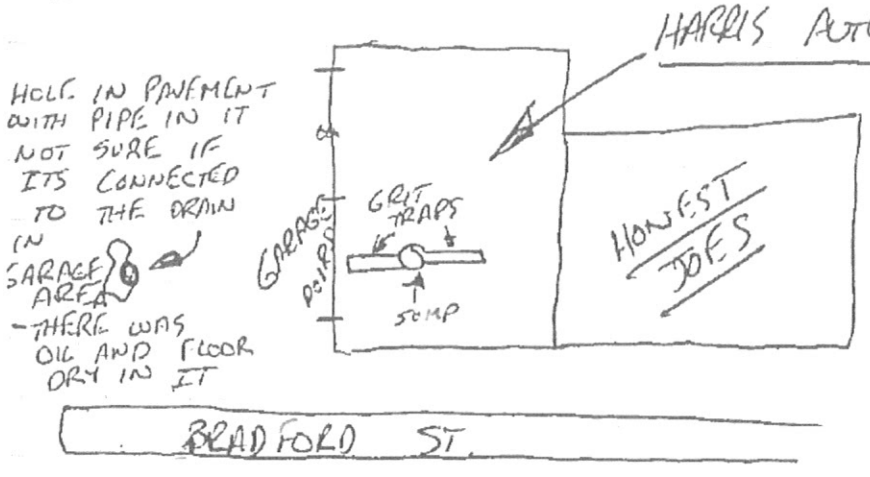
CONTACTED: LES (GARAGE LOCATED IN UNIT #2 BEHIND "HONEST JOES"

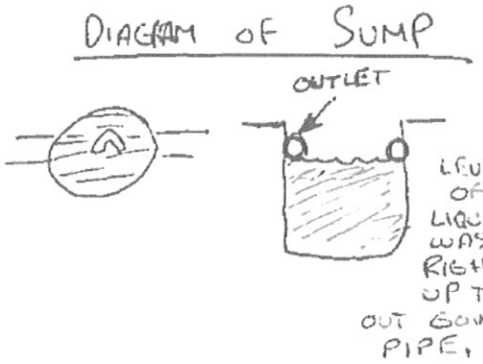
HARRIS AUTO ELECTRIC LTD. — 220A BRADFORD ST.

TALKED WITH LES THE OPERATOR OF THE GARAGE. HE FILLED OUT A W.S.R. FOR US WHILE WE WERE THERE - TOLD US THAT MOST OF HIS WORK WAS ELECTRICAL AND THAT ANY OIL CHANGES THAT WERE DONE WERE HIS OWN PERSONAL ONES. — HE WAS UNAWARE OF WHAT AN OIL INTERCEPTOR WAS - WE INFORMED HIM OF THE NEED FOR ONE SINCE HE HAD A DRAIN IN THE SHOP AREA - TOLD HIM THAT SINCE HE DOESN'T HAVE AN INTERCEPTOR HE HAS TO BLOCK OFF THE OUT LET TO THE SUMP. TOLD US HE WOULD DO THAT.

WE LOOKED INTO THE SUMP AND IT WAS FULL OF WATER AND SOME OIL RESIDUES.

DIAGRAM





SECTION 9 - POLLUTANT INFORMATION SHEET (ORGANICS)

Information for: { } sanitary sewer { } storm sewer

Sewer number _____

Indicate by placing an "X" in the appropriate box for each listed parameter whether it is "suspected to be absent", "known to be absent", "suspected to be present" or "known to be present" and the expected concentration in milligrams per litre.

	Parameter	Known Present	Suspected Present	Known Absent	Suspected Absent	Concentration mg/Litre
1	Tetrachloroethylene	{ }	{ }	{ }	{ }	_____
2	Trichloroethylene	{ }	{ }	{ }	{ }	_____
3	Methylene Chloride	{ }	{ }	{ }	{ }	_____
4	1,1,1 - Trichloroethane	{ }	{ }	{ }	{ }	_____
5	Carbon Tetrachloride	{ }	{ }	{ }	{ }	_____
6	Chlorobenzenes	{ }	{ }	{ }	{ }	_____
7	Xylene	{ }	{ }	{ }	{ }	_____
8	Acetone	{ }	{ }	{ }	{ }	_____
9	Ethyl Acetate	{ }	{ }	{ }	{ }	_____
10	Ethyl Benzene	{ }	{ }	{ }	{ }	_____
11	Ethyl Ether	{ }	{ }	{ }	{ }	_____
12	Methyl Isobutyl Ketone	{ }	{ }	{ }	{ }	_____
13	N-Butyl Alcohol	{ }	{ }	{ }	{ }	_____
14	Cyclohexanone	{ }	{ }	{ }	{ }	_____
15	Methanol	{ }	{ }	{ }	{ }	_____
16	Cresols	{ }	{ }	{ }	{ }	_____
17	Cresylic Acid	{ }	{ }	{ }	{ }	_____
18	Nitrobenzene	{ }	{ }	{ }	{ }	_____
19	Toluene	{ }	{ }	{ }	{ }	_____
20	Benzene	{ }	{ }	{ }	{ }	_____
21	Methyl Ethyl Ketone	{ }	{ }	{ }	{ }	_____
22	Carbon Disulphide	{ }	{ }	{ }	{ }	_____
23	Isobutanol	{ }	{ }	{ }	{ }	_____
24	Pyridine	{ }	{ }	{ }	{ }	_____
25	Chloroform	{ }	{ }	{ }	{ }	_____
26	Formaldehyde	{ }	{ }	{ }	{ }	_____

272 FERNDALE DRIVE NORTH
TEL. (705) 739-4219
FAX. (705) 739-4251

THE CORPORATION OF THE CITY OF BARRIE
Engineering Department
Environmental Services Branch
"Committed to Total Service Excellence"

P.O. BOX 400
BARRIE, ONTARIO
L4M 4T5

File E05-BRA
220 Bradford St. Unit A

September 12, 2006

Harris Auto Electric Ltd.
220 Bradford St. Unit A
Barrie, ON L4N 3B6

Attention: **Owner/Manager**

Dear Sir/Madam:

RE **Waste Survey Report, 2006**

Part of the City of Barrie's Waste Management Program includes monitoring establishments in the industrial, commercial and institutional (ICI) sectors, as well as, working with proponents to efficiently meet applicable environmental (waste, wastewater, and water) legislation. *Section 4 of By-law 89-167* requires that the owners/operators of automotive repair businesses submit a completed Waste Survey Report to the City of Barrie. Please find attached a Waste Survey Report that is to be completed and returned by **Monday September 26, 2006** by facsimile or mail to the following address:

City of Barrie
Environmental Investigation and Response
P.O. Box 400
272 Ferndale Drive North
Barrie, ON L4M 4T5

Please also find attached a copy of *By-law 89-167* for your review. Should you require further assistance with completing the survey report, please do not hesitate to contact the undersigned.

Thank you for your cooperation.

Yours truly,

CITY OF BARRIE

D. Moreau, B.E.S.,
Senior Environmental Officer

Cc S. Coulter, City of Barrie

Encl.

The City of BARRIE

City of Barrie

ENVIRONMENTAL INVESTIGATION & RESPONSE
Contact Report

Environmental Officer: J. Sawniak	Contact Date: April 18/07
Contact Time: 11:15	
Company Name: Harris Auto Electric	
Contact Name: Les Babinchak	
TOMRNS File No.	

CONTACT METHOD AND REASON FOR CONTACT

Telephone Call	☑	Incident	☐	Survey	☑
Verbal	☐	Investigation	☐	Action Notice	☐
Written	☐	Inspection	☑	Violation Notice	☐
Email	☐	Follow Up	☐	Evidence	☐

CONTACT SUMMARY

Talked to Paul Leslie - Les - owner
- drop in within next two weeks
- Uses aerosol spray paint for small parts
- Mostly a dry operation - Does have a parts washer uses solvents - varsol replaces every 5-8 years - I suggested that he have safety clean manifest on hand even if the last removal was eight (8) years ago.
- 5 gallon gas can at Bay door
- Gear driven hoist. April 18/07 JS

Environmental Officer

Signature

The City of BARRIE	WASTE SURVEY REPORT AUTOMOTIVE SECTOR	Environmental Services P.O. Box 400 Barrie, Ontario L4M 4T5 705-739-4221 office 705-739-4251 fax

Section 1 BIOGRAPHICAL INFORMATION

Report Date: YYYY-MM-DD: 2006-09-18

Inspection Date: YYYY-MM-DD:

(a) Company Name, Corporation: Harris Auto Electric Ltd (1997)

(b) Owner: Paul Leslie Babinchak

(c) Telephone Number: 705-726-1465 Fax Number:

(d) Web Site: E-Mail Address:

(e) Location of Premises:

Street Address: 220A Bradford St.
Municipality: Barrie
Postal Code: L4N-3B6

(f) Corporate Officer Responsible for Effluent Control: P.L. Babinchak

I state that the information contained in this report is complete, true and accurate to the best of my knowledge and belief.

P.L. Babinchak
(Authorized Corporate Representative)

Pres.
(Title)

2006-09-18
(Date: YYYY-MM-DD)

RECEIVED
SEP 26 2006
THE CITY OF BARRIE
ENVIRONMENTAL CENTRE

The City of BARRIE	WASTE SURVEY REPORT AUTOMOTIVE SECTOR	Environmental Services P.O. Box 400 Barrie, Ontario L4M 4T5 705-739-4221 office 705-739-4251 fax

(g) Is there a daily clean-up procedure? Yes: ☐ No: ☑

Briefly describe clean-up procedure, chemicals used, and disposal methods if applicable:

(h) Paint Booth: Yes: ☐ No: ☑

(i) Above ground storage tank: Yes: ☐ No: ☑
If yes a) Capacity:
b) Content:
c) Secondary Containment:

(j) Underground storage tank: Yes: ☐ No: ☑
If yes a)Capacity:
b)Content:

(k) Hydraulic equipment: Yes: ☐ No: ☑

Gear Driven Hoist

The City of BARRIE	WASTE SURVEY REPORT AUTOMOTIVE SECTOR	Environmental Services P.O. Box 400 Barrie, Ontario L4M 4T5 705-739-4221 office 705-739-4251 fax

Section 4 WASTEWATER CHARATERISTICS

Has a sample of your wastewater been collected and submitted for laboratory analysis? No, Sanitary use only

If yes, please provide a copy of the laboratory results.

Section 5 WASTEWATER PRETREATMENT EQUIPMENT

List and describe pretreatment equipment types and processes. Include any sludge treatment equipment, performance criteria such as: overall condition; retention times; and flow handling capabilities (i.e. oil/water separator, grit removal, ion exchange, pH adjustment):

Section 6 SAMPLING LOCATIONS

Is there an inspection manhole connected to the sanitary sewer installed on the property?

Yes: ☐ No: ☑

If yes, please provide a brief diagram of its location: unknown - never seen one

The City of BARRIE	WASTE SURVEY REPORT AUTOMOTIVE SECTOR	Environmental Services P.O. Box 400 Barrie, Ontario L4M 4T5 705-739-4221 office 705-739-4251 fax

(f) Solid Waste Information, Recycling Programs, Hauler information: N.A.

Waste Hauler: N.A.

Bin Size (4 Yard, 6 Yard, 8 Yard, 40 Yard Compactor, etc): N.A.

Collection Day and Frequency: N.A.

Recycling Program Hauler: N.A.

Types of Materials Recycled: N.A.

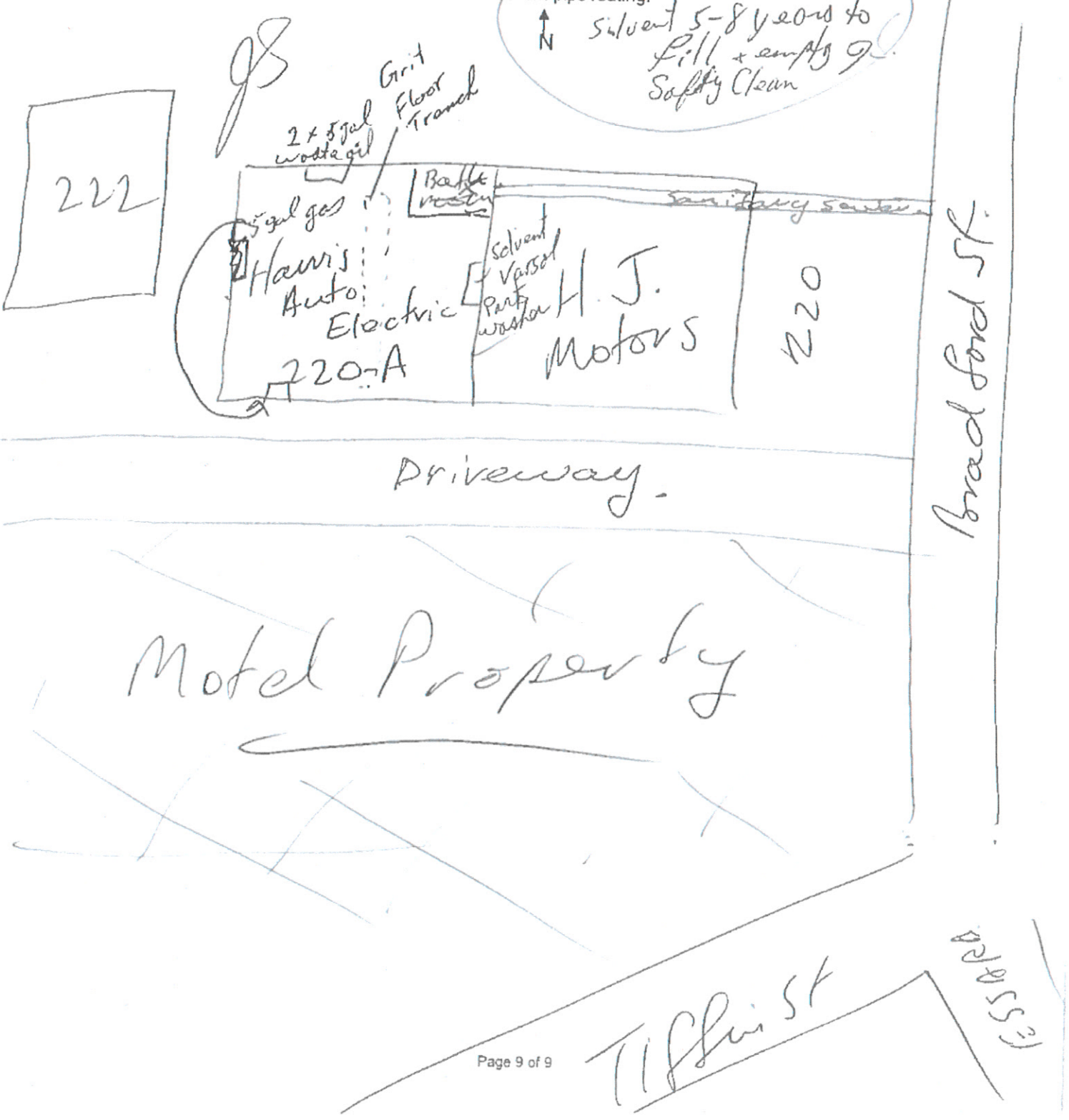
Collection Day and Frequency: N.A.

Blue Boxes

The City of BARRIE	WASTE SURVEY REPORT AUTOMOTIVE SECTOR	Environmental Services P.O. Box 400 Barrie, Ontario L4M 4T5 705-739-4221 office 705-739-4251 fax

Section 9 PHYSICAL LAYOUT

Layout sketch of property to coordinate location of buildings, pretreatment works, property boundaries, tanks, sanitary and storm sewers, and internal effluent pipe routing.



421240

David Lalonde

From: David Lalonde
Sent: February 21, 2019 12:53 PM
To: Gary Matthie
Subject: D28-003-2019, 220 Bradford Street

Hi Gary,
BFES has no concerns with the pre-consultation for Phase 1 of a 13 storey condominium and parking structure. However access to open public thoroughfare for the exit stairs from the back of the parking garage and residential tower will need to addressed in the full site plan application.

David Lalonde

Fire Prevention Officer
The City of Barrie
Central Ontario's Premier Waterfront Community

Barrie Fire & Emergency Services Headquarters
155 Dunlop Street West
P.O. Box 400
Barrie ON L4M 4T5
Tel: 705-739-4220 ext. 3236
Fax: 705-728-4439

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Please consider the environment before printing this email.

City of Barrie

12.0973

220 BRADFORD ST

RETAINING WALL

Base Information

- Street Name
- Street Numbers
- Parcels - Multiple Owners
- ROW
  - Private Road
  - Unassumed Road
  - Unopened Road Allowance
  - Assumed Road

Aerials & Grids

- 2007 10cm Aerial Photography



SCALE 1 : 757

50 0 50 100 150

FEET

N

http://chgis1/mitown/Maps/mwfs/Barrie.mwf

Monday, November 04, 2013 9:01 AM

Application for a Permit to Construct or Demolish

This form is authorized under subsection 8(1.1) of the Building Code Act.

For use by Principal Authority

Application number:	Permit number (if different): 12-973
Date received: May 4. 2012	Roll number:

Application submitted to:

City of Barrie

70 Collier Street, P.O. Box 400, L4M 4T5

Tel. (705) 739-4212
Fax (705) 739-4240
Inspection Call Line (705) 739-4231

A. Project information

Building number, street name	Unit number	Lot/con.
220 Bradford (for postal purposes the rear house was given "222" Bradford		

Municipality	Postal code	Plan number/other description
Barrie		
Project value est. $ ~~20,000~~ $8,000-		Area of work (m^2)

B. Purpose of application

☐ New construction ☐ Addition to an existing building ☐ Alteration/repair ☒ Demolition ☐ Conditional Permit

Proposed use of building	Current use of building
NIL	Vacant

Description of proposed work

Demolition of ~~garage and~~ house (222 Bradford)

C. Applicant Applicant is: ☐ Owner or ☒ Authorized agent of owner

Last name	First name	Corporation or partnership	
Tascona	Dennis		
Street address		Unit number	Lot/con.
Municipality: Refer to Below	Postal code	Province	E-mail
Telephone number ( )	Fax ( )	Cell number ( )	

D. Owner (if different from applicant)

Last name	First name	Corporation or partnership	
~~[illegible]~~		JOSCONA LTD	
Street address: C/o Dennis Tascona 1 Trafalgar Drive		Unit number	Lot/con.
Municipality: R.R.#2, Sharpy Bay	Postal code: L0L2L0	Province: ON	E-mail
Telephone number: (705) 7341801	Fax: (705) 734 2324	Cell number: (705) 321 2987	

E. Builder (optional)

Last name	First name	Corporation or partnership (if applicable)	
Street address N/A		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ( )	Fax ( )	Cell number ( )	

F. Tarion Warranty Corporation (Ontario New Home Warranty Program)

i. Is proposed construction for a new home as defined in the *Ontario New Home Warranties Plan Act*? If no, go to section G. ☐ Yes ☐ No

ii. Is registration required under the *Ontario New Home Warranties Plan Act*? N/A ☐ Yes ☐ No

iii. If yes to (ii) provide registration number(s): _____

G. Required Schedules

i) Attach Schedule 1 for each individual who reviews and takes responsibility for design activities. N/A

ii) Attach Schedule 2 where application is to construct on-site, install or repair a sewage system.

H. Completeness and compliance with applicable law To best of my knowledge

i) This application meets all the requirements of clauses 1.3.1.3 (5) (a) to (d) of Division C of the Building Code (the application is made in the correct form and by the owner or authorized agent, all applicable fields have been completed on the application and required schedules, and all required schedules are submitted).	☑ Yes ☐ No
Payment has been made of all fees that are required, under the applicable by-law, resolution or regulation made under clause 7(1)(c) of the *Building Code Act, 1992*, to be paid when the application is made.	☑ Yes ☐ No
ii) This application is accompanied by the plans and specifications prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992*.	☐ Yes ☐ No
iii) This application is accompanied by the information and documents prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992* which enable the chief building official to determine whether the proposed building, construction or demolition will contravene any applicable law.	☑ Yes ☐ No
iv) The proposed building, construction or demolition will not contravene any applicable law.	☑ Yes ☑ No

I. Declaration of applicant

I Dennis Tascona (print name) declare that:

1. The information contained in this application, attached schedules, attached plans and specifications, and other attached documentation is true to the best of my knowledge.
2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.

May 4/12 (Date) Tascona LTD (Signature of applicant)

Personal information contained in this form and schedules is collected under the authority of subsection 8(1.1) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a) the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor. Toronto, M5G 2E5 (416) 585-6666.

The City of BARRIE

Permit Fee And Approval Information

For use by the City of Barrie			
Application number:		Permit number (if different): 12-973	
Date received: May 5 2012.		Roll number:	
Project Information	220 Bradford		
Building number, street name	Demo of house.		Unit number
Plan number/other description		Property width	Property area
Project Description			
Zoning Information			

Property Zoning:	Existing	Proposed	Finished total
Building area (m^2)			
Lot Coverage (%)			
G.F.A. (m^2)			
Building height (m)			
No. of stories / No. of units			
No. of parking spaces			
Frontage (m)			
Proposed use			

Setbacks (m)	Front	L. Side	R. Side	Rear

Fees and levies (Office Use Only)

	Amount	Receipt #
Building permit fee	235.-	B3 0021
Less permit review deposit		Chq
Attached garage fee		
Deck/Porch fee		
Conditional permit fee		
On-site sewage system fee		
Pre-permit surcharge fee		
Occupancy Fee		
Permit fee balance		
Lot grading administration fee		
Zoning administration fee		
Water meter fee		
DCA administration fee		
Municipal development charge		
S.C.D.S.B. - EDC		
S.M.C.D.S.B. - EDC		
Park levy		

Approvals (Office Use Only)

	Distributed	Approved By	Date
Zoning			
Fire Department			
Engineering			
Barrie Hydro			
Bell Canada			
Water Services			
M.L.E.O.			
M.O.E.			
M.T.O.			
N.V.C.A. / L.S.R.C.A.			
Health unit			
Sewage system review			
Site plan			
Development agreement			
Code review			
Barrie act charges			
Grading Review			

Conditions/Remarks

This application appears to comply with the applicable laws, regulations and by-laws, and is cleared for issuance

Issued By: WL Date: May 4. 2012

On behalf of the Chief Building Official

From: JOSCONA LTD. Fax: 705 7342324
Attention: Dennis Tasco tel: 705 7341801
(dennistascona@gmail.com)

The City of BARRIE

Schedule 'A'

CITY OF BARRIE

APPLICATION FOR DEMOLITION PERMIT

Municipal Address 222 Bradford St (commercial building and the house behind it and 220 Bradford St.) Application No.

THE DEMOLITION OF ALL OR PART OF ANY BUILDING IN THE CITY OF BARRIE MUST BE CARRIED OUT IN ACCORDANCE WITH THE LAWS, BY-LAWS AND REGULATIONS THAT AFFECT SUCH WORK.

UTILITY APPROVALS

The following utilities shall verify by signature, prior to the issuance of a demolition permit, that they have been notified of the intended demolition work and have advised the property owner or contractor of their requirements to protect and/or disconnect service lines.

	Signature	Date
1. Power Stream Contact Ayesha Karalee 705-722-7222, ext. 25038 25287 (Fax 705-722-6040) 79 Patterson Road		04/20/12
2. Enbridge Consumers Gas Step 1: To request a cut-off at main call 1-877-362-7434, press 1 for English, then 2 for service, Step 2: Fax this form to 416-495-6928. Obtain a fax confirmation and call to confirm receipt 416-758-4434/1-800-461-4444 and press 5		
3. Bell Canada Contact Angela Taylor Debra Attwring 705-728-2554 (Fax 705-721-5504) (**May require 30 business days for removal of service)	Debra Attwring	April 16, 2012
4. City of Barrie Operations Department Contact Greg Darby 705-739-4220, ext. 4551 (Fax 705-739-4235) 185 Fairdale Drive North • Water and sanitary services • Road Occupancy services	NOTIFY FIRE DEPARTMENT OF DATE OF DEMOLITION ONCE CONFIRMED	April 18, 2012.
5. City of Barrie Fire Department 150 Dunlop Street West Fire Prevention Office, Paul Elliott 705-728-4100 (Fax 705-728-4430)		April 22, 2012
6. Rogers Cable Contact Suzanne Tipple 705-737-4000 ext. 6020 (Fax 705-737-3840)		APRIL 17 2012
7. Property Owner/Agent	JOSCONA LTD per	April 17/12
8. Dave Caplick, Development Services Manager Engineering Department (6th Floor - City Hall) NOTE: only required if the land is over .9 hectares (approx. 1.25 acres) with respect to site alteration permit.		

GERRITS
ENGINEERING

Project No. 471-001-12

July 26, 2012

JOSCONA LTD.
1 Trafalgar Dr.
R.R. #2
Shanty Bay, ON, L0L 2L0

Attn: Dennis Tascona
c.c. Andy Taylor, City of Barrie

Re: 220 Bradford St.
Building Demolition

Dear Dennis,

As required by, and in accordance with the requirements of the Ontario Building Code 2006 and the guidelines of the Professional Engineers of Ontario, we have performed general review of the demolition of the building structure formerly located at 220 Bradford St. The demolition work performed by Morris Shelswell and Sons Excavating and has been performed generally in accordance with the demolition requirements and appears complete.

This letter is provided for general conformance on the part of the Consultant only, and is not a guarantee of the work performed by others. A guarantee of construction would be required from the contractor, as full-time resident inspection by the Consultant is not required by Part 2 of the Ontario Building Code.

Sincerely,
GERRITS ENGINEERING



Frank Gerrits, P.Eng.,
Principal

231 Bayview Drive, Suite 303, Barrie, ON. L4N 4Y5 Canada • Tel: 705.737.3303 • Fax: 705.737.1772 • Web.: www.gerreng.com

GERRITS
ENGINEERING

FIELD OBSERVATION REPORT

Project No.: 471-001-12
Report No.: 2

Name of Project: Building Demolition	Date of Observation: July 16, 2012 Time: 1:45 pm – 2:00 pm
Location: 220 Bradford St., Barrie, ON	Weather: Sunny Temperature: 30° c
Observed By: Frank Gerrits	Building Permit No: 12 000981
Site Representative: Shelswell Excavating	
Others Present: Dennis Tascona	Attachments:



DISTRIBUTION:

TO:	COMPANY NAME	FAX / EMAIL / ADDRESS
Client: Dennis Tascona	Joscona	dennistascona@gmail.com
Contractor: Craig Shelswell	Shelswell Excavating	excavating@morrisshelswell.com
Building Official: Andy Taylor	City of Barrie	ataylor@barrie.ca
Other:		

GERRITS
ENGINEERING

Project No: 471-001-12
Report No: 2

REPORT

REASONS FOR OBSERVATION

Verify completion of demolition of structure.

1.0 SITE CONDITIONS

- Site is clear of all materials and equipment.

2.0 PROGRESS OF THE WORK

- Demolition of structure is complete.

3.0 OBSERVATIONS AND COMMENTS

- Retaining walls are adequately stabilized by gravel embankment.

4.0 PREVIOUS DEFICIENCIES

- Additional granular material has been added, to approximately one foot from top of wall, and sloped at 1:1 or shallower.
- No further deficiencies observed.

GERRITS
ENGINEERING

FIELD OBSERVATION REPORT

Project No.: 471-001-12
Report No.: 1

Name of Project: Building Demolition	Date of Observation: June 29, 2012 Time: 9:30 am – 10:00 am
Location: 220 Bradford St., Barrie, ON	Weather: Sunny Temperature: 20° c
Observed By: Frank Gerrits	Building Permit No: 12 000981
Site Representative: Shelswell Excavating	
Others Present: Dennis Tascona	Attachments:



DISTRIBUTION:

TO:	COMPANY NAME	FAX / EMAIL / ADDRESS
Client: Dennis Tascona	Joscona	dennistascona@gmail.com
Contractor: Craig Shelswell	Shelswell Excavating	excavating@morrisshelswell.com
Building Official: Andy Taylor	City of Barrie	ataylor@barrie.ca
Other:		

GERRITS
ENGINEERING

Project No: 471-001-12
Report No: 1

REPORT

REASONS FOR OBSERVATION

Request by contractor.

1.0 SITE CONDITIONS

- Retaining wall stabilization material on site.

2.0 PROGRESS OF THE WORK

- Granular material has been placed against building walls acting as retaining walls adjacent to north property line.
- Tight board fence has been installed at upper level.

3.0 OBSERVATIONS AND COMMENTS

- Granular material has been placed and compacted adequately to allow demolition of other parts of the building to proceed.
- Contractor was advised to add more material after building has been demolished to ensure that embankment slope does not exceed 1:1.
- Access between fence and retaining wall has been closed off at ends of fence.

4.0 PREVIOUS DEFICIENCIES

- N/A

Andy Taylor

From: Dennis Tascona [dennistascona@gmail.com]
Sent: Thursday, July 26, 2012 11:41 AM
To: Morris Shelswell & Sons Excavating & Grading Ltd.
Cc: Andy Taylor; <fgerrits@gerreng.com>
Subject: Re: 12 000981 220 Bradford

Thanks Craig

Dennis Tascona, President
Accelerated Capital Corporation
1 Trafalgar Drive
R.R.2, Shanty Bay
Ontario, Canada L0L 2L0

On 2012-07-26, at 11:07 AM, "Morris Shelswell & Sons Excavating & Grading Ltd."<excavating@morrisshelswell.com> wrote:

> Good morning Dennis,
>
> Re: 220 Bradford St., Barrie
> SANITARY
>
> We excavated/located 2 sewer laterals, capped both with mortar, marked them with green stakes, and backfilled as per City of Barrie requirements.
>
> I can be reached on my cell 705-623-2833 if you have any questions.
>
> Regards,
> Craig Shelswell
>
> Morris Shelswell & Sons Excavating & Grading Ltd.
> 705-487-2215
> excavating@morrisshelswell.com
>
> ----- Original Message -----
> **From:** Dennis Tascona
> **To:** Andy Taylor
> **Cc:** excavating@morrisshelswell.com
> **Sent:** Wednesday, July 25, 2012 11:49 AM
> **Subject:** Re: 12 000981 220 Bradford
>
> Craig Shelswell, please resolve this matter ASAP and email confirmation to me. I want to move on to the next phase of this site ASAP.
>
> Dennis Tascona, President
> Accelerated Capital Corporation
> 1 Trafalgar Drive
> R.R.2, Shanty Bay
> Ontario, Canada L0L 2L0
>
> On 2012-07-25, at 9:17 AM, "Andy Taylor" <ATaylor@barrie.ca> wrote:

Andy Taylor

From: Dennis Tascona [dennistascona@gmail.com]
Sent: Friday, July 20, 2012 2:52 PM
To: Andy Taylor
Cc: <fgerrits@gerreng.com>
Subject: Re: 12 000981 220 Bradford

Craig Shelswell, please assist Frank and Andy to facilitate closure of the City's file and that I receive written acknowledgment of successful closure from the City and Frank

Dennis Tascona, President
Accelerated Capital Corporation
1 Trafalgar Drive
R.R.2, Shanty Bay
Ontario, Canada L0L 2L0

On 2012-07-20, at 9:58 AM, "Andy Taylor" <ATaylor@barrie.ca> wrote:

> Good morning Frank,
>
> It appears that the demolition has been completed at 220 Bradford. I am wanting to close out this file but will first require a letter from you stating that the existing wall will support the loads of the upper neighboring property. I will also require confirmation that the sewer line entering the property has been capped.
>
> Once I have received this information I will be able to close out this file.
>
> Thanks.
>
> **Andrew D Taylor, C.E.T., CBCO, (BCI# 21066)**
>
> **Senior Building Inspector**
>
> City of Barrie
>
> *Central Ontario's Premier Waterfront Community*
>
> Building Services
>
> 70 Collier Street
>
> Barrie ON L4M 4T5
>
> Tel: 705-739-4220 ext. 4550Fax: 705-739-4220

Andy Taylor

From: Andy Taylor
Sent: Friday, July 20, 2012 9:59 AM
To: 'fgerrits@gerreng.com'
Cc: 'dennistascona@gmail.com'
Subject: 12 000981 220 Bradford

Good morning Frank,

It appears that the demolition has been completed at 220 Bradford. I am wanting to close out this file but will first require a letter from you stating that the existing wall will support the loads of the upper neighboring property. I will also require confirmation that the sewer line entering the property has been capped.

Once I have received this information I will be able to close out this file.

Thanks.

Andrew D Taylor, C.E.T., CBCO, (BCI# 21066)
Senior Building Inspector
City of Barrie
Central Ontario's Premier Waterfront Community

Building Services
70 Collier Street
Barrie ON L4M 4T5
Tel: 705-739-4220 ext. 4550Fax: 705-739-4220
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Please consider the environment before printing this email.

Karalee Heppner

From: Karalee Heppner
Sent: Wednesday, June 20, 2012 12:37 PM
To: 'fgerrits@gerreng.com'; dennistascona@gmail.com
Cc: Cathy MacLean
Subject: RE: 220 Bradford St.

Good Morning Frank and Dennis
This notice was supposed to accompany your building permit, so I have just included it here.

June 20, 2012

Re. Demolition permit for 220 Bradford St.

After the demolition of this building, the retaining wall structure requires structural and safety evaluation. The Engineer must certify the wall will hold the adjacent property to OBC standards. Also, the top of the building wall and existing retaining wall requires a minimum 900mm guard where the difference in elevation is greater than 1.2m to the other side per By-law 2011-138 Subsection 10.3.

The owner is reminded that any fill placed on the property must be in accordance with the yard maintenance by-law 2011-107 section 4.13.
Regards

Karalee Heppner and Cathy Maclean

Karalee Heppner BSc CBCO
Senior Plans Examiner
The City of Barrie
Central Ontario's Premier Waterfront Community

Mailing Address:
70 Collier St. P.O. Box 400,
8th Floor, Building Services
Barrie ON, L4M 4T5
Tel: 705-739-4220 ext. 4369
Fax: 705-739-4240

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Please consider the environment before printing this email.

-----Original Message-----
From: Frank Gerrits [mailto:fgerrits@gerreng.com]
Sent: Monday, June 18, 2012 3:19 PM
To: Karalee Heppner; [redacted] Section 14(2)(f)(h)
Cc: dennistascona@gmail.com
Subject: 220 Bradford St.

Good afternoon [redacted].

Please find attached information relating to the proposed demolition at 220 Bradford St. Mr. Tascona will be stopping by this afternoon with original copies of these for you as well.

Regards,

Frank Gerrits, P.Eng., President
Gerrits Engineering Limited
231 Bayview Drive, Ste. 303 Tel.: 705-737-3303 x 221
Barrie, Ontario L4N 4Y5 Fax.: 705-737-1772
www.gerreng.com

This communication is privileged and may contain confidential information intended only for the persons to whom it is addressed. Any other distribution, copying or disclosure of this communication, or its contents, is strictly prohibited. If you have received this message in error, please notify us immediately and delete this message from your mailbox and trash without reading, copying or distributing it in any manner.

-----Original Message-----
From: scanner@gerreng.com [mailto:scanner@gerreng.com]
Sent: June-18-12 3:14 PM
To: fgerrits@gerreng.com
Subject: Scanned file from TASKalfa 250ci at Gerrits Engineering

Your scanned file is attached to this email.

TASKalfa 250ci
QJH0105488
[00:c0:ee:4b:fb:b5]

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2012.0.2178 / Virus Database: 2433/5077 - Release Date: 06/18/12

GERRITS
ENGINEERING

Project No. 471-001-12

June 18, 2012

JOSCONA LTD.
1 Trafalgar Dr.
R.R. #2
Shanty Bay, ON, L0L 2L0

Attn: Dennis Tascona

Re: 220 Bradford St., Barrie
Building Demolition

Dear Dennis,

Further to our meeting of June 13, 2012, and your engagement of our services, I am pleased to provide you with this letter of general methodology for the demolition of the building structure at 220 Bradford St.

This building is a single storey wood-framed and block masonry structure, used previously as a repair garage. Our scope of services relates strictly to the methodology for demolition of the building superstructure and excludes any assessments or responsibility pertaining to environmental assessments.

The exterior building wall adjacent to the north property line is a block masonry earth retaining structure, as the ground level of the adjacent property is elevated approximately 7 feet above the building floor level. In order to ensure the stability of the retaining wall, the demolition work must proceed in the following manner:

1. All services to the building (water, sewer, gas, hydro, etc.) must be properly terminated to the satisfaction of the supply authority.
2. Prior to undertaking building demolition, imported granular fill is to be placed along the face of the north sidewall of the building (within the existing building), to equalize the soil pressure from the higher adjacent property.
3. The fill material is to be placed to within 12 inches of the level of the adjacent property (approximately 6 feet above the existing floor level), and shall extend outward at an angle not steeper than 45 degrees. The material shall be compacted while being placed, to ensure density and stability. If the 45 degree angle is not stable, or cannot be adequately compacted, the angle shall be made shallower as required.
4. The existing north sidewall shall remain. The existing roof structure shall remain in place until the stabilizing fill has been fully installed.
5. The roof components that frame into or that are supported on the north sidewall shall be demolished by hand to ensure that the wall is not damaged by the demolition activities.

GERRITS
ENGINEERING

6. Following completion of the above steps, the remaining building superstructure may be demolished by conventional methods.
7. Demolition activities shall follow the requirements of Part 8 Safety Measures at Construction and Demolition Sites of Division B of the 2010 National Building Code of Canada.

Attached please also find a copy of the Commitment to General Review by Architect and Engineers, to include with your demolition permit application.

Sincerely,
GERRITS ENGINEERING



Frank Gerrits, P.Eng.,
Principal

231 Bayview Drive, Suite 303, Barrie, ON. L4N 4Y5 Canada • Tel: 705.737.3303 • Fax: 705.737.1772 • Web.: www.gerreng.com

02/05/12 11:11AM Dennis Toscona, Barrister & Solicitor 7057342324 p.01

[illegible] Ltd Fax: 705 7342324
[illegible] Dennis Tosco tel: 705-7341801
(Dennistoscona@gmail.com)

The City of BARRIE

Schedule 'A'
CITY OF BARRIE
APPLICATION FOR DEMOLITION PERMIT

222 Bradford St Commercial building and 220 Bradford St two storey building to be demolished
Application No.

NO DEMOLITION OF ALL OR PART OF ANY BUILDING IN THE CITY OF BARRIE MUST BE CARRIED OUT IN ACCORDANCE WITH THE LAWS, BY-LAWS AND REGULATIONS AFFECTING SUCH WORK.

UTILITY APPROVALS

The following utilities shall verify by signature prior to granting of a demolition permit, that they have been notified of the proposed demolition work and have advised the property owner of their requirements to protect and/or disconnect services.

1. Power Stream
Contact Agathe Kozlowski
705-722-7222 ext. 44838 (Fax 705-722-4947)
[illegible] Bayview Road

Signature [signature] Date 04/20/12

2. Enbridge Consumers Gas
Step 1: To request a cut-off at main call 1-877-362-7434, press 1 for English, then 2 for service
Step 2: Fax this form to 416-495-3928. Obtain a fax confirmation and call to confirm receipt
416-758-4444/1-800-461-4444 and press 0

[signature] 02/05/12

3. Bell Canada
Contact Angela Taylor Deb Hattenberg
705-722-2214 (Fax 705-721-8594)
(**May require 30 business days for removal of service)

Debra Attwell April 16, 2012

4. City of Barrie Operations Department
Contact Greg Darby
705-739-4220, ext. 4831 (Fax 705-730-4220)
128 Fernddale Drive North
- Water and sanitary services
- Road Occupancy services

NOTIFY FIRE DEPARTMENT OF DATE OF DEMOLITION ONCE CONFIRMED

[signature] April 18, 2012

5. City of Barrie Fire Department
186 Dunlop Street West
Fire Prevention Office, Patti Blaak
705-726-3196 (Fax 705-726-4439)

[signature] April 22, 2012

6. Rogers Cable
Contact Summer Tipple
705-737-4600 ext. 7721
(Fax 705-737-3846)

7. Property Owner/Agent

JOSCONA LTD per [signature] April 11/12

8. Nina Chapick, Development Services Manager
Engineering Department (6th Floor – City Hall)
[illegible] any requirements of the land to avoid a nuisance (noise, dust control) with respect to the demolition permit.

[illegible]

[signature]

From : JOSCONA LTD. Fax: 705 7342324
Attention: Dennis Tasco tel: 705 7341801
(dennistasconа@gmail.com)

The City of BARRIE

Schedule 'A'
CITY OF BARRIE
APPLICATION FOR DEMOLITION PERMIT

Municipal Address 222 Bradford St (commercial building and the house behind it and 220 Bradford St.) Application No.

THE DEMOLITION OF ALL OR PART OF ANY BUILDING IN THE CITY OF BARRIE MUST BE CARRIED OUT IN ACCORDANCE WITH THE LAWS, BY-LAWS AND REGULATIONS THAT AFFECT SUCH WORK.

UTILITY APPROVALS

The following utilities shall verify by signature, prior to the issuance of a demolition permit, that they have been notified of the intended demolition work and have advised the property owner or contractor of their requirements to protect and/or disconnect service lines.

	Signature	Date
1. Power Stream Contact Ayesha Karalee 705-721-7222, ext. 25038 25207 (Fax 705-722-9040) 7 Patterson Road		04/20/12
2. Enbridge Consumers Gas Step 1: To request a cut-off at main call 1-877-362-7434, press 1 for English, then 2 for service, Step 2: Fax this form to 416-495-5928. Obtain a fax confirmation and call to confirm receipt 416-758-4444/1-866-481-4444 and press 5		
3. Bell Canada Contact Angela Taylor Debra Hetring 705-728-2354 (Fax 705-721-5394) (**May require 30 business days for removal of service)	Debra Hetring	April 16, 2012
4. City of Barrie Operations Department Contact Greg Darby 705-739-4220, ext. 4551 (Fax 705-739-4235) 155 Ferndale Drive North • water and sanitary services • Road Occupancy services	NOTIFY FIRE DEPARTMENT OF DATE OF DEMOLITION ONCE CONFIRMED	April 18, 2012.
5. City of Barrie Fire Department 150 Dunlop Street West Fire Prevention Office, Patti Black 705-728-4799 (Fax 705-728-4439)		April 22, 2012
6. Rogers Cable Contact Suzanne Tipple 705-737-4600 ext. 6926 (Fax 705-737-3840)		APRIL 17 2012
7. Property Owner/Agent	JOSCONA LTD per	April 11/12
8. Dave Caspick, Development Services Manager Engineering Department (6th Floor – City Hall)		

Karalee Heppner

From: Karalee Heppner
Sent: Tuesday, May 29, 2012 12:25 PM
To: 'dennistascona@gmail.com'
Cc: Andy Taylor; Cathy MacLean
Subject: 220 Bradford Demolition

Hello Dennis
After looking further into your proposal and examining the site, it has been found that the building demolition will affect the integrity of the existing retaining wall. You must retain an engineer to design a method of demolition/construction such that the retaining wall structural integrity is maintained, and the adjacent property is not adversely affected by the works proposed.

Karalee

Karalee Heppner BSc CBCO
Senior Plans Examiner
The City of Barrie
Central Ontario's Premier Waterfront Community

Mailing Address:
70 Collier St. P.O. Box 400,
8th Floor, Building Services
Barrie ON, L4M 4T5
Tel: 705-739-4220 ext. 4369
Fax: 705-739-4240

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Please consider the environment before printing this email.

Application for a Permit to Construct or Demolish

This form is authorized under subsection 8(1.1) of the Building Code Act.

For use by Principal Authority

Application number:	Permit number (if different): 12-0981
Date received: May 4 2012.	Roll number:

Application submitted to: **City of Barrie**
70 Collier Street, P.O. Box 400, L4M 4T5
Tel. (705) 739-4212
Fax (705) 739-4240
Inspection Call Line (705) 739-4231

A. Project information

Building number, street name	Unit number	Lot/con.
220 Bradford		

Municipality	Postal code	Plan number/other description
Barrie		

Project value est. $	Area of work (m²)
20,000.	632 m².

B. Purpose of application

☐ New construction ☐ Addition to an existing building ☐ Alteration/repair ☒ Demolition ☐ Conditional Permit

Proposed use of building	Current use of building
N/A	~~used~~ Vacant

Description of proposed work

Demolition of garage at 220 Bradford St.

C. Applicant

Applicant is: ☐ Owner or ☒ Authorized agent of owner

Last name	First name	Corporation or partnership	
Tascona	Dennis		
Street address		**Unit number**	**Lot/con.**
1 Trafalgar Dr., R.R.#2			
Municipality	**Postal code**	**Province**	**E-mail**
Stroud [redacted]	L0L 2L0	ON	dennistascona@gmail.com
Telephone number	**Fax**	**Cell number**	
(705) 734 1801	(705) 734 2324	(709) 321 2987	

D. Owner (if different from applicant)

Last name	First name	Corporation or partnership	
		JOSCONA LTD.	
Street address		**Unit number**	**Lot/con.**
c/o Dennis Tascona			
Municipality	**Postal code**	**Province**	**E-mail**
as above			
Telephone number	**Fax**	**Cell number**	
( )	( )	( )	

E. Builder (optional)

Last name	First name	Corporation or partnership (if applicable)	
Street address N/A		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ( )	Fax ( )	Cell number ( )	

F. Tarion Warranty Corporation (Ontario New Home Warranty Program)

i. Is proposed construction for a new home as defined in the *Ontario New Home Warranties Plan Act*? If no, go to section G. ☐ Yes ☐ No

ii. Is registration required under the *Ontario New Home Warranties Plan Act*? N/A ☐ Yes ☐ No

iii. If yes to (ii) provide registration number(s): _____

G. Required Schedules

i) Attach Schedule 1 for each individual who reviews and takes responsibility for design activities.

ii) Attach Schedule 2 where application is to construct on-site, install or repair a sewage system.

H. Completeness and compliance with applicable law

To best of my knowledge

i) This application meets all the requirements of clauses 1.3.1.3 (5) (a) to (d) of Division C of the Building Code (the application is made in the correct form and by the owner or authorized agent, all applicable fields have been completed on the application and required schedules, and all required schedules are submitted). Payment has been made of all fees that are required, under the applicable by-law, resolution or regulation made under clause 7(1)(c) of the *Building Code Act, 1992*, to be paid when the application is made.	☑ Yes ☐ No ☑ Yes ☐ No
ii) This application is accompanied by the plans and specifications prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992*.	☑ Yes ☐ No
iii) This application is accompanied by the information and documents prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992* which enable the chief building official to determine whether the proposed building, construction or demolition will contravene any applicable law.	☑ Yes ☐ No
iv) The proposed building, construction or demolition will not contravene any applicable law.	☑ Yes ☐ No

I. Declaration of applicant

I Dennis Taszus (print name) declare that:

1. The information contained in this application, attached schedules, attached plans and specifications, and other attached documentation is true to the best of my knowledge.
2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.

May 4/12 (Date) _____ (Signature of applicant)

Personal information contained in this form and schedules is collected under the authority of subsection 8(1.1) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a) the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor, Toronto, M5G 2E5 (416) 585-6666.

The City of BARRIE

Permit Fee And Approval Information

For use by the City of Barrie			
Application number:		Permit number (if different):	12. 0981
Date received:	May 4, 2012.	Roll number:	

Project information

Building number, street name:	220 Bradford.		Unit number:
Plan number/other description:		Property width:	Property area:
Project Description:	Demo of repair garage.		

Zoning information

Property Zoning:	Existing	Proposed	Finished total
Building area (m^2)			
Lot Coverage (%)			
G.F.A. (m^2)			
Building height (m)			
No. of stories / No. of units			
No. of parking spaces			
Frontage (m)			
Proposed use			

Setbacks (m)	Front	L. Side	R. Side	Rear

Fees and levies (Office Use Only)

	Amount	Receipt #
Building permit fee	550	B37002
Less permit review deposit		chq.
Attached garage fee		
Deck/Porch fee		
Conditional permit fee		
On-site sewage system fee		
Pre-permit surcharge fee		
Occupancy Fee		
Permit fee balance		
Lot grading administration fee		
Zoning administration fee		
Water meter fee		
DCA administration fee		
Municipal development charge		
S.C.D.S.B. - EDC		
S.M.C.D.S.B. - EDC		
Park levy		

Approvals (Office Use Only)

	w/ B	Distributed	Approved By	Date
Zoning	~~May 7, 2012~~			
Fire Department				
Engineering				
Barrie Hydro				
Bell Canada				
Water Services				
M.L.E.O.				
M.O.E.				
M.T.O.				
N.V.C.A. / L.S.R.C.A.				
Health unit				
Sewage system review				
Site plan				
Development agreement				
Code review				
Barrie act charges				
Grading Review				

Conditions/Remarks

method of demo } ~~to be provided~~
general review sheet }

This application appears to comply with the applicable laws, regulations and by-laws, and is cleared for issuance

Issued By: WL Date: Jun 18. 2012.

On behalf of the Chief Building Official

COMMITMENT TO GENERAL REVIEW BY ARCHITECT AND ENGINEERS

Ontario Building Code, s.2.3.2.

Project Description: BUILDING DEMOLITION

Address of Project: 220 BRADFORD ST., BARRIE

Permit Application No.:

WHEREAS the Ontario Building Code requires that the project described above be designed and reviewed during construction by an architect, professional engineer or both that are licensed to practice in Ontario; (see overleaf)

NOW THEREFORE the Owner, being the person who intends to construct or have the building constructed hereby warrants that:

1. An architect and/or professional engineers have been retained to provide general review of the construction of the building to determine whether the construction is in general conformity with the plans and other documents that form the basis for the issuance of a building permit, in accordance with the performance standards of the Ontario Association of Architects and/or Professional Engineers of Ontario.
2. All general review reports by the architect and/or professional engineers will be forwarded promptly to the Chief Building Official, and
3. Should any retained architect or professional engineer cease to provide general review for any reason during construction, the Chief Building Official will be notified in writing immediately, and another architect or engineer will be appointed so that general review continues without interruption during construction.

The undersigned hereby certifies that he/she has read and agrees to the above

Name of Owner: Date:

Address of Owner: Telephone:

Signature of Owner: (or officer of corporation) Print Name: Fax:

Name of Prime Consultant: (person coordinating work of all consultants) Telephone:

Address: Fax:

The undersigned architect and/or professional engineer(s) hereby certify that he/she has been retained to provide general review of the parts of construction of the building indicated, to determine whether the construction is in general conformity with the plans and other documents that form the basis for the issuance of a building permit, in accordance with the performance standards of the Ontario Association of Architects and/or Professional Engineers of Ontario. (see overleaf)

The undersigned hereby certifies that he/she has been retained to provide general review of the following parts of construction

☐ ARCHITECTURAL ☒ STRUCTURAL ☐ SITE SERVICES ☐ MECHANICAL ☐ ELECTRICAL ☐ OTHER (SPECIFY):

Consultant Name:	Signature:	Print Name:	
GERRITS ENGINEERING LIMITED		FRANK GERRITS	
Address:	**Telephone:**	**Fax:**	**Date:**
208-21 BAYVIEW DR.	705-737-3303	705-737-1772	JUNE 15/12

The undersigned hereby certifies that he/she has been retained to provide general review of the following parts of construction

☐ ARCHITECTURAL ☐ STRUCTURAL ☐ SITE SERVICES ☐ MECHANICAL ☐ ELECTRICAL ☐ OTHER (SPECIFY):

Consultant Name:	Signature:	Print Name:	
Address:	**Telephone:**	**Fax:**	**Date:**

The undersigned hereby certifies that he/she has been retained to provide general review of the following parts of construction

☐ ARCHITECTURAL ☐ STRUCTURAL ☐ SITE SERVICES ☐ MECHANICAL ☐ ELECTRICAL ☐ OTHER (SPECIFY):

Consultant Name:	Signature:	Print Name:	
Address:	**Telephone:**	**Fax:**	**Date:**

The undersigned hereby certifies that he/she has been retained to provide general review of the following parts of construction

☐ ARCHITECTURAL ☐ STRUCTURAL ☐ SITE SERVICES ☐ MECHANICAL ☐ ELECTRICAL ☐ OTHER (SPECIFY):

Consultant Name:	Signature:	Print Name:	
Address:	**Telephone:**	**Fax:**	**Date:**

The undersigned hereby certifies that he/she has been retained to provide general review of the following parts of construction

☐ ARCHITECTURAL ☐ STRUCTURAL ☐ SITE SERVICES ☐ MECHANICAL ☐ ELECTRICAL ☐ OTHER (SPECIFY):

Consultant Name:	Signature:	Print Name:	
Address:	**Telephone:**	**Fax:**	**Date:**

The undersigned hereby certifies that he/she has been retained to provide general review of the following parts of construction

☐ ARCHITECTURAL ☐ STRUCTURAL ☐ SITE SERVICES ☐ MECHANICAL ☐ ELECTRICAL ☐ OTHER (SPECIFY):

Consultant Name:	Signature:	Print Name:	
Address:	**Telephone:**	**Fax:**	**Date:**

COPYRIGHT ACT APPLIES TO USE AND REPRODUCTION

CRIPTION

CAUTION :

This plan is not a plan of Subdivision within the meaning of Section 29, 32, or 33 of the Planning Act

I require this plan to be deposited under Part II of the Registry Act

Date: FEBRUARY 17, 1978

W. Douglas Smith

W. DOUGLAS SMITH

plan 51R-7586



PLAN OF SU
OF PART
LOTS 15, 16, 1
WEST SIDE OF BRADF
REGISTERED PI
CITY OF BA
COUNTY OF SI

W DOUGLAS SMI

SCALE 1" =

1978

NOTES

BEARINGS ARE ASTRONOMIC AND OF N 32° 03' 00" W FOR THE NOR STREET, AS SHOWN ON PLAN OF NOVEMBER 25, 1971, ATTACHED TO ALL HANGING LINES SHOWN ON TH

■ DENOTES 5/8" x
● DENOTES 1/4" DIAMETER x
□ DENOTES 1" x 1" x
• DENOTES NAIL SET IN ASPHALT
FD. DENOTES FOUND
WIT. DENOTES WITNESS
O.U. DENOTES ORIGIN UNKNOWN

SURVEYOR'S CE

HEREBY CERTIFY THAT

[redacted]

Section 14 (2)(f)(h)

PERMIT # B90 3513

PERMIT FEE PAID $ 180 —

RECEIPT # 70135

CAPITAL CONTRIBUTION $ —

PARKLAND FEES —

CITY OF BARRIE

APPLICATION FOR PERMIT

PLANNING & DEVELOPMENT DEPARTMENT
726-4242, Ext. 495

THIS APPLICATION DOES NOT CONSTITUTE A PERMIT UNTIL SIGNED BY THE CHIEF BUILDING OFFICIAL OR HIS AUTHORIZED AGENT

CONTACT: [redacted]

APPLICATION TO CONSTRUCT ☐ ADD ☐ ALTER ☐ DEMOLISH ☐ CONVERT ☐ CHANGE USE OF

OTHER (SPECIFY) Fire Restoration

R# 434 204000108100

Job Address 220 Bradford St Barrie Ward # Plan Lot

Owner/Tenant/Lessee [redacted]

Address Same City Postal Code Phone #

Designer

Address City Postal Code Phone #

Contractor J. Keith Mech Co. Ltd Registration O.N.H.W.P.A.#

Address 28 Tiffen St City Barrie Postal Code L4N 2M5 Phone # 733-9945

Give a detailed description of the work applied for Replacement roof joists & replace roof deck & Repair existing ceiling joists & replace roof deck & Repair & Paint

To create

Present Use of Existing Bldg COMMERCIAL - Repair Shop for Total Finished floor area Number of Units

Proposed Use and Occupancy after completion Same Car lot Total No. Units

Estimated Value of Construction 30,000 Permit fee $ 180 — Cash ☐ Cheque ☐

THE UNDERSIGNED HEREBY APPLIES FOR A PERMIT TO BUILD IN ACCORDANCE WITH THE INFORMATION SHOWN ON THIS APPLICATION AND SUPPLIED IN THE PLANS AND SPECIFICATIONS FILED WITH THE INSPECTOR AND AGREES TO COMPLY WITH ALL RELEVANT CITY BYLAWS

WARNING — ANY DEVIATION FROM THE APPROVED PLANS, SPECIFICATIONS OR BUILDING LOCATION SUBSEQUENT TO THE ISSUANCE OF THIS PERMIT IS A VIOLATION OF THE BUILDING CODE ACT LIABLE TO PROSECUTION.

Date X Oct 15 /90 X [signature] Signature of Owner or Authorized Agent

THIS PERMIT MAY BE REVOKED UNLESS WORK AS AUTHORIZED IS COMMENCED WITHIN SIX MONTHS OF DATE OF ISSUE AND A REQUEST FOR INSPECTION HAS BEEN MADE TO THE CHIEF BUILDING OFFICIAL

(FOR OFFICE USE ONLY)

PLANNING & ZONING

ZONE C4 LOT AREA FRONTAGE

FRONT YD REAR YD SIDE L R

LOT COVERAGE FLOOR AREA

HEIGHT PARKING PROVIDED BUFFERING

COMMENTS Interior work

CLEARED FOR ZONING BY C Kendle DATE Oct 17/90

APPLICATION TAKEN BY L Thompson DATE Oct 15/90

ISSUANCE OF PERMIT

PERMISSION IS HEREBY GRANTED FOR CONSTRUCTION IN ACCORDANCE WITH THE INFORMATION GIVEN IN THIS APPLICATION AND PLANS SUBMITTED AND REFERRED TO BY ALL RELEVANT CITY BYLAWS

ISSUED BY [signature] For Chief Building Official DATE Oct 18/90

"THE PEOPLE ARE THE CITY"

[redacted]

No. 3451

Section 14 (2)(f)(h)

Building Inspection Department

Application for Permit to

[redacted]

Td 5430

To the Inspector of Buildings, Town of Barrie.

The undersigned hereby applies for a permit to build according to the plans, specifications and block plan herewith submitted, and agrees to comply with all By-Laws and Town regulations, it being expressly understood that the issuing of a permit does not relieve the applicant from complying with all said By-Laws and Town regulations, though not called for in the specifications or shown on plans submitted, the applicant further agrees that if a permit is revoked for any cause or irregularity or non-conformation of the said By-Laws, or regulations, that in consideration of the issuing of the permit all claims are waived arising therefrom against the Corporation of the Town of Barrie.

OWNER [redacted] Address [redacted]

ARCHITECT [illegible] Address

BUILDER Mayes Murphy Ltd Address Barrie

BUILDING TO BE USED FOR Commercial Garages Public

LOCATION: Street Bradford No. 220 Lot Plan No 15 Zone

SIZE OF LOT 100 x 132 feet SIZE OF BUILDING 46 ft by 46 ft

ESTIMATED COST $3000.00

PLUMBER: Name N/A Address

ELECTRICIAN: Name [illegible] Address

No. 52-113

Building Inspection Department

Application for Permit to

Lay concrete slab foundation for future building

To the Inspector of Buildings, Town of Barrie.

The undersigned hereby applies for a permit to build according to the plans, specifications and block plan herewith submitted, and agrees to comply with all By-Laws and Town regulations, it being expressly understood that the issuing of a permit does not relieve the applicant from complying with all said By-Laws and Town regulations, though not called for in the specifications or shown on plans submitted, the applicant further agrees that if a permit is revoked for any cause or irregularity or non-conformation of the said By-Laws, or regulations, that in consideration of the issuing of the permit all claims are waived arising therefrom against the Corporation of the Town of Barrie.

Section 14 (2)(f)(h)

OWNER [redacted] Address [redacted]

ARCHITECT " Address "

BUILDER A. J. Dennis Address

BUILDING TO BE USED FOR Foundation for new building

LOCATION: Street Bradford No. 226 Lot Zone C

SIZE OF LOT SIZE OF BUILDING

ESTIMATED VALUE $ 500.00 Fee 5.00

PLUMBER: Name Address

ELECTRICIAN: Name Address

No. 52-189

TOWN OF BARRIE

Building Inspection Department

Application for Permit to

Construct Body shop.

To the Inspector of Buildings, Town of Barrie.

The undersigned hereby applies for a permit to build according to the plans, specifications and block plan herewith submitted, and agrees to comply with all By-Laws and Town regulations, it being expressly understood that the issuing of a permit does not relieve the applicant from complying with all said By-Laws and Town regulations, though not called for in the specifications or shown on plans submitted, the applicant further agrees that if a permit is revoked for any cause or irregularity or non-conformation of the said By-Laws, or regulations, that in consideration of the issuing of the permit all claims are waived arising therefrom against the Corporation of the Town of Barrie.

Section 14 (2)(f)(h)

OWNER [redacted] Address 220 Bradford St.

ARCHITECT " Address "

BUILDER A. J. Dennie's Address 157 Penetang St.

BUILDING TO BE USED FOR Body Shop

LOCATION: Street Bradford No. 220 Lot Zone C

SIZE OF LOT SIZE OF BUILDING 32'X42'

ESTIMATED VALUE $2100.00 Fee $9.25

PLUMBER: Name Address

ELECTRICIAN: Name Address

No. 57-366

Building Inspection Department

Application for Permit to

Contractor's office & garage addn.

To the Inspector of Buildings, Town of Barrie.

The undersigned hereby applies for a permit to build according to the plans, specifications and block plan herewith submitted, and agrees to comply with all By-Laws and Town regulations, it being expressly understood that the issuing of a permit does not relieve the applicant from complying with all said By-Law and Town regulations, though not called for in the specifications or shown on plans submitted, the applicant further agrees that if a permit is revoked for any cause or irregularity or non-conformation of the said By-Laws, or regulations, that in consideration of the issuing of the permit all claims are waived arising therefrom against the Corporation of the Town of Barrie.

OWNER Construction Materials Address 220 Bradford St

ARCHITECT _____ Address _____

BUILDER Gelati Const. Co. Address 132 Henry St.

BUILDING TO BE USED FOR Offices

LOCATION: Street Bradford No 220 Lot _____ Zone C

SIZE OF LOT _____ SIZE OF BUILDING 14'x17'-6"

ESTIMATED VALUE #600.00 Fee #4.50

PLUMBER: Name _____ Address _____

ELECTRICIAN: Name _____ Address _____

No. 58-412

Building Inspection Department

Application for Permit to

Construct retaining wall at back of property

To the Inspector of Buildings, Town of Barrie.

The undersigned hereby applies for a permit to build according to the plans, specifications and block plan herewith submitted, and agrees to comply with all By-Laws and Town regulations, it being expressly understood that the issuing of a permit does not relieve the applicant from complying with all said By-Law and Town regulations, though not called for in the specifications or shown on plans submitted, the applicant further agrees that if a permit is revoked for any cause or irregularity or non-conformation of the said By-Laws, or regulations, that in consideration of the issuing of the permit all claims are waived arising therefrom against the Corporation of the Town of Barrie.

OWNER Cross Town Motors Address [illegible] Bradford

ARCHITECT " " Address

BUILDER N. Dumont Address Cundles, Ont.

BUILDING TO BE USED FOR Retaining wall

LOCATION: Street Bradford No. [illegible] Lot Zone C

SIZE OF LOT SIZE OF BUILDING

ESTIMATED VALUE $700.00 Fee $5.00

PLUMBER: Name Address

ELECTRICIAN: Name Address

No. 62-126

Building Inspection Permit

Application for Permit to

Erect an accessory Bldg - addit.

To the Inspector of Building, City of Barrie.

The undersigned hereby applies for a permit to build according to the plans, specifications and block plan herewith submitted, and agrees to comply with all By-Laws and City regulations, it being expressly understood that the issuing of a permit does not relieve the applicant from complying with all said By-Law and City regulations, though not called for in the specifications or shown on plans submitted, the applicant further agrees that if a permit is revoked for any cause or irregularity or non-conformation of the said By-Laws, or regulations, that in consideration of the issuing of the permit all claims are waived arising therefrom against the Corporation of the City of Barrie.

Section 14 (2)(f)(h)

OWNER [redacted] Address 220 Bradford St

ARCHITECT Address

BUILDER E. Cumbers. Address 182 Bayview Blvd

BUILDING TO BE USED FOR storage accessory Bldg (spray booth)

LOCATION: Street or Con. Pcl 220 Bradford St Lot Zone

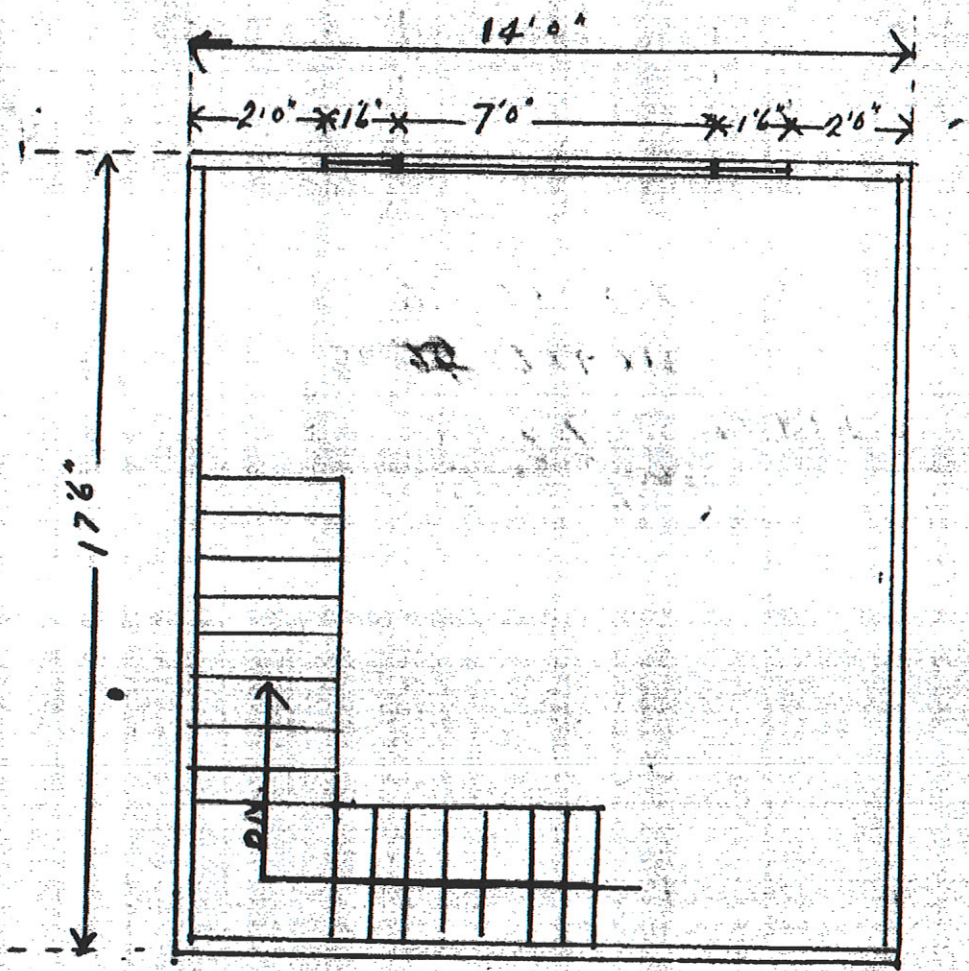
SIZE OF LOT SIZE OF BUILDING

ESTIMATED VALUE 1000.00 Fee 12.00

PLUMBER: Name Address

ELECTRICIAN: Name Address

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Crowtown Motors Allendale.

SPECIFICATIONS

IF ALTERATION: Nature of same _____

NUMBER OF ROOMS: _____ NUMBER OF STOREYS: _____

TYPE OF FOUNDATION FOOTING: Concrete Width 18" Depth 6"

TYPE OF FOUNDATION WALL: as Work Width 10" Depth 8'

BASEMENT FLOOR: Material _____ Thickness _____

DRAINS: Will floor drains be provided? Yes _____ Outlet to _____ No _____

IS ENTIRE BUILDING SUPPORTED ON MASONRY? Yes _____ No _____

FOOTINGS FOR BASEMENT POSTS: Number _____ Type _____ Size _____

EXTERIOR WALLS:

Studding: Dimensions and Spacing _____

Sheathing: Type and Thickness _____

Building Paper: Type _____

Finish: Outside _____

Finish: Inside _____

ROUGH CARPENTRY:

Kind and Grade of Wood: Posts _____ Beams _____ Joists _____ Studs _____ Rafters _____

Size of Basement Beam _____ Total Span _____

Span between Supports _____

Size of Basement Posts _____ Length _____

Joists 1st floor: Size _____ Spacing _____ Span _____

2nd floor: Size _____ Spacing _____ Span _____ Ceiling: Size _____ Spacing _____ Span _____

Sub-flooring 1st floor _____ 2nd floor _____

Size, Spacing and Height of Partition Studs: Bearing _____

Non-Bearing _____

Roof Rafters: Size _____ Spacing _____

Collar Ties _____

FIREPROOF PARTITIONS Where garage adjoins or forms part of house: Construction of: (a) Wall between house and garage _____

and FLOORS: _____ (b) Garage Ceiling _____ (c) Type of door between house and garage _____

CHIMNEYS: 4" Masonry, Tile Lined ☐ 8" Solid Masonry ☐ Other _____

FURNACE FLUE: 8½"x8½" ☐ 7½" diameter ☐ Other _____

CHIMNEY CAP: Stone ☐ Concrete ☐ Metal ☐ Other _____

FIREPLACE FLUE: 8½"x13" ☐ 10" diameter ☐ Other _____

FIREPLACE: Wood or Coal ☐ Electric ☐ Gas ☐ Size finish and location to be shown on plans.

FINISH CARPENTRY: Window and Door Frames: Material _____ Size of Stock _____"x_____"

Window Sash: Material _____ Thickness _____" Double Hung ☐ Casement ☐ Storm Sash ☐

Front Entrance Door: Material _____ Thickness _____" Type _____

Other Exterior Doors: Material _____ Thickness _____" Type _____

Garage Doors: Material _____ Thickness _____" Type _____

Finish Flooring: 1st Floor Oak ☐ Birch ☐ Maple ☐ E.G. Fir ☐ Other _____ Grade _____ Thickness _____"

2nd Floor Oak ☐ Birch ☐ Maple ☐ E.G. Fir ☐ Other _____ Grade _____ Thickness _____"

Main Stair Treads: _____ Stringers _____

Basement Stair Treads: _____ Stringers _____

Service Stair Treads: _____ Stringers _____

INSULATION: Masonry Walls: Fibreboard ☐ Drywall: Gypsum Board ☐ Other _____

Frame Walls: Fibre Board ☐ Full Bath Gypsum Board ☐ Rock, Glass or Mineral Wool Batts ☐ Cotton Batts ☐ Loose Fill ☐

Other _____

Vapour Barrier: Exterior Walls ☐ Ceiling ☐ Material _____

LATH and PLASTER: Extent: Basement ☐ 1st Floor ☐ 2nd Floor ☐

Type of Lath: Gypsum Board ☐ Fibre Board ☐ Metal ☐ Wood ☐ Other _____

WALL BOARD FINISH: Extent: Basement ☐ 1st Floor ☐ 2nd Floor ☐ Other _____

Type: Fibre Board ☐ Gypsum Board ☐ Plywood ☐ Other _____

STUCCO WORK: Number of coats _____ on Ribbed Metal Lath ☐ Flat Metal Lath ☐ Loop Wire ☐

Wood Lath ☐ Concrete Block ☐ Cinder Block ☐ Other _____

ROOFING: Built-up Tar and Gravel, 10 year guarantee 4 ply ☐ 3 ply ☐ Other _____

Sheet Metal: Galv. Sheet Steel ☐ Copper ☐ Aluminum ☐ Other _____

_____

Weight or grade of roofing intended _____

Flashing: Galv. Sheet Metal ☐ Copper ☐ Zinc ☐ Lead _____

Gutters and Down Spouts: Galv. Sheet Metal ☐ Copper ☐ Aluminum ☐ Other _____

Connected to: Sewer ☐ Cistern ☐ Cesspool ☐ Dry Well ☐ Unconnected ☐

PLUMBING: Drain Lines Below Basement Floor: XH Cast Iron ☐ Vitrified Clay Tile ☐ Other _____

Drain Lines Above Basement Floor: XH Cast Iron ☐ Med. Cast Iron ☐ Other _____

Cold Water Lines: Galv. ☐ Copper ☐ Brass ☐ Other _____

Hot Water Lines: Galv. ☐ Copper ☐ Brass ☐ Other _____

Domestic Hot Water Tank: Galv. Steel ☐ Copper ☐ Nickel Alloy ☐ Other _____

Drainage System: Municipal Sewer ☐ Concrete Septic Tank ☐ Metal Septic Tank ☐

Plumbing Fixtures: Concrete, Steel, China, etc.

Describe:—Laundry Tubs _____ Kitchen Sink _____ W.C. _____

Basin _____ Bath _____ Bath with shower _____ Shower _____

HEATING: Hot Water ☐ Air Conditioned ☐ Panel ☐ Hot air ducts forced ☐ Gravity ☐ Hot air pipeless ☐

STRUCTURAL STEEL: Dimensions, weight and location: To be shown on plans.

GARAGES: Attached ☐ Detached ☐ Built-in ☐ Basement ☐ No Garage If construction varies from house describe:

Walls _____ Roof _____

Floor _____ Doors: Ordinary ☐ Overhead ☐ Other _____

In addition to the above Specifications, the following Plans are required:

(1) A Block Plan indicating the Location of Lot on Street or streets, size of the lot, lot lines, and location of building on the lot.

(2) A Floor Plan of each habitable floor, indicating room location and size, and size and location of windows and doors.

(3) A general view, in profile, indicating the type of roof and finished appearance of building.

(4) Such additional plans and detail as may be required.

NOTE

The foregoing specifications are set up primarily for one-family dwellings. Other buildings, alterations, etc., may require additional plans and specifications to indicate clearly the proposed construction.

church & trought inc.
environmental and engineering solutions

May 3, 2013

Dennis Tascona
President
Vitajoe Ltd.
1 Trafalgar Drive
RR #2 Shanty Bay, ON
L0L 2L0

REFERENCE: **Air Quality and Noise Assessment**
Vitajoe Ltd.
CTI Project P4561

Dear Mr. Tascona:

Church & Trought Inc. (CTI) was retained by **Vitajoe Ltd.**, to conduct an Air Quality and Noise Assessment for a proposed new residential development at a parcel of land located at 220 Bradford Street, Barrie, Ontario, (Subject Property).

1.0 Background

We understand that a used-car dealership was operated on the subject property for many years. Vitajoe Ltd. is proposing to develop a 13-storey, 100 unit condominium on the site.

The property is located on the west side of Bradford Street, across the road from the City of Barrie's Waste Water Treatment Plant (WwTP). The closest part of the WwTP structure is about 80 m from the easterly property line of the subject property. The WwTP is currently operating at a capacity of about 52,000 cu.m. per day, however a recent expansion brought the rated capacity to 76,000 cu.m. per day. We understand they could also expand the plant in the future to an ultimate maximum capacity of 120,000 cu.m. per day.

2.0 Objective

The objective of the proposed study was to assess the potential impact on the proposed development from the WwTP relative to noise and odours. This included:

- Verification that the separation distance for establishing a sensitive land use in proximity to the City's Wastewater Treatment Plant (WwTP) was adequate in accordance with the Ministry of Environment D2 Guidelines;

4.0 Air and Noise Reports

CTI requested the most recent reports which assessed odour and noise. The reports that were received and reviewed were:

- *City of Barrie, Water Pollution Control Centre, Odour Control Study, by CH2MHILL, January 2006;* and
- *City of Barrie, Water Pollution Control Centre, Acoustic Assessment Report, by Cole Engineering, April 2012.*

a) Odour Control Study

The purpose of the study was to determine the preferred strategy or strategies to mitigate off-site odour impacts at the Barrie WwTP. The odourous areas targeted for assessment in the study included the future blending tank, the biosolids loading facility, and the sludge thickening building.

The study included a qualitative assessment of potential odour sources, and based on that assessment conducted odour sampling and dispersion modelling on those sources that were deemed to be the most significant. The sources include the Influent Works, WAS Thickening Building, Biosolids Loading Facility and Blending Tank.

The results of the odour sampling and modelling showed that the odour emissions from the thickening building and the sludge loading operation were the most significant source of odour and that odour concentrations calculated at the fence line exceeded the MOE target concentration of 1 ou/m3.

A number of potential control strategies were assessed with the final recommendations being:

- Sludge Thickening Building – Operational changes by chlorinating stagnant;
- Biosolids Loading and Blending Tank – Control using Biofilter.

Since the issuance of the report we received an e-mail from the City that confirms the odour control that has been put in place as a result of the study:

"To address odour concerns that had been identified in 2006, the WWPC Odour Control report provided the following recommendations:

1. *A biological odour control system was installed to treat odours from the blending tanks and truck loading area. (Note that the vertical unit was actually installed to conserve footprint)*

The following presents CTI's findings from its review of the Noise Report:

- The proposed 13-level condominium is to be located at 220 Bradford St, Barrie, Ontario. This location is between sensitive receptors POR1 and POR2 as identified in the AAR conducted for the Barrie WwTP. The proposed design includes balconies overlooking the WwTP.

- The AAR describes POR1, POR2 and POR3 at 2-storey residences. However, the elevation used to represent these sensitive receptors in the Cadna-A acoustic model were set at 2.0 m above grade. Typically 2-storey receptors are set at 4.5 m to represent on open second floor window (i.e. bedroom) with maximum exposure to noise sources at the facility.

- The AAR describes that the applicable noise limits were based on a previous acoustic project done for the WwTP. No data was presented in the report, thus it was not possible to confirm elevated background noise levels above MOE exclusionary minima.

- The AAR describes a 3 m berm constructed along the Bradford St shielding POR1, POR2 and POR3 from the plant. Note that the selected receptor heights for POR1, POR2 and POR3 were set at 2 m, thus shielded from noise sources at the plant.

- No example calculation was provided in the AAR demonstrating noise impact calculations from source to receptor to confirm noise impacts. Such an example would assist in evaluating noise impacts at higher elevations (i.e. remove barrier effects of berm).

- No detailed site plan was provided in the AAR clearly locating all noise sources. This would be required to estimate noise impacts at the proposed condo development.

- Several noise sources at the facility are quite loud and have the potential to create adverse noise impacts at the second floors of the current residences and at higher elevations in the proposed development.

- The noise impact at POR2 during the night period was estimated to be 46.4 dBA, slightly less than 49 dBA (applicable limit proposed in AAR). It is very probable that the noise impact level will increase with increased elevation above grade level such as the second floor of the house and/or at higher elevations at the proposed condominium building. This will be o receptors being located above the berm elevation of 3 m (i.e. no shielding effect) thus the receptors will have a direct line-of-sight to noise sources at the facility.

In addition to the MOE evaluation for an application for a Certificate of Approval (Air), the Environmental Bill Registry (EBR) was established in 1994 to provide a formal framework for notifying the public about proposed legislation, policies, regulations and other legal instruments that could have a significant effect on the environment. In addition to providing public notification of proposed initiatives, it also provides a forum for public discussion on proposed changes being made to their communities. Any facility applying for an ECA has a description of their proposal posted on the EBR for a 30 day public comment period. The government considers all public input before making the final decision as to whether grant approval to the applicant.

The WwTP is required to have an up-to-date ECA showing that air emission regulations and noise criteria are being met.

6.0 Site Visit

A site visit was made on Friday April 26, at approximately 1:30 pm. At the time there was a slight wind blowing from the North to North West. Observations were made at the west, south and east property lines, with no odours detectable.

Standing at the subject property the predominant noise was from vehicle traffic on Bradford Street. When there was no traffic noise levels were approximately 45 dBA.

7.0 D-2 Guidelines

The MOE has published a set of Guidelines, D-1 to D-6, to be used in the planning process to prevent or minimize adverse effects from the encroachment of incompatible land uses where a facility either exists or is proposed. It is intended to apply when a change in land use is proposed.

The MOE D-2 Guideline addresses the compatibility between sewage treatment plants and sensitive land uses, and therefore is pertinent to the proposed development. The Guideline recommends that there be sufficient buffer between the facility and the sensitive land use and provides recommended separation distances. The separation distance is to be measured from the noise/odour structure to the property line of the sensitive land use.

For facilities greater than 25,000 cu.m/day the Guideline states that these plants would be dealt with on a case-by-case basis and that a separation distance of more than 150 m may be required.

Section 3.3 of the guideline addresses alternatives to buffers (separation distances). It states where buffers are not sufficient, additional mitigation of noise and/or odour may be required.

houses were occupied prior to the operation of the WwTP . There is also a fifteen-storey residential condominium located at 75 Ellen Street, approximately 120 m northeast of the facility.

10.0 Conclusions and Opinion

Based on the review presented in this letter-report, the following is concluded;

1. While the separation distance from the subject property to the WwTP does not meet the recommended separation distance given in the D-2 Guideline, the odour control implemented at the facility is adequate to prevent an adverse effect at the subject property. The noise levels meet current MOE criteria at the existing residences, at 2 m, at the second floor the MOE criteria may not be met requiring further mitigation at the source. With the elevated height of the proposed development, the noise criteria may not be met at the higher levels of the proposed building. This issue can be addressed at the time of detailed design of the building with consideration given to implementing design features that would meet MOE noise criteria.

2. With the current level of odour control and the implementation of any required noise mitigation, the operation of the WwTP is not expected to be impeded. Provided that future expansion of the plant adopts appropriate odour and noise control measures, future operations of the facility are not expected to be impeded.

It is our opinion that air quality and noise issues should not prevent the proposed residential development from proceeding. However, as there is the potential for residences at the subject property to detect odours and noise on occasion a warning clause should be included in the draft plan conditions. Wording that may be considered is:

"Purchasers/tenants are advised that although industries are required to obtain an Environmental Compliance Approval from the Ministry of the Environment for their air and noise emissions, at times, odours and/or noise emanating from the neighbouring Waste Water Treatment Plant may impede the enjoyment of the subject property".

Should you have any questions, please do not hesitate to contact us.

Yours truly,
Church & Trought Inc.

John Trought, P.Eng.

PHASE I

ENVIRONMENTAL SITE ASSESSMENT REPORT

220 Bradford Street

CITY OF BARRIE

P/N 12–2677

Revised November 30, 2012

Prepared by:

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Attention: Dennis Tascona

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Fire Insurance Plan (Partial), City of Barrie, October 1923, revised July 1946

APPENDIX B

EcoLog ERIS Ltd. Report,

"P/N 2677 Vitajoe Residential Development, 220 Bradford St., Barrie, ON, L4N 3B6, ERIS Project No. 20121019022, October 23, 2012"

APPENDIX C

Morris Shelswell & Sons Excavating & Grading Ltd. letter, dated May 25, 2012

Morris Shelswell & Sons Excavating & Grading Ltd. letter, dated July 18, 2012

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT
220 BRADFORD STREET
CITY OF BARRIE

P/N 12-2677 Revised November 30, 2012

1.0 EXECUTIVE SUMMARY

This report comprises a Phase I Environmental Site Assessment for a property located on the west side of Bradford Street, northwest of the intersection of Bradford Street and Essa Road/Tiffin Street, in the City of Barrie.

The subject lands have been primarily used for commercial purposes from at least 1949 until 2012. The lands operated as a used car dealership and body shop until 2012, at which time the existing used car dealership/body shop building, as well as an existing residence, were torn down. Harris Auto Electric was a tenant of the body shop building from approximately 1989 until 2012, and operated an automotive electrical repair shop on the subject lands.

The adjacent lands to the north and west are residential, while the property to the south is occupied by an auto repair shop and an auto performance accessory shop. The lands to the east of the subject lands, east of Bradford Street, are owned by the City of Barrie, which operates the Water Pollution Control Centre at this location.

WWTF ? (WPCC)

Several sources of information were considered as a part of this study, including a Title Search obtained from Land Registry Office #51 a report prepared by EcoLog ERIS Ltd., a review of Ontario Base Maps, a review of the City of Barrie Official Plan, a request for records from the Technical Standards and Safety Authority, an interview of the owner of the subject lands, and a site inspection.

Based on review of each of the above mentioned sources, it is possible that contamination of the subject lands exists; therefore a Phase II Environmental Site assessment is recommended. Furthermore, because the level of sensitivity of the subject lands is increasing a Record of Site Condition is required.

2.0 INTRODUCTION

2.1 Phase One Property Information

The subject lands are located along the west side of Bradford Street, northwest of the intersection of Bradford Street and Essa Road/Tiffin Street, in the City of Barrie, and as shown on Figure #1 – Subject Lands.

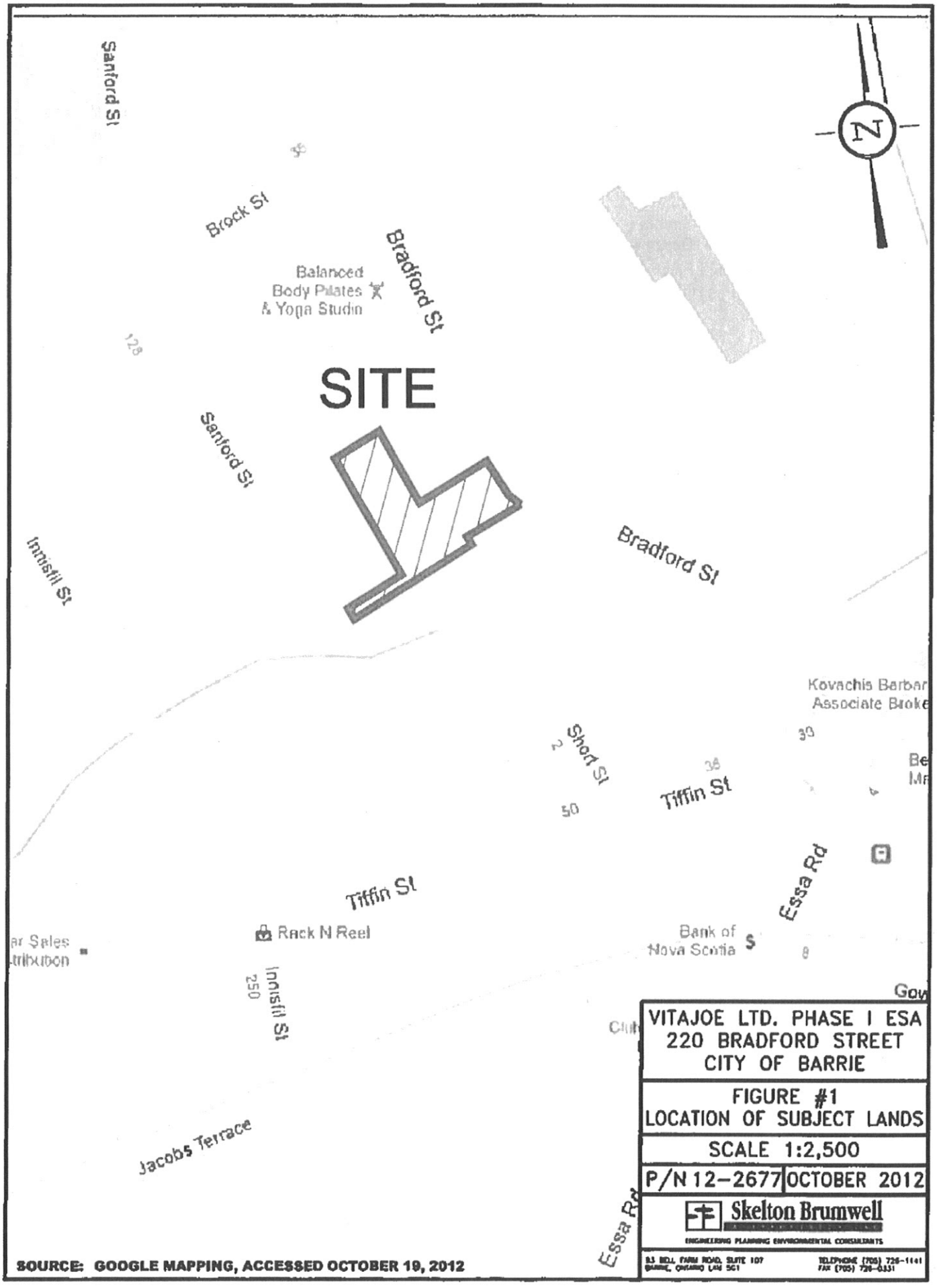
The subject properties are described as Part of Lot 26, Concession 5, Geographic Township of Vespra, County of Simcoe, now in the City of Barrie. They are further described as Part of Lot 15, and Lots 16, 17, and 18 on the West Side of Bradford Street, Plan 15, and Part 4 of Registered Plan 51R–7586, with Property Identification Number 58794–0126. The total area of the subject lands is approximately 0.35 hectares (0.85 acres).

The current registered owners of the subject lands are:

Joscona Ltd.
1 Trafalgar Drive
R.R. #2 Shanty Bay, Ontario
L0L 2L0
Telephone #: 705–722–3320

Skelton, Brumwell & Associates Inc. (SBA) was retained by Vitajoe Ltd. to complete a Phase I Environmental Site Assessment (ESA) of the subject lands, prior to the potential purchase of the property. The primary contact between SBA and Vitajoe Ltd. is:

Vitajoe Ltd.
C/o Mr. Dennis Tascona
1 Trafalgar Drive
R.R. #2 Shanty Bay, Ontario
L0L 2L0
Telephone #: 705–722–3320



SOURCE: GOOGLE MAPPING, ACCESSED OCTOBER 19, 2012

VITAJOE LTD. PHASE I ESA 220 BRADFORD STREET CITY OF BARRIE	
FIGURE #1 LOCATION OF SUBJECT LANDS	
SCALE 1:2,500	
P/N 12-2677	OCTOBER 2012

Skelton Brumwell
ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS
83 BELL FARM ROAD, SUITE 107, BARRIE, ONTARIO L4M 5G1
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3.0 SCOPE OF STUDY

This study constitutes a Phase I ESA of the subject lands, and includes a review of historical information as well as a site inspection. This information was used to develop an opinion about the possibility of any contaminants existing on the site. It has been completed in accordance with the procedures outlined in O. Reg. 153/04.

Matthew J. Bertram, EIT, and Scott W. Brumwell, P.Eng, conducted the study. Mr. Brumwell is a Qualified Person under O.Reg. 153/04. Insurance coverage held by SBA satisfies criteria set by O.Reg. 153/04.

4.0 RECORDS REVIEW

4.1 General

4.1.1 Phase One Study Area Determination

The Phase One Study Area was determined based on the current established property boundaries for the site. Any properties adjacent to the subject lands were considered in this study in order to determine if any potentially contaminating activities had occurred, or were taking place near the subject lands, and to determine if those activities had the potential to contaminate the subject lands. As most of the adjacent lands are used primarily for residential purposes, a review of environmental records for all properties within 250 metres of the site boundaries was completed.

4.1.2 First Developed Use Determination

Based on a search of the property abstract obtained from Land Registry Office #51 on October 22, 2012, as well as a review of the aerial imagery of the site from 1953, 1978, 1981, 2002, and 2008, the first developed use of the site appears to be as commercial property. This determination was made in part because photographic evidence shows the lands as being developed, including the former body shop/car dealership. This development is visible in each of the above noted aerial photographs. It should be noted the building was torn down in 2012.

4.1.3 Fire Insurance Plans

A Fire Insurance Plan for the City of Barrie[1], originally dated October 1923 and revised in July 1946, was reviewed as part of this study. The plan was obtained from the Public Archives of Canada National Map Collection. It shows several structures on Bradford Street, including structures on the subject lands, as well as a gasoline service station on the adjacent lands to the south.

A portion of this Fire Insurance Plan, showing the subject and adjacent lands, is included in Appendix A.

4.1.4 Chain of Title

Lot 26, Concession 5, were first patented by the Crown to Robert Newcomak of Vespra in 1835. The subject lands were sold to Charles Thompson of York in 1843, who would later sell Lots 15, 16, 17of Registered Plan 15 to Henry Fraser of Barrie in 1853, and Lot 18 of Registered Plan 15 to Adam Burnitt of Barrie in 1853. Lot 18 was sold to James Granden in 1858 and later to Henry Fraser in 1865.

Henry Fraser owned Lots 15, 16, 17, and 18 until 1875, when the lots were sold to William Fraser of Toronto. In 1887 the lots were sold to John M. Bothwell, and were later sold in 1925 to Clarence Bothwell. William H. Pratt of Barrie purchased the lots in 1941, and would later sell

Lot 17 and 18 to Mary and James Knapp in 1942. Joseph Tascona Sr. then purchased Lots 17 and 18 in 1949, and purchased Lots 15 and 16 in 1957.

The current registered owners of the subject lands are Joscona Ltd., who have owned the subject lands since 2003.

4.1.5 Environmental Reports

No environmental reports were discovered during the records review with regards to the subject lands.

4.2 Environmental Source Information

4.2.1 EcoLog ERIS Ltd. Report

Environmental source information for both the subject and adjacent lands was obtained from the EcoLog ERIS Ltd. report[2], dated October 23, 2012, and is included in Appendix B. The report gathered data regarding Certificates of Approval, the Environmental Registry, the List of TSSA Expired Facilities, the Ontario Regulation 347 Waste Generators Summary, Non–Compliance Reports, the National Pollutant Release Inventory, Private and Retail Fuel Storage Tanks, the Ontario Regulation 347 Waste Receivers Summary, Retail Fuel Storage Tanks, the Scott's Manufacturing Directory, the Ontario Spills database, and the Water Well Information System.

In total, twenty–two (22) Certificates of Approval, one (1) report from the Environmental Registry, two (2) reports from the List of TSSA Expired Facilities, seven (7) reports from the Ontario Regulation 347 Waste Generators Summary, nine (9) Non–Compliance Reports, ten (10) reports from the National Pollutant Release Inventory, one (1) Private and Retail Fuel Storage Tank, two (2) reports from the Ontario Regulation 347 Waste Receivers Summary, one (1) Retail Fuel Storage Tank, one (1) report from the Scott's Manufacturing Directory, forty–seven (47) Ontario Spills, and thirteen (13) reports from the Water Well Information system were found within a 250 metre radius of the subject lands.

The records from the Certificates of Approval database, the Environmental Registry, the List of TSSA Expired Facilities, the Ontario Regulation 347 Waste Generators summary, the Non–Compliance Reports, the National Pollutant Release Inventory, the Private and Retail Fuel Storage Tank database, the Scott's Manufacturing Directory, and the Ontario Spills database, as well as a brief explanation of each, are provided below:

i) Certificates of Approval (1985–Oct 30 2011)

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 the Certificate of Approval has been replaced by either an Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA).

The details of each of the Certificates of Approval can be found on pages 1–6 of the ERIS report, located in Appendix B.

ii) Environmental Registry (1994–August 2011)

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. Data includes such things as Approval for discharge into the natural environment other than water (i.e. Air), Permit to Take Water (PTTW), Certificate of Property Use (CPU), Approval for a waste disposal site, Order for preventative measures (EPA s. 18), Order for conformity with Act for waste disposal sites (EPA s. 44), and Order for remedial work (EPA s. 17).

The Corporation of the City of Barrie has one (1) proposal listed in the Environmental Registry, summarized in the table below. More specific details of the entry can be found on page 7 of the ERIS report, located in Appendix B.

Year	EBR Registry No.	Ministry Ref. No.	Address	Type	Description
2011	011-3201	6788-88WPMC	249 Bradford Street	Instrument Proposal	OWRA s53(1) – Approval for Sewage Works

iii) List of TSSA Expired Facilities (Current to Feb 2012)

This is a list of all expired facilities that fall under the TSSA (TSS Act & Safety Regulations), including the six regulations that exist under the Fuels Safety Division. It will include facilities such as private fuel outlets, bulk fuel plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc. These tanks have been removed and automatically fall under the expired facilities inventory held by TSSA.

There are two (2) TSSA Expired Facilities, both listed under Airgas Barrie. A summary of the entries can be found in the table below, and the details are listed on page 8 of the ERIS report, located in Appendix B.

Company	Address	Instance ID	Instance #	Context	Status
Airgas Barrie	40 Brock Street	13820	10209656	FS Facility	Expired
Airgas Barrie	40 Brock Street	89043	11525477	FS Propane Tank	Expired

iv) Ontario Regulation 347 Waste Generators (1986–Apr 2012)

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, collect, 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.

The Waste Codes and Waste Descriptions found in the seven (7) entries of the ERIS report are listed in the table below. The details of each entry can be found on pages 9–11 of the ERIS report, located in Appendix B.

Waste Code	Waste Description
112	Acid Waste–Heavy Metals
113	Acid Waste–Other Metals
121	Alkaline Wastes–Heavy Metals
133	Brines, Chlor–alkali Wastes
145	Paint/Pigment/Coating Residues
146	Other Specified Inorganics
148	Miscellaneous Wastes and Inorganic Chemicals
211	Aromatic Solvents
212	Aliphatic Solvents
213	Petroleum Distillates
221	Light Fuels
232	Polymeric Resins
233	Other Polymeric Wastes
252	Waste Oils & Lubricants
262	Detergents/Soaps
263	Organic Laboratory Chemicals
331	Waste Compressed Gases, including Cylinders

v) Non–Compliance Reports (1992 Water Only, 1994–2010)

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.

The details of each of the nine (9) Non–Compliance Reports can be found on pages 12–14 of the ERIS report, located in Appendix B. The Ministry of the Environment required no further actions for each of the reports.

vi) National Pollutant Release Inventory (1993–2010)

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.

There are ten (10) entries in the NPRI, listing the release of such substances as toluene, xylene (all isomers), ammonia (total), nitrate ion in solution at pH greater than or equal to 6.0, phosphorous (total), PM10 particulate matter, VOC's (volatile organic compounds), chlorine, arsenic (and its compounds), cadmium (and its compounds), copper (and its compounds), mercury (and its compounds), zinc (and its compounds), and lead (and its components).

The details of these pollutant releases can be found on pages 15–18 of the ERIS report, located in Appendix B.

vii) Private and Retail Fuel Storage Tanks (1989–1996)

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).

The ERIS report lists one (1) private fuel storage tank, located at 233 Bradford Street, and owned by Paul Sadlon Motors Inc. The complete details of the entry are found on page 19 of the ERIS report, located in Appendix B.

viii) Ontario Regulation 347 Waste Receivers Summary (1986–2009)

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.

There are two (2) records in the Ontario Regulation 347 Waste Receivers Summary, both listed under the Barrie WPCP. The details of these records can be found on page 20 of the ERIS report, located in Appendix B.

ix) Retail Fuel Storage Tanks (2000–Jun 2010)

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. Information is provided on company name, location and type of business.

The ERIS report lists one (1) retail fuel storage tank, located at 220A Bradford Street, and owned by Harris Auto Electric Ltd. The complete details of the entry are found on page 21 of the ERIS report, located in Appendix B.

x) Scott's Manufacturing Directory (1992–Mar 2011)

Scott's Directory is a data bank containing information on over 70,000 manufacturers in Ontario. Even though Scott's listings are voluntary, it is the most comprehensive database of Ontario manufactures available. Information concerning a company's address, plant size, and main products are included in this database. This database begins with 1992 information and is updated annually.

The ERIS report lists one (1) entry from the Scott's Manufacturing Directory, located at 208 Bradford Street, related to medical equipment and supplies manufacturing. The complete details of the entry are found on page 22 of the ERIS report, located in Appendix B.

xi) Ontario Spills (1988–2011)

This database identifies information such as location (approximate), type and quantity of contaminant, date of spill, environmental impact, cause, nature of impact, etc. Information 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.

The database identified forty–seven (47) spills within a 250 metre radius of the site boundaries. The majority of the spills occurred at the City of Barrie Water Pollution Control Centre, located at 249 Bradford Street. This property is east of the subject lands, across Bradford Street, and is located downstream of the subject lands. No evidence of any of the spills having a direct impact on the subject lands was observed during the site inspection.

Details of each of the spills are found on pages 23–32 of the ERIS report, located in Appendix B.

4.2.2 TSSA Records Request

In response to our request, the Technical Safety and Standards Authority (TSSA) advised that it has no record of any outstanding instruction, incident reports, fuel oil spills, or contamination records with respect to the subject property at 220 Bradford Street, nor did they have any records of retail facilities or underground storage tanks licensed or registered at the subject property. The TSSA does not guarantee having information on sites that have not been licensed since 1987.

4.3 Physical Setting Sources

4.3.1 Aerial Photographs

A number of images of the subject and surrounding lands, including aerial photographs and satellite imagery, were collected and reviewed.

The 1953 aerial photograph[3] shows significant development on the subject and adjacent lands. A structure, likely the former body shop/car dealership, is visible on the subject lands, while residential development is visible on the surrounding lands. Kempenfelt Bay is visible east of the subject lands.

The 1978 aerial image[4] shows significant development as compared to the 1953 aerial photograph. The existing body shop/car dealership is visible on the subject lands, and significant residential development has occurred on the surrounding lands. The City of Barrie Water Pollution Control Centre is visible on the adjacent lands to the east, across Bradford Street.

The 1981 aerial image[5] shows very little change from the 1978 aerial photographs. The body shop/car dealership is visible on the subject lands, while residential development and the Water Pollution Control Centre are visible on the adjacent lands.

The 2002 aerial image[6] shows little change from the 1981 aerial image. The structure on the subject lands is visible, while residential dwellings are visible on the adjacent lands. A large structure was visible east of the subject lands, adjacent to the Water Pollution Control Centre; however, it appears that this structure has been torn down sometime between 1981 and 2002.

The 2008 aerial image[7] shows the subject and adjacent lands generally as they are currently developed. Residential development is visible north, west, and south of the subject lands, while the City of Barrie Water Pollution Control Centre is visible east of the subject lands. It should be noted that the former body shop/car dealership was demolished after 2008, and the subject lands are currently vacant.

4.3.2 Topography, Hydrology, Geology

Review of the Ministry of Natural Resources Ontario Base Map (OBM) Sheet 10 17 6000 49150, based on 1983 aerial photography, reveals the subject lands to be approximately 400 metres west of Lake Simcoe. The subject lands are generally flat, with topography sloping gently from west to east at an elevation of approximately 225 metres.

4.3.3 Fill Materials

A large quantity of fill material is located on the north side of the property, acting to support the existing concrete block retaining wall. This fill is primarily sand, and was placed by a local contractor, Morris Shelswell & Sons Excavating & Grading Ltd. (Shelswell), while they were tearing down the former shop/car dealership and home on the subject lands. Discussions with Shelswell revealed that the fill was brought to the site from a previously undeveloped property at 66 Lockhart Road, Barrie.

Review of aerial photography of that area does not indicate that any development of those lands has ever taken place; therefore, the fill is presumed to be native soil.

Shelswell provided two (2) letters regarding their observations during the demolition and excavation works, which each advised that they did not encounter any visible signs nor did they detect any odours to suggest contamination of the soils on the site.

The Shelswell letters are included in Appendix C.

4.3.4 Water Bodies and Areas of Natural Significance

The closest major water body to the subject lands is Kempenfelt Bay, Lake Simcoe, located approximately 400 metres to the east of the subject lands. A review of the *City of Barrie Official Plan*[8], dated April 23, 2010, indicates that Hotchkiss Creek and Dyment's Creek each flow in an easterly direction towards Kempenfelt Bay, and are located approximately 33 metres south, and 265 metres north of the subject lands, respectively.

The City of Barrie Official Plan indicates that the closest Provincially Significant Wetland is the Bear Creek Wetland, located approximately 1.8 kilometres southwest of the subject lands. The only Area of Natural and Scientific Interest (ANSI) is the Allandale Lake Algonquin Bluffs, located approximately 3.0 kilometres southwest of the subject lands.

4.3.5 Well Records

Well records for both the subject and adjacent lands were obtained from the EcoLog ERIS Ltd. report, which gathered data from the Ontario Water Well Information System. In total, thirteen (13) water wells were located within a 250 metre radius of the subject lands. The records for the 13 water wells can be found on pages 33–45 of the EcoLog ERIS Ltd. report, located in Appendix B.

4.4 Site Operating Records

The subject lands are considered an "enhanced investigation property" as they have been operated as a garage. In accordance with O. Reg. 153/04, the following documentation, as are applicable and reasonably accessible, were reviewed:

i. *Regulatory permits and records related to areas of potential environmental concern:* There were no regulatory permits and/or records for this property.

ii. *Material Safety Data Sheets (MSDS):* MSDS sheets are not applicable in relation to the activities on the subject lands.

iii. *Underground utility drawings:* No evidence of underground utilities were encountered during the site visit.

iv. *Inventories of chemicals, chemical usage, and chemical storage areas:* No chemicals were identified on the subject lands. Based on the known historical usage of the subject lands, no chemicals are anticipated to be identified.

v. *Inventory of above ground storage tanks (AST) and underground storage tanks (UST):* No AST's or UST's were found on the subject lands; however, records received from EcoLog ERIS indicate that a fuel storage tank was located at 220A Bradford Street, and was owned by Harris Auto Electric. Discussions with Les Babinchak of Harris Auto Electric indicate that although the ERIS report indicates a retail fuel storage tank at 220A Bradford Street, no such tank existed on the site from 1989–2012, which is the period of time his business was located on the subject property.

vi. *Environmental monitoring data, including data created in response to an order or request of the Ministry:* No environmental monitoring data was found in relation to the subject lands.

vii. *Waste management records, including current and historical waste storage locations and waste generator and waste received information maintained pursuant to Regulation 347 of the Revised Regulations of Ontario, 1990 (General – Waste Management) made under*

the Act, or its predecessors: Not applicable as the subject lands are not a waste generator, nor are they a waste receiving site.

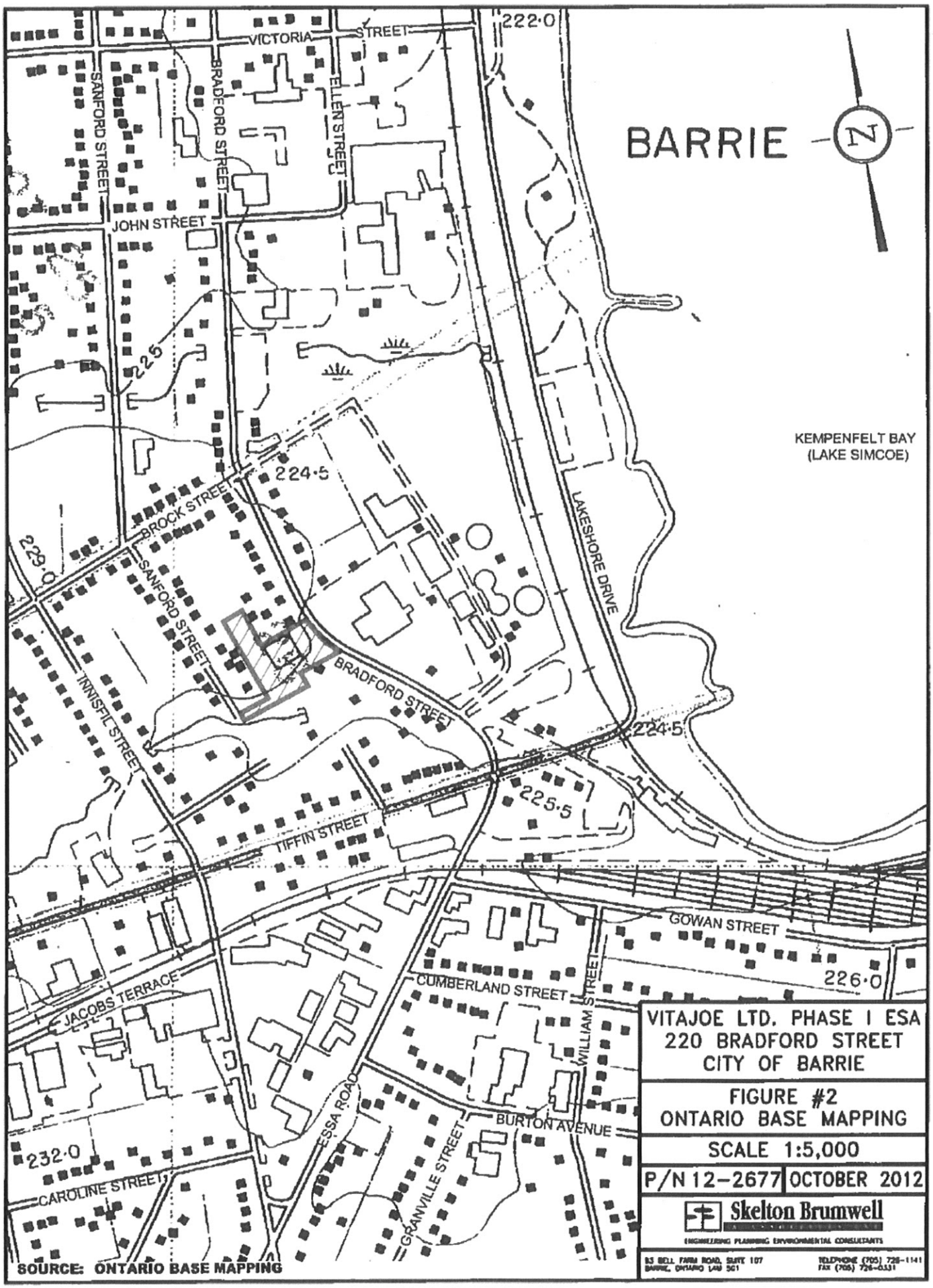
viii. *Process, production, and maintenance documents related to areas of potential environmental concern:* Not applicable, as the subject lands do not produce, process, or maintain material that may be related to areas of potential environmental concern.

ix. *Records of spills and records of discharges of contaminants, including records of spills and records of discharges of contaminants of which notice is required to be given to the Ministry under the Act and records of such spills and discharges required to be kept pursuant to Ontario Regulation 675/98 (Classification and Exemption of Spills and Reporting of Discharges) made under the Act:* Not applicable, as there are no records of spills or discharges for the subject lands.

x. *Emergency response and contingency plans, including spill prevention and contingency plans prepared pursuant to section 91.1 of the Act, and Ontario Regulation 224/07 (Spill Prevention and Contingency Plans) made under the Act:* There are no emergency response and contingency plans, as the subject lands are undeveloped.

xi. *Environmental audit reports:* There are no environmental audit reports for the subject lands.

xii. *Site plan of facility showing areas of production and manufacturing:* Not applicable, as no production or manufacturing occurs on the subject lands.



VITAJOE LTD. PHASE I ESA
220 BRADFORD STREET
CITY OF BARRIE

FIGURE #2
ONTARIO BASE MAPPING

SCALE 1:5,000

P/N 12-2677 | OCTOBER 2012

Skelton Brumwell
ENGINEERING PLANNING ENVIRONMENTAL CONSULTANTS
83 BELL FARM ROAD, SUITE 107
BARRIE, ONTARIO L4M 5G1
TELEPHONE (705) 726-1141
FAX (705) 726-0331

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5.0 INTERVIEWS

Dennis Tascona, a representative of the owner of the subject lands, and Les Babinchak, the former tenant of the subject lands, were interviewed as part of this investigation. The purpose of the interview was to determine historical information about the subject lands, including its past uses, as well as any information regarding potentially contaminating activities that may have occurred on the site.

Mr. Tascona indicated that to his knowledge, the subject lands were used primarily as a used car dealership and auto body shop from approximately 1949 until 2012. His father owned the auto body shop, which was eventually rented by Harris Auto Electric, who operated an automotive electrical repair shop. An existing house was also located on the subject lands. Both buildings were torn down in 2012 by Morris Shelswell & Sons Excavating & Grading Ltd.

Mr. Tascona indicated that to his knowledge no aboveground or underground gasoline or diesel storage tanks ever existed on the site. He believes that the existing home was once heated by oil, which would have been contained in an aboveground storage tank; however, he could not confirm this fact.

He also indicated that to his knowledge, there are no PCB's, asbestos, or radioactive materials on the site, nor have there ever been any.

Mr. Babinchak, owner of Harris Auto Electric (Harris) was a tenant on the subject lands from approximately 1989 until 2012. While a tenant of the subject lands, Harris performed repairs to electrical components of automobiles. Mr. Babinchak indicated that his shop did not have any aboveground or underground storage tanks, and he was unaware of why the ERIS report indicated that his shop had a retail fuel storage tank listed.

Where did he store his oil?

Harris operated as a "dry" shop, meaning that they did not store any bulk chemicals or fuels onsite. Any waste chemicals or fluids were disposed of off-site by Mr. Babinchak, or were picked up and disposed of by Safety Kleen.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A site inspection was conducted on October 26, 2012, by Matthew J. Bertram, EIT, accompanied by Mr. Dennis Tascona and Mr. Joseph Tascona Jr., representatives of the owner of the subject lands. The inspection commenced at 11:30 AM, and lasted approximately 0.5 hours. The weather at the time of the inspection was overcast, and the ambient temperature was approximately 10°C. The purpose of the inspection was to examine the subject lands and the neighbouring lands for visible evidence of contamination. Photographs of the subject and adjacent lands are included on Photo Page #1, #2, and #3.



Subject lands as seen from Bradford Street, looking west



Retaining wall and sand fill, looking west



Sand fill on retaiing wall, looking north



Southern limits of subject lands



Sand fill on retaining wall, looking east

SOURCE: SBA SITE INSPECTIONS, OCTOBER 26, 2012

PHASE 1 ESA
220 BRADFORD STREET
CITY OF BARRIE

Photo Page #1
SUBJECT LANDS

P/N 12-2677	NOVEMBER 2012

Skelton Brumwell & Associates Inc.

CONSULTING ENGINEERS & PLANNERS
93 BELL FARM ROAD, SUITE 107 BARRIE, ONTARIO L4M 5G1
TELEPHONE (705) 728-1141 FAX (705) 726-6331



Concrete block retaining wall, looking east



Western limits of subject lands



Recent oil stain on asphalt at north property limits caused by unauthorized vehicle



Subject property, looking south



Fencing at northwest corner of subject lands

SOURCE: SBA SITE INSPECTIONS, OCTOBER 26, 2012

PHASE 1 ESA
220 BRADFORD STREET
CITY OF BARRIE

Photo Page #2
SUBJECT LANDS

P/N 12-2677	NOVEMBER 2012

Skelton Brumwell & Associates Inc.
CONSULTING ENGINEERS & PLANNERS
93 BELL FARM ROAD, SUITE 107 BARRIE, ONTARIO L4M 5G1
TELEPHONE (705) 726-1141 FAX (705) 726-0331



City of Barrie Water Pollution Control Centre, as seen from subject lands



Auto repair shop and performance accessory shop, south of subject lands



Residential property, further south of subject lands



Bradford Street, looking east from subject lands



Residential property, north of subject lands

SOURCE: SBA SITE INSPECTIONS, OCTOBER 26, 2012

PHASE 1 ESA
220 BRADFORD STREET
CITY OF BARRIE

Photo Page #3
ADJACENT LANDS

P/N 12–2677 | NOVEMBER 2012

Skelton Brumwell & ASSOCIATES INC.
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6.2 Specific Observations at Phase One Property

The subject lands are currently vacant; however, they were primarily used as a car dealership and auto body shop. There was also formerly a house located on the west side of the property. Much of the subject lands are currently covered by sand/gravel, with some asphalt located on the east limits of the property, adjacent to Bradford Street.

A large quantity of sand fill is located on the north limit of the property, which serves to provide support to the existing concrete block retaining wall. According to discussions with Mr. Dennis Tascona, the City of Barrie asked for this fill to be placed during the demolition of the former buildings. The fill material, which is primarily sand, was brought to the site by Shelswell following the demolishing of the structures on the site.

During the site investigation, no above ground storage tanks were found on the subject lands, and no evidence of underground tanks was noted. A Bell telephone line runs east to west along the north side of the subject lands. There is also an existing Bell telephone pole located on the north side of the subject property.

A stain was noted on the asphalt on the north side of the subject lands, and appears to be oil. Mr. Tascona indicated that the stain was recently left on the property; however, he was not aware of the cause of it.

The City of Barrie Zoning By-Law zones the subject lands as General Commercial (C4).

The general direction of surface drainage is to the east, towards Bradford Street. The area of the property is generally flat to gently sloping.

No asbestos, radioactive material or PCB's were found, and there are no indications that such materials have ever existed on the subject lands.

6.3 Specific Observations on Lands Adjacent to Phase One Property

The adjacent lands were observed from the subject lands and the adjacent roads. To the north and west of the subject lands is primarily residential development, while to the south of the subject lands are two (2) mechanics shops, A One Automotive Services and Ed's Performance Shop. Additional lands to the south are owned by the City of Barrie. Hotchkiss Creek is also located south of the subject lands.

immediately

The adjacent lands to the east, across Bradford Street, are occupied by the City of Barrie Water Pollution Control Centre, which is a wastewater treatment facility.

The adjacent lands to the north are zoned General Commercial (C4), while the subject lands to the south are zoned General Commercial (C4) and Central Area Commercial–Central Area–1 (C1–1). The adjacent lands to the west are zoned Residential Multiple Two (RM2), while the lands to the east are zoned Municipal Services and Utilities (MSU).

No evidence of contamination on any of the adjacent lands was observed; however, an inspection of the City of Barrie Water Pollution Control Centre did not take place.

No asbestos, radioactive material or PCB's were found on the adjacent lands, and there are no indications that such materials have ever existed on the adjacent lands. No aboveground or underground fuel storage tanks were noted.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Current and Past Uses

Date	Land Use	Description
Prior to 1946	Vacant	Based on our research and interviews, the former used car dealership was constructed in approximately 1949; prior to that the subject lands were vacant.
1946–2012	Commercial	The subject lands had two (2) buildings located on them, a used car dealership/body shop, and a house.
2012–Present	Vacant	The former used car dealership/body shop, and the house, were torn down in 2012.

7.2 Potentially Contaminating Activity

Ontario Regulation 153/04 defines a potentially contaminating activity as:

"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;"

The subject lands are known to have operated as a commercial auto body shop, which is a potentially contaminating activity as noted in Schedule D of O.Reg 153/04.

7.3 Areas of Potential Environmental Concern

Ontario Regulation 153/04 defines an area of potential environmental concern as:

"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;"

Based upon the list of Potentially Contaminating Activities provided in Schedule D of O.Reg 153/04, and because a known potentially contaminating activity (operating a commercial auto body shop) has occurred on the subject lands, the subject property is considered to be an area of potential environmental concern.

7.4 Phase One Conceptual Site Model

A conceptual site model of the subject lands for the Phase I ESA is shown in Figure #3 – Conceptual Site Model. The figure shows the subject lands as they were seen in 2006, including the former residence and used car dealership/body shop, which were demolished in 2012. It also

shows the City of Barrie Water Pollution Control Centre, Hotchkiss Creek, and adjacent residential properties.

No drinking wells are located on the subject property, and no Areas of Natural and Scientific Interest are located within a 500 metre radius of the subject lands.

7.5 Additional Concerns for Subject & Adjacent Lands

Based on a review of the Fire Insurance Plan for the City of Barrie, revised July 1946, it is clearly evident that a gas station operated on the adjacent lands immediately to the south of the subject lands. Although the gas station has since been removed, it is unknown if an ESA or any cleanup works have taken place for this property, and therefore there is a potential for contamination.



VITAJOE LTD. PHASE I ESA
220 BRADFORD STREET
CITY OF BARRIE

FIGURE #3
CONCEPTUAL SITE MODEL

SCALE 1:1,500

P/N 12-2677 | OCTOBER 2012

Skelton Brumwell
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SOURCE: GOOGLE SATELLITE IMAGERY, DATED AUGUST 29, 2006

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8.0 CONCLUSIONS

8.1 Requirements for a Phase Two Environmental Site Assessment

Considering the results of the research and the site inspection undertaken, we conclude that there is a possibility that a fuel storage tank has existed on the site. Additionally, the site is known to have operated as a commercial body shop in the past, which is a known Potentially Contaminating Activity as listed under Schedule D of O.Reg 153/04. Furthermore, the site is considered an enhanced investigation property as it has operated as a garage.

It is also known that a gas station was once located on the adjacent lands immediately south of the subject lands, and it is not currently known if an ESA has been conducted for this property, nor is it known if any sort of cleanup works have taken place.

Based on this evidence, we recommend that a Phase II Environmental Site Assessment be completed in accordance with the requirements of O.Reg 153/04 in order to determine whether or not any contamination exists on the subject lands. The assessment should include sampling of the soils at several locations on the subject lands in order to determine whether or not any contamination is present.

8.2 Record of Site Condition Based on Phase One Environmental Site Assessment Alone

The proposed change of use of the subject lands is from commercial to residential. Because the level of sensitivity is increasing as a result of the potential purchase of these lands, a Record of Site Condition is required in addition to a Phase II Environmental Site Assessment.

8.3 Limitations of Report

The observations and conclusions presented in this report are based on the Scope of Work required by a Phase I Environmental Site Assessment. The purpose of the study was to identify visible evidence of environmental contamination or historical references which indicated a potential for contamination. The site inspection may not identify latent or hidden contamination. Conditions at other locations on the property may differ from those encountered at the specific locations that were investigated. For this reason, the Client assumes the inherent risk that some conditions may not be detected.

Any use of this report by any party other than Vitajoe Ltd., or its lending institution, and any reliance on or decisions made based on it are the responsibility of such third parties. Skelton, Brumwell & Associates Inc. assumes no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

All of which is respectfully submitted,

SKELTON, BRUMWELL & ASSOCIATES INC.,

Per:

Matthew J. Bertram, B.E.Sc, EIT
Engineering Intern

Per:

Scott W. Brumwell, P.Eng
Vice–President, Principal



REFERENCES

[1] Insurance Plan of Barrie, Ontario, Public Archives Canada, National Map Collection, NMC–0009294, Map 12/14, dated October 1923, revised July 1946.

[2] "P/N 2677 Vitajoe Residential Development, 220 Bradford Street, Barrie, ON, L4N3B6", EcoLog ERIS Ltd., ERIS Project No: 20121019022, October 23,2012.

[3] 1953 aerial photograph, 53–4416, 39–21, Ministry of Natural Resources.

[4] 1978 aerial photograph 78–4426, 22–27, Ministry of Natural Resources.

[5] 1981 aerial photograph, N81134, L4–118, Ministry of Natural Resources.

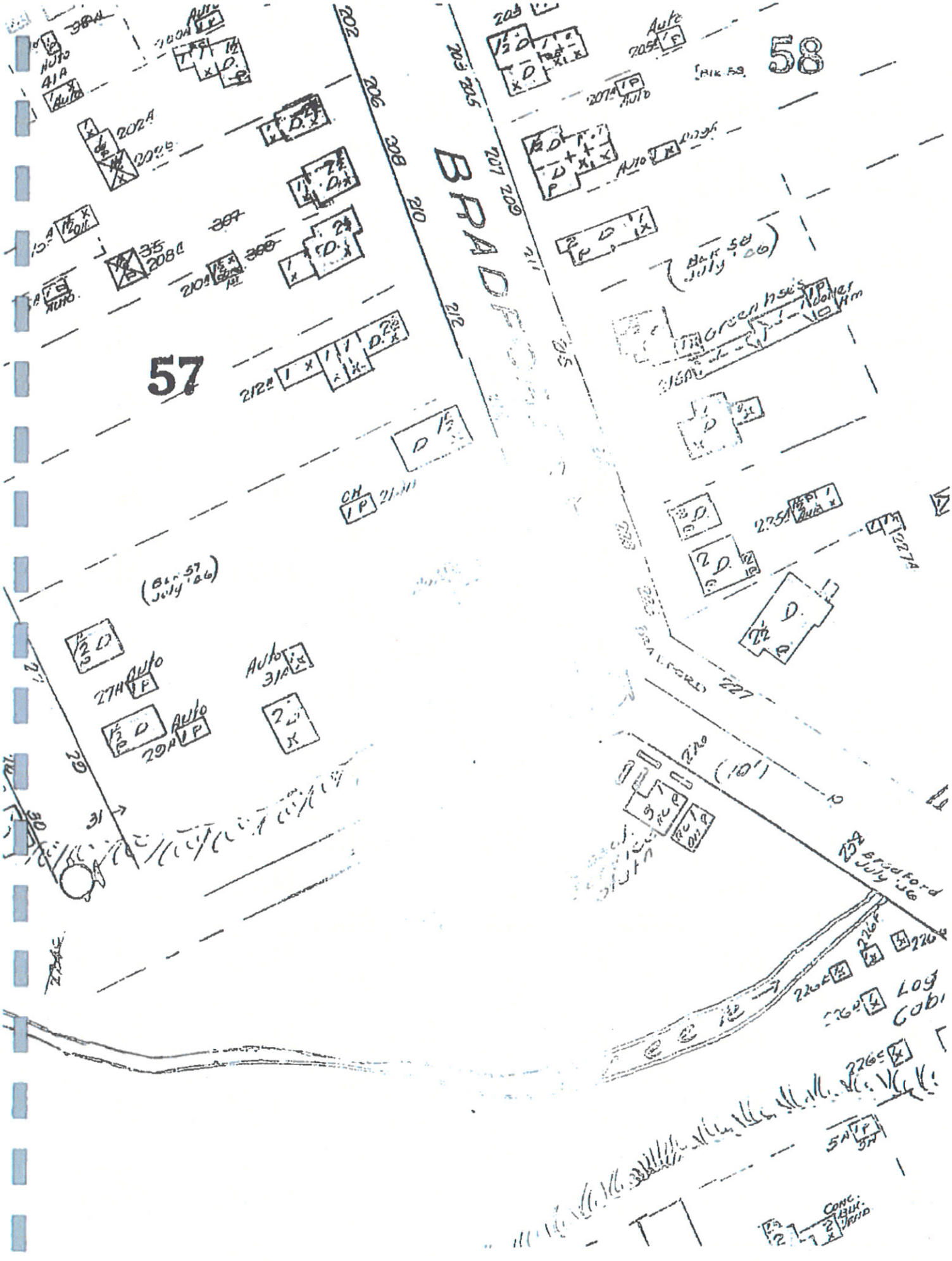
[6] 2002 aerial imagery as viewed on October 22, 2012, VuMap, First Base Solutions.

[7] 2008 aerial imagery as viewed on October 22, 2012, VuMap First Base Solutions.

[8] *"The City of Barrie Official Plan"*, the Corporation of the City of Barrie, April 23, 2010.

APPENDIX A

Fire Insurance Plan (Partial), City of Barrie, October 1923, revised July 1946


57
58
BRADFORD
Blk 57 July '46
Blk 59 July '56
Bradford
Auto
Log Cabi
Conc. Blk. Bldg

APPENDIX B

EcoLog ERIS Ltd. Report,

"P/N 2677 Vitajoe Residential Development, 220 Bradford St., Barrie, ON, L4N 3B6, ERIS Project No. 20121019022, October 23, 2012"



Canada's Primary Environmental Risk Information Service

Project Site:	**P/N 2677 Vitajoe Residential Development** **220 Bradford St** **Barrie, ON L4N3B6**
Client:	**Matthew Bertram** **Skelton Brumwell & Associates** **93 Bell Farm Road, Suite 107** **Barrie, ON L4M5G1**
ERIS Project No:	**20121019022**
Report Type:	**Standard Report - .25km Search Radius**
Prepared By:	**Rafal Wojtasik** rwojtasik@eris.ca
Date:	**October 23, 2012**

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Table of Contents

Order Number: 20121019022
Site Name: P/N 2677 Vitajoe Residential Development
Site Address: 220 Bradford St Barrie, ON L4N3B6
Report Type: Standard Report, 0.25 km Search Radius

	Section
Report Summary *This outlines the number of records from each database that fall on the site, and within various distances from the site.*	i
Site Diagram *The records that were found within a specified distance from the project property (the primary search radius) have been plotted on a diagram to provide you with a visual representation of the information available. Sites will be plotted on the diagram if there is sufficient information from the database source to determine accurate geographic coordinates. Each plotted site is marked with an acronym identifying the database in which the record was found (i.e., WDS for Waste Disposal Sites). These are referred to as "Map Keys". A variety of problems are inherent when attempting to associate various government or private source records with locations. EcoLog ERIS has attempted to make the best fit possible between the available data and their positions on the site diagram.*	ii
Site Profile *This table describes the records that relate directly to the property that is being researched.*	iii
Detail Report *This section represents information, by database, for the records found within the primary search radius. Listed at the end of each database are the sites that could not be plotted on the locator diagram because of insufficient address information. These records will not have map keys. They have been included because they may be found to be relevant during a more detailed investigation.*	iv

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Environmental Registry	7
List of TSSA Expired Facilities	8
Ontario Regulation 347 Waste Generators Summary	9
Non-Compliance Reports	12
National Pollutant Release Inventory	15
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Ontario Regulation 347 Waste Receivers Summary	20
Retail Fuel Storage Tanks	21
Scott's Manufacturing Directory	22
Ontario Spills	23
Water Well Information System	33

Appendix: Database Descriptions

SITE DIAGRAM

ECOLOG ERIS

Pinpointing Your Environmental Risks

80 Valleybrook Dr. Toronto, ON M3B 2S9
416-510-5204

Project Property: P/N 2677 Vitajoe Residential Development
220 Bradford St
Barrie, ON
L4N3B6

ERIS Project #: 20121019022

Date: OCT-23-2012

LEGEND

- Project Property
- Database Location

Points of Interest
- Chimney
- Silo

Pipe & Transmission Lines
- Pipeline
- Transmission Line
- Transmission Tower
- Transformer Station

Rail
- Railway - Main
- Railway - Sidetrack
- Railway - Abandoned
- Bridge
- Tunnel

Transportation - Other
- Embankment
- Trail
- Runway

Hydrographic Features
- Permanent Waterway
- Intermittent Waterway
- Open Reservoir
- Dyke/Levee
- Dam
- Breakwall
- Wetland

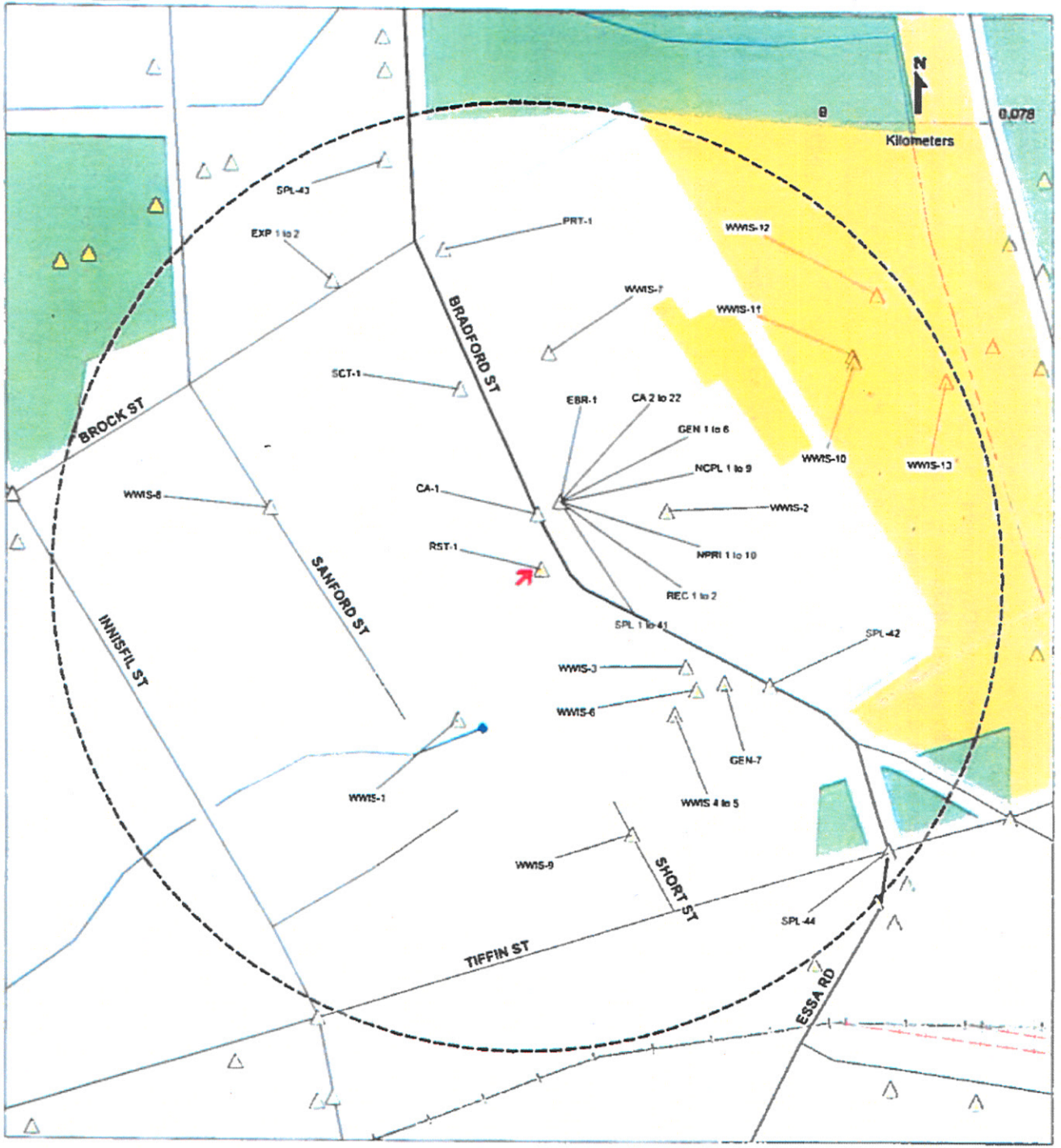
Landuse Classifications
- Open Area
- Residential
- Commercial
- Resource and Industrial
- Government and Institutional
- Parks and Recreational
- Waterbody

Recreation
- Golf Course/Driving Range
- Park/Sports Field
- Other Recreation Area
- Sports/Race Track
- Cemetery
- Campground

Vegetation
- Wooded Area
- Orchard
- Vineyard

Industrial Resources
- Conveyor
- Crane: Moveable
- Crane: Stationary
- Tank
- Rock Cut
- Auto Wrecker
- Lumber Yard
- Pit

This diagram is to be used solely for relative street location purposes. It may not accurately portray street or site positions.



Section II

Site Report

Order Number: 20121019022
Site Name: P/N 2677 Vitajoe Residential Development
Site Address: 220 Bradford St Barrie, ON L4N3B6
Report Type: Standard Report, 0.25 km Search Radius

FOR COMPLETE INFORMATION, REFER TO DETAIL REPORT

Retail Fuel Storage Tanks

Map Key	Company Name	Address	City	Postal Code
RST-1	HARRIS AUTO ELECTRIC LTD	220A BRADFORD ST	BARRIE	L4N3B6

Detail Report

Order Number: 20121019022
Site Name: P/N 2677 Vitajoe Residential Development
Site Address: 220 Bradford St Barrie ON L4N3B6
Report Type: Standard Report, 0.25 km Search Radius

If information is required for sites located beyond the selected address, please contact your ERIS representative.

Certificates of Approval

Environmental Registry

List of TSSA Expired Facilities

Ontario Regulation 347 Waste Generators Summary

Non-Compliance Reports

National Pollutant Release Inventory

Private and Retail Fuel Storage Tanks

Ontario Regulation 347 Waste Receivers Summary

Retail Fuel Storage Tanks

Scott's Manufacturing Directory

Ontario Spills

Water Well Information System

Report Summary

Order Number: 20121019022
Site Name: P/N 2677 Vitajoe Residential Development
Site Address: 220 Bradford St Barrie, ON L4N3B6
Report Type: Standard Report, 0.25 km Search Radius

Number of Mappable Records Surrounding the Site

Database		Selected	On-site	Within 0.25	0.25km to 2.00km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0	0
AGR	Aggregate Inventory	Y	0	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	10	10
AUWR	Automobile Wrecking & Supplies	Y	0	0	5	5
BORE	Borehole	Y	0	0	0	0
CA	Certificates of Approval	Y	0	22	211	233
CFOT	Commercial Fuel Oil Tanks	Y	0	0	3	3
CHEM	Chemical Register	Y	0	0	0	0
COAL	Coal Gasification Plants	Y	0	0	1	1
CONV	Compliance and Convictions	Y	0	0	0	0
CPU	Certificates of Property Use	Y	0	0	0	0
DRL	Drill Hole Database	Y	0	0	0	0
EASR	Environmental Activity and Sector Registry	Y	0	0	0	0
EBR	Environmental Registry	Y	0	1	48	49
ECA	Environmental Compliance Approval	Y	0	0	1	1
EEM	Environmental Effects Monitoring	Y	0	0	0	0
EHS	ERIS Historical Searches	Y	0	0	169	169
EIIS	Environmental Issues Information System	Y	0	0	0	0
EXP	List of TSSA Expired Facilities	Y	0	2	202	204
FCON	Federal Convictions	Y	0	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	3	3
FOFT	Fisheries & Oceans Fuel Storage Tanks	Y	0	0	0	0
FST	Fuel Storage Tank	Y	0	0	92	92
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	7	793	800
HINC	TSSA Historic Incidents	Y	0	0	35	35
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0	0
INC	TSSA Incidents	Y	0	0	7	7
LIMO	Landfill Inventory Management Ontario	Y	0	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0	0
MNR	Mineral Occurrences	Y	0	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	1	1
NCPL	Non-Compliance Reports	Y	0	9	2	11
NDFT	National Defence & Canadian Forces Fuel Storage Tanks	Y	0	0	0	0
NDSP	National Defence & Canadian Forces Spills	Y	0	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	1	1
NPCB	National PCB Inventory	Y	0	0	38	38
NPRI	National Pollutant Release Inventory	Y	0	10	40	50
OGW	Oil and Gas Wells	Y	0	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	40	40

Report Summary

Order Number: 20121019022
Site Name: P/N 2677 Vitajoe Residential Development
Site Address: 220 Bradford St Barrie, ON L4N3B6
Report Type: Standard Report, 0.25 km Search Radius

Database		Selected	On-site	Within 0.25	0.25km to 2.00km	Total
ORD	Orders	Y	0	0	5	5
PAP	Canadian Pulp and Paper	Y	0	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0	0
PES	Pesticide Register	Y	0	0	49	49
PINC	TSSA Pipeline Incidents	Y	0	0	6	6
PRT	Private and Retail Fuel Storage Tanks	Y	0	1	55	56
PTTW	Permit to Take Water	Y	0	0	3	3
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	2	13	15
RSC	Record of Site Condition	Y	0	0	10	10
RST	Retail Fuel Storage Tanks	Y	1	1	34	35
SCT	Scott's Manufacturing Directory	Y	0	1	251	252
SPL	Ontario Spills	Y	0	44	229	273
SRDS	Wastewater Discharger Registration Database	Y	0	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0	0
VAR	Variances for Abandonment of Underground Storage Tanks	Y	0	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	11	11
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	8	8
WWIS	Water Well Information System	Y	0	13	295	308
		TOTAL	1	113	2,671	2,784

The databases chosen by the client as per the submitted order form are denoted in the 'Selected' column in the above table. Counts have been provided outside the primary buffer area for cursory examination only. These records have not been examined or verified, therefore, they are subject to change.

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-1	The Corporation of the City of Barrie	240, 249 Bradford Street Barrie	9996-7FZPU4	2008	7/3/2008	Municipal and Private Sewage Works	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-2	BARRIE CITY	249 BRADFORD ST.,BARRIE WPCP BARRIE CITY	3-0340-93-	93	7/19/1993	Municipal sewage	Revised	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-3	BARRIE CITY	249 BRADFORD ST.,BARRIE WPCP BARRIE CITY na 10/6/93	3-0339-93-	93	10/6/1993	Municipal sewage	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-4	BARRIE CITY	249 BRADFORD ST. (WPCP) BARRIE CITY	3-0098-96-	96	4/2/1996	Municipal sewage	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-5	BARRIE CITY	249 BRADFORD ST. (WPCP) BARRIE CITY	8-5015-96-	96	5/30/1996	Industrial air	Cancelled	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:	PILOT ODOUR CONTROL SYSTEM AT WPCP				
			Contaminants:					
			Emission Control:					
CA-6	Barrie Water Pollution Control Centre	249 Bradford Street Barrie	1474-563HBT	02	8/2/02	Municipal & Private water	Revoked and/or Replaced	New Certificate of Approval
			Client Name:	Corporation of the City of Barrie				
			Client Address:	249 Bradford Street				
			Client City:	Barrie				
			Client Postal Code:					
			Project Description:	The works facilities for the City of Barrie is comprised of an integrated network of fifteen wells pumping directly into the distribution system, six booster pumping stations, three in-ground storage reservoirs and two elevated storage tanks.				
			Contaminants:					
			Emission Control:					
CA-7	Barrie Water Pollution Control Centre	249 Bradford Street Barrie	9229-5DFRL7	02	9/5/02	Municipal & Private water	Amended	Amended CofA
			Client Name:	The Corporation of the City of Barrie				
			Client Address:	249 Bradford Street				
			Client City:	Barrie				
			Client Postal Code:					
			Project Description:	Request for extension to compliance deadline for upgrade works				
			Contaminants:					
			Emission Control:					
CA-8	Barrie Water Pollution Control Centre	249 Bradford Street Barrie	3-0039-93-007	01	3/8/01	Municipal & Private sewage	Approved	Notice
			Client Name:	Corporation of the City of Barrie				
			Client Address:	70 Collier St., P.O. Box 400				
			Client City:	Barrie				
			Client Postal Code:	L4M 4T5				
			Project Description:	This is an application for a notice to amend a Municipal Sewage Works Certificate of Approval to extend the expiration date.				
			Contaminants:					
			Emission Control:					

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-9	Barrie Water Pollution Control Centre	249 Bradford Street Barrie	9396-5BAR4T	02	7/4/02	Municipal & Private sewage	Approved	New Certificate of Approval
			Client Name:	The Corporation of the City of Barrie				
			Client Address:	549 Bradford Street, PO Box 400				
			Client City:	Barrie				
			Client Postal Code:	L4M 4T5				
			Project Description:	This application is for an approval to upgrade the WPCC. The works consist of providing additional primary treatment and grit works and upgrades of plant headworks. The application does not change the plant's rated capacity of 57, 000m3/d. The works will consist of civil, architectural, mechanical instrumentation and control system.				
			Contaminants:					
			Emission Control:					
CA-10	Barrie Water Pollution Control Centre	549 Bradford Street, PO Box 400 Barrie	3-0339-93-007	02	5/21/02	Municipal & Private sewage	Approved	Notice
			Client Name:	The Corporation of the City of Barrie				
			Client Address:	549 Bradford Street, PO Box 400				
			Client City:	Barrie				
			Client Postal Code:	L4M 4T5				
			Project Description:	Amendment to dual digestion conditional approval				
			Contaminants:					
			Emission Control:					
CA-11	Ellen Street, Waste Water Pollution Control Centre	69 Ellen Street and 249 Bradford Street Barrie	3513-4MMHFV	00	8/1/00	Municipal & Private sewage	Approved	New Certificate of Approval
			Client Name:	Corporation of the City of Barrie				
			Client Address:	70 Collier St., P.O. Box 400				
			Client City:	Barrie				
			Client Postal Code:	L4M 4T5				
			Project Description:	Installation of Sanitary Sewers to service Ellen Street and the Water Pollution Control Centre.				
			Contaminants:					
			Emission Control:					
CA-12	Barrie Well Supply	249 Bradford Street Barrie	0408-57SPS5	02	8/2/02	Municipal & Private water	Revoked and/or Replaced	Amended CofA
			Client Name:	The Corporation of the City of Barrie				
			Client Address:	70 Collier Street				
			Client City:	Barrie				
			Client Postal Code:	L4M 4Z2				
			Project Description:	This application is to amend the existing consolidated Certificate of Approval No. 1474-563HBT to incorporate one (1) diesel generator with respect to the waterworks for Well 11, Heritage Park Pumping Station and Bayview Park Pumping Station and Reservoir, and to comply with Condition 5.1(b)(vii) for the diesel generator installed at Well 14, Heritage Park.				
			Contaminants:					
			Emission Control:					

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-13	The Corporation of the City of Barrie	249 Bradford Street Barrie	0465-5ZBLQ8	2004	6/10/2004	Municipal and Private Sewage Works	Revoked and/or Replaced	
			Client Name: **Client Address:** **Client City:** **Client Postal Code:** **Project Description:** **Contaminants:** **Emission Control:**					
CA-14	The Corporation of the City of Barrie	249 Bradford Street Barrie	1316-5MKTGU	2006	10/23/2006	Air	Approved	
			Client Name: **Client Address:** **Client City:** **Client Postal Code:** **Project Description:** **Contaminants:** **Emission Control:**					
CA-15	The Corporation of the City of Barrie	249 Bradford Street Barrie	3046-6NQKLL	2006	5/1/2006	Municipal and Private Sewage Works	Revoked and/or Replaced	
			Client Name: **Client Address:** **Client City:** **Client Postal Code:** **Project Description:** **Contaminants:** **Emission Control:**					
CA-16	The Corporation of the City of Barrie	249 Bradford St Barrie	3634-757HSU	2007	8/3/2007	Municipal and Private Sewage Works	Amended	
			Client Name: **Client Address:** **Client City:** **Client Postal Code:** **Project Description:** **Contaminants:** **Emission Control:**					

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-17	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	3634-757HSU	2008	3/10/2008	Municipal and Private Sewage Works	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-18	The Corporation of the City of Barrie	249 Bradford Street Barrie	9396-5BAR4T	2004	5/5/2004	Municipal and Private Sewage Works	Revoked and/or Replaced	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-19	The Corporation of the City of Barrie	249 Bradford Street Barrie	9595-5RNHAA	2003	9/23/2003	Air	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-20	CORPORATION OF THE CITY OF BARRIE	249 BRADFORD ST. W.P.C.P. BARRIE CITY	8-3278-93-	93	8/13/1993	Industrial air	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:	2) BOILERS/GAS ENGINES,1) REL.GAS BURNER				
			Contaminants:	Nitrogen Oxides, Sulphur Dioxide, Carbon Monoxide, Suspended Particulate Matter				
			Emission Control:	Flare				

Certificates of Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-21	BARRIE CITY - TEMP. DEWATERING POND	LAKESHORE DR./TIFFIN ST. WPCP BARRIE CITY	3-0580-92-	92	7/14/1992	Municipal sewage	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-22	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	3634-757HSU	2011	8/23/2011	Municipal and Private Sewage Works	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					

Environmental Registry

Map Key	Company	Address	Year	EBR Registry No.	Ministry Ref. No.	Type
EBR-1	The Corporation of the City of Barrie	249 Bradford Street Barrie	2011	011-3201	6788-88WPMC	Instrument Proposal

Instrument Type: (OWRA s. 53(1)) - Approval for sewage works
Proposal Date: April 11, 2011
Location: 249 Bradford Street Barrie
Proponent Address: Post Office Box Delivery 400 Postal Station Stn Main Barrie Ontario Canada L4M 4T5

List of TSSA Expired Facilities

Map Key	Company	Address	Instance ID	Instance Number	Context	Status:
EXP-1	AIRGAS BARRIE	40 BROCK ST BARRIE L4N 2L7	13820	10209656	FS Facility	EXPIRED
			Description:	FS Propane Refill Cntr - Cylr Fill		
EXP-2	AIRGAS BARRIE	40 BROCK ST BARRIE L4N 2L7	89043	11525477	FS Propane Tank	EXPIRED
			Description:	FS Propane Tank		

Ontario Regulation 347 Waste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-1	BARRIE, CITY OF	POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE L4N 3B2	0000	*** NOT DEFINED ***		
			Generator #:	ON0310601		
			Approval Yrs:	86,87,88		
GEN-2	BARRIE, CITY OF	P.W.D. POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE L4N 3B2	8373	ENVIRON. ADMIN.	113	ACID WASTE - OTHER METALS
			Generator #:	ON0310601	121	ALKALINE WASTES - HEAVY METALS
			Approval Yrs:	89,90,92,93,97,98,99,00,01	145	PAINT/PIGMENT/COATING RESIDUES
					212	ALIPHATIC SOLVENTS
					213	PETROLEUM DISTILLATES
					221	LIGHT FUELS
					252	WASTE OILS & LUBRICANTS
GEN-3	BARRIE, CITY OF 336	05- P.W.D. POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE L4N 3B2	8373	ENVIRON. ADMIN.	113	ACID WASTE - OTHER METALS
			Generator #:	ON0310601	121	ALKALINE WASTES - HEAVY METALS
			Approval Yrs:	94,95,96	145	PAINT/PIGMENT/COATING RESIDUES
					213	PETROLEUM DISTILLATES
					221	LIGHT FUELS
					252	WASTE OILS & LUBRICANTS

Ontario Regulation 347 Waste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-4	BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE L4N 3B7	Generator #: ON0310601 Approval Yrs: 02,03,04,05,06,07,08		233	OTHER POLYMERIC WASTES
					232	POLYMERIC RESINS
					112	ACID WASTE - HEAVY METALS
					133	BRINES, CHLOR-ALKALI WASTES
					146	OTHER SPECIFIED INORGANICS
					211	AROMATIC SOLVENTS
					262	DETERGENTS/SOAPS
					331	WASTE COMPRESSED GASES
					116	ACID WASTE - OTHER METALS
					121	ALKALINE WASTES - HEAVY METALS
					145	PAINT/PIGMENT/COATING RESIDUES
					148	INORGANIC LABORATORY CHEMICALS
					212	ALIPHATIC SOLVENTS
					213	PETROLEUM DISTILLATES
					221	LIGHT FUELS
					252	WASTE OILS & LUBRICANTS
					263	ORGANIC LABORATORY CHEMICALS
GEN-5	BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE L4N 3B7	Generator #: ON0310601 Approval Yrs: As of Apr 2012		112	Acid solutions - containing heavy metals
					145	Wastes from the use of pigments, coatings and paints
					148	Other specified inorganic sludges, slurries or solids
					118	Misc. wastes and inorganic chemicals
					213	Petroleum distillates
					232	Polymeric resins
					252	Waste crankcase oils and lubricants
					262	Detergents and soaps
					263	Misc. waste organic chemicals
					331	Waste compressed gases including cylinders

Ontario Regulation 347 Waste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-6	BARRIE, CORPORATION OF THE CITY OF	WATER POLLUTION CONTROL CENTRE 249 BRADFORD STREET BARRIE	221320	Sewage Treatment Facilities	221	LIGHT FUELS
			Generator #:	ON0310601	232	POLYMERIC RESINS
			Approval Yrs:	2009	238	OTHER POLYMERIC WASTES
					252	WASTE OILS & LUBRICANTS
					262	DETERGENTS/SOAPS
					263	ORGANIC LABORATORY CHEMICALS
					331	WASTE COMPRESSED GASES
					216	PETROLEUM DISTILLATES
					142	ACID WASTE - HEAVY METALS
					143	ACID WASTE - OTHER METALS
					121	ALKALINE WASTES - HEAVY METALS
					133	BRINES, CHLOR-ALKALI WASTES
					145	PAINT/PIGMENT/COATING RESIDUES
					146	OTHER SPECIFIED INORGANICS
					148	INORGANIC LABORATORY CHEMICALS
					211	AROMATIC SOLVENTS
					212	ALIPHATIC SOLVENTS
GEN-7	Trow Associates Inc.	242 Bradford Street Barrie L4N 3B6	541330	Engineering Services	221	LIGHT FUELS
			Generator #:	ON5507609		
			Approval Yrs:	07,08		

Non-Compliance Reports

Map Key	Company	Address	Year	Discharge Type	Sector	Type of Concern
NCPL-1	Barrie WPCP	Barrie	1995	Wastewater	Municipal	Control Order/Certificate of Approval

Contaminant: see "Status Report"
Status Report: Exceeded the Certificate of Approval total phosphorus limit for three months due to a local industry's discharge. The industry has since initiated changes to reduce their total phosphorus loading to the plant.

Incident Date	Limit/Unit/ Freq	Quantity Min/Max	Facility Action	Ministry Action

Map Key	Company	Address	Year	Discharge Type	Sector	Type of Concern
NCPL-2	The Corporation of the City of Barrie - Barrie Water Pollution Control Centre	249 Bradford St Reference Plan 51R-11568 Barrie	2008	Private Sewage	Municipal Sewage	CofA/Permit Non-Compliance

Contaminant: PHOSPHORUS
Status Report:

Incident Date	Limit/Unit/ Freq	Quantity Min/Max	Facility Action	Ministry Action
1/31/2008	13.7 kg/d	17.8/17.8	Operational Process Modification	Assessment Complete - No Action Required
1/31/2008	0.24 mg/L	0.31/0.31	Operational Process Modification	Assessment Complete - No Action Required

Map Key	Company	Address	Year	Discharge Type	Sector	Type of Concern
NCPL-3	BARRIE WPCP	BARRIE	1999	Wastewater	Municipal Non-Compliance C of A	

Contaminant: phosphorus
Status Report:

Incident Date	Limit/Unit/ Freq	Quantity Min/Max	Facility Action	Ministry Action
			new equipment installed	Assessment complete - no further action required

Map Key	Company	Address	Year	Discharge Type	Sector	Type of Concern
NCPL-4	BARRIE WPCP	BARRIE	2002	Wastewater	Municipal Sewage	C of A

Contaminant: nitrite+nitrate
Status Report:

Incident Date	Limit/Unit/ Freq	Quantity Min/Max	Facility Action	Ministry Action
			other	Assessment complete - no further action required

Map Key	Company	Address	Year	Discharge Type	Sector	Type of Concern
NCPL-5	Barrie WPCP	Barrie	1996	Wastewater	Municipal	Certificate of Approval

Contaminant: see "Status Report"
Status Report: Exceeded total phosphorus limit once. One clarifier had been removed from service for repairs, compliance anticipated for 1997.

Incident Date	Limit/Unit/ Freq	Quantity Min/Max	Facility Action	Ministry Action

Non-Compliance Reports

Map Key	Company	Address	Year	Discharge Type	Sector	Type of Concern
NCPL-6	BARRIE WPCP	BARRIE	2001	Wastewater	Municipal Sewage	C of A

Contaminant: Ammonia
Status Report:

Incident Date	Limit/Unit/ Freq	Quantity Min/Max	Facility Action	Ministry Action
			none	Assessment complete - no further action required

Map Key	Company	Address	Year	Discharge Type	Sector	Type of Concern
NCPL-7	The Corporation of the City of Barrie - Barrie WPCP	249 Bradford St. Barrie	2005	Mun. Private Sewage	Sewage Municipal	C of A Non-Compliance

Contaminant: PHOSPHORUS
Status Report:

Incident Date	Limit/Unit/ Freq	Quantity Min/Max	Facility Action	Ministry Action
4/30/2005	13.7 kg/d	13.9\	Operational Process Modification	Voluntary Abatement Program Underway
8/31/2005	13.7 kg/d	14.5\15.3	Conducting Study	Voluntary Abatement Program Underway
8/31/2005	0.24 mg/L	0.31\0.32	Conducting Study	Voluntary Abatement Program Underway

Map Key	Company	Address	Year	Discharge Type	Sector	Type of Concern
NCPL-8	The Corporation of the City of Barrie - Barrie WPCP	249 Bradford St. Barrie	2005	Mun. Private Sewage	Sewage Municipal	C of A Non-Compliance

Contaminant: AMMONIA
Status Report:

Incident Date	Limit/Unit/ Freq	Quantity Min/Max	Facility Action	Ministry Action
2/28/2005	10 mg/L	10.6\	Operational Process Modification	Voluntary Abatement Program Underway
4/30/2005	10 mg/L	11.16\	Operational Process Modification	Voluntary Abatement Program Underway
4/30/2005	571 kg/d	649.8\	Operational Process Modification	Voluntary Abatement Program Underway
9/30/2005	4 mg/L	4.66\8.39	Conducting Study	Voluntary Abatement Program Underway
9/30/2005	228.4 kg/d	392\403.2	Conducting Study	Voluntary Abatement Program Underway
10/31/2005	228.4 kg/d	293.4\	Conducting Study	Voluntary Abatement Program Underway
10/31/2005	4 mg/L	5.78\	Conducting Study	Voluntary Abatement Program Underway

Non-Compliance Reports

Map Key	Company	Address	Year	Discharge Type	Sector	Type of Concern
NCPL-9	The Corporation of the City of Barrie - Barrie WPCP	249 Bradford St Barrie	2006	Private Sewage	Sewage Municipal	C of A/Permit Non-Compliance

Contaminant: AMMONIA
Status Report:

Incident Date	Limit/Unit/ Freq	Quantity Min/Max	Facility Action	Ministry Action
2/28/2006	10 mg/L	10.32/10.32	Equipment Modified, Repaired, Replaced or Re-calibrated	Assessment Complete - No Action Required
4/30/2006	571 kg/d	615/615	Equipment Modified, Repaired, Replaced or Re-calibrated	Assessment Complete - No Action Required
4/30/2006	10 mg/L	10.32/10.32	Equipment Modified, Repaired, Replaced or Re-calibrated	Assessment Complete - No Action Required

National Pollutant Release Inventory

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-1	CITY OF BARRIE	249 BRADFORD Street PO Box 400 Barrie L4M 4T5	5986	2009	-79.6907	44.3763

Air	Water	Land	Units	Substances Released
5.886			tonnes	Toluene
1.931			tonnes	Xylene (all isomers)
43.16	24.367		tonnes	Ammonia (total)
	1650.477		tonnes	Nitrate ion in solution at pH >= 6.0
	1.538		tonnes	Phosphorus (total)
0.64			tonnes	PM10 - Particulate Matter <= 10 Microns
20.599			tonnes	Volatile Organic Compounds (VOCs)

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-2	CITY OF BARRIE	249 BRADFORD Street PO Box 400 Barrie L4M 4T5	5986	2008	-79.6907	44.3763

Air	Water	Land	Units	Substances Released
5.986			tonnes	Toluene
1.964			tonnes	Xylene (all isomers)
43.89	30.543		tonnes	Ammonia (Total)
	1540.052		tonnes	Nitrate ion in solution at pH >= 6.0
	2.451		tonnes	Phosphorus (total)
0.815			tonnes	PM10 - Particulate Matter <= 10 Microns
20.559			tonnes	Volatile Organic Compounds (VOCs)

National Pollutant Release Inventory

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-3	CITY OF BARRIE	249 BRADFORD Street PO Box 400 Barrie L4M 4T5	5986	2007		

Air	Water	Land	Units	Substances Released
6.00			tonnes	Toluene
1.97			tonnes	Xylene (all isomers)
	35.47		tonnes	Ammonia (Total)
	1613.50		tonnes	Nitrate ion in solution at pH >= 6.0
	2.27		tonnes	Phosphorus (total)
20.66			tonnes	Volatile Organic Compounds (VOCs)

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-4	CITY OF BARRIE	249 BRADFORD Street PO Box 400 Barrie	5986	2006	-79.6907	44.3763

Air	Water	Land	Units	Substances Released
6.04			tonnes	Toluene
1.98			tonnes	Xylene (all isomers)
	89.80		tonnes	Ammonia (Total)
	1424.52		tonnes	Nitrate ion in solution at pH >= 6.0
	3.26		tonnes	Phosphorus (total)
20.79			tonnes	Volatile Organic Compounds (VOCs)

National Pollutant Release Inventory

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-5	The Corporation of the City of Barrie	249 Bradford Street Barrie L4M4T5	5986	2010	-79.6907	44.3763

Air	Water	Land	Units	Substances Released
			tonnes	Chlorine
0.0001			kg	Arsenic (and its compounds)
0.0007			kg	Cadmium (and its compounds)
			tonnes	Copper (and its compounds)
0.0002			kg	Mercury (and its compounds)
			tonnes	Zinc (and its compounds)
41.9	19.5		tonnes	Ammonia (total)
			tonnes	Nitrate ion in solution at pH >= 6.0
	1.42		tonnes	Phosphorus (total)
19.8			tonnes	Volatile Organic Compounds (VOCs)

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-6	CITY OF BARRIE	249 BRADFORD Street PO Box 400 Barrie	5986	2004	-79.6874	44.3798

Air	Water	Land	Units	Substances Released
	73.31		tonnes	Ammonia (Total)
	1362.55		tonnes	Nitrate ion in solution at pH >= 6.0
	2.87		tonnes	Phosphorus (total)

Map Key	Company	Address	NPRI #	Year
NPRI-7	The Corporation of the City of Barrie	249 Bradford Street PO Box 400 Barrie L4M 4T5	5986	2003

Air	Water	Land	Units	Substances Released
38.68	67.52	0.00	tonnes	Ammonia (Total)
0.00	1303.84	0.00	tonnes	Nitrate ion in solution at pH >= 6.0
0.00	2.03	0.00	tonnes	Phosphorus (total)

National Pollutant Release Inventory

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-8	The Corporation of the City of Barrie	249 Bradford Street PO Box 400 Barrie L4M 4T5	5986	2002		

Air	Water	Land	Units	Substances Released
38.72	50.2	0	tonnes	Ammonia (Total)
0	966.394	0	tonnes	Nitrate ion in solution at pH >= 6.0

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-9	The Corporation of the City of Barrie	249 Bradford Street PO Box 400 Barrie L4M 4T5	5986	2001		

Air	Water	Land	Units	Substances Released
0.00	39.40	0.00	tonnes	Ammonia (Total)
0.00	161.50	0.00	tonnes	Nitrate ion in solution at pH >= 6.0

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-10	CITY OF BARRIE	249 BRADFORD Street PO Box 400 Barrie	5986	2005	-79.6874	44.3798

Air	Water	Land	Units	Substances Released
5.78			tonnes	Toluene
1.90			tonnes	Xylene (all isomers)
			kg	Lead (and its compounds)
	142.22		tonnes	Ammonia (Total)
	1237.33		tonnes	Nitrate ion in solution at pH >= 6.0
	4.12		tonnes	Phosphorus (total)
19.90			tonnes	Volatile Organic Compounds (VOCs)

Private and Retail Fuel Storage Tanks

Map Key	Company	Address	Location ID	Type	Expiry Date	Capacity (L)	Licence #
PRT-1	PAUL SADLON MOTORS INC	233 BRADFORD ST BARRIE L4N 3B7	1285	private	1993-10-31	0.00	0014679002

Ontario Regulation 347 Waste Receivers Summary

Map Key	Company	Address	Receiver #:	Facility Type	Waste Code	Waste Description
REC-1	BARRIE WPCP	249 BRADFORD STREET BARRIE L4M 4V1	W120578 Approval Yrs:	WATER POLLUTION CONTROL PLANT 01,02,03,04,05,06,07,08,09	149	LANDFILL LEACHATES
REC-2	BARRIE WPCP	249 BRADFORD ST. 165 FERNDALE DR.,P.O. BOX 647 BARRIE L4M 4V1	W120578 Approval Yrs:	WATER POLLUTION CONTROL PLANT 86,94,95,96,97,98,99,00	149	LANDFILL LEACHATES

Retail Fuel Storage Tanks

Map Key	Company	Address	Facility	Description
RST-1	HARRIS AUTO ELECTRIC LTD	220A BRADFORD ST BARRIE L4N3B6	Service Stations-Gasoline, Oil & Natural Gas	

Scott's Manufacturing Directory

Map Key	Company	Address	Established	Plant Size (ft²)	Employment	SIC/NAICS Code	Description
SCT-1	Quality Dental Craft Ltd.	208 Bradford St Barrie L4N 3B6	01-AUG-89			339110	Medical Equipment and Supplies Manufacturing
						339110	Medical Equipment and Supplies Manufacturing

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-1	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	5481-7AR8PX		1/11/2008	SEWAGE,SECONDARY UNCHLORINATED	
			Incident Summary:	BP-Barrie WPCP-Sand filter bypass,Filter Fail.			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Equipment Failure - Malfunction of system components			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Possible			
SPL-2	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	8362-8HW6GW	6/16/2011	6/16/2011	SEWAGE,SECONDARY CHLORINATED	0 other - see incident description
			Incident Summary:	BP Barrie WPCC, sec-treated chl swg to L Simcoe, equip fail			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Unknown - Reason not determined			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			
SPL-3	The Corporation of the City of Barrie	549 Bradford St Barrie L4M 4T5	3864-8GYMDF	5/18/2011	5/18/2011	SLUDGE (N.O.S.)	2 m³
			Incident Summary:	City of Barrie: 2 m3 sludge to cement, cining			
			Incident Cause:	Process Upset			
			Incident Reason:	Spill			
			Nature of Impact:	Other Impact(s)			
			Receiving Medium:				
			Environmental Impact:	Not Anticipated			
SPL-4	BARRIE, CITY OF	249 BRADFORD STREET BARRIE WPCP 249 BRADFORD STREET BARRIE	191242	11/28/2000	11/29/2000		
			Incident Summary:	CITY OF BARRIE--SPILL OF 54,000 L WATER/SEWAGE MIXTO CREEK.RUPTURED SEWER			
			Incident Cause:	PIPE/HOSE LEAK			
			Incident Reason:	OTHER			
			Nature of Impact:	Water course or lake			
			Receiving Medium:	WATER			
			Environmental Impact:	POSSIBLE			
SPL-5	UNKNOWN	CB SOUTH OF 249 BRADFORD STREET, BARRIE CITY	220322	1/24/2002	1/24/2002		
			Incident Summary:	SOURCE UKN-USED MOTOR OILFOUND ON ROAD,SOME TO CB,CLEANED-UP BY CITY.			
			Incident Cause:	UNKNOWN			
			Incident Reason:	UNKNOWN			
			Nature of Impact:				
			Receiving Medium:	LAND / WATER			
			Environmental Impact:	NOT ANTICIPATED			

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-6	BARRIE, CITY OF	LAKE SIMCOE, BARRIE WPCP BARRIE WPCP 249 BRADFORD STREET BARRIE CITY	224131	4/17/2002	4/17/2002		
			Incident Summary:	BARRIE WPCP: SPILL OF 250 M3 UNCHLOR. SEWAGE TO GROUND, L. SIMCOE.			
			Incident Cause:	WASTEWATER DISCHARGE TO WATERCOURSE			
			Incident Reason:	EQUIPMENT FAILURE			
			Nature of Impact:	Water course or lake			
			Receiving Medium:	LAND / WATER			
			Environmental Impact:	POSSIBLE			
SPL-7	Flags Unlimited<UNOFFICIAL>	249 Bradford Street Barrie	2487-5P4RJF	7/3/2003	7/3/2003	SOLVENT (N.O.S.)	
			Incident Summary:	Flags Unlimited:discharging solvents to sani			
			Incident Cause:				
			Incident Reason:				
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	Water			
			Environmental Impact:	Possible			
SPL-8	Wessuc Inc.	249 Bradford Street Barrie	2753-67GU5P	12/8/2004	12/8/2004	WASTEWATER (HIGH BOD)	
			Incident Summary:	Wessuc: biosolids to Hodgekins Creek			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Negligence (Apparent) - Caused by lack of diligence			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	Water			
			Environmental Impact:	Not Anticipated			
SPL-9	The Corporation of the City of Barrie	249 Bradford Street Barrie	1740-69UPEY	2/22/2005	2/22/2005	OXYGEN (PRESSURIZED LIQUID)	
			Incident Summary:	Barrie WPCP: Oxygen tank spill, evacuation.			
			Incident Cause:				
			Incident Reason:				
			Nature of Impact:	Human Health/Safety			
			Receiving Medium:	Land			
			Environmental Impact:	Not Anticipated			
SPL-10	The Corporation of the City of Barrie	249 Bradford Street Barrie	4282-6DSKXU	6/28/2005	6/28/2005	SEWAGE,SECONDARY UNCHLORINATED	
			Incident Summary:	Barrie WPCP: 1L/min spill of 2nd effluent to grnd,contd			
			Incident Cause:	Other Discharges			
			Incident Reason:	Unknown - Reason not determined			
			Nature of Impact:	Other Impact(s)			
			Receiving Medium:	Land			
			Environmental Impact:	Possible			

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-11	The Corporation of the City of Barrie	249 Bradford Street Barrie	7615-6E7NTQ	7/11/2005	7/11/2005	SEWAGE,FINAL EFFLUENT UNCHLORINATED	unknown
			Incident Summary:	BP: Barrie WPCC-Tertiary effluent to Lk Simcoe			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Other - Reason not otherwise defined			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	Water			
			Environmental Impact:	Possible			
SPL-12	The Corporation of the City of Barrie	549 Bradford St BARRIE WATER POLLUTION CONTROL CENTRE Barrie	6811-6UAP2R	10/5/2006	10/5/2006	SEWAGE,RAW UNCHLORINATED	60 L
			Incident Summary:	Barrie WPCP,60 L sewage to driveway of WPCP,clnd up			
			Incident Cause:				
			Incident Reason:				
			Nature of Impact:	Soil Contamination			
			Receiving Medium:	Land			
			Environmental Impact:	Not Anticipated			
SPL-13	The Corporation of the City of Barrie	249 Bradford Street BARRIE WATER POLLUTION CONTROL CENTRE Barrie	7847-6SYPSG	8/24/2006	8/24/2006	SLUDGE (N.O.S.)	Unknown
			Incident Summary:	Barrie WPCP: seconday sludge to Lake Simcoe			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Equipment Failure - Malfunction of system components			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	Water			
			Environmental Impact:	Not Anticipated			
SPL-14	Unknown<UNOFFICIAL>	IN POND BESIDE THE BARRIE WPCP ON BRADFORD ST. <UNOFFICIAL> Barrie	8816-6OF24J	6/3/2006	6/3/2006	DIESEL FUEL	not provided
			Incident Summary:	Bus (N.O.S.) - diesel fuel to sewer & pond.			
			Incident Cause:	Container Leak (Fuel Tank Barrels)			
			Incident Reason:	Unknown - Reason not determined			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	Water			
			Environmental Impact:	Not Anticipated			
SPL-15	The Corporation of the City of Barrie	249 Bradford St Barrie	7403-6X9JNN		1/8/2007	DIESEL FUEL	2 L
			Incident Summary:	Barrie WPCP: ~1-2 L diesel to parking lot			
			Incident Cause:	Unknown			
			Incident Reason:				
			Nature of Impact:	Soil Contamination; Surface Water Pollution			
			Receiving Medium:	Land & Water			
			Environmental Impact:	Not Anticipated			

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-16	The Corporation of the City of Barrie	249 Bradford St Barrie	7151-72MPW4		4/26/2007	SEWAGE	unknown unknown
			Incident Summary:	BP: Barrie WPCC - part.tertiary sewage to L. Simcoe			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Other - Reason not otherwise defined			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	Water			
			Environmental Impact:	Possible			
SPL-17	The Corporation of the City of Barrie	249 Bradford St Barrie	3088-6ZJKFK		3/22/2007	SEWAGE,SECONDARY UNCHLORINATED	4.6 m3
			Incident Summary:	Barrie WPCC: spill 4.6 m3 sec treated swg to lake			
			Incident Cause:				
			Incident Reason:				
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	Water			
			Environmental Impact:	Confirmed			
SPL-18		249 Bradford St Barrie	7032-6ZJS73		3/22/2007	HYDRAULIC OIL	15 L
			Incident Summary:	Frith Regional: 15 L of hydr oil to grnd. creek			
			Incident Cause:	Pipe Or Hose Leak			
			Incident Reason:				
			Nature of Impact:	Soil Contamination; Surface Water Pollution			
			Receiving Medium:	Land & Water			
			Environmental Impact:	Confirmed			
SPL-19		249 Bradford St Barrie	2418-6Y46QR		2/3/2007	SEWAGE,SECONDARY UNCHLORINATED	8250 m3
			Incident Summary:	Barrie WPCP: process upset, high SS to lake.			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Process upset			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	Water			
			Environmental Impact:	Not Anticipated			
SPL-20	The Corporation of the City of Barrie	249 Bradford St Barrie	7350-6ZWL6F		4/3/2007	Tertiary and UV treated sewage	13.1 m3
			Incident Summary:	BP: Barrie WPCP, 13.1 m3 of tert UV sewage to Lk. Simcoe			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Process upset			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:	Water			
			Environmental Impact:	Not Anticipated			

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-21	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	3027-7AR2GZ		1/10/2008	SEWAGE,SECONDARY UNCHLORINATED	16 m3
			Incident Summary:	BP-Barrie WPCP-Sand filter bypass,Filter Fail.			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Equipment Failure - Malfunction of system components			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Possible			
SPL-22	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	0328-8JRJ5X	7/14/2011	7/14/2011	SEWAGE,RAW CHLORINATED	0 other - see incident description
			Incident Summary:	Barrie WPCP: filter overflow to Kempenfelt			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Unknown - Reason not determined			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			
SPL-23	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	0180-7AUS2R		1/14/2008	SEWAGE,SECONDARY UV DISINFECTED	29.7 m3
			Incident Summary:	Barrie WPCC: secondary, UV treated sewage to Lake Simcoe			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Equipment Failure			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			
SPL-24	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	8321-7CDUTW		3/3/2008	SEWAGE,PRIMARY UNCHLORINATED	548.8 m3
			Incident Summary:	Barrie STP, primary uv treated, non chlor sewage, Lk Simcoe			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Equipment Failure			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			
SPL-25	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	7378-7DAJTX		4/1/2008	SEWAGE,SECONDARY CHLORINATED	2 m3
			Incident Summary:	Barrie WPCP-2 m3 of sec. effluent to ground, clng.			
			Incident Cause:	Other Discharges			
			Incident Reason:	Ice/Snow/Rain			
			Nature of Impact:	Soil Contamination			
			Receiving Medium:				
			Environmental Impact:	Not Anticipated			

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-26	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	0834-7DPMYK		4/14/2008		
			Incident Summary:	Barrie WPCP: Water line Hit- Drinking water to Dyments Crk.			
			Incident Cause:				
			Incident Reason:	Error- Operator error			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Not Anticipated			
SPL-27		549 Bradford St Barrie L4M 4T5	2484-7DZRWJ		4/24/2008		
			Incident Summary:	Barrie WPCP: Silt to Hodgekiss Cr. and Dynement Cr.			
			Incident Cause:				
			Incident Reason:				
			Nature of Impact:				
			Receiving Medium:				
			Environmental Impact:	Not Anticipated			
SPL-28		249 Bradford St Reference Plan 51R-11568 Barrie	5460-7EAK3F		5/3/2008		
			Incident Summary:	Oil slick around WPCC, Kempenfelt Bay, Barrie			
			Incident Cause:	Other Discharges			
			Incident Reason:				
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Not Anticipated			
SPL-29	City of Barrie <UNOFFICIAL>	249 Bradford St Reference Plan 51R-11568 Barrie	2076-7GJKPJ		7/14/2008	Tertiary sewage	20 m3
			Incident Summary:	Barrie WPCC - 20m3 tert sewage to Kem Bay			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Equipment Failure			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Not Anticipated			
SPL-30	City of Barrie<UNOFFICIAL>	249 Bradford St. east of the digestors Barrie	5651-7HERWX		8/11/2008	SILT	280 mg/L
			Incident Summary:	Cty Barrie: silt to Kemp Bay, Barrie			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Storm/Flood - Resulting from storm/flood/lightening			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-31	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	7522-7LRPXY		11/26/2008	SEWAGE,FINAL EFFLUENT UNCHLORINATED	700 m3
			Incident Summary:	Barrie WPCC: 700m³ . undis final effluent to Kempenfelt Bay.			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Equipment Failure			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			
SPL-32	Section 21(1)(f)	249 Bradford St Reference Plan 51R-11568 Barrie	0684-7LSLN2		11/27/2008	SEWAGE,FINAL EFFLUENT UNCHLORINATED	100 m3
			Incident Summary:	Barrie WPCC - 100m3 effluent to Kempenfelt Bay			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Power Interruption - Loss of electrical power			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			
SPL-33	The Corporation of the City of Barrie	549 Bradford St Barrie L4M 4T5	1313-7XQCJE		11/12/2009	Odour	
			Incident Summary:	Aeration and aerobic tanks gas vented to atm at Barrie WPCP			
			Incident Cause:	Discharge or Emission to Air			
			Incident Reason:	Process upset			
			Nature of Impact:	Air Pollution			
			Receiving Medium:				
			Environmental Impact:	Not Anticipated			
SPL-34	The Corporation of the City of Barrie	249 Bradford St Lot 26, Concession 5 Barrie	5803-8265ZV		1/28/2010	SEWAGE,SECONDARY UNCHLORINATED	1 m3
			Incident Summary:	Barrie WPCP: 1m3 sec. treated sewage to L.Simcoe.			
			Incident Cause:	Discharge Or Bypass To A Watercourse			
			Incident Reason:	Equipment Failure			
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Not Anticipated			
SPL-35	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	2426-7S9NW5		5/21/2009	SEWAGE,RAW UNCHLORINATED	0 other - see incident description
			Incident Summary:	Barrier WPCC: raw sewage to ground, possibly ck			
			Incident Cause:	Overflow (Tanks Lagoons)			
			Incident Reason:	Other - Reason not otherwise defined			
			Nature of Impact:	Soil Contamination; Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-36	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	5387-7S2FGY		5/14/2009	SLUDGE (N.O.S.)	76.46 m3
			Incident Summary:	Barrie WPCP-76.46 M3 Sludge onto Grass.			
			Incident Cause:	Other Discharges			
			Incident Reason:	Unknown - Reason not determined			
			Nature of Impact:	Soil Contamination			
			Receiving Medium:				
			Environmental Impact:	Possible			
SPL-37	Wessuc Inc.	249 Bradford St Reference Plan 51R-11568 Barrie	6883-7RBNUX		4/21/2009	BIO-SOLIDS (N.O.S.)	8 L
			Incident Summary:	Wessuc Inc: 8L biosolids to grnd, clnd			
			Incident Cause:				
			Incident Reason:				
			Nature of Impact:	Other Impact(s)			
			Receiving Medium:				
			Environmental Impact:	Possible			
SPL-38	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	3817-829PEH		2/1/2010	SEWAGE,RAW UNCHLORINATED	0.5 m3
			Incident Summary:	City of Barrie: 0.5 m 3 raw sewage to snow/parking lot			
			Incident Cause:	Other Discharges			
			Incident Reason:				
			Nature of Impact:	Surface Water Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			
SPL-39	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	2740-869LGN		6/9/2010	METHANE GAS	10 min (duration)
			Incident Summary:	Barrie WPCP: Methane gas vented to atm for 10min.			
			Incident Cause:	Discharge or Emission to Air			
			Incident Reason:	Equipment Failure - Malfunction of system components			
			Nature of Impact:	Air Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			
SPL-40	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	3550-8AW82T		11/5/2010	OXYGEN (COMPRESSED GAS)	300 kg
			Incident Summary:	Barrie WPCP: spill to air of 80% pure oxygen			
			Incident Cause:	Discharge or Emission to Air			
			Incident Reason:	Other - Reason not otherwise defined			
			Nature of Impact:	Air Pollution			
			Receiving Medium:				
			Environmental Impact:	Possible			

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
SPL-41	The Corporation of the City of Barrie	249 Bradford St Reference Plan 51R-11568 Barrie	6628-8ETQXA	3/10/2011	3/10/2011	DIGESTER GAS	0 other - see incident description
			Incident Summary:	Barrie WPCC: venting digester gas			
			Incident Cause:				
			Incident Reason:				
			Nature of Impact:	Air Pollution			
			Receiving Medium:				
			Environmental Impact:	Confirmed			
SPL-42	UNKNOWN	ON BRADFORD FROM TIFFIN TO THE W.W.T.P. BARRIE	164858	8/12/2000	8/12/2000		
			Incident Summary:	SOURCE UKN-UKN QTY USED MOTOR OIL TO ROADWAY OVER110 METERS,SWEPT-UP			
			Incident Cause:	UNKNOWN			
			Incident Reason:	UNKNOWN			
			Nature of Impact:				
			Receiving Medium:	LAND			
			Environmental Impact:	NOT ANTICIPATED			
SPL-43	PRIVATE RESIDENCE	190 BRADFORD ST. MOTOR VEHICLE (OPERATING FLUID) BARRIE CITY L4N 3B5	97768	3/24/1994	3/24/1994		
			Incident Summary:	RESIDENT: TRANSMISSION FLUID LEAK TO ROAD, SEWER& DIAMOND CREEK			
			Incident Cause:	OTHER CONTAINER LEAK			
			Incident Reason:	NEGLIGENCE (APPARENT)			
			Nature of Impact:	Water course or lake			
			Receiving Medium:	LAND / WATER			
			Environmental Impact:	POSSIBLE			
SPL-44	CO-OP	ESSA RD. & TIFFIN RD. S. BARRIE CITY	216149	11/15/2001	11/15/2001		
			Incident Summary:	CO-OP: 757 L 12% SODIUM HYPOCHLORIDE TO GROUND AND SANITARY SEWER			
			Incident Cause:	VALVE/FITTING LEAK OR FAILURE			
			Incident Reason:	ERROR			
			Nature of Impact:	Multi Media Pollution			
			Receiving Medium:	Land, Water			
			Environmental Impact:	Possible			
n/a	SERVICE STATION	WPCP (N.O.S.) BARRIE CITY	17348	4/19/1989	4/19/1989		
			Incident Summary:	M.O.E. BARRIE UTILITIES REPORTS GAS IN WATER TREATMENT SYSTEM			
			Incident Cause:	UNKNOWN			
			Incident Reason:	UNKNOWN			
			Nature of Impact:				
			Receiving Medium:	WATER			
			Environmental Impact:				

Ontario Spills

Map Key	Company	Address	Ref No.	Incident Dt	MOE Reported Dt	Contaminant Name	Contaminant Quantity
n/a	The Corporation of the City of Barrie	Bradford St and Tiffin St Barrie	1458-5RRMBF	9/26/2003	9/26/2003	BIO-SOLIDS (N.O.S.)	3.785 L
			Incident Summary:	> 1 gall biosolid leak@Barrie WWTP			
			Incident Cause:	Unknown			
			Incident Reason:	Equipment/Vehicles			
			Nature of Impact:	Human Health/Safety			
			Receiving Medium:	Water			
			Environmental Impact:	Not Anticipated			
n/a	The Corporation of the City of Barrie	Innisfil, Tiffin, Essa, Brock Barrie	4433-87WN5Y		8/1/2010	TRANSMISSION OIL	other - see incident description
			Incident Summary:	Transmission fluid trail on roads.			
			Incident Cause:				
			Incident Reason:				
			Nature of Impact:				
			Receiving Medium:				
			Environmental Impact:				

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-1			7105808				SIMCOE	BARRIE CITY

Easting Nad83: 604112
Northing Nad83: 4914382
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 4/22/2008
Primary Water Use: Monitoring
Secondary Water Use:
Well Depth: 25 ft
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Observation Wells
Construction Method: Boring
Flowing (y/n):
Elevation (m): 224.27951
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material: PLASTIC

Thickness	Original Depth	Material Colour	Material
25 ft	25 ft	BROWN	PEAT, SOFT, WATER-BEARING

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-2			7106250				SIMCOE	BARRIE CITY

Easting Nad83: 604220
Northing Nad83: 4914494
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 3/7/2008
Primary Water Use: Dewatering
Secondary Water Use:
Well Depth: 8.3 m
Pump Rate:
Static Water Level: 2.5 m
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Dewatering
Construction Method: Jetting
Flowing (y/n):
Elevation (m): 223.845657
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type: FRESH
Casing Material: PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC

Thickness	Original Depth	Material Colour	Material
3 m	3 m	BROWN	FILL
5.2 m	8.2 m	BROWN	SAND, SILTY
0.1 m	8.3 m	GREY	CLAY, TILL, SILTY

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-3		240 Bradford st Barrie	7053403				SIMCOE	BARRIE CITY

Easting Nad83:
Northing Nad83:
Zone:
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 5/22/2007
Primary Water Use:
Secondary Water Use:
Well Depth: 25 ft
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Observation Wells
Construction Method: Boring
Flowing (y/n):
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material: PLASTIC

Thickness	Original Depth	Material Colour	Material
15 ft	15 ft	BROWN	SAND, HARD, DRY
10 ft	25 ft	BROWN	SAND, SILT, SOFT

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-4			7138391				SIMCOE	BARRIE CITY

Easting Nad83: 604226
Northing Nad83: 4914387
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 10/14/2009
Primary Water Use: Dewatering
Secondary Water Use:
Well Depth: 9.1 m
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method: Auger
Flowing (y/n):
Elevation (m): 222.078384
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material: PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTI

Thickness	Original Depth	Material Colour	Material
1.5 m	1.5 m	BROWN	FILL
2.7 m	4.2 m	BROWN	SAND, WATER-BEARING, FINE SAND
4.9 m	9.1 m	BROWN	SAND

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-5			7111775				SIMCOE	BARRIE CITY

Easting Nad83: 604226
Northing Nad83: 4914387
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 9/9/2008
Primary Water Use: Dewatering
Secondary Water Use:
Well Depth: 9.1 m
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Dewatering
Construction Method: Auger
Flowing (y/n):
Elevation (m): 222.078384
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type: Not stated
Casing Material: PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTI

Thickness	Original Depth	Material Colour	Material
1.5 m	1.5 m	BROWN	FILL
2.7 m	4.2 m	BROWN	SAND, WATER-BEARING
4.9 m	9.1 m	BROWN	SAND

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-6		BARRIE	7117039				SIMCOE	BARRIE CITY (VESPRA)

Easting Nad83: 604237
Northing Nad83: 4914400
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 9/18/2008
Primary Water Use: Dewatering
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method: Boring
Flowing (y/n):
Elevation (m): 222.047576
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material:

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-7		BARRIE	7044939				SIMCOE	BARRIE CITY

Easting Nad83: 604157
Northing Nad83: 4914575
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 3/20/2007
Primary Water Use: Municipal
Secondary Water Use:
Well Depth: 25 ft
Pump Rate:
Static Water Level: 7.3 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Observation Wells
Construction Method: Rotary (Air)
Flowing (y/n):
Elevation (m): 224.615585
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: STEEL, STEEL

Thickness	Original Depth	Material Colour	Material
1 ft	1 ft	BLACK	TOPSOIL
24 ft	25 ft	BROWN	SAND, SILT

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-8			5738378				SIMCOE	BARRIE CITY

Easting Nad83: 604010
Northing Nad83: 4914491
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 9/23/2003
Primary Water Use: Not Used
Secondary Water Use:
Well Depth: 15 ft
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Observation Wells
Construction Method: Not Known
Flowing (y/n):
Elevation (m): 226.79396
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: PLASTIC, PLASTIC

Thickness	Original Depth	Material Colour	Material
5 ft	5 ft		FILL
5 ft	10 ft	BROWN	SAND
3 ft	13 ft	GREY	SILT, SANDY
1 ft	14 ft	GREY	SAND
1 ft	15 ft	GREY	SILT, CLAYEY

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-9			5738379				SIMCOE	BARRIE CITY

Easting Nad83: 604205
Northing Nad83: 4914324
Zone: 17
Utm Reliability: unknown UTM
Construction Date: 9/22/2003
Primary Water Use: Not Used
Secondary Water Use:
Well Depth: 16 ft
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Observation Wells
Construction Method: Not Known
Flowing (y/n):
Elevation (m): 226.391464
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material: PLASTIC, PLASTIC

Thickness	Original Depth	Material Colour	Material
1 ft	1 ft		FILL
6 ft	7 ft	BROWN	SILT, SANDY
5 ft	12 ft	GREY	SILT
4 ft	16 ft	GREY	SILT, SAND

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-10		Barrie	7106269				SIMCOE	BARRIE CITY

Easting Nad83: 604317
Northing Nad83: 4914574
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 5/21/2008
Primary Water Use: Not Used
Secondary Water Use:
Well Depth:
Pump Rate:
Static Water Level:
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Abandoned-Other
Construction Method: Rotary (Air)
Flowing (y/n):
Elevation (m): 221.660446
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material: STEEL

Thickness	Original Depth	Material Colour	Material

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-11		BARRIE	7044938				SIMCOE	BARRIE CITY

Easting Nad83: 604316
Northing Nad83: 4914577
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 3/17/2007
Primary Water Use: Municipal
Secondary Water Use:
Well Depth: 55 ft
Pump Rate:
Static Water Level: 6.3 ft
Flow Rate:
Clear/Cloudy: CLEAR
Specific Capacity:
Final Well Status: Observation Wells
Construction Method: Rotary (Air)
Flowing (y/n):
Elevation (m): 221.641708
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock: Overburden
Water Type: FRESH
Casing Material:

Thickness	Original Depth	Material Colour	Material
1 ft	1 ft	BLACK	TOPSOIL
22 ft	23 ft	GREY	CLAY, SAND, SOFT
25 ft	48 ft	GREY	CLAY, SILT, SOFT
7 ft	55 ft	BROWN	SAND, SILT

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-12		Barrie	7106252				SIMCOE	BARRIE CITY

Easting Nad83: 604328
Northing Nad83: 4914609
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 3/7/2008
Primary Water Use: Monitoring
Secondary Water Use:
Well Depth: 11 m
Pump Rate:
Static Water Level: 3.7 m
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Other Status
Construction Method: Jetting
Flowing (y/n):
Elevation (m): 220.92575
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material: PLASTIC, PLASTIC, PLASTIC, PLASTIC, PLASTIC

Thickness	Original Depth	Material Colour	Material
4 m	4 m	BROWN	FILL
5 m	9 m	BROWN	SAND
2 m	11 m	GREY	CLAY, TILL

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-13		Barrie	7106251				SIMCOE	BARRIE CITY

Easting Nad83: 604365
Northing Nad83: 4914565
Zone: 17
Utm Reliability: margin of error : 10 - 30 m
Construction Date: 2/29/2008
Primary Water Use: Dewatering
Secondary Water Use:
Well Depth: 9.2 m
Pump Rate:
Static Water Level: 4 m
Flow Rate:
Clear/Cloudy:
Specific Capacity:
Final Well Status: Dewatering
Construction Method: Jetting
Flowing (y/n):
Elevation (m): 220.863128
Elevation Reliability:
Depth to Bedrock:
Overburden/Bedrock:
Water Type:
Casing Material: PLASTIC, PLASTIC, PLASTIC, PLASTIC

Thickness	Original Depth	Material Colour	Material
6.1 m	6.1 m	BROWN	FILL
3.1 m	9.2 m	BROWN	SAND, SILT, FINE-GRAINED

Appendix: Ontario Database Descriptions

EcoLog Environmental Risk Information Services Ltd 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 EcoLog ERIS at the time of update. Note: Databases denoted with "*" indicates that the database will no longer be updated. See the individual database descriptions for more information.

Provincial Government Source Databases:

Abandoned Aggregate Inventory **Up to Sept 2002** **AAGR**

The MAAP Program maintains a database of all 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.

Aggregate Inventory **Up to Jun 2011** **AGR**

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. Please note that the database is only referenced by lot\concession and city/town location. The database provides information regarding the registered owner/operator, location, status, licence type, and maximum tonnage.

Abandoned Mines Information System **1800-Jan 2012** **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.

Borehole **1875-Aug 2011** **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.

Certificates of Approval **1985-Oct 30, 2011*** **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.

TSSA Commercial Fuel Oil Tanks 1948-Aug 2011 **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.

Inventory of Coal Gasification Plants and Coal Tar Sites April 1987 and November 1988* **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.*

Compliance and Convictions 1989-Aug 2012 **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.

Certificates of Property Use 1994-Sept 2012 **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.

Drill Holes 1886-Oct 2011 **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".

Environmental Activity and Sector Registry Oct 31, 2011-Sept 2012 **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.

Environmental Registry 1994-Sept 2012 **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.

Environmental Compliance Approval **Oct 31, 2011-Sept 2012** **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 CofA's prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

List of TSSA Expired Facilities **Current to Feb 2012** **EXP**

This is a list of all expired facilities that fall under the TSSA (TSS Act & Safety Regulations), including the six regulations that exist under the Fuels Safety Division. It will include facilities such as private fuel outlets, bulk plants, fuel oil tanks, gasoline stations, marinas, propane filling stations, liquid fuel tanks, piping systems, etc. These tanks have been removed and automatically fall under the expired facilities inventory held by TSSA.

TSSA Fuel Storage Tanks **Current to Jun 2011** **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.

Ontario Regulation 347 Waste Generators Summary **1986-Apr 2012** **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.

TSSA Historic Incidents **2006-June 2009** **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. We also work 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.

TSSA Incidents **June 2009-Mar 2012** **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.

Landfill Inventory Management Ontario 2010 **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.

Mineral Occurrences 1846-Nov 2011 **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 planimetric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Non-Compliance Reports 1992(water only), 1994-2010 **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.

Ontario Oil and Gas Wells 1800-Feb 2012 **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, well cap date, licence 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.

Ontario Inventory of PCB Storage Sites 1987-Oct 2004 **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.

Orders 1994-Sept 2012 **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.

Pesticide Register 1988-Mar 2011 **PES**

The Ontario Ministry of Environment maintains a database of all manufacturers and vendors of registered pesticides.

TSSA Pipeline Incidents **June 2009-Mar 2012** **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.

Private and Retail Fuel Storage Tanks **1989-1996*** **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).

Permit to Take Water **1994-Sept 2012** **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.

Ontario Regulation 347 Waste Receivers Summary **1986-2009** **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.

Record of Site Condition **1997-Sept 2001, Oct 2004-Aug 2012** **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).

Ontario Spills **1988-2011** **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.

Wastewater Discharger Registration Database **1990-2011** **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).

TSSA Variances for Abandonment of Underground Storage Tanks **Current to October 2011** **VAR**

The TSSA, Under the Liquid Fuels Handling Code and the Fuel Oil Code, all underground storage tanks must be removed within two years of disuse. If removal of a tank is not feasible, you may apply to seek a variance from this code requirement. This is a list of all variances granted for abandoned tanks.

Waste Disposal Sites - MOE CA Inventory **1970-Sept 2012** **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.

Waste Disposal Sites - MOE 1991 Historical Approval Inventory **Up to Oct 1990*** **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.

Water Well Information System **1955-2011** **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.

Federal Government Source Databases: **Diagram Identifier:**

Environmental Effects Monitoring **1992-2007*** **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.

Environmental Issues Inventory System **1992-2001*** **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.

Federal Convictions **1988-Jun 2007** **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.

Contaminated Sites on Federal Land **June 2000-May 2012** **FCS**

The Treasury Board of Canada Secretariat maintains an inventory of all known contaminated sites held by various Federal departments and agencies. This inventory does not include properties owned by Crown corporations, but does contain non-federal sites for which the Government of Canada has accepted some or all financial responsibility. All sites have been classified through a system developed by the Canadian Council of Ministers of the Environment. The database provides information on company name, location, site ID #, property use, classification, current status, contaminant type and plan of action for site remediation.

Fisheries & Oceans Fuel Tanks **1964-Sept 2003** **FOFT**

Fisheries & Oceans Canada maintains an inventory of all 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.

Indian & Northern Affairs Fuel Tanks **1950-Aug 2003** **IAFT**

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of all 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.

National Analysis of Trends in Emergencies System (NATES) **1974-1994*** **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.

National Defence & Canadian Forces Fuel Tanks **Up to May 2001*** **NDFT**

The Department of National Defence 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.

National Defence & Canadian Forces Spills **Mar 1999-Aug 2010** **NDSP**

The Department of National Defence 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.

National Defence & Canadian Forces Waste Disposal Sites **2001-April 2007** **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.

National Environmental Emergencies System (NEES) 1974-2003 **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 all 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.

National PCB Inventory 1988-2008 **NPCB**

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. All federal out-of-service PCB containing equipment and all 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.

National Pollutant Release Inventory 1993-2010 **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.

Parks Canada Fuel Storage Tanks 1920-Jan 2005 **PCFT**

Canadian Heritage maintains an inventory of all 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.

Transport Canada Fuel Storage Tanks 1970-March 2007 **TCFT**

With the provinces of BC, MB, NB, NF, ON, PE, and QC; Transport Canada currently owns and operates 90 fuel storage tanks. This inventory will also include The Pickering Lands, which refers to the 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, falls under the Site Management Policy of Transport Canada, but administered by Public Works and Government Services Canada. Our inventory provides information on the site name, location, tank age, capacity and fuel type.

Private Source Databases:

Anderson's Waste Disposal Sites 1860s-Present **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 authoritive. The information was collected for research purposes only.*

Automobile Wrecking & Supplies **2001-Jun 2010** **AUWR**

This database provides an inventory of all 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.

Chemical Register **1992, 1999-Jun 2010** **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.).

ERIS Historical Searches **1999-Apr 2012** **EHS**

EcoLog 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.

Canadian Mine Locations **1998-2009** **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.

Oil and Gas Wells **Oct 2001-Sept 2012** **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 Nickles' database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Canadian Pulp and Paper **1999, 2002, 2004, 2005, 2009** **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.

Retail Fuel Storage Tanks **2000-Jun 2010** **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. Information is provided on company name, location and type of business.

Scott's Manufacturing Directory **1992-Mar 2011** **SCT**

Scott's Directories is a data bank containing information on over 70,000 manufacturers in Ontario. Even though Scott's listings are voluntary, it is the most comprehensive database of Ontario manufacturers available. Information concerning a company's address, plant size, and main products are included in this database. This database begins with 1992 information and is updated annually.

Anderson's Storage Tanks **1915-1953*** **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.*

APPENDIX C

Morris Shelswell & Sons Excavating & Grading Ltd. letter, dated May 25, 2012

Morris Shelswell & Sons Excavating & Grading Ltd. letter, dated July 18, 2012

Morris Shelswell & Sons Excavating & Grading Ltd.
544 Line 11 North, RR #1
Hawkestone, Ontario L0L 1T0
Tel (705) 487-2215 Fax (705) 487-7218
E-mail excavating@morrisshelswell.com

May 25, 2012

Joscona Ltd.
1 Trafalgar Drive, RR2
Shanty Bay, Ontario
L0L 2L0

Attention: Dennis Tascona

Re: 220 Bradford Street, Barrie

Dear Dennis:

This letter is being written to inform you that during our demolition and backfilling work at the above location May 22 – 24, 2012 we did not observe any visible signs of contamination or detected any odours that would lead us to believe that any contaminants might be present

Sincerely,

MORRIS SHELSWELL & SONS EXCAVATING & GRADING LTD.

Craig Shelswell

Morris Shelswell & Sons Excavating & Grading Ltd.
544 Line 11 North, RR #1
Hawkestone, Ontario L0L 1T0
Tel (705) 487-2215 Fax (705) 487-7218
E-mail excavating@morrisshelswell.com

July 18, 2012

Joscona Ltd.
1 Trafalgar Drive, R.R. #2
Shanty Bay, ON
L0L 2L0

Attention: Dennis Tascona

Re: 220 Bradford Street, Barrie

This letter is written to advise that while we were demolishing the commercial garage at above location, that to the best of our knowledge, we neither encounter any visible signs nor detected any odours to suggest contamination of soils.

Yours truly,

MORRIS SHELSWELL & SONS EXCAVATING & GRADING LTD

Craig Shelswell

GOLDER

REPORT

2018 Annual Groundwater Monitoring Program

City of Barrie

Submitted to:

Stephanie Huyssen, B.Sc.
City of Barrie
P.O. Box 400
272 Ferndale Drive North,
Barrie, ON L4M 4T5

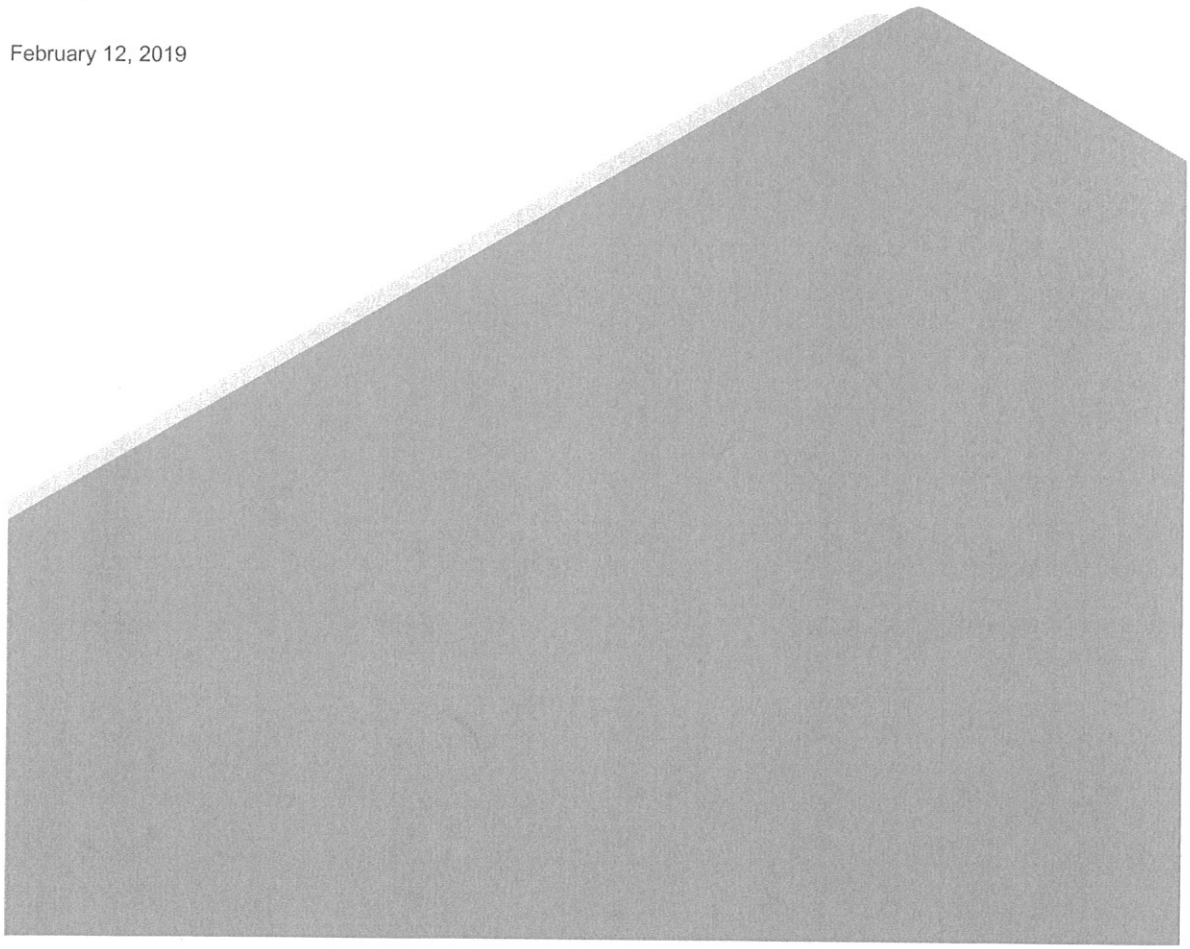
Submitted by:

Golder
121 Commerce Park Drive, Unit L Barrie, Ontario, L4N 8X1 Canada

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04-1112-588J

February 12, 2019



Distribution List

1 electronic copy - City of Barrie

1 copy - Golder Associates Ltd.

Executive Summary

The City of Barrie (City) implemented a long term Groundwater Monitoring Program in 2003 covering the area within the capture zones of municipal water supply Wells 12 and 15, which are located adjacent to Lakeshore Drive (Figure 1). The City currently obtains a portion of its municipal water supply from eleven operational wells constructed into a deep confined aquifer, referred to herein as the lower or "municipal" aquifer. Since August 23, 2011, a portion of the City's water supply is obtained from surface water withdrawn from an intake located off the south shore of Kempenfelt Bay.

The City maintains a network of monitoring wells to monitor groundwater quality, including a number of shallow monitoring wells in the upper unconfined aquifer, as well as deeper "sentinel" wells in the lower municipal aquifer, particularly in the capture area of Wells 12 and 15. This well network is largely designed to assess the distribution of impacts from volatile organic compounds (VOC) that were initially identified in groundwater in these aquifers in the early 2000s, and considered to be related to spills from historical industrial operations. As illustrated in Figure 2, shallow groundwater flow in the area of Well 12 is easterly, towards Kempenfelt Bay.

The purpose of the monitoring program is to assess trends in the distribution of VOC including trichloroethylene (TCE) and associated breakdown products, cis-1,2-dichloroethylene (cis-1,2-DCE), 1,1-dichloroethane (1,1-DCA) and vinyl chloride. This monitoring program has been undertaken annually as part of the City's Drinking Water Quality Management System for the provision of safe drinking water and satisfies their requirements of the Source Water Protection Plan. This program covers the areas located between Highway 400 and Kempenfelt Bay in the general vicinity of Tiffin Street.

The TCE distribution within the inferred groundwater recharge area and capture zone for Well 12 is monitored and reported as two separate "plumes", referred to as the South and North Plumes. The South Plume extends from the assumed primary source area west of Highway 400, north of Hotchkiss Creek, near the intersection of Anne and Brock Streets (see Figure 3). The northerly extent of the South Plume is located in the vicinity of Brock Street. The southerly extent of this plume is interpreted to generally follow the northern extent of Hotchkiss Creek. The current peak TCE concentrations in this plume are located in the vicinity of Tiffin Street, between approximately 250 m and 550 m west of Anne Street, respectively (i.e., at MW2/00 and CB11-1).

The North Plume extends from west of Anne Street to the City's Wastewater Treatment Facility (WwTF) and is interpreted to merge with the South Plume in the vicinity of MW8/00, located near the intersection of Anne and Brock Streets. The plume is largely located between Dyment's and Hotchkiss Creeks. A former municipal landfill located between Innisfil and Sanford Streets (Dyment's Creek Landfills) contributes to groundwater quality impacts in the unconfined aquifer. It has been determined that the TCE within the North Plume is not associated with the former landfill. The peak TCE concentration of this plume is observed at CB13-1#1 (337 µg/L, September 2018), located on the west side of the WwTF, east of Bradford Street, and approximately 250 m north of Tiffin Street. The TCE concentrations at both screens at CB13-1 are the lowest reported to date. Whereas the North Plume is interpreted to be migrating within the west part of the WwTF, the plume is not present east of the WwTF property in 2018 and has therefore not reached Kempenfelt Bay.

Higher concentrations of VOC in groundwater in both plumes are generally observed in the deeper part of the upper aquifer; however, there are select locations with depth discrete monitoring wells where the concentrations are consistently higher in the shallower screen.

The highest concentrations of TCE in the South Plume (30,000 µg/L) were previously reported at the Canplas property (located on the west side of Highway 400 in the vicinity of the ACDC railway tracks) in November 2009. The City's current monitoring program does not include sampling of private monitoring wells in the upgradient part of this plume; however, the City does obtain third party reports from this property, the results of which are included in this report.

Previous monitoring events have identified some fluctuation of VOC concentrations; however, the overall areal extents of the North and South Plumes have been relatively stable. Slow migration of VOC in groundwater has been occurring towards the WwTF, and this will likely ultimately reach and discharge to Kempenfelt Bay in several years. Golder completed a Goldsim Transport Model (Goldsim) to assess the fate and transport of the primary VOC present in the groundwater, TCE, within the North and South Plumes as they migrate towards Kempenfelt Bay. The concentration of TCE that would discharge to Kempenfelt Bay in 2026 was estimated to be approximately 3 µg/L using the Goldsim simulations (Golder, 2018c).

Based on the results of the 2018 Groundwater Monitoring Program, the following recommendations are provided:

1) The frequency of sampling of the sentinel (municipal aquifer) monitoring wells should continue to be semi-annually (i.e., twice per year);

2) Monthly monitoring by the City for VOC at the municipal supply Wells 3A, 5, 12 and 15 should continue. In September 2019, consistent with the annual monitoring program, the City should analyze the groundwater samples from the municipal supply wells for the full suite of VOC parameters;

3) The monitoring wells included in the 2018 Groundwater Monitoring Program should continue to be monitored on an annual basis for VOC (see Table 5.1 below). Also, the samples collected from the deep upper aquifer screens should be analyzed every two years for major ion and indicator parameters. On this basis, the next sampling event for major ion and indicator parameters should be 2019;

4) Duplicate groundwater samples should continue to be collected from wells where elevated concentrations of VOC parameters have been documented as part of the historical monitoring program (i.e. MW4-02#2, CB03-1#1, CB03-2#2, CB03-4#2, CB03-5#1, and/or CB11-1#2);

5) The City should continue to request groundwater quality data from the owners of privately-owned monitoring wells in areas upgradient of the City's monitoring wells to assist in assessing the potential long-term migration and fate of VOC in the South Plume; and,

6) The laboratory noted that some of the samples were not received in Paracel verified container/media. In the future, laboratory verified sampling containers should be used for all sampling events to avoid the possibility of questionable results.

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1.0 INTRODUCTION

Golder Associates Ltd. (Golder) was retained by the City of Barrie (City) to complete the 2018 Groundwater Monitoring Program. This report documents the findings of the 2018 Groundwater Monitoring Program.

1.1 Background

The City has implemented a long term Groundwater Monitoring Program since 2003 within the capture zones of municipal water supply Wells 12 and 15, which are located adjacent to Lakeshore Drive (Figure 1). The City currently obtains a portion of its municipal water supply from eleven operational wells constructed into a deep confined aquifer, referred to herein as the lower or "municipal" aquifer. Since August 23, 2011, a portion of the water supply has been obtained from surface water withdrawn from an intake located off the south shore of Kempenfelt Bay.

The City maintains a network of monitoring wells to monitor groundwater quality, including a number of shallow monitoring wells in the upper unconfined aquifer, as well as deeper "sentinel" wells in the municipal aquifer, particularly in the capture area of Wells 12 and 15. This well network is largely designed to assess the distribution of impacts by volatile organic compounds (VOC), which were initially identified in these aquifers in the early 2000s and are considered to be related to spills from historical industrial operations. As illustrated in Figure 2, shallow groundwater flow in the area of Well 12 is easterly, towards Kempenfelt Bay.

The purpose of the monitoring program is to assess trends in the distribution of VOC, including trichloroethylene (TCE) and associated breakdown products, cis-1,2-dichloroethylene (cis-1,2-DCE), 1,1-dichloroethane (1,1-DCA) and vinyl chloride. This monitoring program has been undertaken annually as part of the City's Drinking Water Quality Management System for the provision of safe drinking water and satisfies the requirements of the Source Water Protection Plan. This program covers the areas located between Highway 400 and Kempenfelt Bay in the general vicinity of Tiffin Street.

The TCE distribution within the inferred groundwater recharge area and capture zone for Well 12 is monitored and reported as two separate "plumes", referred to as the South and North Plumes (Figure 3). The North Plume was identified in 2003 in an unconfined upper aquifer north of Brock Street; it extends from west of Anne Street to the City's Waste Water Treatment Facility (WwTF). The North Plume is largely present between Dyment's Creek and Hotchkiss Creek. The South Plume was identified in 2000 in an unconfined sand aquifer in the vicinity of Tiffin Street; it extends from west of Highway 400 north of Hotchkiss Creek toward the intersection of Anne and Brock Streets. The southern extent of this plume is interpreted to generally follow Hotchkiss Creek.

The current peak TCE concentrations in the South Plume were found in the vicinity of Tiffin Street, between approximately 250 m and 550 m west of Anne Street, at CB11-1#2 (2,320 µg/L and 2,460 µg/L in the original and duplicate samples, respectively). The North Plume is interpreted to merge with the South Plume in the vicinity of MW8/00, located near the intersection of Anne and Brock Streets.

The peak TCE concentration in the North Plume was observed at CB13-1#1 (337 µg/L), located on the west side of the WwTF, east of Bradford Street, and approximately 250 m north of Tiffin Street. The WwTF is located upgradient of Well 12 and Kempenfelt Bay.

Previous monitoring events have identified some fluctuation of VOC concentrations; however, the overall areal extents of the North and South Plumes have been relatively stable. Slow migration of VOC in groundwater has been occurring towards the WwTF, and this will likely ultimately reach and discharge to Kempenfelt Bay in several years. Golder completed a Goldsim Transport Model (Goldsim) to assess the fate and transport of the primary VOC present in the groundwater, TCE, within the North and South Plumes as they migrate towards

Kempenfelt Bay. The concentration of TCE that would discharge to Kempenfelt Bay in 2026 was estimated to be approximately 3 µg/L (including the dilution factor) using the Goldsim simulations (Golder, 2018c).

Monitoring of the sentinel wells located within the confined municipal aquifer within the inferred capture zone of Well 12 has indicated that concentrations of VOC have remained stable, below those observed in 2001 at Well 6 and below the ODWS in the 2-year capture zone. Monitoring of sentinel wells in the capture zone of Well 15 have indicated stable concentrations of cis-1,2-DCE and non-detectable concentrations TCE in groundwater.

The City's current monitoring program does not include sampling of private monitoring wells in the upgradient part of the South Plume. Data from monitoring wells located on non-City owned lands within the source areas of the upgradient portion of the South Plume were obtained from the manager of Canplas Industries Ltd. (Canplas). The results of the findings of the 2018 Canplas investigation (Dragun Corporation, 2018), for the property west of Highway 400, are included in this report.

Based on the findings of the 2018 Canplas investigation, the following information was obtained:

- Canplas Industries Limited (Canplas) plant is located at 31 Patterson Road in Barrie, Ontario;
- Canplas monitors the groundwater in the Upper Aquifer (described as a predominantly-sandy unit that extends from the water table to 10 to 15 metres below grade) for VOC, primarily TCE, on an annual basis;
- The groundwater flow in the Upper Aquifer was reportedly generally toward the northeast corner of the Site;
- Vertical hydraulic gradients are mostly upward, with the exception of MW03-12A/B (located near the northeast corner of the warehouse building in the north-central portion of the property), which was reportedly downward, and indicates a potential for downward migration of groundwater at that location;
- In general, Dragun reported that the data indicated:
  - Continued, progressively-lower TCE concentrations in groundwater during the past decade; and,
  - Increases or steady concentrations in TCE-breakdown products in groundwater at many monitoring wells;
- There are exceedances of TCE and its breakdown products (compared to Ministry of the Environment, Conservation and Parks Table 2 full depth generic site condition standards, potable groundwater use, industrial/commercial/community land use, coarse textured soil) in groundwater in the middle to lower part of the Upper Aquifer. The TCE exceedances extend from beneath the building in the central portion of the Site toward the northernmost point of the property boundary (downgradient monitoring well location) where monitoring well MW00-3A is located;
- TCE concentrations in groundwater in the Upper Aquifer have progressively declined during the past decade. At monitoring well MW00-3A, TCE concentrations remained relatively stable from 2002 to 2014. Since 2014, concentrations have decreased by approximately 65% at this downgradient location; and,
- Dragun reported that the 2018 groundwater monitoring results were generally consistent with the trends of the past few years.

The Ontario Ministry of Transportation (MTO) also completed quarterly groundwater monitoring in the MTO right-of-way since September 1, 2017. Groundwater level monitoring commenced on September 1, 2017 with the installation of electronic pressure transducers (dataloggers) in monitoring wells MTO/03/1-S and MTO/-3/1-D, shown in Figure 2. Water chemistry monitoring commenced on October 23, 2017 with sampling

from fifteen monitoring wells. The results of the findings of the April 9, 2018 MTO groundwater investigation (Dufferin Construction Company, 2018), in the vicinity of Highway 400 and Tiffin Street, are also included in this report. Based on the results of the quarterly report summarizing the groundwater monitoring program tasks conducted between January 1 and March 23, 2018, the following information was obtained:

- Dufferin Construction Company installed a groundwater dewatering system consisting of a 67 m^2 horizontal shaft surrounding a culvert passing under Highway 400. The culvert shaft is located approximately 5 m north of Hotchkiss Creek;
- A 0.076 m diameter electric pump is installed in the shaft, which extracts groundwater and discharges it to holding tanks on-site. On a daily basis the holding tanks are emptied by a licensed waste hauler and transported to a licensed disposal facility;
- The dewatering system started pumping water on October 10, 2017 and operated continuously until March 9, 2018 when it was turned off;
- Groundwater level monitoring commenced on September 1, 2017 with the installation of electronic pressure transducers (dataloggers) in two monitoring wells MTO/03/1-S and MTO/03/1-D, located on the west side of Highway 400, approximately 5 m north of Hotchkiss Creek. Water chemistry monitoring commenced on October 23, 2017 with sampling from fifteen monitoring wells located along the Highway 400 right-of-way between Tiffin Street and Hotchkiss Creek;
- Water levels in MTO 03/1-S (shallow groundwater) fluctuated by approximately 0.6 m between September 1, 2017 and March 23, 2018. Occasional peaks were attributed to precipitation events causing short-term rises in the shallow groundwater table, followed by gradual drops as the water table subsides following the precipitation event;
- Water levels in MTO 03/1-D (deeper groundwater) fluctuated by approximately 0.45 m between September 1, 2017 and March 23, 2018, apart from temporary drops in water level inferred to correspond to water chemistry sampling events on October 23, December 29, and February 22;
- Since construction dewatering began on October 12, 2017, Dufferin Construction Company indicated that no overall declining trend in groundwater elevations is noted in either MTO 03/1-S or MTO 03/1-D and that dewatering-related declines in groundwater level are evident in the continuous (datalogger) or the manual measurements;
- Groundwater chemistry samples were obtained on January 25, February 22, and March 23, 2018; and,
- Based on a comparison of the results from January, February, and March 2018 to historical results from November, 2010 there were no wells which exhibited consistently higher measured concentrations of VOCs, and no increasing trend in TCE concentration was reported in any of the monitoring wells. Two monitoring wells have reportedly exhibited measured concentrations of TCE above the 160 µg/L threshold (MW 9 and MTO/03/3-D), consistent with November, 2010 data. No measured concentrations of TCE have exceeded the 160 µg/L threshold south of MTO/03/3-D, located approximately 200 m north of Hotchkiss Creek and the dewatering shaft.

Figures 4 through 8 (see Figure 2 for Section Key Plan) illustrate cross-sections of the plume and the current interpreted distribution of TCE in the upper aquifer based on the highest concentration in the deeper well nests in 2018. Table 1 contains monitoring well locations and elevations of the wells and well screen intervals of the municipal wells.

1.2 Applicable Regulatory Standards

The following rationale was used for the selection of the standards to be used to evaluate the groundwater analytical results:

- The City currently obtains portions of its municipal water supply from groundwater from the deep municipal aquifer and surface water from Kempenfelt Bay;
- The area of the South and North Plumes is serviced by the municipal potable water supply;
- There are no features either on or adjacent to the South and North Plumes that would meet the conditions of an environmentally sensitive site;
- The South and North Plumes span a large area and certain monitoring wells are located within 30 m of a waterbody (i.e., Dyment's Creek, Hotchkiss Creek, etc.);
- The area of the South and North Plumes includes properties with residential, parkland, commercial and industrial land uses;
- Previous investigations have identified that the subsurface soil contains both fine and coarse-grained materials. Generally, the soil stratigraphy in the City of Barrie consists of sand and gravel layers separated by clayey silt till deposits. As a conservative measure and to be consistent with previous investigations, standards for coarse-grained soils were considered applicable; and,
- Historical groundwater elevations within the area of the South and North Plumes, and the municipal monitoring well network, have been shown to fluctuate. The depth to the water table from the most recent annual monitoring program has indicated that groundwater levels may be locally shallow (i.e., less than 3 metres below ground surface [mbgs]) in some areas.

Based on the above and for the purposes of this report, the Ontario Drinking Water Standards ("ODWS") provided in the Ontario (2003) Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines t, dated June 2003, revised January 1, 2018, were used. Specifically, maximum acceptable concentrations (MACs) were selected if available. Aesthetic objectives (AOs) and operational guidelines (OGs) have been removed in the most recent version as these are not necessarily health-based.

In addition, the Ministry of Environment (MOE; now Ministry of Environment, Conservation and Parks (MECP): Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act*", dated April 15, 2011), specifically Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for all types of property use for coarse textured soils (Table 2 Standards) were considered suitable for assessing the potential risks through the drinking water pathway from groundwater in the South and North Plumes.

1.3 Historical Results

Chloride and sodium concentrations in Well 12 have been historically slightly higher than those observed in the other municipal water supply wells sampled as part of this monitoring program, i.e., Well 3A, Well 5, and Well 15. Based on elevated chloride and sodium concentrations observed in groundwater in the upper aquifers, which are considered to result from road salting, the recharge area of Well 12 may be more susceptible to surface derived impacts than the other nearby municipal wells. This may allow for a higher portion of potential surface-derived VOC impacts to migrate downward with groundwater to the municipal aquifer and into the capture zone of Well 12 in this area.

Golder prepared a Source Water Protection Threat Assessment in 2010 (Golder, 2010), which identified the presence of low concentrations of VOC in groundwater on multiple occasions at Wells 11, 12, 14 and 15,

located adjacent to Kempenfelt Bay. The concentrations and trends of the VOC in groundwater at these wells were reviewed, and it was determined that there was insufficient evidence to support the inclusion of VOC as a Drinking Water Issue in 2010. This determination continued to be valid based on the monitoring results since 2010, which indicated the following:

- Water quality samples from the municipal production wells have exhibited detectable concentrations of cis-1,2-DCE, a parameter for which there was no ODWS. This parameter has been detected consistently at Well 5 since 2011 to a maximum concentration of 0.95 µg/L in May 2012. Cis-1,2-DCE was detected once at Well 12 (2.3 µg/L in January 2012), and has been detected consistently at Well 15, but at concentrations of less than 4 µg/L;
- TCE and perchloroethylene (PCE), also known as tetrachloroethylene, were detected in May 2013 at Well 5 at concentrations of 0.44 µg/L and 1.4 µg/L, respectively. These compounds were not detected prior to this event, and have not been detected since May 2013. Neither parameter has been detected at Well 12 or Well 15 since at least 2007. Thus, the May 2013 results for Well 5 have not been replicated at any other time, and are possibly anomalous;
- Data have indicated that the overall trends of the concentrations of these VOCs in groundwater have been stable at the current pumping rates at these municipal wells, and there is no evidence to suggest an imminent exceedance of the ODWS for TCE or PCE;
- There have been no consistent exceedances of the ODWS for concentrations of VOC in the sentinel monitoring wells completed within the municipal aquifer, shown as the lower aquifer in Figure 9 and referenced as the "TW" series wells; and,
- The concentrations of VOC in groundwater in municipal drinking water wells are monitored monthly by the Water Operations Branch Operational Plan. These data have been included in the assessment of VOC in groundwater in the City.

2.0 METHODOLOGY

The 2018 Groundwater Monitoring Program included the following tasks:

- Measurement of groundwater levels, collection of groundwater samples, and submission of samples for laboratory analysis of VOC (completed by the City) from 52 nested monitoring wells at 26 locations in the upper aquifer in the areas of both the South and North Plumes, plus two additional single wells (MW-D4 and MW-D5) located in the northern portion of the North Plume;
- Measurement of groundwater levels, collection of groundwater samples, and submission of samples for laboratory analysis of VOC (completed by the City) at eight sentinel well locations, including three nested locations, in the municipal aquifer; and,
- Sampling by the City of municipal wells (Wells 3A, 5, 12, and Well 15) and submission of samples for laboratory analysis completed by the City.

A total of 64 sampling locations (see Table 2.1) were included in the 2018 Groundwater Monitoring Program. The groundwater sampling frequency and analytical program for the monitoring and municipal supply wells were as follows:

- All monitoring wells were sampled on an annual basis and analyzed for VOC;
- Eight sentinel wells (i.e., TW1/03#1, TW1/03#2, TW1/87, TW2/05#1, TW2/05#2, TW3/05, TW3/08#1 and TW3/08#2), screened in the municipal aquifer within the inferred capture zone of Well 12, were sampled

for VOC on a semi-annual basis (i.e., twice per year during the March and September 2018 sampling events); and,

- The groundwater samples from the municipal supply wells were analyzed for select VOC on a monthly basis, and for a full suite of VOC on an annual basis (September 2018). Only the annual results have been provided herein.

2.1 Groundwater Sampling

Groundwater samples from the sentinel wells were collected by City Environmental Operations staff in March 2018 and all wells included in the 2018 Groundwater Monitoring Program were sampled by City Environmental Operations staff in September 2018.

Depths to water measurements were obtained in each well prior to sampling and were used to calculate the purging volumes to be removed from the wells. The minimum purging volumes were assumed to be three times the volume of water initially present in the well and the surrounding annular sand pack. The monitoring wells were purged and sampled on the dates indicated on the attached Table 2. Samples collected from the monitoring wells and sentinel wells were obtained using dedicated inertial lift pumps. The samples collected from the City's municipal groundwater supply wells (i.e., Wells 3A, 5, 12, 15) were obtained by the City's Water Operations Department and provided to Golder for inclusion in this report.

Table 2.1: 2018 Sampling Locations – City of Barrie Groundwater Monitoring Program

Upper Aquifer Monitoring Well Locations/Nests	Lower Aquifer Sentinel Wells	Lower Aquifer Production Wells
MW1/00#1	TW1/03#1, #2	Well 3A
MW2/00#1, #2	TW1/87	Well 5
MW3/00#1, #2	TW2/05#1, #2	Well 12
MW4/00#1, #2	TW3/05	Well 15
MW7/00#1, #2	TW3/08#1, #2	
MW8/00#1, #2		
MW9/00#1, #2		
MW10/00#1, #2		
MW1/02#1, #2		
MW4/02#1, #2		
MW5/02#1, #2		
CB03-1#1, #2		
CB03-2#1, #2		
CB03-3#1, #2		
CB03-4#1, #2		
CB03-5#1, #2		
CB05-2#1, #2		
CB08-1#1, #2		
CB08-2		
CB10-1#1, #2		
CB10-2#1, #2		
CB11-1#1, #2		
CB12-1		
CB13-1 #1, #2		
CB14-1 #1, #2		
CB14-2 #1, #2, #3		
CB14-3 #1, #2		
MW-D4		
MW-D5		

Field parameters, including pH, conductivity and temperature obtained prior to sampling, were used to confirm stable conditions at the wells prior to sampling using conventional methods. Clean nitrile gloves were used at

each well during the purging, sample collection, and handling. Water purged from the wells prior to sampling was collected and discharged onto the ground surface if TCE concentrations were known to be less than the Provincial Water Quality Objective (PWQO) of 20 µg/L. Purge water from monitoring wells MW2/00#1, MW4/02#1, MW4/02#2, CB11-1#1, CB11-1#2, CB13-1#1 and CB13-1#2 was drummed and left on-Site for subsequent removal by APEX Environmental Services (APEX).

All samples were kept cool, stored in coolers with ice after collection and in coolers with ice during transport to E3 Laboratories, Niagara-On-The-Lake Ontario, which subsequently subcontracted a portion of the analyses to Paracel Laboratories Ltd. (Paracel) of Niagara Falls, Ontario.

A total of seven blind field duplicate groundwater samples (one in March and six in September 2018) were submitted for analysis as part of the 2018 Groundwater Monitoring Program. Nine field blank samples (two in March 2018 and seven in September 2018), containing laboratory supplied de-ionized water, were submitted for analysis of VOC. Nine laboratory-prepared trip blanks (two in March and seven in September 2018) accompanied the sample sets and were submitted for analysis of VOC. The above noted samples were submitted for analysis for quality assurance (QA) and quality control (QC) purposes.

3.0 RESULTS

3.1 Groundwater

Table 2 presents the field parameter results and water level elevations for the Groundwater Monitoring Program. Table 3 presents the analytical results for VOC parameters for groundwater samples collected from the upper aquifer monitoring locations in 2018. Table 4 presents the analytical results for VOC parameters for groundwater samples collected from the municipal aquifer including the four municipal supply wells and the eight sentinel monitoring wells. Historical data are also presented for comparison purposes.

Analytical results are compared to the current ODWS, as amended or, where no ODWS is available, the Ministry Table 2 Standards. Within the tables, shaded results indicate exceedances of the ODWS, whereas **bold** results indicate an exceedance of the Table 2 Standards.

3.1.1 South Plume

Groundwater quality monitoring data for upgradient monitoring wells on non-City owned lands in the inferred source area of the South Plume by third parties have historically been provided to the City. The Dragun Corporation (2018) report for the Canplas property to the west of Highway 400 and the Dufferin Construction Company (2018) report for the Highway 400 Right of Way [MTO]) were provided to the City in 2018. The results from these reports have been incorporated into this report. Based on correspondence with the City and the MECP, it is noted that information from the MTO wells was not collected between 2013 and 2016, but was conducted on a quarterly basis in 2017 and in January and April 2018, during the Tiffin Street bridge replacement project, the results of which have been included in this report. Based on the results from the Dufferin Construction Company (2018) report, the groundwater chemistry data collected between January 25 and March 23, 2018 reportedly showed no increasing trend in the measured concentration of any parameters, and were generally the same or lower than historical concentrations measured in November, 2010. Two monitoring wells have reportedly exhibited measured concentrations of TCE above the 160 µg/L threshold (MW 9 and MTO/03/3-D), consistent with November, 2010 data.

VOC Parameters

In 2018, the maximum concentration of TCE in groundwater in the City monitoring wells located within the South Plume was 2,320 µg/L (2,460 µg/L in the field duplicate), in the lowest screen at monitoring well CB11-1#2 on September 12, 2018. The highest historical concentrations of TCE reported within the South Plume to date were at monitoring well MW2/00#2, and ranged from 3,700 µg/L to 9,100 µg/L between 2008 and 2013. The concentrations of TCE at this location have been less than 1,000 µg/L since 2015, and in 2018 TCE was present at a concentration of 770 µg/L, indicating an apparent decrease in concentrations with time. Overall, the 2018 results are consistent with previous results and concentrations of TCE in groundwater in the northern and southern limits of the plume continue to be relatively stable.

The concentrations of TCE exceeded the ODWS of 5 µg/L in the South Plume at MW2/00#2, CB03-5#1, MW4/02#2, and CB11-1#2.

Core of the Plume – MW1/00, MW2/00, MW1/02, MW4/02, CB11-1

The following concentrations of VOC were noted in groundwater in the core of the South Plume in 2018:

- MW1/00#1 – none;
- MW2/00#1 – TCE (1.4 µg/L);
- MW2/00#2 – TCE (770 µg/L), cis-1,2-DCE (109 µg/L), and trans-1,2-DCE (24.1 µg/L);
- MW1/02#1 – TCE (3.4 µg/L);

- MW1/02#2 – none;
- MW4/02#1 – none;
- MW4/02#2 (and its duplicate) – TCE (80.3 and 74.5 µg/L), cis-1,2-DCE (23.8 and 23.5 µg/L), trans-1,2-DCE (1.4 and 1.1 µg/L), vinyl chloride (0.9 and 0.8 µg/L);
- CB11-1#1 – none; and,
- CB11-1#2 (and its duplicate) – TCE (2,320 and 2,460 µg/L), 1,1-DCE (0.9 and 1.0 µg/L), cis-1,2-DCE (99 and 102 µg/L), trans-1,2-DCE (51.2 and 53.7 µg/L), and vinyl chloride (1.0 µg/L; not detected in the duplicate).

The concentration of TCE in groundwater at CB11-1#2 has exceeded 2,000 µg/L in most annual sampling events since 2011.

The concentrations of 1,1-DCE, cis-1,2-DCE, and trans-1,2-DCE in groundwater in 2018 were generally consistent with previously measured concentrations and are potentially indicative of some in situ degradation of TCE in this portion of the Plume.

PCE, previously present in groundwater in the core of the plume, was not detected in 2018 and the concentrations of TCE were generally lower than in 2017. The locations where groundwater from the shallow screens showed little to no impact, and where groundwater from the deep screens exhibited elevated VOC concentrations (e.g. at MW2/00, MW4/02 and CB11-1) were generally indicative of impacts relating to the migration of the main South Plume and not from localized sources. In the vicinity of MW1/02, there is evidence of persistent shallow impacts in the absence of deeper impacts, which is possibly caused by a local shallow source of VOC in groundwater.

Leading Edge of the Plume – CB03-5, MW7/00

At the leading edge of the plume, near Anne and Tiffin Streets, concentrations of TCE at CB03-5#2 have been relatively stable since 2013. The concentration of TCE in groundwater in the shallow well at this location, CB03-5#1, in 2018 was 41.2 and 54.4 µg/L in the original and duplicate samples, respectively, and show a decreasing trend from the peak concentration of 374 µg/L detected in September 2015, similar to the trends noted for other detectable VOC at this location. A local source may be contributing VOC to the shallow groundwater in the upper aquifer at this location. Detectable, but low, concentrations of TCE were present at the shallow screen at MW7/00#1. No detectable concentrations of TCE were present in groundwater from the deeper screen (MW7/00#2) for the first time since commencement of the monitoring program, which follows an overall decreasing trend noted since 2003.

The following VOC were detected at the leading edge of the South Plume (near Anne and Tiffin Streets):

- MW7/00#1 – TCE (1.2 µg/L);
- MW7/00#2 – none;
- CB03-5#1 (and its duplicate) – TCE (41.2 and 54.4 µg/L), cis-1,2-DCE (1.3 and 1.2 µg/L), and trans-1,2-DCE (0.8 µg/L in the duplicate only); and,
- CB03-5#2 – 1,1-DCA (2.6 µg/L), cis-1,2-DCE (0.9 µg/L), and TCE (4.4 µg/L).

The concentrations of VOC observed in the samples from these wells in 2018 appeared to be generally lower than in the samples in 2017.

North and South of the Plume – MW3/00, MW4/00, MW9/00, MW10/00, MW5/02, CB14-1

South of the South Plume, low concentrations of chloroform continued to be observed at CB14-1#1 in 2018 (1.3 µg/L). According to Health Canada, the average chloroform concentration in Canadian drinking water is 47 µg/L. The MECP Table 2 Standard for chloroform is 2.4 µg/L. A common source of chloroform in groundwater is leakage from municipal water distribution systems and sanitary sewers, and its occurrence may not be related to other VOC sources. The presence of chloroform in the upper aquifer is not considered a health risk.

No other VOC were detected in groundwater to the north or south of the South Plume (Figure 3). The southern limit of the South Plume was confirmed by the absence of TCE at MW5/02, MW4/00, MW3/00, and CB14-1 north of Hotchkiss Creek, and the northern limit was confirmed by the absence of TCE in groundwater at MW10/00 and MW9/00.

3.2 North Plume

The source area of the TCE in the North Plume is not known; however, based on the presence of TCE at CB10-1, CB03-4, and MW8/00, the source is considered to be likely west of Anne Street. The peak concentration of TCE in the North Plume was at monitoring well CB13-1#1 (337 µg/L), located at the leading edge of the plume on the west side of the WwTF, east of Bradford Street, and approximately 250 m north of Tiffin Street. Based on the absence of TCE has in monitoring wells located on east of the WwTF, the North Plume does not extend to Kempenfelt Bay.

Upgradient Portion of the Plume – CB10-1

Monitoring well CB10-1 is located in the upgradient portion of the North Plume near Anne and John Streets. The TCE concentration in groundwater at CB10-1#1 was 27.4 µg/L in 2018. The concentrations of TCE in groundwater in this well had been increasing from 2013 to a peak of 43.1 µg/L in 2017. The concentration of TCE at CB10-1#2 (2.5 µg/L) in 2018 was consistent with previous results.

In addition to TCE, other VOC detected in groundwater at CB10-1#1 included cis-1,2-DCE (1.4 µg/L) and trans-1,2-DCE (1.6 µg/L); no VOC other than TCE were detected in the sample from CB10-1#2.

Core of the Plume – MW8/00, CB03-2, CB03-4, CB10-2

Within the core of the North Plume, between Anne and Sanford Streets, the concentrations of TCE in 2018 exceeded the ODWS at monitoring wells MW8/00#2, CB03-4#2, and CB10-2#2, consistent with previous years.

The following VOC were detected in the core of the plume:

- MW8/00#1 – TCE (0.5 µg/L), 1,1-DCA (1.0 µg/L), cis-1,2-DCE (19.1 µg/L), and trans-1,2-DCE (3.9 µg/L);
- MW8/00#2 – TCE (27.0 µg/L), 1,1-DCA (15.5 µg/L), 1,1-DCE (23.0 µg/L), cis-1,2-DCE (55.6 µg/L), and trans-1,2-DCE (130 µg/L);
- CB03-2#1 – none;
- CB03-2#2 (and its duplicate) – TCE (1.7 and 1.5 µg/L), 1,1-DCE (0.9 and 0.8 µg/L), cis-1,2-DCE (274 and 259 µg/L), trans-1,2-DCE (3.3 and 2.6 µg/L), and vinyl chloride (1.2 and 1.3 µg/L);
- CB03-4#1 – trichlorofluoromethane (FREON 11) (2.6 µg/L);
- CB03-4#2 (and its duplicate) – TCE (71.7 and 84.0 µg/L), 1,1-DCA (93.6 and 87.9 µg/L), 1,1-DCE (333 and 310 µg/L), 1,1,1-TCE (18.5 and 19.6 µg/L), 1,2-DCA (2.7 and 2.9 µg/L), cis-1,2-DCE (17.2 and 16.4 µg/L), trans-1,2-DCE (38.7 and 32.1 µg/L), and vinyl chloride (1.5 and 1.4 µg/L);

- CB10-2#1 –none; and,
- CB10-2#2 – TCE (44.6 µg/L), cis-1,2-DCE (17.6 µg/L), and trans-1,2-DCE (1.3 µg/L).

Within the core of the plume, there have been varying concentrations of 1,1-DCA, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE and vinyl chloride, which can be breakdown products of TCE and PCE, over time. Their persistence is likely associated with the continued presence of TCE and PCE in this portion of the plume, potentially associated with a continued source. No PCE was detected in the core of the plume in 2018.

Monitoring well CB10-2 is located immediately downgradient of an active dry-cleaning operation and generally downgradient of several former industrial operations located in the vicinity of Brock Street and Lorena Street. The historical presence of PCE in groundwater at CB10-2#1 and not elsewhere in the core of the North Plume may be associated with a local source of VOC in the vicinity of this well. The groundwater flow patterns and TCE distribution suggest multiple sources of VOC for the North Plume, and confirm earlier conclusions that the TCE in the North Plume likely does not originate from the same source as the South Plume.

Southern Extent of the Plume – CB05-2, CB14-2, CB03-3

The North Plume is absent south of Hotchkiss Creek, as shown by non-detectable concentrations of TCE and its breakdown products at CB03-3 and CB05-2 in 2018.

No detectable VOC were present at the southern extent of the plume, except:

- CB14-2#2 – TCE (2.3 µg/L).

Northern Extent of the Plume – CB03-1, CB08-2, CB12-1, MW-D4, MW-D5

TCE was detected at CB03-1#2, but the concentration was less than the ODWS. PCE was detected in groundwater at CB08-2 at a concentration of 11.5 µg/L, down from 30 µg/L in 2017, the highest concentration reported to date.

The following VOC were detected in the northern extent of the plume:

- CB03-1#1 (and its duplicate) – 1,2-dichlorobenzene (0.6 and 0.6 µg/L), 1,4-dichlorobenzene (21.0 and 21.4 µg/L), 1,3,5-trimethylbenzene (2.8 and 3.0 µg/L), benzene (5.5 and 5.5 µg/L), chlorobenzene (99.6 and 99.5 µg/L), ethylbenzene (0.7 and 0.8 µg/L), and xylenes (33.4 and 33.6 µg/L);
- CB03-1#2 – PCE (0.6 µg/L), TCE (0.9 µg/L), 1,1-DCE (0.8 µg/L), cis-1,2-DCE (71.2 µg/L), and vinyl chloride (1.4 µg/L);
- CB08-2 – PCE (11.5 µg/L), cis-1,2-DCE (2.1 µg/L), and trans-1,2-DCE (0.7 µg/L);
- CB12-1 – none;
- MW-D4 – 1,4-dichlorobenzene (7.3 µg/L), benzene (12.4 µg/L), chlorobenzene (14.6 µg/L), and xylenes (6.1 µg/L); and,
- MW-D5 - ,4-dichlorobenzene (2.2 µg/L), benzene (5.2 µg/L), chlorobenzene (19.6 µg/L), toluene (0.7 µg/L), and xylenes (0.9 µg/L).

The concentrations of TCE in groundwater within the upper part of the aquifer in the area surrounding CB03-1 are low. There are also select compounds identified at the shallow (#1) screen at CB03-1 and at MW-D4 and MW-D5, which are not found at other locations within the plume. These wells are constructed within waste materials (i.e., municipal and industrial garbage) associated with the Dyment's Creek Landfills; thus, these compounds are possibly related to the waste materials. The presence of these VOC compounds in

groundwater was consistent with past monitoring events in the vicinity of Dyment's Creek Landfills. The concentrations of 1,4-dichlorobenzene, benzene, and chlorobenzene in groundwater at CB03-1#1 exceeded their respective ODWS of 5 µg/L, 5 µg/L, and 80 µg/L in 2018, similar to previous sampling events. Monitoring wells MW-D4 and MW-D5 were sampled for the first time in 2018 as part of the annual groundwater monitoring program and it is recommended that they continue to be monitored as part of this investigation. The concentration of 1,4-dichlorobenzene at MW-D4 and the concentration of benzene at MW-D4 and MW-D5 also exceeded their respective ODWS. These compounds are not found elsewhere in the North Plume and appear limited to the vicinity of the landfills.

The northern extent of the North Plume, based on the presence of PCE in groundwater at CB08-2, may be to the north of this well. PCE was found only at one additional location in the North Plume in 2018, CB03-2#2 located in the core of the plume. The trace concentration of PCE at CB03-2 (0.6 µg/L), the first detection since 2010, was close to the laboratory detection limit (0.5 µg/L) and remained below the ODWS and MECP Table 2 Standard.

Downgradient Portion of the Plume – CB13-1, CB08-1, CB14-3

The observed concentrations of TCE at the leading edge of the North Plume (i.e., at CB13-1 immediately east of Bradford Street) exceeded the ODWS at CB13-1#1 and CB13-1#2, consistent with but less than previous results.

The following results for VOC in groundwater in wells at the leading edge of the plume were found:

- CB08-1#1 – none;
- CB08-1#2 – none;
- CB13-1#1 – TCE (337 µg/L), 1,1-DCE (1.3 µg/L), cis-1,2-DCE (103 µg/L), trans,1-2, DCE (5.8 µg/L), and vinyl chloride (0.9 µg/L);
- CB13-1#2 – TCE (33.2 µg/L), 1,2-DCE (9.5 µg/L) and trans,1-2, DCE (17.2 µg/L);
- CB14-3#1 – none; and
- CB14-3#2 – none.

Consistent with previous monitoring, no VOC were detected in groundwater at CB08-1 and CB14-3, located on the east side of the WwTF property, in 2018. TCE concentrations in both screens at CB13-1 were much lower in 2018 than in 2017. The TCE concentrations at both screens at CB13-1 are the lowest reported to date. Whereas the North Plume is interpreted to be migrating within the west part of the WwTF, the plume is not present east of the WwTF property in 2018 and has therefore not reached Kempenfelt Bay.

3.3 Municipal Aquifer

3.3.1 Water Supply Wells

The municipal aquifer is monitored at municipal water supply Wells 3A, 5, 12 and 15 (Figure 9), and by sentinel monitoring wells TW1/87, TW1/03, TW2/05, TW3/05 and TW3/08. The municipal wells were sampled by the City's Water Operations Branch.

In 2018, no detectable concentrations of VOC were found in groundwater at Well 3A and Well 12. No TCE has been detected in groundwater at the municipal supply wells since at least 2005. Consistent with previous results, cis-1,2-DCE was the only VOC in groundwater from the municipal wells. It was present at concentrations of 2.0 µg/L at Well 15 and 0.7 µg/L at Well 5 in September 2018. There is no ODWS for this parameter, and the Table 2 Standard is 1.6 µg/L. The concentration of cis-1,2-DCE in Well 15 exceeded the Table 2 Standard.

3.3.2 Sentinel Wells

The following results for VOC parameters in groundwater in the sentinel wells in 2018 were found:

- TW1/87 – cis-1,2-DCE (0.7 µg/L) in September 2018 only (first detection since 2014);
- TW1/03#1 – cis-1,2-DCE (6.2 and 6.8 µg/L) in March and September 2018, respectively;
- TW1/03#2 – TCE (1.1/1.2 and 1.6 µg/L), cis-1,2-DCE (12.7/12.3 and 16.4 µg/L) in March (including the duplicate) and September 2018, respectively;
- TW2/05#1 – TCE (0.9 µg/L) and cis-1,2-DCE (0.8 µg/L) in September 2018 only (no detections in March 2018);
- TW2/05#2 – none;
- TW3/05 – cis-1,2-DCE (4.3 and 5.1 µg/L) in March and September 2018, respectively;
- TW3/08#1 – cis-1,2-DCE (1.7 and 1.3 µg/L) in March and September 2018, respectively; and,
- TW3/08#2 - none.

The concentrations of TCE in groundwater at TW1/03#2 and TW2/05 #2 in 2018 were generally consistent with previous results, and were below the ODWS of 5 µg/L and less than or equal to the Table 2 Standard of 1.6 µg/L. The cis-1,2-DCE concentrations exceeded the Table 2 Standard of 1.6 µg/L at the above locations, except TW1/87, TW2/05#2, TW2/05#1, and TW3/08#2.

3.4 Quality Assurance/Quality Control

Quality Assurance/Quality Control (QA/QC) was evaluated using duplicate samples, field blanks and trip blanks (see Table 6) as well as surrogate standard recoveries and reported laboratory QA/QC results. No ion balance calculations were completed as no major ions were analysed in 2018.

3.4.1 Field Program

Nine laboratory-prepared trip blanks (two in March and seven in September 2018) were submitted during the 2018 sampling event. Nine field blank samples (two in March and seven in September 2018) were submitted during the 2018 sampling event. No VOC were detected in the field or trip blanks submitted in 2018. The hold times for the trip blanks submitted during the September 19 and 20, 2018 sampling events was exceeded; however, the laboratory indicated that hold time exceedances do not preclude the validity if the trip blank data.

The pH values for all samples were within the allowable range of 6.5 to 8.5.

For blind field duplicate samples, Relative Percent Difference (RPD) for a specific VOC was calculated for parameters where results for both the original and duplicate samples were at concentrations of greater than five times the laboratory reportable detection limit (RDL). The analytical results for a specific VOC in groundwater samples with calculated RPD of greater than 30% are considered questionable. Seven blind field duplicate groundwater samples (one in March and six in September 2018) were collected as part of the 2018 work program. RPD values for VOC between the original and duplicate samples were less than 30% and therefore, were considered acceptable.

Analysis of the duplicate samples generally confirmed the results of the original sample, and overall the VOC results were considered to be valid.

Temperatures of samples typically above 10°C are indicative of potentially biased low results due to volatilization. All samples were below 10°C upon arrival at the analytical laboratory.

Field QA/QC results for the 2018 monitoring program were within acceptable limits.

3.4.2 Laboratory Analytical Program

The laboratory noted that the samples were not received in Paracel verified container/media for samples TW1/03#1, TW1/03#2 and its duplicate, TW3/05, and TW1/87 during the March 2018 sampling event. The same note was applied to the samples collected on September 13, 2018. As the results for these samples were similar to previous sample results and the laboratory provided no further comments, this occurrence did not preclude the validity of data. In the future, laboratory verified sampling containers should be used for all sampling events.

The laboratory reported that the RPD for TCE (35.4%) exceeded the calibration range of the instrument and that the result may be biased. This relates to the certificate of analysis associated with samples collected from:

- CB13-1#1, CB13-1#2, CB11-1#1, CB11-1#2, CB11-1#2B, MW2/00#1, MW2/00#2, MW4/02#1, MW4/02#2, MW4/02#2B, MW1/00#1, trip blank and field blank, collected on September 12, 2018; and,
- CB14-2#1, CB14-2#3, CB03-2#1, field blank, CB03-2#2, CB03-2#2B, CB03-1#1, CB03-1#1B, CB03-1#2, MW-04, MW-05, and trip blank, collected on September 13, 2018.

Based on the results for the above samples, and the results of blind field duplicate samples, which were within acceptable ranges, the above exceedance does not significantly alter the findings of this report and no further qualifications are required.

The laboratory surrogate standard recoveries outside the range, typically, of 50-140% are indicative of questionable results for the tested VOC. The reported surrogate recoveries in 2018 were all considered acceptable.

Matrix spike recoveries outside the typical range of individual parameters are indicative of questionable results for the tested parameters. The matrix spike recoveries for the analyzed parameters were acceptable.

All other laboratory QA/QC results for the 2018 monitoring program were within acceptable limits or, based on review of the reported data, were not considered to influence the overall conclusions.

4.0 DISCUSSION AND CONCLUSIONS

4.1 South Plume

Based on the observed elevated TCE concentration at MW2/00 and CB11-1, it is concluded that the core of the South Plume remains at depths near the base of the upper unconfined aquifer. The core of the South Plume is located west of Anne Street, in the vicinity of Tiffin Street and the ACDC railway, but may be continuing to be migrating eastward. TCE is elevated (i.e,, in excess of ODWS) at MW2/00#2 and CB11-1#2 (up to 2,640 µg/L in September 2018). The overall extent of the South Plume has been relatively stable. Concentrations of VOC appear to be declining, with the possible exception of the leading edge of the South Plume (i.e., CB03-5), where TCE concentrations fluctuate but have been declining since at least 2015. Concentrations of TCE at the leading edge of the South Plume have also been declining at MW7/00 since 2010.

The South Plume merges with the North Plume in the vicinity of monitoring well MW8/00, near the intersection of Brock and Anne Streets. Concentrations of TCE and cis-1,2-DCE at MW8/00#2 exhibited significant increases in 2016, but have since decreased to lower, more consistent concentrations in 2017 and 2018. The combined plume appears to be migrating east towards the WwTF.

TCE was not detected at CB14-1, which indicated that the South Plume was not present further south of MW7/00. This sandy unconfined aquifer can accept infiltration from surface and recharge may be contributing to some dilution of VOC in the South Plume in these areas.

PCE was not detected at any location in the South Plume in 2018, including MW1/00#1, for the first time since monitoring was initiated at this location.

4.2 North Plume

The North Plume has been migrating to the southeast and extended to the west side of the WwTF in 2018. It was previously observed that higher concentrations of TCE were within the lowest part of the upper aquifer at Sanford Street (CB03-2#2). The peak concentration of TCE monitored within the North Plume has been at CB13-1#1 (337 µg/L in 2018), adjacent to the west side of the WwTF at Bradford Street. The TCE concentrations at both screens at CB13-1 are the lowest reported to date. Whereas the North Plume is interpreted to be migrating within the west part of the WwTF, the plume is not present east of the WwTF property in 2018 and has therefore not reached Kempenfelt Bay.

TCE was detected at the northern part of the North Plume at CB03-1#2 (0.9 µg/L) but was not detected at CB08-2 in 2018. PCE was present at a concentration of 11.5 µg/L at CB08-2 in 2018, down from 30 µg/L detected in 2017, which is the ODWS and the highest concentration reported to date. PCE was found only at one additional location, CB03-2#2 located in the core of the plume. The trace concentration of PCE at CB03-2 (0.6 µg/L) was close to the laboratory detection limit (0.5 µg/L) and remained below the ODWS and MECP Table 2 Standard. The northern extent of the North Plume, based on the presence of PCE in groundwater at CB08-2, may be to the north of the location of CB08-2, however concentrations of PCE appear to be decreasing in this area.

The presence of VOC including 1,2-dichlorobenzene, 1,4-dichlorobenzene, and chlorobenzene in the upper part of the aquifer at CB03-1#1, MW-D4 and MW-D5 south of Dyment's Creek between Innisfil Street and Sanford Street are not typical of the rest of the North Plume and are not related to TCE. These VOC are considered to be possibly associated with waste materials at a closed landfill (Dyment's Creek Landfills) located adjacent to this well. The concentrations and composition of VOC within the North Plume at this location are variable and are considered to reflect the influence of recharge to this unconfined shallow aquifer.

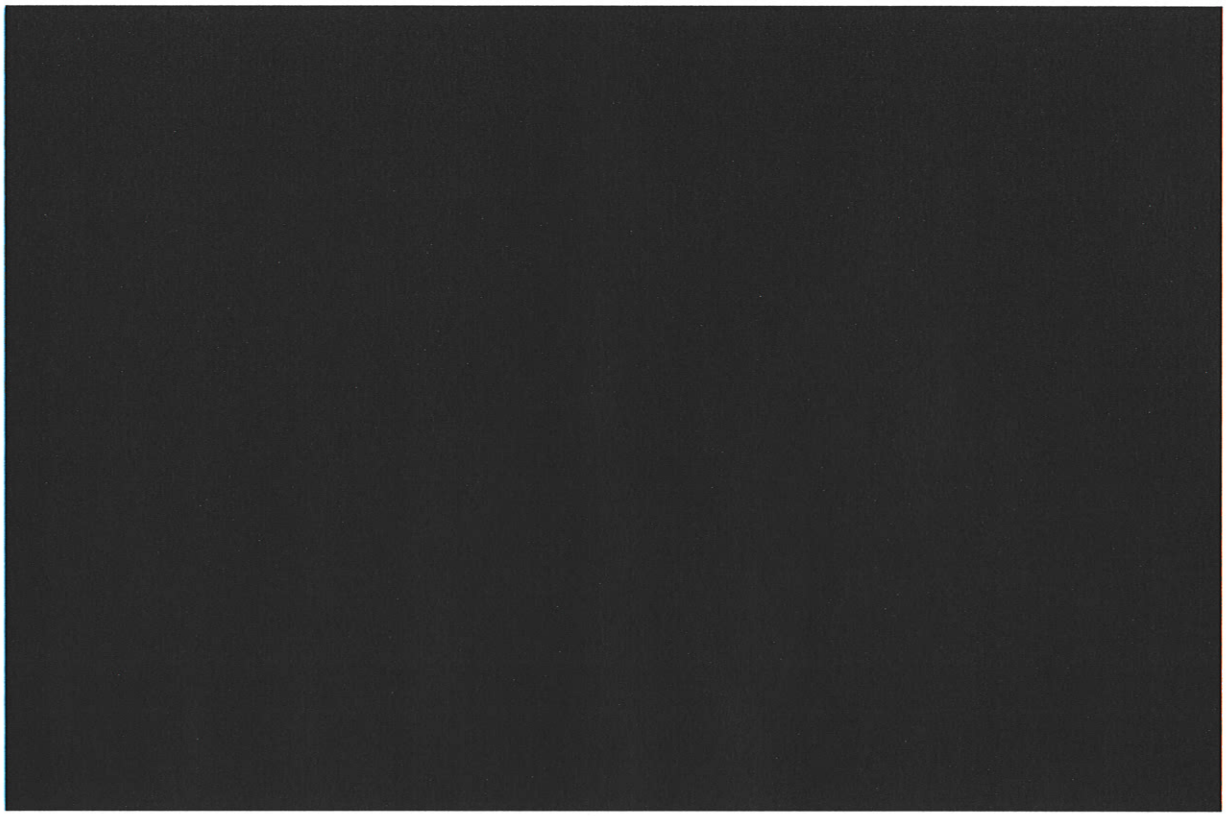
4.3 Municipal Aquifer

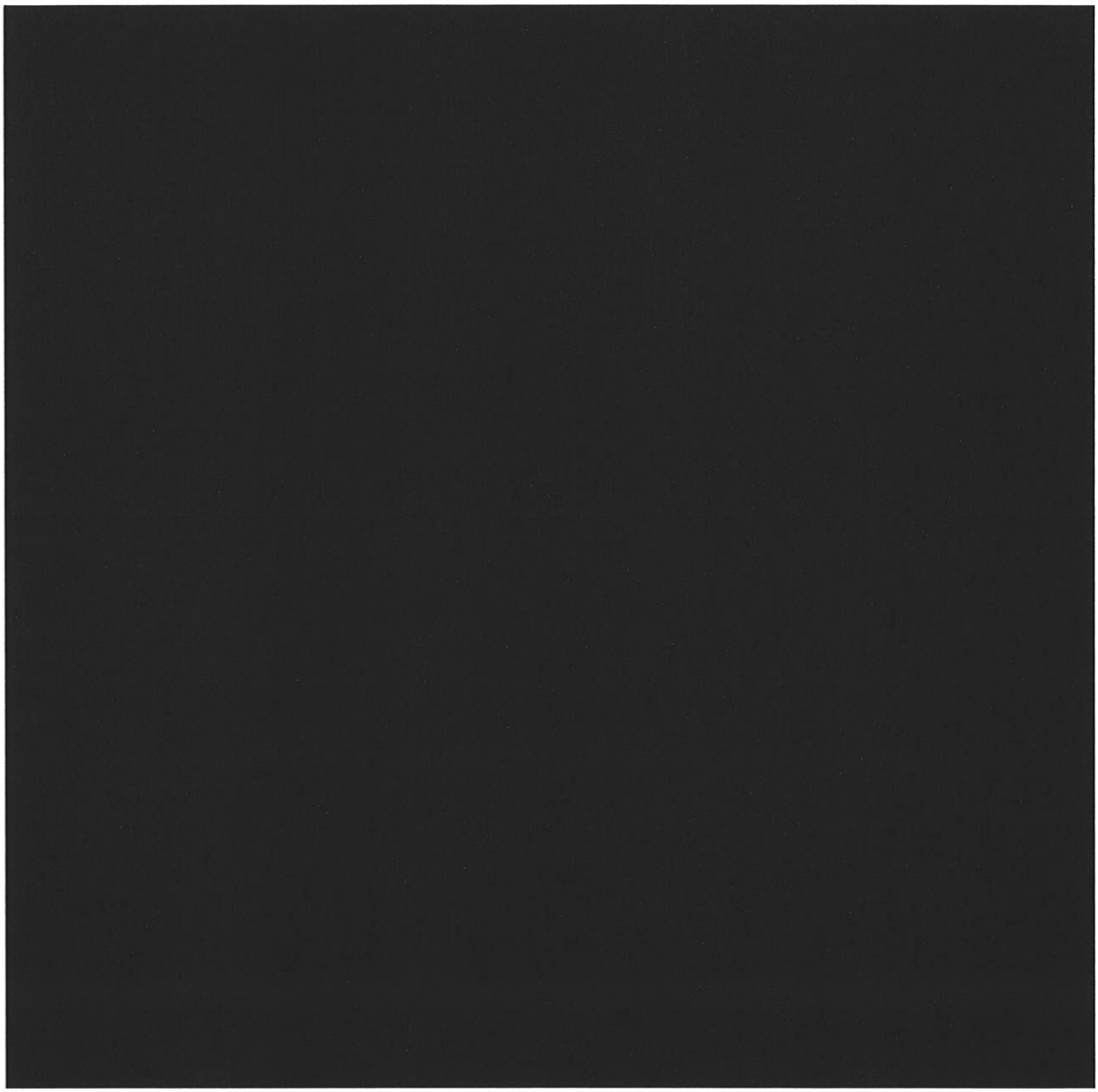
Monitoring of the sentinel wells located within the confined municipal aquifer within the inferred capture zones of Wells 12 and 15 indicates that concentrations of TCE and its breakdown products have been relatively stable or declining. Overall, based on the results of the municipal and sentinel well samples, it is concluded that low concentrations of VOC continue to persist in the municipal water supply aquifer. These concentrations have remained below the ODWS.

In 2018, no detectable concentrations of VOC were found in groundwater at Well 3A and Well 12. No TCE has been detected in groundwater at the municipal supply wells since at least 2005. Consistent with previous results, cis-1,2-DCE was the only VOC in groundwater from the municipal wells. It was present at concentrations of 2.0 µg/L at Well 15 and 0.7 µg/L at Well 5 in September 2018. There is no ODWS for this parameter, and the Table 2 Standard is 1.6 µg/L. The concentration of cis-1,2-DCE in Well 15 exceeded the Table 2 Standard. Stable, but low, concentrations of TCE were detected at TW1/03#2 (1.1 to 1.6 µg/L), which is located upgradient (1.1 km west) of Municipal Well 12, in the vicinity of the northern limit of the South Plume, at Brock and Lorena Streets. TCE was also detected at TW2/05#1 (0.9 µg/L) in September 2018 but was not detected in March 2018. This well is located upgradient (600 m southwest) from Well 12 in the vicinity of CB05-2, at the intersection of Innisfil Street and Jacobs Terrace, and the magnitude and fluctuation of concentrations of VOC were consistent with those in previous years.

The trend for concentrations of VOC in groundwater in the municipal aquifer has been steady to declining. Given the confining layer overlying the downgradient part of the municipal aquifer, which provides protection for the municipal aquifer from the presence of VOC associated with the South and North Plumes in groundwater in the shallow aquifer, the observed trend in concentrations of VOC in groundwater in the municipal supply wells is not anticipated to change. The continuation of the Groundwater Monitoring Program should remain a priority for the City to ensure that early warning of changes to trends in groundwater quality and the distribution of VOC in the municipal aquifer system is provided.

5.0 RECOMMENDATIONS





Signature Page

Golder Associates Ltd.

Christi Groves, B.Sc.
Senior Environmental Scientist

David Smyth, M.Sc., P.Geo.
Principal

CLG/DS/plc

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6.0 REFERENCES

The Dragun Corporation, 2018. 2018 Annual Groundwater Monitoring Report, Canplas Industries Limited Site, 31 Patterson Road, Barrie, Ontario. Report prepared for Canplas Industries Limited dated October 17, 2018.

Dufferin Construction Company, 2018. Construction Dewatering Groundwater Monitoring Program – Quarterly Report, Highway 400 and Tiffin Street, Barrie. Report prepared for the Ontario Ministry of Transportation dated April 9, 2018.

Golder Associates Ltd., 2010. Source Water Protection Threat Assessment, City of Barrie. Report prepared for The City of Barrie dated June 2010.

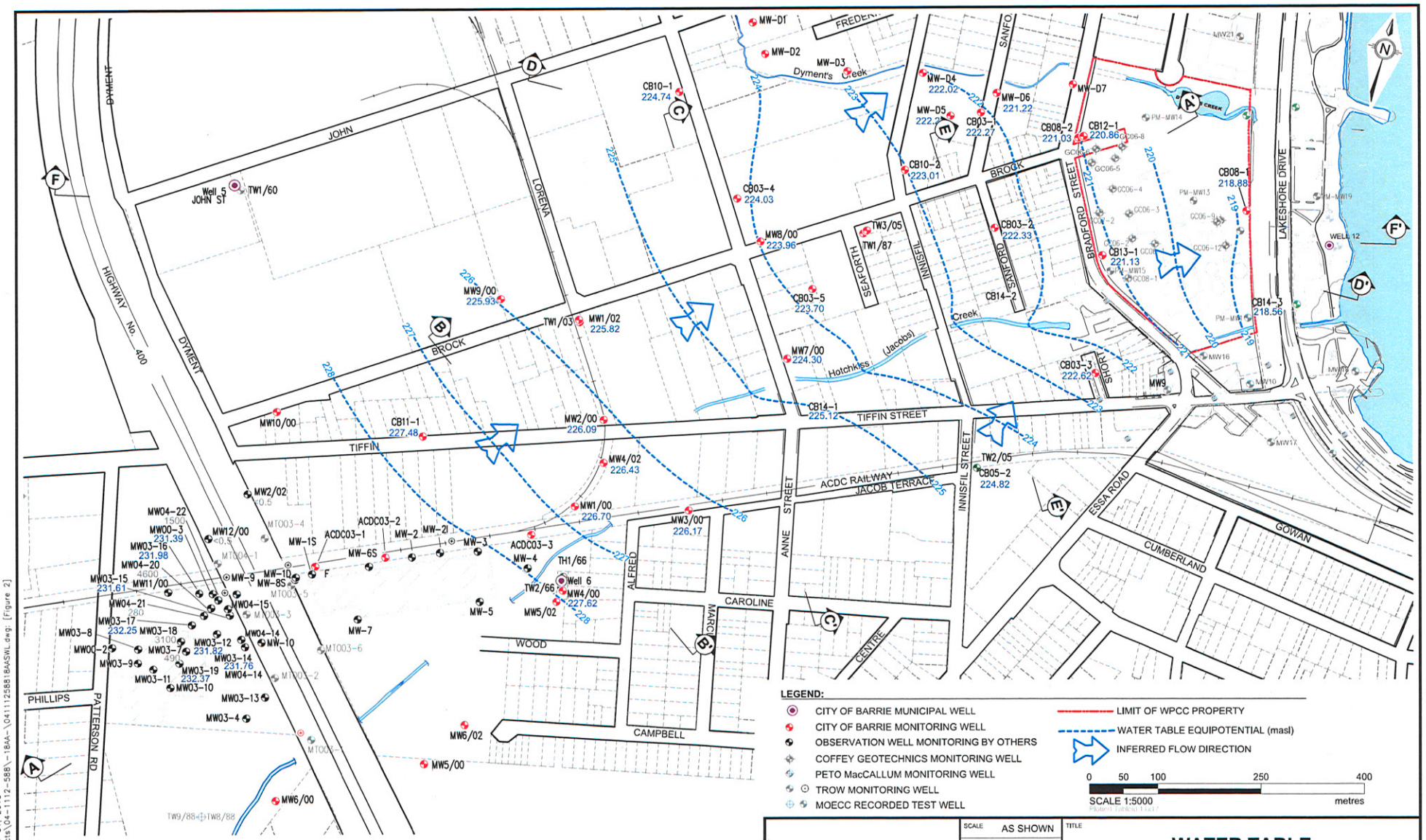
Golder Associates Ltd., 2018a. 2017 Annual Monitoring Report, City of Barrie Dyment's Creek Historical Landfills. Report prepared for the City of Barrie dated January 18, 2018.

Golder Associates Ltd., 2018b. 2017 Annual Groundwater Monitoring Program, City of Barrie. Report prepared for the City of Barrie dated April 2018.

Golder Associates Ltd., 2018c. Chlorinated Solvent Investigation, Preliminary Screening Level Risk Assessment, City of Barrie. Report prepared for the City of Barrie dated November 2018.

Figures


WELL 12
MW7/05
MW7/00
MW3/05
MW3/00
MW4/05
MW4/00
MW5/05
MW5/00
MW6/05
MW6/00
CS1-5
CS2-5
CS3-5
CS4-5
CS5-5
CS6-5
CS7-5
CS8-5
CS9-5
CS10-5
CS11-5
CS12-5
CS13-5
CS14-5
CS15-5
CS16-5
CS17-5
CS18-5
CS19-5
CS20-5
CS21-5
CS22-5
CS23-5
CS24-5
CS25-5
CS26-5
CS27-5
CS28-5
CS29-5
CS30-5
CS31-5
CS32-5
CS33-5
CS34-5
CS35-5
CS36-5
CS37-5
CS38-5
CS39-5
CS40-5



LEGEND:

- CITY OF BARRIE MUNICIPAL WELL
- CITY OF BARRIE MONITORING WELL
- OBSERVATION WELL MONITORING BY OTHERS
- COFFEY GEOTECHNICS MONITORING WELL
- PETO MacCALLUM MONITORING WELL
- TROW MONITORING WELL
- MOECC RECORDED TEST WELL
- LIMIT OF WPCC PROPERTY
- WATER TABLE EQUIPOTENTIAL (masl)
- INFERRED FLOW DIRECTION

0 50 100 250 400

SCALE 1:5000 metres

NOTES:

1. PROJECTION IS UTM NAD83 ZONE 17
2. WATERTABLE DRAWDOWN IS NOT DETAILED IN THE WPCC VICINITY
3. WATER LEVELS SEPTEMBER 2018

REFERENCES:

1. GOLDER COMPILATION MAPPING OF PROVIDED BASEWORK UTM NAD 83 Zone 17
2. BOREHOLE LOCATIONS GOLDER ASSOCIATES, PETO MACCALLUM, TROW ASSOCIATES, & COFFEY GEOTECHNICS; MOECC

GOLDER

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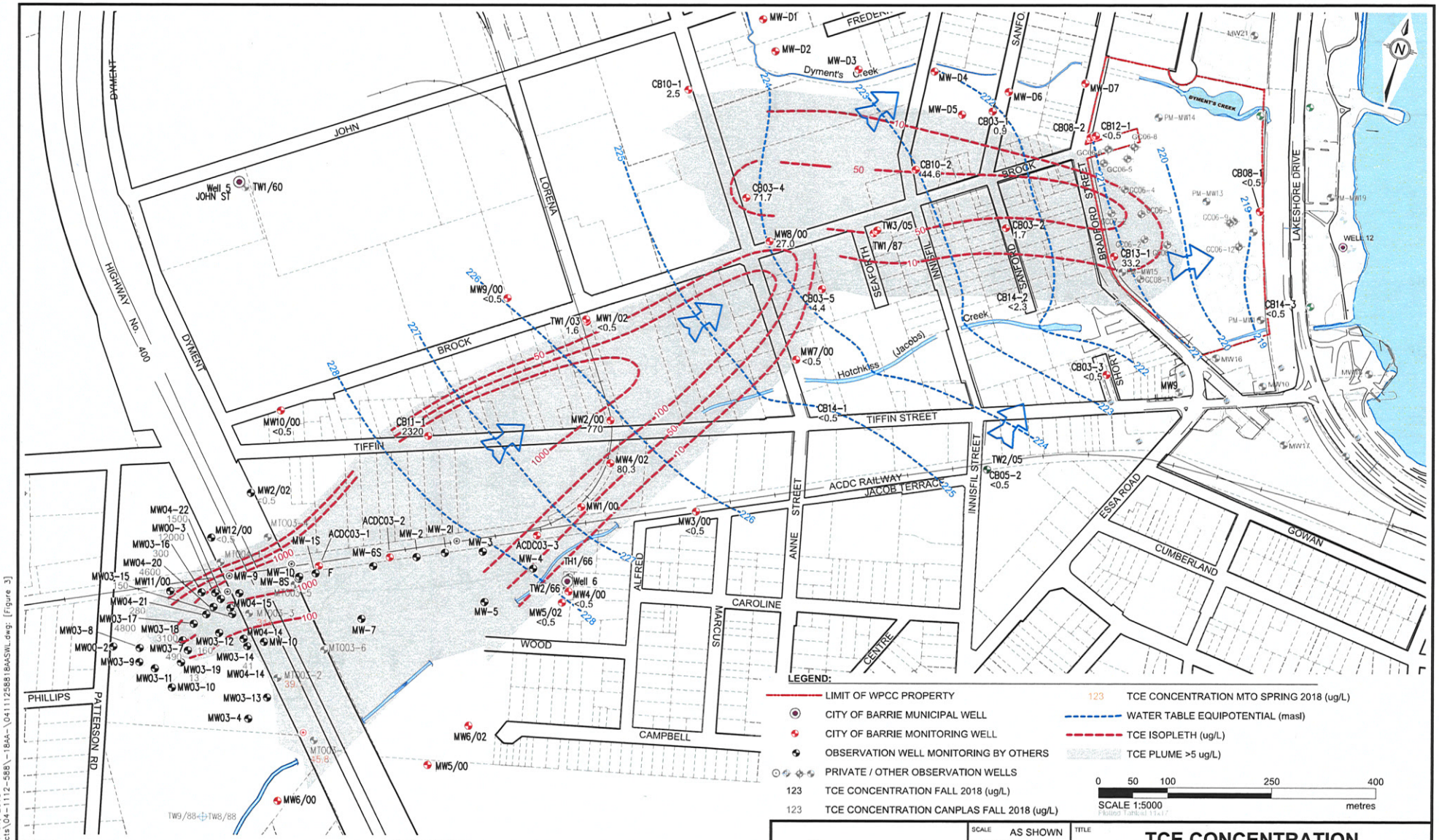
TITLE

WATER TABLE FALL 2018

CITY OF BARRIE
2018 ANNUAL GROUNDWATER MONITORING

FIGURE 2

PLOT DATE: December 31, 2018
FILENAME: T:_sProjects\04-1112-588\-18AA-\04111258818AASWL.dwg: [Figure 2]



NOTES:

1. PROJECTION IS UTM NAD83 ZONE 17
2. WATERTABLE DRAWDOWN IS NOT DETAILED IN THE WPCC VICINITY
3. TCE CONCENTRATION FALL 2018
4. TCE CONCENTRATION CANPLAS FALL 2018

REFERENCES:

1. GOLDER COMPILATION MAPPING OF PROVIDED BASEWORK UTM NAD 83 ZONE 17
2. BOREHOLE LOCATIONS GOLDER ASSOCIATES, PETO MACCALLUM, TROW ASSOCIATES, & COFFEY GEOTECHNICS; MOECC
3. CANPLAS TCE CONCENTRATION PROVIDED BY DRAGUN CORPORATION, 2018 ANNUAL GROUNDWATER MONITORING REPORT, RESULTS SEPTEMBER 2018
4. MTO TCE CONCENTRATION PROVIDED BY HYDROLGEOLOGY CONSULTING SERVICES, CONSTRUCTION DEWATERING GROUNDWATER MONITORING PROGRAM, QUARTERLY REPORT#2 MARCH 2018

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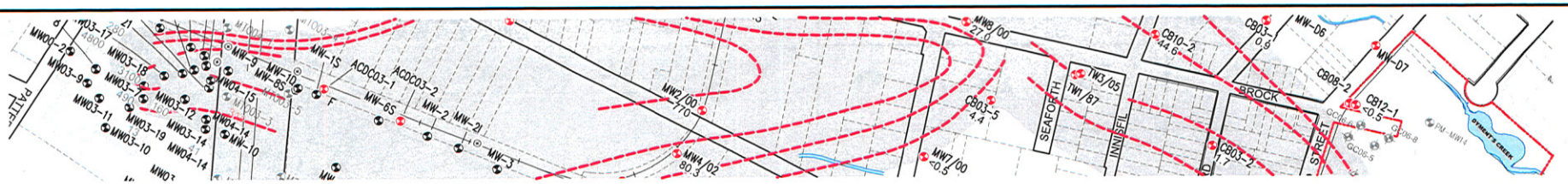
TITLE

TCE CONCENTRATION FALL 2018 DEEP UPPER AQUIFER

CITY OF BARRIE
2018 ANNUAL GROUNDWATER MONITORING

FIGURE 3

PLOT DATE: December 31, 2018
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PLOT DATE: December 31, 2018
FILENAME: T:_sProjects\04-1112-588\-16AA-\04111258818AASWL.dwg: [Figure 4]

GOLDER

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REVIEW	

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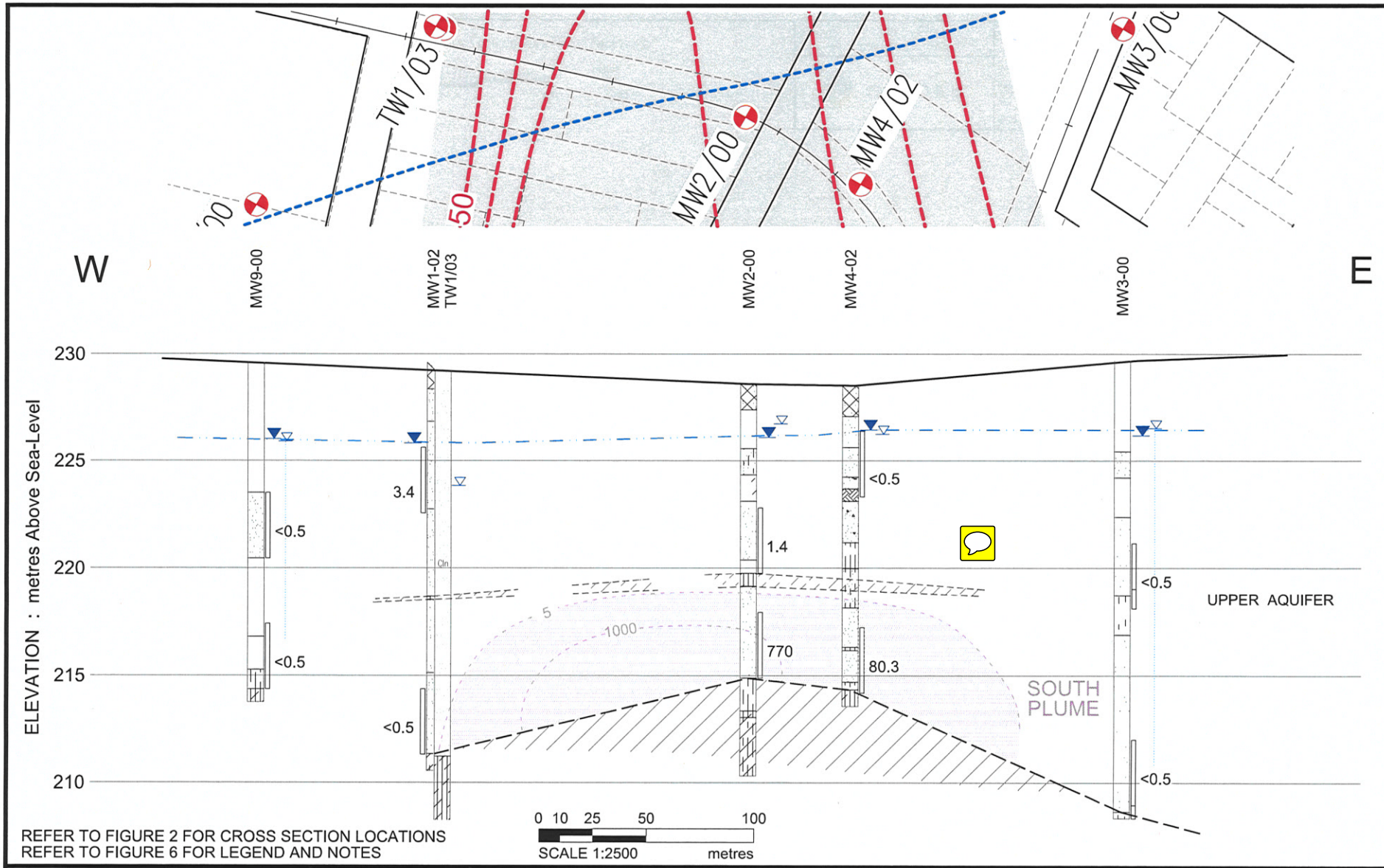
TITLE

SECTION A - A'
TCE PLUME
UPPER AQUIFER

CITY OF BARRIE
2018 ANNUAL GROUNDWATER MONITORING

FIGURE 4

PLOT DATE: December 31, 2018
FILENAME: T:_sProjects\04-1112-588\-18AA-\04111258818AASWL.dwg



REFER TO FIGURE 2 FOR CROSS SECTION LOCATIONS
REFER TO FIGURE 6 FOR LEGEND AND NOTES

GOLDER

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CAD	JPR
CHECK	
REVIEW	

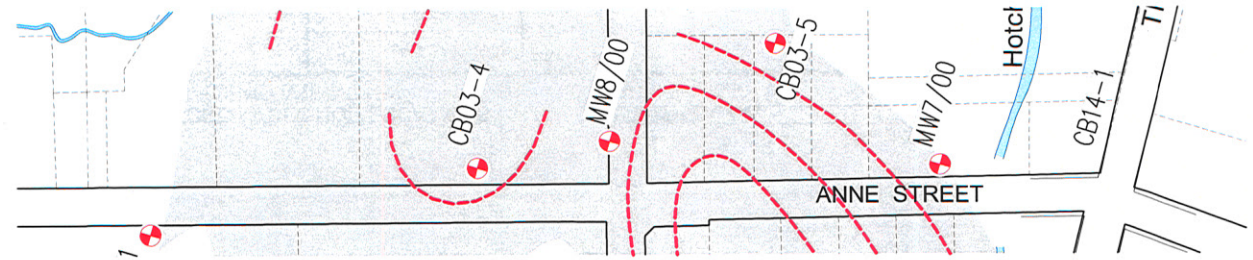
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PROJECT No. 04-1112-588 REV.

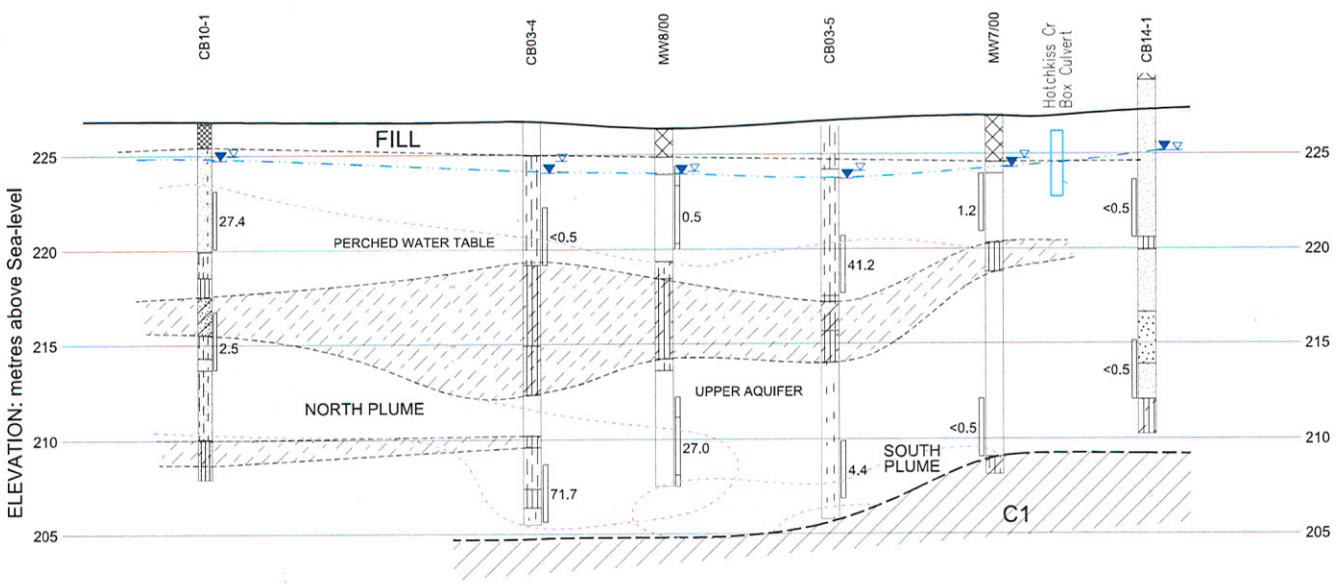
TITLE

SECTION B - B'
TCE PLUME - UPPER AQUIFER

CITY OF BARRIE
2018 ANNUAL GROUNDWATER MONITORING

FIGURE 5





STRATIGRAPHIC LEGEND:

- FILL/OVERBURDEN
- ORGANICS/TOPSOIL
- SAND & GRAVEL
- SAND
- SILTY SAND
- SILT
- SANDY SILT
- SANDY CLAYEY SILT
- CLAYEY SILT
- SANDY CLAY
- LAYERED SANDS AND CLAYS
- WATER LEVEL
- WELL SCREEN

<0.1 TCE CONCENTRATION (/g/L) 2017

TCE PLUME (>5 ug/L)

50 TCE ISOPLETH (ug/L)

NOTE:

ON ALL SECTIONS, BOUNDARIES BETWEEN SOIL STRATA HAVE BEEN DETERMINED ONLY AT WELL AND TEST WELL LOCATIONS. BETWEEN THE WELLS AND TEST WELLS, BOUNDARIES ARE NOT PROVEN BUT ARE ASSUMED FROM GEOLOGICAL EVIDENCE.

0 25 50 100 150

SCALE 1:2500 metres

REFER TO FIGURE 2 FOR CROSS SECTION LOCATIONS

GOLDER

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DESIGN	
CAD	JPR
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REVIEW	e
FILE No.	04111258818AASWL.dwg
PROJECT No.	04-1112-588
REV.	

TITLE

SECTION C - C'
TCE PLUME - UPPER AQUIFER

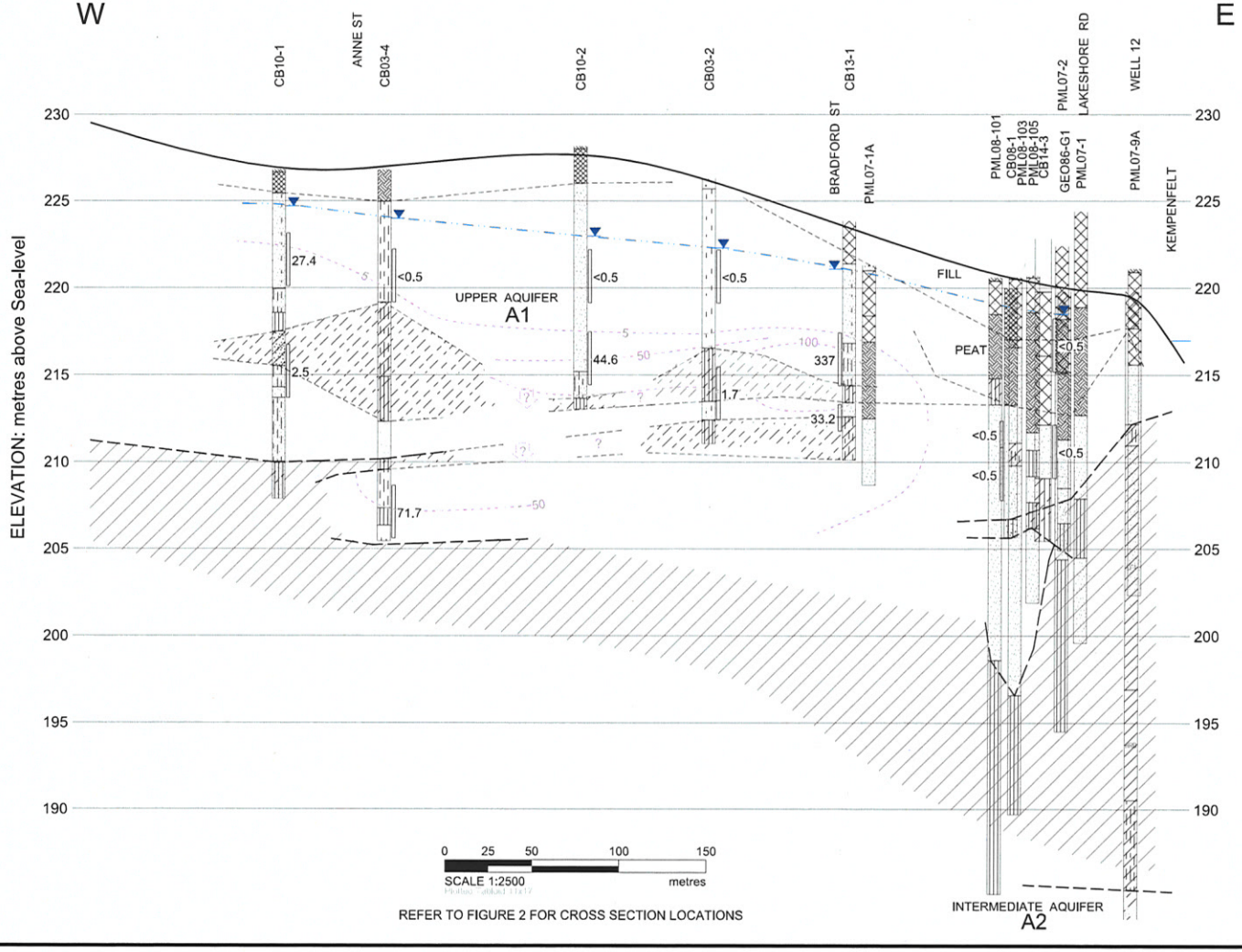
CITY OF BARRIE
2018 ANNUAL GROUNDWATER MONITORING

FIGURE 6

PLOT DATE: December 31, 2018
FILENAME: T:_8Projects\04-1112-588\-18AA-\04111258818AASWL.dwg: [Figure 6]



W E



REFER TO FIGURE 2 FOR CROSS SECTION LOCATIONS

STRATIGRAPHIC LEGEND:

- FILL/OVERBURDEN
- ORGANICS/TOPSOIL
- SAND & GRAVEL
- SAND
- SILTY SAND
- SILT
- SANDY SILT
- SANDY CLAYEY SILT
- CLAYEY SILT
- SANDY CLAY
  LAYERED SANDS AND CLAYS
- WATER LEVEL
- WELL SCREEN

<0.1 TCE CONCENTRATION (/g/L) 2018
TCE PLUME (>5 ug/L)
50 TCE ISOPLETH (ug/L)

NOTE:

ON ALL SECTIONS, BOUNDARIES BETWEEN SOIL STRATA HAVE BEEN DETERMINED ONLY AT WELL AND TEST WELL LOCATIONS. BETWEEN THE WELLS AND TEST WELLS, BOUNDARIES ARE NOT PROVEN BUT ARE ASSUMED FROM GEOLOGICAL EVIDENCE.

TITLE

SECTION D - D'
TCE PLUME - UPPER AQUIFER

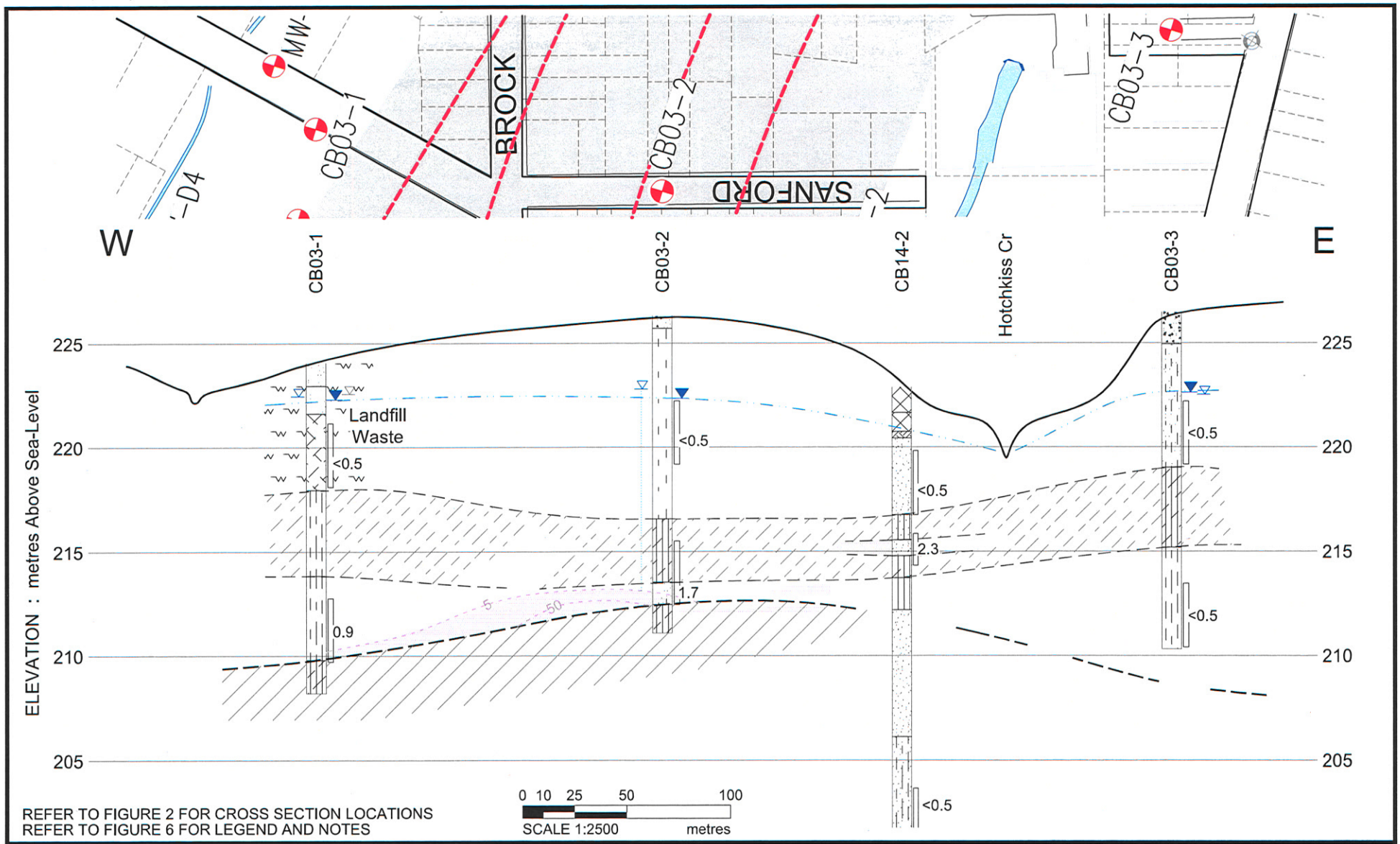
CITY OF BARRIE
2018 ANNUAL GROUNDWATER MONITORING

GOLDER

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PROJECT No.	04-1112-588
REV.	
FIGURE	7

PLOT DATE: December 31, 2018
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PLOT DATE: December 31, 2018
FILENAME: T:_sProjects\04-1112-588\-18AA-\04111258818AASWL.dwg



REFER TO FIGURE 2 FOR CROSS SECTION LOCATIONS
REFER TO FIGURE 6 FOR LEGEND AND NOTES

GOLDER

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DATE	2018-12-29
DESIGN	
CAD	JPR
CHECK	
REVIEW	

FILE No. 04111258818AASWL.dwg
PROJECT No. 04-1112-588 REV.

TITLE

SECTION E - E'
TCE PLUME - UPPER AQUIFER

CITY OF BARRIE
2018 ANNUAL GROUNDWATER MONITORING

FIGURE 8



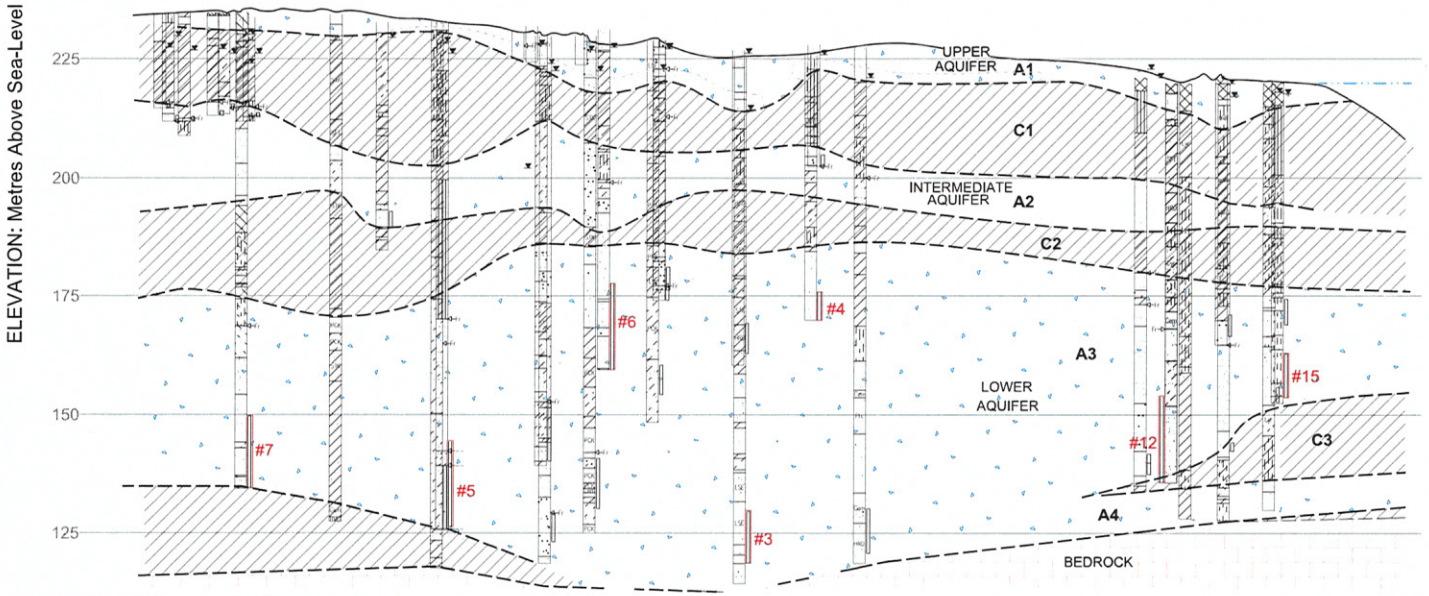
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E

9125 271 6146 Offset 32108 L0195 20696 28705 Offset N

#7 #5 #6 #3 #4 #12 #15



0 50 125 250 500

SCALE 1:10000 metres

STRATIGRAPHIC PATTERN

- Unoxidized CLAY, Blue, Grey, White, or Undefined CLAY
- Oxidized CLAY, Brown, Red, Yellow
- SILT
- SAND
- GRAVEL
- STONES, Rounded GRAVEL, PEBBLES
- BOULDER
- TILL
- LIMESTONE

23453 MOECC Recorded Private Well

Water Producing Zone

Flowing Well

Screen

TCE PLUME (ug/L)

TCE ISOPLETH (ug/L)

A1 Regional Model Unit Designation

Aquifer

Hydrostratigraphic Contact

Confining Material

Bedrock

NOTES

ON ALL SECTIONS, BOUNDARIES BETWEEN SOIL STRATA HAVE BEEN DETERMINED ONLY AT WELL AND TEST WELL LOCATIONS. BETWEEN THE WELLS AND TEST WELLS, BOUNDARIES ARE NOT PROVEN BUT ARE ASSUMED FROM GEOLOGICAL EVIDENCE.

WELLS ARE LOCATED TO MOE WATER WELL BULLETIN DATA. LOCATIONS AND ELEVATIONS ARE SUBJECT TO FIELD VERIFICATION.

TCE PLUME INTERPRETED AT WELL AND TEST WELL LOCATION. BOUNDARIES ARE NOT PROVEN, BUT ASSUMED FROM TCE MONITORING CONCENTRATIONS

REFERENCE

STRATIGRAPHIC UNITS AND INTERPRETATION DEVELOPED FROM SIMCOE COUNTY TIER 3 GROUNDWATER MODEL (GOLDER, 2009)

GOLDER

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DATE	2018-12-29
DESIGN	
CAD	JPR
CHECK	
REVIEW	
FILE No.	04111258818AASWL.dwg
PROJECT No.	04-1112-588
REV.	

TITLE

SECTION F - F'

CITY OF BARRIE
2018 ANNUAL GROUNDWATER MONITORING

FIGURE 9

PLOT DATE: December 31, 2018
FILENAME: T:_8Projects\04-1112-588\-18AA-\04111258818AASWL.dwg: [Figure 9]

Tables

City of Barrie Groundwater Monitoring Program
2018 Well Locations and Elevations

Well	M.P. Elevations (masl)	Well Screen Elevations (masl)	
		Top of Screen (masl)	Bottom of Screen (masl)
Upper Aquifer Monitoring Wells			
MW1/00#1	231.15	226.46	221.31
MW2/00#1	229.7	224.56	220.10
MW2/00#2	228.97	218.83	214.93
MW3/00#1	231.41	225.43	219.03
MW3/00#2	231.35	216.19	209.89
MW4/00#1	232.05	225.03	219.97
MW4/00#2	232.01	223.35	212.40
MW7/00#1	228.06	225.82	220.92
MW7/00#2	227.91	213.72	209.04
MW8/00#1	227.29	224.3	220.25
MW8/00#2	227.34	212.23	208.09
MW9/00#1	230.48	225.94	220.49
MW9/00#2	230.48	219.84	214.38
MW10/00#1	233.33	229.16	223.30
MW10/00#2	233.29	224.52	218.71
MW1/02#1	230.26	226.18	222.83
MW1/02#2	230.32	214.94	211.59
MW4/02#1	229.50	226.75	223.40
MW4/02#2	229.45	218.77	215.42
MW5/02#1	232.31	227.93	224.58
MW5/02#2	232.18	223.47	220.12
CB03-1#1	224.81	221.08	218.08
CB03-1#2	224.81	212.73	209.73
CB03-2#1	226.22	222.23	219.13
CB03-2#2	226.22	215.53	212.43
CB03-3#1	226.34	222.17	219.17
CB03-3#2	226.34	213.47	210.47
CB03-4#1	227.65	223.05	220.05
CB03-4#2	227.65	209.55	206.45
CB03-5#1	226.34	220.54	217.54
CB03-5#2	226.34	209.74	206.64
CB05-2#1	228.55	221.02	217.97
CB05-2#2	228.64	212.18	209.71
CB08-1#1	221.31	212.49	210.87
CB08-1#2	220.91	210.87	207.82
CB08-2	224.66	220.09	217.04
CB10-1#1	227.86	223.20	220.15
CB10-1#2	227.80	216.75	213.70
CB10-2#1	228.07	220.96	217.91
CB10-2#2	228.07	216.27	213.23
CB11-1#1	231.79	218.48	215.43
CB11-1#2	231.71	227.59	224.55
CB12-1	223.88	211.75	208.71
CB13-1#1	224.74	218.54	215.49
CB13-1#2	224.75	211.65	210.13
CB14-1#1	230.16	223.65	220.60
CB14-1#2	230.18	215.11	212.06
CB14-2#1	223.03	219.80	216.75
CB14-2#2	222.99	215.84	214.34
CB14-2#3	222.94	203.62	200.57
CB14-3#1	220.72	215.14	212.09
CB14-3#2	220.76	209.04	205.99
MW-D4	224.22	220.38	218.86
MW-D5	224.99	222.25	219.20
MW-D6	224.50	218.78	215.73
Lower Aquifer Sentinel Monitoring Wells			
TW1/03#1	230.39	168.63	159.53
TW1/03#2	229.99	137.26	128.06
TW1/87	229.76	131.52	122.02
TW2/05#1	228.75	173.62	164.47
TW2/05#2	228.61	154.71	145.56
TW3/05	229.63	165.44	156.29
TW3/08#1	222.59	175.91	166.76
TW3/08#2	222.36	163.52	154.38
Lower Aquifer Production Wells			
WELL 12	N/A	155.2	137.0
WELL 3A	N/A	129.6	118.6
WELL 5	N/A	144.9	126.8
WELL 15	N/A	162.8	153.7

Table 2
Field Parameters and Water Level Measurements
City of Barrie 2018 Annual Groundwater Monitoring Program

Field Parameters	ODWS	Shallow Aquifer														
		CB03-1#1	CB03-1#2	CB03-2#1	CB03-2#2	CB03-3#1	CB03-3#2	CB03-4#1	CB03-4#2	CB03-5#1	CB03-5#2	CB05-2#1	CB05-2#2	CB08-1#1	CB08-1#2	CB08-2
Date		13-Sep-18	13-Sep-18	13-Sep-18	13-Sep-18	11-Sep-18	11-Sep-18	18-Sep-18	18-Sep-18	18-Sep-18	18-Sep-18	11-Sep-18	11-Sep-18	11-Sep-18	11-Sep-18	11-Sep-18
pH (units)	6.5-8.5	6.65	7.68	7.75	7.69	7.51	7.40	8.01	7.70	7.61	7.40	7.58	7.66	7.00	7.15	7.53
Temperature (°C)		15.0	13.5	14.4	12.3	13.7	13.9	13.7	14.3	14.4	14.3	13.3	14.7	11.6	11.8	13.1
Conductivity (µS/cm)		2048	995	1326	1144	2567	2399	1727	980	1526	1384	1409	1516	1906	1471	1698
Water Levels (mbtoc)*		2.54	2.37	3.89	3.44	3.72	3.82	3.62	2.98	2.64	2.23	3.73	3.51	2.43	2.18	3.63
Depth to Groundwater (mbgs)		1.71	1.60	4.00	3.55	3.85	3.95	2.78	2.14	2.77	2.36	3.15	2.93	1.13	1.28	2.72
Depth to Groundwater (masl)		222.27	222.44	222.33	222.78	222.62	222.52	224.03	224.67	223.70	224.11	224.82	225.13	218.88	218.73	221.03

Note:

*Water levels are measured from the top of the PVC casing

nr = not recorded

Table 2
Field Parameters and Water Level Measurements
City of Barrie 2018 Annual Groundwater Monitoring Program

Field Parameters	ODWS	Shallow Aquifer																	
		CB10-1#1	CB10-1#2	CB10-2#1	CB10-2#2	CB11-1#1	CB11-1#2	CB12-1	CB13-1#1	CB13-1#2	CB14-1#1	CB14-1#2	CB14-2#1	CB14-2#2	CB14-2#3	CB14-3#1	CB14-3#2	MW1/00-S	MW1/02-S
Date		18-Sep-18	18-Sep-18	17-Sep-18	17-Sep-18	12-Sep-18	12-Sep-18	11-Sep-18	12-Sep-18	12-Sep-18	17-Sep-18	17-Sep-18	13-Sep-18	17-Sep-18	13-Sep-18	11-Sep-18	11-Sep-18	12-Sep-18	18-Sep-18
pH (units)	6.5-8.5	7.74	7.57	7.88	7.68	7.91	7.12	7.62	7.65	7.45	7.45	7.59	7.53	7.59	7.43	6.73	7.64	7.48	7.40
Temperature (°C)		17.8	15.1	13.8	14.3	15.6	13.0	15.6	12.0	12.5	15.0	14.9	12.6	13.1	12.7	12.0	12.5	12.0	14.1
Conductivity (µS/cm)		2045	2028	961	1333	936	5883	395	1424	1784	4550	1071	2056	1934	1733	4540	1858	918	1320
Water Levels (mbtoc)*		3.12	2.83	5.05	5.07	4.31	4.24	3.02	3.61	2.82	5.04	5.04	0.79	artesion	artesion	2.16	2.25	4.45	4.44
Depth to Groundwater (mbgs)		2.11	1.84	3.89	3.92	4.41	4.39	2.17	2.71	1.94	4.01	3.99	0.61	artesion	artesion	1.15	1.20	3.55	3.63
Depth to Groundwater (masl)		224.74	224.97	223.02	223.00	227.48	227.47	220.86	221.13	221.93	225.12	225.14	222.24	NA	NA	218.56	218.51	226.70	225.82

Note:

*Water levels are measured from the top of the PVC casing

nr = not recorded

Table 2
Field Parameters and Water Level Measurements
City of Barrie 2018 Annual Groundwater Monitoring Program

Field Parameters	ODWS	Shallow Aquifer																				
		MW1/02-D	MW2/00-S	MW2/00-D	MW3/00-S	MW3/00-D	MW4/00-S	MW4/00-D	MW4/02-S	MW4/02-D	MW5/02-S	MW5/02-D	MW7/00-S	MW7/00-D	MW8/00-S	MW8/00-D	MW9/00-S	MW9/00-D	MW10/00-S	MW10/00-D	MW-D4	MW-D5	MW-D6
Date		18-Sep-18	12-Sep-18	12-Sep-18	19-Sep-18	19-Sep-18	19-Sep-18	19-Sep-18	12-Sep-18	12-Sep-18	19-Sep-18	19-Sep-18	17-Sep-18	17-Sep-18	18-Sep-18	18-Sep-18	19-Sep-18	19-Sep-18	19-Sep-18	19-Sep-18	13-Sep-18	13-Sep-18	17-Sep-18
pH (units)	6.5-8.5	7.41	7.21	7.50	7.96	7.78	7.54	7.58	6.93	7.40	7.60	7.59	7.55	7.66	7.23	7.67	7.59	7.79	7.51	7.22	6.75	6.78	6.81
Temperature (^{0}C)		12.6	13.1	12.9	13.0	12.0	11.6	11.8	15.8	11.9	12.8	11.9	15.1	14.6	14.6	15.2	12.6	12.9	12.0	11.7	15.9	14.5	16.0
Conductivity (µS/cm)		1401	1838	1085	728	981	841	801	543	907	1049	884	1008	978	1300	793	1005	703	8955	12350	3351	2058	2105
Water Levels (mbtoc)*		4.45	3.61	2.25	5.24	4.84	4.43	7.35	3.07	3.21	4.15	4.27	3.76	3.16	3.33	3.22	4.55	4.57	4.60	4.57	2.20	2.77	3.28
Depth to Groundwater (mbgs)		3.73	2.87	1.92	4.48	4.08	3.68	6.58	2.12	2.34	3.37	3.67	2.73	2.28	2.51	2.29	3.65	3.67	3.68	3.68	1.28	1.81	2.29
Depth to Groundwater (masl)		225.87	226.09	226.72	226.17	226.51	227.62	224.66	226.43	226.24	228.16	227.91	224.30	224.75	223.96	224.12	225.93	225.91	228.73	228.72	222.02	222.22	221.22

Note:

*Water levels are measured from the top of the PVC casing

nr = not recorded

Table 2
Field Parameters and Water Level Measurements
City of Barrie 2018 Annual Groundwater Monitoring Program

Field Parameters	ODWS	Municipal Aquifer															
		TW1/03#1		TW1/03#2		TW1/87		TW2/05#1		TW2/05#2		TW3/05		TW3/08#1		TW3/08#2	
Date		21-Mar-18	20-Sep-18	21-Mar-18	20-Sep-18	21-Mar-18	20-Sep-18	20-Mar-18	20-Sep-18	20-Mar-18	20-Sep-18	21-Mar-18	20-Sep-18	20-Mar-18	20-Sep-18	20-Mar-18	20-Sep-18
pH (units)	6.5-8.5	7.54	7.88	7.54	7.75	7.48	7.75	7.41	7.64	7.45	7.69	7.42	7.72	7.95	7.90	7.81	7.92
Temperature (°C)		9.1	10.6	9.1	11.2	9.9	11.2	10.0	11.2	10.3	11.7	10.1	10.9	10.0	17.7	9.2	13.7
Conductivity (µS/cm)		643	634	722	745	1729	1690	1905	1896	2197	2221	1505	1514	425	541	614	538
Water Levels (mbtoc)*		4.10	5.87	4.50	6.14	4.75	5.96	3.21	4.24	3.18	4.21	4.65	5.83	artesion	artesion	artesion	artesion
Depth to Groundwater (mbgs)		3.34	5.11	3.77	5.41	3.71	4.92	2.33	3.36	2.43	3.46	3.56	4.74	artesion	artesion	artesion	artesion
Depth to Groundwater (masl)		226.29	224.52	225.49	223.85	225.01	223.80	225.54	224.51	225.43	224.40	224.98	223.80	NA	NA	NA	NA

Note:

*Water levels are measured from the top of the PVC casing

nr = not recorded

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW1/00#1	MW1/00 #1	MW1/00 #1	MW1/00 #1	MW1/00 #1	MW1/00 #1	MW1/00 #1	MW1/00 #1	MW1/00 #1	MW1/00 #1	MW1/00 #1	MW1/00 #1	MW2/00#1	MW2/00 #1	MW2/00 #1	MW2/00 #1	MW2/00 #1	MW2/00 #1	MW2/00 #1	MW2/00 #1	MW2/00 #1	MW2/00 #1	MW2/00 #1	MW2/00#2	MW2/00 #2	MW2/00 #2
Date >			25-Sep-08	2-Sep-09	30-Aug-10	23-Nov-11	2-Oct-12	11-Sep-13	18-Sep-14	9-Sep-15	1-Sep-16	15-Sep-17	12-Sep-18	25-Sep-08	2-Sep-09	30-Aug-10	14-Sep-11	26-Sep-12	11-Sep-13	18-Sep-14	9-Sep-15	1-Sep-16	19-Sep-17	12-Sep-18	25-Sep-08	2-Sep-09	30-Aug-10
1,1-Dichloroethane		5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<12.0	3.3
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.8**	<12.0	**3.1**
1,1,1-Trichloroethane		200	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<12.0	< 0.1
1,1,1,2-Tetrachloroethane		1.1	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<4.00	< 0.1
1,1,2-Trichloroethane		4.7	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<8.00	< 0.1
1,1,2,2-Tetrachloroethane		1	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<40	<4.00	< 0.4
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<8.00	< 0.1
1,2-Dichlorobenzene	200 (MAC)	3	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<40	<4.00	< 0.1
1,2-Dichloroethane	5 (MAC)	1.6	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<8.00	< 0.1
cis-1,2-Dichloroethene		1.6	<0.1	<0.20	< 0.1	0.2	0.12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	0.13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**43**	**27**	**50.3**
trans-1,2-Dichloroethene		1.6	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	**8.6**	**21.5**
1,2-Dichloropropane		5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<8.00	< 0.1
1,3-Dichlorobenzene		59	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<40	<4.00	< 0.1
1,4-Dichlorobenzene	5 (MAC)	1	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<40	<4.00	< 0.2
Benzene	1 (MAC)	5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<8.00	< 0.5
Bromodichloromethane		16	<0.1	<0.20	< 0.1	0.4	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<8.00	< 0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<20	<8.00	< 0.2
Chlorobenzene	80 (MAC)	30	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<4.00	< 0.2
Chloroform		2.4	<0.1	<0.20	< 0.3	1.3	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<8.00	< 0.3
Dibromochloromethane		25	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<40	<4.00	< 0.1
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.5	<0.30	0.4	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<100	<12.0	< 0.3
Ethylbenzene	140 (MAC)	2.4	<0.1	<0.10	< 0.5	0.2	0.17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<4.00	< 0.5
Styrene		5.4	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<40	<4.00	< 0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	**2.4**	1.3	**2.9**	1.1	1.1	<0.5	1.1	1.0	1.0	1.2	<0.5	<0.1	<0.20	< 0.2	0.1	0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<8.00	< 0.2
Toluene	60 (MAC)	24	<0.2	<0.20	< 0.5	0.4	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<40	<8.00	< 0.5
Trichloroethene	5 (MAC)	1.6	0.2	0.86	0.8	**7.7**	**4.5**	**4.2**	1.0	1.6	1.1	**2.3**	<0.5	**4.5**	**2.4**	1.6	1	**2.7**	**10.5**	**7.8**	1	1.5	<0.5	1.4	**9100**	**5500**	**79.8**
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.1**	<6.80	**1.8**
o-Xylene		NV	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<4.00	< 0.5
m,p-xylenes		NV	<0.1	<0.20	< 1.0	0.2	0.24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<8.00	< 1.0
Xylene (Total)	90 (MAC)	300	<0.1	<0.20	< 1.5	0.2	0.24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<8.00	< 1.5
Trichlorofluoromethane (FREON 11)		150		<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<16.0	

Note:

Units used are µg/L.

" = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW2/00 #2	MW2/00 #2	MW2/00 #2	MW2/00 #2	MW2/00 #2	MW2/00 #2	MW2/00 #2	MW2/00 #2	MW2/00 #2	MW2/00 #2	MW3/00#1	MW3/00 #1	MW3/00 #1	MW3/00 #1	MW3/00 #1	MW3/00 #1	MW3/00 #1	MW3/00 #1	MW3/00 #1	MW3/00 #1	MW3/00 #1	MW3/00#2	MW3/00 #2	MW3/00 #2	MW3/00 #2	MW3/00 #2
Date >			26-Nov-10	19-Sep-11	3-Oct-12	11-Sep-13	18-Sep-14	9-Sep-15	1-Sep-16	19-Sep-17	12-Sep-18	3-Sep-08	2-Sep-09	1-Sep-10	14-Sep-11	20-Sep-12	10-Sep-13	18-Sep-14	2-Sep-15	29-Aug-16	12-Sep-17	19-Sep-18	3-Sep-08	2-Sep-09	1-Sep-10	14-Sep-11	20-Sep-12
1,1-Dichloroethane		5	< 5	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	< 5	<30	<25	**7**	**18.3**	<0.5	<0.5	**2.1**	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10
1,1,1-Trichloroethane		200	< 5	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10
1,1,1,2-Tetrachloroethane		1.1	< 5	<30	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1	<0.1	<0.20
1,1,2-Trichloroethane		4.7	< 5	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20
1,1,2,2-Tetrachloroethane		1	< 20	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4	<0.2	<0.20
1,2-Dibromoethane (Ethylene Dibromide)		0.2	< 5	<50	<50	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1	<0.2	<0.20
1,2-Dichlorobenzene	200 (MAC)	3	< 5	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20
1,2-Dichloroethane	5 (IMAC)	1.6	< 5	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20
cis-1,2-Dichloroethene		1.6	**65.6**	**35**	**39**	**76**	**77.9**	**48.3**	**30.4**	**117**	**109**	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10
trans-1,2-Dichloroethene		1.6	**12.4**	<30	<25	**56**	**30.2**	**1.9**	**3**	**55.2**	**24.1**	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10
1,2-Dichloropropane		5	< 5	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10
1,3-Dichlorobenzene		59	< 5	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20
1,4-Dichlorobenzene	5 (MAC)	1	< 10	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.2	<0.20
Benzene	1 (MAC)	5	< 30	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10
Bromodichloromethane		16	< 5	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	0.15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10
Carbon Tetrachloride	2 (MAC)	0.79	< 10	<30	<25	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10
Chlorobenzene	80 (MAC)	30	< 10	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2	<0.1	<0.10
Chloroform		2.4	< 20	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.3	0.9	2.1	**2.5**	1.7	1.8	0.8	<0.5	<0.5	0.1	<0.20	< 0.3	<0.1	<0.10
Dibromochloromethane		25	< 5	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20
Methylene Chloride (Dichloromethane)	50 (MAC)	50	< 20	<100	<130	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3	<0.5	<0.50
Ethylbenzene	140 (MAC)	2.4	< 30	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10
Styrene		5.4	< 30	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.2	<0.20
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	< 10	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.2	<0.1	<0.10
Toluene	60 (MAC)	24	**27.5**	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	<0.20
Trichloroethene	5 (MAC)	1.6	**5930**	**5300**	**3200**	**3130**	**1960**	**502**	**502**	**854**	**770**	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	< 10	<50	<50	**3.7**	**1.5**	<0.5	<0.5	<0.5	<0.5	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.17	< 0.2	<0.2	<0.20
o-Xylene		NV	< 30	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10
m,p-xylenes		NV	< 50	<30	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.0	<0.1	<0.10
Xylene (Total)	90 (MAC)	300	< 80	<30	<25	<0.6	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.5	<0.1	<0.10
Trichlorofluoromethane (FREON 11)		150	< 5	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40		<0.2	<0.20

Note:

Units used are µg/L.

" = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW3/00 #2	MW3/00 #2	MW3/00 #2	MW3/00 #2	MW3/00 #2	MW3/00 #2	MW4/00#1	MW4/00 #1	MW4/00 #1	MW4/00 #1	MW4/00 #1	MW4/00 #1	MW4/00 #1	MW4/00 #1	MW4/00 #1	MW4/00 #1	MW4/00 #1	MW4/00#2	MW4/00 #2	MW4/00 #2	MW4/00 #2	MW4/00 #2	MW4/00 #2	MW4/00 #2	MW4/00 #2
Date >			10-Sep-13	18-Sep-14	3-Sep-15	29-Aug-16	12-Sep-17	19-Sep-18	3-Sep-08	2-Sep-09	1-Sep-10	16-Sep-11	24-Sep-12	10-Sep-13	18-Sep-14	2-Sep-15	29-Aug-16	14-Sep-17	19-Sep-18	3-Sep-08	2-Sep-09	1-Sep-10	16-Sep-11	24-Sep-12	10-Sep-13	18-Sep-14	2-Sep-15
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1	<0.1	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1	<0.2	<0.40	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.3	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3	<0.5	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.2	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	0.28	< 0.5	0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	0.32	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.17	< 0.2	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.0	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40		<0.2	<0.40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40		<0.2	<0.20	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

[2] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW4/00 #2	MW4/00 #2	MW4/00 #2	MW7/00#1	MW7/00#1	MW7/00#1	MW7/00#1	MW7/00#1	MW7/00#1	MW7/00 #1	MW7/00 #1	MW7/00 #1	MW7/00 #1	MW7/00 #1	MW7/00 #1	MW7/00 #1	MW7/00 #1	MW7/00 #1	MW7/00 #1	MW7/00#2	MW7/00#2	MW7/00#2	MW7/00#2	MW7/00#2	MW7/00#2
Date >			29-Aug-16	14-Sep-17	19-Sep-18	21-Jul-03	28-Jan-04	21-Jun-05	14-Nov-06	7-Dec-07	29-Aug-08	1-Sep-09	1-Sep-10	14-Sep-11	26-Sep-12	6-Sep-13	18-Sep-14	8-Sep-15	30-Aug-16	11-Sep-17	17-Sep-18	21-Jul-03	28-Jan-04	21-Jun-05	14-Nov-06	7-Dec-07	29-Aug-08
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.1	< 0.1	<0.1	<0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	< 0.1	<0.1	0.2	<0.30	0.3	0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	< 0.1	<0.1	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<1	<1	<0.4	< 0.4	<0.4	<0.2	<0.10	< 0.4	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.4	< 0.4	<0.4	<0.2
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.40	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2
1,2-Dichloroethane	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2
cis-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<1	<1	1.2	< 0.1	0.6	**2.8**	<0.20	**4.7**	**6.2**	**1.8**	**3.5**	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	1.6	**2**	**6.2**	**2.9**
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<1	<1	<0.1	0.9	0.3	1.1	<0.20	1.4	**4.8**	1.2	1.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.1	< 0.1	0.4	0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	< 0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.10	< 0.2	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1
Chloroform		2.4	<0.5	<0.5	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.1	<0.20	< 0.3	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.1
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<0.5	<0.30	< 0.3	<0.5	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<0.5
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	< 0.5	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	**7.5**	**11**	**26.3**	**21.2**	**20.4**	**17**	<0.20	**30.8**	**32**	**37**	**16.9**	**15.2**	**9.8**	**9.2**	<0.5	1.2	**22**	**15**	**27.4**	**11.6**	**12.6**	**11**
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.2	<0.2	**0.8**	< 0.2	<0.2	0.2	<0.17	< 0.2	0.3	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.3**	**1.3**	**2.0**	< 0.2	<0.2	**1.2**
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1
m,p-xylenes		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	<0.1	<0.20	< 1.0	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	<0.1
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<1.0	<1.0	<1.5	<1.5	<1.5	<0.1	<0.20	<1.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.5	<1.5	<1.5	<0.1
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0							<0.40		<0.2	<0.40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						

Note:

Units used are µg/L.

[1] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW7/00 #2	MW7/00 #2	MW7/00 #2	MW7/00 #2	MW7/00 #2	MW7/00 #2	MW7/00 #2	MW7/00 #2	MW7/00 #2	MW7/00 #2	MW7/00 #2	MW8/00#1	MW8/00#1	MW8/00#1	MW8/00#1	MW8/00#1	MW8/00#1	MW8/00 #1	MW8/00 #1	MW8/00 #1	MW8/00 #1	MW8/00 #1	MW8/00 #1	MW8/00 #1	MW8/00 #1
Date >			1-Sep-09	1-Sep-10	14-Sep-11	26-Sep-12	6-Sep-13	18-Sep-14	8-Sep-15	30-Aug-16	11-Sep-17	17-Sep-18	21-Jul-03	28-Jan-04	21-Jun-05	17-Nov-06	5-Dec-07	29-Aug-08	1-Sep-09	31-Aug-10	14-Sep-11	20-Sep-12	9-Sep-13	19-Sep-14	8-Sep-15	30-Aug-16	12-Sep-17
1,1-Dichloroethane		5	<0.30	**9.8**	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.30	0.2	0.2	0.24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.4	< 0.4	<0.4	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	**11**	< 0.1	**16**	**10**	**12.8**	**8.4**	**5.3**	**8.4**	**3**	<0.5	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	**3.3**	**8.4**	**13.0**	**14.7**	**16.9**	**3.3**
trans-1,2-Dichloroethene		1.6	**2.2**	< 0.1	**6.8**	0.87	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	0.7
1,2-Dichloropropane		5	<0.20	< 0.1	<0.1	<0.10	<0.5	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.20	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.1	<0.20	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.30	4.7	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	**30**	**31.7**	**32**	**11**	**16**	**14.3**	**8.4**	**8.8**	**5.9**	<0.5	0.8	0.8	**1.7**	0.3	<0.1	0.2	<0.20	< 0.1	0.2	0.25	<0.5	<0.5	0.8	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	**0.51**	**0.8**	0.5	0.35	**0.7**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene		NV	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	<0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.5	<1.5	<1.5	<0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0							<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

" = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW8/00 #1	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00 #2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW8/00#2	MW9/00#1	MW9/00 #1	MW9/00 #1	MW9/00 #1	MW9/00 #1	MW9/00 #1	MW9/00 #1	MW9/00 #1
Date >			18-Sep-18	21-Jul-03	28-Jan-04	21-Jun-05	17-Nov-06	5-Dec-07	29-Aug-08	1-Sep-09	31-Aug-10	19-Sep-11	24-Sep-12	9-Sep-13	19-Sep-14	8-Sep-15	30-Aug-16	12-Sep-17	18-Sep-18	3-Sep-08	1-Sep-09	31-Aug-10	14-Sep-11	26-Sep-12	10-Sep-13	18-Sep-14	2-Sep-15
1,1-Dichloroethane		5	1	1.5	1.8	1.7	1.2	1.6	1.3	0.88	1.5	1.5	1.2	2	4	3.2	**10.5**	2.4	**15.5**	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	0.6	0.5	0.5	1.2	0.4	<0.30	0.5	0.6	<0.50	**3.8**	**2.6**	**4.6**	**25.8**	**6.4**	**23**	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.30	< 0.1	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.3	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.4	<0.20	< 0.1	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<1	<1	<0.4	< 0.4	<0.4	<0.4	<0.10	< 0.4	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.4	<0.20	< 0.1	<0.5	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.4	<0.10	< 0.1	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.4	<0.20	< 0.1	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	**19.1**	<1	<1	**2.6**	**3.5**	**5.4**	**10.0**	**5.1**	**10.5**	**20.0**	**18.0**	**19.5**	**18.2**	**30.2**	**116**	**50.4**	**55.6**	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene		1.6	**3.9**	<1	<1	<0.1	0.3	0.2	0.3	<0.20	< 0.1	0.3	<0.50	**6.2**	**20.8**	**29**	**116**	**95.8**	**130**	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.4	<0.10	< 0.1	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.4	<0.10	< 0.2	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	< 0.5	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.20	< 0.2	<0.3	<0.50	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.2	<0.20	< 0.3	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.4	<0.10	< 0.1	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<1	<1	<0.3	< 0.3	<0.3	<1	<0.30	< 0.3	<1	<2.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.10	< 0.5	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.4	<0.10	< 0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.2	<0.20	< 0.2	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.4	<0.20	< 0.5	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	0.5	**89**	**92**	**97**	**87.6**	**47.1**	**77**	**50**	**61.5**	**64**	**55**	**35.7**	**45.7**	**30.8**	**334**	**125**	**27**	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.4	<0.17	< 0.2	<0.5	<1.0	**0.7**	0.5	<0.5	<0.5	**1.3**	<0.5	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.10	< 0.5	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	<0.2	<0.20	< 1.0	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<1.0	<1.0	<1.5	<1.5	<1.5	<0.2	<0.20	< 1.5	<0.3	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0							<0.40		<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40						

Note:

Units used are µg/L.

[2] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW9/00 #1	MW9/00 #1	MW9/00 #1	MW9/00#2	MW9/00 #2	MW9/00 #2	MW9/00 #2	MW9/00 #2	MW9/00 #2	MW9/00 #2	MW9/00 #2	MW9/00 #2	MW9/00 #2	MW9/00 #2	MW9/00 #2	MW10/00#1	MW10/00 #1	MW10/00 #1	MW10/00 #1	MW10/00 #1	MW10/00 #1	MW10/00 #1	MW10/00 #1	MW10/00 #1	MW10/00 #1	MW10/00 #1
Date >			1-Sep-16	18-Sep-17	19-Sep-18	3-Sep-08	1-Sep-09	31-Aug-10	14-Sep-11	26-Sep-12	10-Sep-13	18-Sep-14	8-Sep-15	1-Sep-16	18-Sep-17	19-Sep-18	3-Sep-08	1-Sep-09	31-Aug-10	14-Sep-11	19-Sep-12	10-Sep-13	18-Sep-14	3-Sep-15	1-Sep-16	13-Sep-17	19-Sep-18
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.3	0.2	0.14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3	1	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene		NV	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0		<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

[2] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW10/00#2	MW10/00 #2	MW10/00 #2	MW10/00 #2	MW10/00 #2	MW10/00 #2	MW10/00 #2	MW10/00 #2	MW10/00 #2	MW10/00 #2	MW10/00 #2	MW10/00 #2	MW1/02#1	MW1/02 #1	MW1/02 #1	MW1/02 #1	MW1/02 #1	MW1/02 #1	MW1/02 #1	MW1/02 #1	MW1/02 #1	MW1/02 #1	MW1/02 #1	MW1/02 #1	MW1/02#2	MW1/02#2	MW1/02#2
Date >			3-Sep-08	1-Sep-09	31-Aug-10	14-Sep-11	19-Sep-12	10-Sep-13	19-Sep-14	3-Sep-15	1-Sep-16	13-Sep-17	19-Sep-18	25-Nov-08	1-Sep-09	31-Aug-10	14-Sep-11	19-Sep-12	9-Sep-13	18-Sep-14	8-Sep-15	31-Aug-16	15-Sep-17	18-Sep-18	25-Nov-08	17-Sep-09	31-Aug-10
1,1-Dichloroethane		5	<0.1	<0.30	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	0.44	0.4	0.2	0.24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.1	<0.30	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1
1,1,1-Trichloroethane		200	<0.1	<0.30	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	0.59	0.4	0.4	0.45	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.30	< 0.1
1,1,1,2-Tetrachloroethane		1.1	<0.1	<0.10	< 0.1	<0.1	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.1
1,1,2-Trichloroethane		4.7	<0.2	<0.20	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1
1,1,2,2-Tetrachloroethane		1	<0.2	<0.10	< 0.4	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.4
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.20	< 0.1	<0.2	<0.40	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.1
1,2-Dichlorobenzene	200 (MAC)	3	<0.2	<0.10	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1
1,2-Dichloroethane	5 (IMAC)	1.6	<0.2	<0.20	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1
cis-1,2-Dichloroethene		1.6	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1
trans-1,2-Dichloroethene		1.6	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1
1,2-Dichloropropane		5	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1
1,3-Dichlorobenzene		59	<0.2	<0.10	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1
1,4-Dichlorobenzene	5 (MAC)	1	<0.2	<0.10	< 0.2	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2
Benzene	1 (MAC)	5	<0.1	<0.20	< 0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.5
Bromodichloromethane		16	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.1	<0.20	< 0.2	<0.1	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.20	< 0.2
Chlorobenzene	80 (MAC)	30	<0.1	<0.10	< 0.2	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.2
Chloroform		2.4	<0.1	<0.20	< 0.3	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.3
Dibromochloromethane		25	<0.2	<0.10	< 0.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.5	<0.30	< 0.3	<0.5	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.30	< 0.3
Ethylbenzene	140 (MAC)	2.4	<0.1	<0.10	< 0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5
Styrene		5.4	<0.2	<0.10	< 0.5	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.1	<0.20	< 0.2	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 0.2
Toluene	60 (MAC)	24	<0.2	<0.20	< 0.5	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.5
Trichloroethene	5 (MAC)	1.6	<0.1	<0.20	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**10**	**8**	**12**	**9.8**	**7.1**	**6.5**	**10**	**2.5**	**3.3**	**5.3**	**3.4**	<0.1	<0.20	< 0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.2	<0.17	< 0.2	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.17	< 0.2
o-Xylene		NV	<0.1	<0.10	< 0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	< 0.5
m,p-xylenes		NV	<0.1	<0.20	< 1.0	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.0
Xylene (Total)	90 (MAC)	300	<0.1	<0.20	< 1.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.20	< 1.5
Trichlorofluoromethane (FREON 11)		150	<0.40			<0.2	<0.40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40	

Note:

Units used are µg/L.

[2] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW1/02#2	MW1/02#2	MW1/02#2	MW1/02#2	MW1/02#2	MW1/02#2	MW1/02#2	MW1/02#2	MW1/02#2	MW1/02#2	MW3/02#2	MW3/02 #2	MW3/02 #2	MW4/02#1	MW4/02 #1	MW4/02 #1	MW4/02 #1	MW4/02 #1	MW4/02 #1	MW4/02 #1	MW4/02 #1	MW4/02 #1	MW4/02 #1	MW4/02 #1	MW4/02#2	MW4/02 #2
Date >			14-Sep-11	19-Sep-12	9-Sep-13	9-Sep-13	18-Sep-14	8-Sep-15	31-Aug-16	15-Sep-17	18-Sep-18	25-Sep-08	31-Aug-09	30-Aug-10	25-Sep-08	2-Sep-09	30-Aug-10	23-Nov-11	2-Oct-12	11-Sep-13	18-Sep-14	9-Sep-15	1-Sep-16	19-Sep-17	12-Sep-18	25-Sep-08	2-Sep-09
1,1-Dichloroethane		5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.30	< 0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.30
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.30	< 0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.30
1,1,1-Trichloroethane		200	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.30	< 0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.30
1,1,1,2-Tetrachloroethane		1.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.10	< 0.1	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.10
1,1,2-Trichloroethane		4.7	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	< 0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20
1,1,2,2-Tetrachloroethane		1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	< 0.4	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.20	< 0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.20
1,2-Dichlorobenzene	200 (MAC)	3	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	< 0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10
1,2-Dichloroethane	5 (IMAC)	1.6	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	< 0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20
cis-1,2-Dichloroethene		1.6	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	0.55	1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**3.2**	**2.9**
trans-1,2-Dichloroethene		1.6	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20	< 0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20
1,2-Dichloropropane		5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20	< 0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20
1,3-Dichlorobenzene		59	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	< 0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10
1,4-Dichlorobenzene	5 (MAC)	1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	< 0.2	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10
Benzene	1 (MAC)	5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20	< 0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20
Bromodichloromethane		16	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20	< 0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20
Carbon Tetrachloride	2 (MAC)	0.79	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	<0.20	< 0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.3	<0.20
Chlorobenzene	80 (MAC)	30	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.10	< 0.2	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.10
Chloroform		2.4	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20	< 0.3	<0.1	<0.20	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20
Dibromochloromethane		25	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	< 0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<0.30	< 0.3	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<0.30
Ethylbenzene	140 (MAC)	2.4	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.10	< 0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.10
Styrene		5.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	< 0.5	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20	< 0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**5.5**	**3.2**
Toluene	60 (MAC)	24	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	< 0.5	<0.2	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20
Trichloroethene	5 (MAC)	1.6	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**73**	**73**	**64.6**	<0.1	<0.20	**8.1**	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**80**	**100**
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.17	< 0.2	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.17
o-Xylene		NV	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.10	< 0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.10
m,p-xylenes		NV	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20	< 1.0	<0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20
Xylene (Total)	90 (MAC)	300	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20	< 1.5	<0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.20
Trichlorofluoromethane (FREON 11)		150	<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40			<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40

Note:

Units used are µg/L.

" = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW4/02 #2	MW4/02 #2	MW4/02 #2	MW4/02 #2	MW4/02 #2	MW4/02 #2	MW4/02 #2	MW4/02 #2	MW4/02 #2	MW4/02 #2	MW4/02 #2B	MW5/02#1	MW5/02 #1	MW5/02 #1	MW5/02 #1	MW5/02 #1	MW5/02 #1	MW5/02 #1	MW5/02 #1	MW5/02 #1	MW5/02 #1	MW5/02 #1	MW5/02 #1	MW5/02#2	MW5/02 #2	MW5/02 #2
Date >			30-Aug-10	23-Nov-11	2-Oct-12	11-Sep-13	18-Sep-14	9-Sep-15	1-Sep-16	19-Sep-17	12-Sep-18	12-Sep-18		29-Aug-08	2-Sep-09	1-Sep-10	1-Sep-10	16-Sep-11	24-Sep-12	10-Sep-13	18-Sep-14	2-Sep-15	29-Aug-16	14-Sep-17	19-Sep-18	3-Sep-08	2-Sep-09	1-Sep-10
1,1-Dichloroethane		5	< 0.1	<0.3	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.30	< 0.1	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.30	< 0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	< 0.1	<0.3	<2.5	1	**2.3**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.30	< 0.1	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.30	< 0.1
1,1,1-Trichloroethane		200	< 0.1	<0.3	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.30	< 0.1	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.30	< 0.1
1,1,1,2-Tetrachloroethane		1.1	< 0.1	<0.3	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1	<0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.1
1,1,2-Trichloroethane		4.7	< 0.1	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.20	< 0.1	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.20	< 0.1
1,1,2,2-Tetrachloroethane		1	< 0.4	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.4	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.4
1,2-Dibromoethane (Ethylene Dibromide)		0.2	< 0.1	<0.5	<5.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.4	<0.20	< 0.1	<0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.4	<0.20	< 0.1
1,2-Dichlorobenzene	200 (MAC)	3	< 0.1	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.1	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.1
1,2-Dichloroethane	5 (MAC)	1.6	< 0.1	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.20	< 0.1	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.20	< 0.1
cis-1,2-Dichloroethene		1.6	**3.9**	**5.2**	**18**	**52.6**	**33.4**	1.2	**2.3**	**22.4**	**23.8**	**23.5**	<0.2	<0.20	< 0.1	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1
trans-1,2-Dichloroethene		1.6	0.2	<0.3	<2.5	**7.8**	1	<0.5	<0.5	1.5	1.4	1.1	<0.2	<0.20	< 0.1	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1
1,2-Dichloropropane		5	< 0.1	<0.3	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1
1,3-Dichlorobenzene		59	< 0.1	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.1	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.1
1,4-Dichlorobenzene	5 (MAC)	1	< 0.2	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.2	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.2
Benzene	1 (MAC)	5	< 0.5	<0.3	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.5	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.5
Bromodichloromethane		16	< 0.1	<0.3	<2.5	<0.5	3.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1
Carbon Tetrachloride	2 (MAC)	0.79	< 0.2	<0.3	<2.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.2	<0.1	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	< 0.2
Chlorobenzene	80 (MAC)	30	< 0.2	<0.3	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.2
Chloroform		2.4	< 0.3	1.5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.3	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.3
Dibromochloromethane		25	< 0.1	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.1	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.1
Methylene Chloride (Dichloromethane)	50 (MAC)	50	< 0.3	<1	<13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<0.30	< 0.3	<0.5	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<0.30	< 0.3
Ethylbenzene	140 (MAC)	2.4	< 0.5	<0.3	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5
Styrene		5.4	< 0.5	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.5	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.10	< 0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	**7.5**	**5.4**	**8.8**	**3.7**	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.2	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.2
Toluene	60 (MAC)	24	< 0.5	<0.5	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.20	< 0.5	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.20	< 0.5
Trichloroethene	5 (MAC)	1.6	**77.9**	**130**	**790**	**564**	**147**	**30.7**	**30.7**	**138**	**80.3**	**74.5**	<0.2	<0.20	< 0.1	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	< 0.2	<0.5	<5.0	**2.4**	**1.5**	<0.5	<0.5	**1.1**	**0.9**	**0.8**	<0.4	<0.17	< 0.2	<0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.17	< 0.2
o-Xylene		NV	< 0.5	<0.3	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.10	< 0.5
m,p-xylenes		NV	< 1.0	<0.3	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 1.0	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 1.0
Xylene (Total)	90 (MAC)	300	< 1.5	<0.3	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 1.5	<0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	< 1.5
Trichlorofluoromethane (FREON 11)		150		<0.5	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40		<0.2	<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<0.40	

Note:

Units used are µg/L.

ODWS = Ontario Drinking Water Standards, MECP, January 2016

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

[1] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	MW5/02 #2	MW5/02 #2	MW5/02 #2	MW5/02 #2	MW5/02 #2	MW5/02 #2	MW5/02 #2	MW5/02 #2	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1
Date >			16-Sep-11	24-Sep-12	10-Sep-13	19-Sep-14	2-Sep-15	29-Aug-16	14-Sep-17	19-Sep-18	15-Oct-03	28-Jan-04	2-Jun-05	14-Nov-06	6-Dec-07	10-Apr-08	17-Jun-08	27-Aug-08	24-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	11-Dec-09	30-Aug-10	19-Sep-11	24-Sep-12	6-Sep-13
1,1-Dichloroethane		5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.1	< 0.1	<0.1	<0.1	<1	<1	<2	<1	<2	<1	<0.2	< 0.1	<2	<1.0	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.5	<0.1	<0.5	<0.5	<1	<2	<0.5	<0.2	< 0.1	<2	<1.0	<0.5
1,1,1-Trichloroethane		200	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<2	<0.1	<1	<2	<1	<2	<1	<0.2	< 0.1	<2	<1.0	<0.5
1,1,2-Tetrachloroethane		1.1	<0.2	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<2	<0.1	<1	<2	<1	<2	<1	<0.5	< 0.1	<2	<2.0	<0.5
1,1,2-Trichloroethane		4.7	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<2	<0.2	<1	<4	<2	<4	<2	<0.5	< 0.1	<4	<2.0	<0.5
1,1,2,2-Tetrachloroethane		1	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.4	< 0.4	<0.4	<4	<0.2	<2	<4	<2	<4	<2	<0.5	< 0.4	<4	<2.0	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.4	<0.40	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<2	<0.2	<1	<1	<2	<4	<1	<0.5	< 0.1	<4	<2.0	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	1.7	<4	0.5	<2	<4	<2	<4	<1	<0.5	1.4	<4	<2.0	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<4	<0.3	<2	<4	<2	<4	<2	<0.5	< 0.1	<4	<2.0	<0.5
cis-1,2-Dichloroethene		1.6	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.1	0.3	<0.1	<2	<0.3	<1	<2	<1	<2	<1	<0.5	0.3	<2	<1.0	<0.5
trans-1,2-Dichloroethene		1.6	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.1	< 0.1	<0.1	<2	<0.1	<1	<2	<1	<2	<1	<0.5	< 0.1	<2	<1.0	<0.5
1,2-Dichloropropane		5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<2	<0.1	<1	<2	<1	<2	<1	<0.2	< 0.1	<2	<1.0	<0.5
1,3-Dichlorobenzene		59	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	4.2	<4	<0.2	<2	<4	<2	<4	<2	<0.5	< 0.1	<4	<2.0	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**28**	**21**	**16.4**	< 0.2	**9.9**	**19**	**24**	**17**	**20**	**20**	**24**	**26**	**28**	**24.9**	**23**	**18**	**32.4**
Benzene	1 (MAC)	5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**4.7**	**5.9**	**7.4**	**6.4**	**5**	**5.6**	**5**	**5**	**4**	**5**	**6**	**6.5**	**8.8**	**6**	**5.6**	**5.4**
Bromodichloromethane		16	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<2	<0.1	<1	<2	<1	<2	<1	<0.5	< 0.1	<2	<1.0	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<2	<0.1	<1	<2	<1	<2	<1	<0.2	< 0.2	<2	<1.0	<0.2
Chlorobenzene	80 (MAC)	30	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**89**	**59**	**78.3**	**126**	**179**	**56**	**68**	**61**	**120**	**72**	**88**	**100**	**130**	**128**	**100**	**73**	**145**
Chloroform		2.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<2	<0.1	<1	<2	<1	<2	<1	<0.2	< 0.3	<2	<1.0	<0.5
Dibromochloromethane		25	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<4	<0.2	<2	<4	<2	<4	<2	<0.5	< 0.1	<4	<2.0	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<1	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<10	<0.5	<5	<10	<5	<10	<5	<2	< 0.3	<10	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**13**	**10**	**10.3**	< 0.5	**10.5**	**4**	**5.5**	**4**	**4**	**6**	**4**	**6.9**	**9**	**4**	**2.5**	**4.1**
Styrene		5.4	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	**107**	4.3	<4	<0.2	<2	<4	<2	<4	<2	<0.5	1.1	<4	<2.0	1.3
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<2	<0.1	<1	<2	<1	<2	<1	<0.2	< 0.2	<2	<1.0	<0.5
Toluene	60 (MAC)	24	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	0.8	0.6	1.1	1.5	<4	0.6	<2	<4	<2	<4	<2	0.9	0.8	<4	<2.0	0.9
Trichloroethene	5 (MAC)	1.6	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7	< 0.1	<0.1	**2**	<0.1	<1	<2	<1	<2	<1	<0.2	0.1	<2	<1.0	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.4	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	0.3	<0.2	<1	0.2	<0.5	<0.5	<2	<4	<0.5	<0.2	< 0.2	<4	<2.0	<0.5
o-Xylene		NV	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.6	2.7	3.3	< 0.5	<0.5	<2	3.1	2	<2	2	3	2	3.4	4.9	2	2.1	2.6
m,p-xylenes		NV	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	99	130	145	8.4	127	120	79	53	67	65	77	83	73	76.7	36	37	43.2
Xylene (Total)	90 (MAC)	300	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	101.6	132.7	148.3	8.4	127	120	82	55	67	67	80	85	77	81.6	38	39	45.8
Trichlorofluoromethane (FREON 11)		150	<0.4	<0.40	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0											<4				<4	<2.0	<1.0

Note:

Units used are µg/L.

[2] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1#1	CB03-1 #1	CB03-1 #1B	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-1#2
Date >			18-Sep-14	10-Sep-15	29-Aug-16	13-Sep-17	13-Sep-18	13-Sep-18	15-Oct-03	28-Jan-04	2-Jun-05	14-Nov-06	6-Dec-07	10-Apr-08	17-Jun-08	26-Aug-08	24-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	11-Dec-09	30-Aug-10	19-Sep-11	24-Sep-12	6-Sep-13	19-Sep-14	10-Sep-15
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	1.5	1.6	1	1.8	1	0.8	<1	<1	<1	1.1	<1	0.8	1.3	0.8	0.69	0.5	0.6	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	1.2	**1.8**	1.3	**2.3**	1	1	0.6	1.2	1	1.2	0.9	0.7	1.1	1.3	0.7	0.6	<0.5	0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	1.1	< 0.1	1.4	<1	0.3	<1	<1	<1	<0.5	<1	0.2	0.3	<0.5	<0.50	<0.5	<0.5	<0.5
1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<1	<0.1	<1	<1	<1	<0.5	<1	<0.5	< 0.1	<0.5	<1.0	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.7	1.4	0.9	<1	0.6	<1	<2	<2	<1	<2	<0.5	< 0.1	<1	<1.0	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.4	< 0.4	<0.4	<2	<0.2	<2	<2	<2	<1	<2	<0.5	< 0.4	<1	<1.0	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<1	<0.2	<1	<1	<2	<1	<1	<0.5	< 0.1	<1	<1.0	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	0.5	<0.5	<0.5	1.1	0.6	0.6	<0.5	<0.5	<0.1	< 0.1	<0.1	<2	<0.2	<2	<2	<2	<1	<1	<0.5	< 0.1	<1	<1.0	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<2	<0.2	<2	<2	<2	<1	<2	<0.5	< 0.1	<1	<1.0	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	**15**	**34**	**73.1**	**107**	**405**	**120**	**120**	**110**	**190**	**240**	**180**	**170**	**110**	**119**	**130**	**82**	**56.5**	**42.2**	**50.5**
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	0.4	**3.5**	1.3	**2**	**2.6**	**2**	<1	1	1	<1	0.7	0.4	0.9	<0.50	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<1	<0.1	<1	<1	<1	<0.5	<1	<0.2	< 0.1	<0.5	<0.50	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<2	<0.2	<2	<2	<2	<1	<2	<0.5	< 0.1	<1	<1.0	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	**38.4**	**19.3**	**48.8**	**33.2**	**21**	**21.4**	**28**	<0.5	<0.2	< 0.2	<0.2	<2	<0.2	<2	<2	<2	<1	<2	<0.5	< 0.2	<1	<1.0	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	**5.4**	4.8	**11.4**	**8.8**	**5.5**	**5.5**	**6.2**	<0.5	<0.5	< 0.5	<0.5	<1	<0.1	<1	<1	<1	<0.5	<1	<0.2	< 0.5	<0.5	<0.50	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<1	<0.1	<1	<1	<1	<0.5	<1	<0.5	< 0.1	<0.5	<0.50	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<1	<0.1	<1	<1	<1	<0.5	<1	<0.2	< 0.2	<0.5	<0.50	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	**277**	**129**	**216**	**141**	**99.6**	**96.5**	**89**	<0.5	0.4	0.9	<0.2	<1	<0.1	<1	<1	<1	<0.5	<1	<0.2	< 0.2	<0.5	<0.50	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<1	<0.1	<1	<1	<1	<0.5	<1	<0.2	< 0.3	<0.5	<0.50	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<2	<0.2	<2	<2	<2	<1	<2	<0.5	< 0.1	<1	<1.0	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<5	<0.5	<5	<5	<5	<3	<5	<2	< 0.3	<3	<2.5	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	**4.5**	**17.9**	**2.9**	1.4	0.7	0.8	**13**	<0.5	<0.5	< 0.5	<0.5	<1	<0.1	<1	<1	<1	<0.5	<1	<0.2	< 0.5	<0.5	<0.50	<0.5	<0.5	<0.5
Styrene		5.4	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<2	<0.2	<2	<2	<2	<1	<2	<0.5	< 0.5	<1	<1.0	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	**3.5**	**3.2**	**2.0**	**1.8**	1.0	<1	<1	<0.5	<1	0.4	0.8	<0.5	<0.50	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	0.8	<0.5	1.1	0.6	<0.5	<0.5	1	<0.5	<0.5	< 0.5	<0.5	<2	<0.2	<2	<2	<2	<1	<2	<0.2	< 0.5	<1	<1.0	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**180**	**97.2**	**412**	**507**	**280**	**260**	**180**	**100**	**47**	**78**	**25**	**43**	**18.5**	**13**	1.4	0.9	0.7	1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	**1.9**	**5.1**	**5.8**	**2**	**2.4**	**4**	**6**	**5**	**6**	**8**	**5.7**	**5.1**	**2**	**3.0**	**6.5**	**3.5**	**0.9**
o-Xylene		NV	3	<0.5	<0.5	1.7	<0.5	<0.5	2.6	<0.5	<0.5	< 0.5	<0.5	<1	<0.1	<1	<1	<1	<0.5	<1	<0.2	< 0.5	<0.5	<0.50	<0.5	<0.5	<0.5
m,p-xylenes		NV	23	18.8	72	66.1	33.4	33.6	99	<0.5	<1	< 1.0	<1.0	<1	<0.1	<1	<1	<1	<0.5	<1	<0.2	< 1.0	<0.5	<0.50	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	26	18.8	72	67.9	33.4	33.6	101.6	<1.0	<1.5	<1.5	<1.5	<1	<0.1	<1	<1	<1	<0.5	<1	<0.2	< 1.5	<0.5	<0.50	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0											<1				<1	<1.0	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

" = Table 2 Standard is for sum of both isomers.

AO = Aesthetic Objective

Blank space denotes parameter not tested.

Bold-faced type denotes concentration elevated above "Table 2" criterion.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB03-1#2	CB03-1#2	CB03-1#2	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1	CB03-2#1
Date >			29-Aug-16	13-Sep-17	13-Sep-18	15-Oct-03	29-Jan-04	2-Jun-05	17-Nov-06	6-Dec-07	11-Apr-08	17-Jun-08	29-Aug-08	24-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	11-Dec-09	30-Aug-10	16-Sep-11	26-Sep-12	6-Sep-13	18-Sep-14	9-Sep-15	1-Sep-16	13-Sep-17	13-Sep-18
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.1	0.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	0.7	0.8	<0.5	<0.5	<0.1	0.6	1.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	1.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<1	<1	<0.4	< 0.4	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	**104**	**62.6**	**71.2**	**69**	**67**	**6.4**	**32.3**	**353**	**8.2**	**3.4**	**14**	**3.4**	0.4	0.2	1.3	<0.5	1.3	**14**	**15**	**3.6**	<0.5	**13.2**	<0.5	**14.5**	<0.5
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<1	<1	<0.1	0.9	1.4	0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	0.1	0.17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	0.6	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.5	1.1	0.9	<0.5	<0.5	**2.0**	**301**	**22.1**	**2.6**	0.3	0.6	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	**6.9**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	**1.4**	**1.2**	**2.4**	**4.1**	<0.2	**0.7**	**4.8**	0.5	0.3	**1.3**	0.3	<0.2	<0.2	<0.2	<0.2	**0.6**	**0.6**	0.46	**0.7**	<0.5	<0.5	<0.5	**3.6**	<0.5
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<1	<1	<1	< 1.0	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<1.5	<1.5	<1.5	<1.5	<1.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0											<0.2				<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

* = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2#2	CB03-2 #2	CB03-2 #2B	CB03-3#1	CB03-3#1
Date >			15-Oct-03	29-Jan-04	2-Jun-05	17-Nov-06	6-Dec-07	11-Apr-08	17-Jun-08	29-Aug-08	24-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	11-Dec-09	30-Aug-10	19-Sep-11	26-Sep-12	6-Sep-13	18-Sep-14	9-Sep-15	1-Sep-16	13-Sep-17	13-Sep-18	13-Sep-18	29-Jan-04	7-Dec-07
1,1-Dichloroethane		5	<0.4	0.6	<1	< 0.1	1.6	<2	0.4	<3	<2	<0.5	<2	<1	0.5	< 1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<1	1	1.5	0.6	0.7	0.7	0.7	<0.5	<2	<0.5	0.5	< 1	<1	<1.0	0.8	0.6	0.7	<0.5	0.6	0.9	0.8	<0.5	<0.1
1,1,1-Trichloroethane		200	<0.5	<0.5	<1	< 0.1	<0.1	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<1	< 0.1	<0.1	<2	<0.2	<3	<2	<0.5	<2	<1	<0.5	< 1	<1	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<1	< 0.1	1.0	<2	0.8	<5	<4	<1	<4	<2	0.7	< 1	<2	<2.0	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
1,1,2,2-Tetrachloroethane		1	<1	<1	<4	< 0.4	<0.4	<4	<0.4	<5	<4	<1	<4	<2	<0.5	< 4	<2	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.4
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.5	<0.5	<1	< 0.1	<0.1	<2	<0.4	<1	<1	<1	<4	<1	<0.5	< 1	<2	<2.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<1	< 0.1	<0.1	<4	<0.4	<5	<4	<1	<4	<1	<0.5	< 1	<2	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
1,2-Dichloroethane	5 (MAC)	1.6	<0.5	<0.5	<1	< 0.1	<0.1	<4	<0.4	<5	<4	<1	<4	<2	<0.5	< 1	<2	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.7
cis-1,2-Dichloroethene		1.6	**24**	**45**	**42**	**389**	**94.6**	**49**	**56**	**43**	**32**	**33**	**50**	**47**	**48**	**71.6**	**58**	**54**	**134**	**256**	**239**	**158**	**330**	**274**	**259**	<1	<0.1
trans-1,2-Dichloroethene		1.6	<1	<1	<1	<1	**8.5**	0.7	<2	0.7	<3	<2	<0.5	<2	<1	0.6	< 1	<1	<1.0	0.8	0.9	1.2	1.3	**3.3**	**3.3**	**2.6**	<1	<0.1
1,2-Dichloropropane		5	<0.5	<0.5	<1	< 0.1	<0.1	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
1,3-Dichlorobenzene		59	<0.5	<0.5	<1	< 0.1	<0.1	<4	<0.4	<5	<4	<1	<4	<2	<0.5	< 1	<2	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<2	< 0.2	<0.2	<4	0.4	<5	<4	<1	<4	<2	<0.5	< 2	<2	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
Benzene	1 (MAC)	5	<0.5	<0.5	<5	< 0.5	<0.5	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 5	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.2	<0.2	<1	< 0.1	<0.1	<2	<0.2	<3	<2	<0.5	<2	<1	<0.5	< 1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.5	<0.5	<2	< 0.2	<0.2	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 2	<1	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<2	< 0.2	<0.2	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 2	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2
Chloroform		2.4	<0.2	<0.2	<3	< 0.3	<0.3	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 3	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.3
Dibromochloromethane		25	<0.2	<0.2	<1	< 0.1	<0.1	<4	<0.4	<5	<4	<1	<4	<2	<0.5	< 1	<2	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.1
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<1	<1	<3	< 0.3	<0.3	<10	<1	<10	<10	<3	<10	<5	<2	< 3	<5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<0.3
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<5	< 0.5	<0.5	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 5	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<6	< 0.6	<0.6	<4	<0.4	<5	<4	<1	<4	<2	<0.5	< 5	<2	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.2	<0.2	<0.2	< 0.2	<0.2	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 2	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2
Toluene	60 (MAC)	24	<0.5	<0.5	<5	< 0.5	<0.5	<4	<0.4	<5	<4	<1	<2	<2	<0.2	< 5	<2	<2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	**120**	**160**	**227**	**61.7**	**423**	**400**	<0.2	**380**	**420**	**360**	**320**	**320**	**310**	**375**	**360**	**230**	**152**	**23.4**	**12.7**	**9**	**3.4**	**1.7**	1.5	<0.5	<0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.2	**2.1**	**5**	**14.5**	**1.4**	**0.8**	**1.0**	**0.8**	0.5	<1	<4	<0.5	0.5	< 2	<2	<2.0	**1.3**	**1.6**	**1.1**	<0.5	**1.6**	**1.2**	**1.3**	<0.2	<0.2
o-Xylene		NV	<0.5	<0.5	<5	< 0.5	<0.5	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 5	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<10	< 1.0	<1.0	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 10	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0
Xylene (Total)	90 (MAC)	300	<1.0	<1.0	<15	<1.5	<1.5	<2	<0.2	<3	<2	<0.5	<2	<1	<0.2	< 15	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.5
Trichlorofluoromethane (FREON 11)		150											<4				<2	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		

Note:

Units used are µg/L.

[1] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#1	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2
Date >			11-Apr-06	18-Jun-08	29-Aug-08	18-Jun-09	31-Aug-09	30-Aug-10	14-Sep-11	25-Sep-12	5-Sep-13	19-Sep-14	10-Sep-15	29-Aug-16	13-Sep-17	11-Sep-18	29-Jan-04	7-Dec-07	11-Apr-08	18-Jun-08	29-Aug-08	24-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	30-Aug-10	14-Sep-11
1,1-Dichloroethane		5	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1
1,1,1-Trichloroethane		200	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1
1,1,2-Tetrachloroethane		1.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1
1,1,2-Trichloroethane		4.7	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2
1,1,2,2-Tetrachloroethane		1	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.4	<0.2
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2
1,2-Dichloroethane	5 (MAC)	1.6	0.3	<0.2	0.2	<0.2	<0.2	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	< 0.1	<0.2
cis-1,2-Dichloroethene		1.6	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1
trans-1,2-Dichloroethene		1.6	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1
1,2-Dichloropropane		5	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1
1,3-Dichlorobenzene		59	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2
1,4-Dichlorobenzene	5 (MAC)	1	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2
Benzene	1 (MAC)	5	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.5	<0.1
Bromodichloromethane		16	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.5	<0.5	<0.5	4.5	<0.5	<0.5	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	< 0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.2	<0.1
Chlorobenzene	80 (MAC)	30	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.2	<0.1
Chloroform		2.4	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	**24.7**	<0.5	<0.5	<0.2	<0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.3	<0.1
Dibromochloromethane		25	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	2.1	<0.5	<0.5	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.2
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.3	<0.5
Ethylbenzene	140 (MAC)	2.4	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.5	<0.1
Styrene		5.4	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.5	<0.2
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.2	<0.1
Toluene	60 (MAC)	24	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.2	<0.2	<0.2	0.2	<0.2	0.2	0.2	<0.2	< 0.5	<0.2
Trichloroethene	5 (MAC)	1.6	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	<0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2
o-Xylene		NV	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.5	<0.1
m,p-xylenes		NV	<0.1	<0.1	<0.1	<0.1	<0.1	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.1	<0.1	0.2	<0.1	<0.1	0.1	0.1	< 1.0	<0.1
Xylene (Total)	90 (MAC)	300	<0.1	<0.1	<0.1	<0.1	<0.1	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.5	<0.1	<0.1	0.2	<0.1	<0.1	0.1	0.1	< 1.5	<0.1
Trichlorofluoromethane (FREON 11)		150				<0.2			<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0									<0.2		<0.2

Note:

Units used are µg/L.

[7] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-3#2	CB03-4#1	CB03-4#1	CB03-4#1	CB03-4#1	CB03-4#1	CB03-4#1	CB03-4 #1	CB03-4 #1	CB03-4 #1	CB03-4 #1	CB03-4 #1	CB03-4 #1	CB03-4 #1	CB03-4 #1	CB03-4 #1	CB03-4 #1	CB03-4#2	CB03-4#2
Date >			5-Nov-12	5-Sep-13	19-Sep-14	10-Sep-15	29-Aug-16	13-Sep-17	11-Sep-18	15-Oct-04	28-Jan-04	2-Jun-05	14-Nov-06	5-Dec-07	27-Aug-08	1-Sep-09	31-Aug-10	14-Sep-11	25-Sep-12	9-Sep-13	18-Sep-14	3-Sep-15	30-Aug-16	11-Sep-17	18-Sep-18	15-Oct-03	28-Jan-04
1,1-Dichloroethane		5	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**5.7**	4.6
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**13**	**11**
1,1,1-Trichloroethane		200	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	<0.4	< 0.4	<0.4	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	200 (MAC)	3	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (MAC)	1.6	0.32	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	0.16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**6.7**	**6.4**
trans-1,2-Dichloroethene		1.6	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**7.8**	**7.2**
1,2-Dichloropropane		5	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2
Carbon Tetrachloride	2 (MAC)	0.79	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5
Chlorobenzene	80 (MAC)	30	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	0.3	<0.3	< 0.3	<0.3	0.3	0.32	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2
Dibromochloromethane		25	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1
Ethylbenzene	140 (MAC)	2.4	0.12	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2
Toluene	60 (MAC)	24	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	1.1	0.2	0.31	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	0.71	**2.8**	<0.5	<0.5	<0.5	1.6	<0.5	**270**	**280**
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.3**	**1.3**
o-Xylene		NV	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	0.18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	0.2	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	0.18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.5	<1.5	<1.5	0.2	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0
Trichlorofluoromethane (FREON 11)		150	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0							<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	2.6		

Note:

Units used are µg/L.

[1] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above 'Table 2' criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB03-4#2	CB03-4#2	CB03-4#2	CB03-4#2	CB03-4 #2	CB03-4 #2	CB03-4 #2	CB03-4 #2	CB03-4 #2	CB03-4 #2	CB03-4 #2	CB03-4 #2	CB03-4 #2	CB03-4 #2	CB03-4 #2	CB03-4 #2B	CB03-5#1	CB03-5#1	CB03-5#1	CB03-5#1	CB03-5#1	CB03-5#1	CB03-5 #1	CB03-5 #1	CB03-5 #1	CB03-5 #1
Date >			2-Jun-05	14-Nov-06	5-Dec-07	27-Aug-08	1-Sep-09	31-Aug-10	14-Sep-11	25-Sep-12	9-Sep-13	19-Sep-14	3-Sep-15	30-Aug-16	11-Sep-17	18-Sep-18	18-Sep-18	15-Oct-04	2-Feb-04	2-Jun-05	14-Nov-06	5-Dec-07	27-Aug-08	2-Sep-09	30-Aug-10	16-Sep-11	20-Sep-12
1,1-Dichloroethane		5	**170**	2.7	**9.5**	**7**	**8.1**	4.3	**6.9**	3.5	**20.4**	3.2	**9.1**	**16.3**	**25.3**	**93.6**	**87.9**	<0.4	<0.4	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	**220**	0.5	**21.8**	**14**	**13**	**16.3**	**9.8**	**6.2**	**4.2**	**2.7**	**7.1**	**22**	**127**	**333**	**310**	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10
1,1,1-Trichloroethane		200	<1	< 0.1	<0.1	<0.5	<0.30	< 0.1	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	18.5	19.6	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10
1,1,1,2-Tetrachloroethane		1.1	<1	< 0.1	<0.1	<0.5	<0.10	< 0.1	<0.5	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	< 0.1	<0.1	<0.20
1,1,2-Trichloroethane		4.7	<1	< 0.1	<0.1	<1	<0.20	< 0.1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20
1,1,2,2-Tetrachloroethane		1	<4	< 0.4	<0.4	<1	<0.10	< 0.4	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.4	< 0.4	<0.4	<0.2	<0.10	< 0.4	<0.2	<0.20
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<1	< 0.1	<0.1	<1	<0.20	< 0.1	<1	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20
1,2-Dichlorobenzene	200 (MAC)	3	<1	< 0.1	<0.1	<1	<0.10	< 0.1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20
1,2-Dichloroethane	5 (IMAC)	1.6	<1	< 0.1	0.6	<1	<0.20	< 0.1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	**2.7**	**2.9**	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20
cis-1,2-Dichloroethene		1.6	**50**	**7.0**	**38.2**	**22**	**13**	**11.6**	**36**	**45**	**35.1**	**18.9**	**19.5**	**44.2**	**28.6**	**17.2**	**16.4**	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10
trans-1,2-Dichloroethene		1.6	<1	< 0.1	**195**	**67**	**38**	**28.7**	**55**	**100**	**67.5**	**28.3**	**49.8**	**108**	**76**	**38.7**	**32.1**	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10
1,2-Dichloropropane		5	<1	< 0.1	<0.1	<0.5	<0.20	< 0.1	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10
1,3-Dichlorobenzene		59	<1	< 0.1	<0.1	<1	<0.10	< 0.1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20
1,4-Dichlorobenzene	5 (MAC)	1	<2	< 0.2	<0.2	<1	<0.10	< 0.2	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.2	<0.20
Benzene	1 (MAC)	5	<5	< 0.5	<0.5	<0.5	<0.20	< 0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10
Bromodichloromethane		16	<1	< 0.1	<0.1	<0.5	<0.20	< 0.1	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10
Carbon Tetrachloride	2 (MAC)	0.79	<2	< 0.2	<0.2	<0.5	<0.20	< 0.2	<0.5	<0.50	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10
Chlorobenzene	80 (MAC)	30	<2	< 0.2	<0.2	<0.5	<0.10	< 0.2	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.10	< 0.2	<0.1	<0.10
Chloroform		2.4	<3	< 0.3	<0.3	<0.5	<0.20	< 0.3	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.1	<0.20	< 0.3	<0.1	<0.10
Dibromochloromethane		25	<1	< 0.1	<0.1	<1	<0.10	< 0.1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<3	< 0.3	<0.3	<3	<0.30	< 0.3	<3	<2.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<0.5	<0.30	< 0.3	<0.5	<0.50
Ethylbenzene	140 (MAC)	2.4	<5	< 0.5	<0.5	<0.5	<0.10	< 0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10
Styrene		5.4	<6	< 0.6	<0.6	<1	<0.10	< 0.5	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	< 0.5	<0.2	<0.20
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.2	< 0.2	<0.2	<0.5	<0.20	< 0.2	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10
Toluene	60 (MAC)	24	<5	< 0.5	1.0	<1	<0.20	< 0.5	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	<0.20
Trichloroethene	5 (MAC)	1.6	**199**	**147**	**297**	**100**	**59**	**124**	**71**	**30**	**7.2**	**2.9**	**9.6**	**17.1**	**15.7**	**71.7**	**84**	<0.5	<0.5	<0.1	< 0.1	0.1	0.1	0.26	0.8	0.3	0.48
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<2	**0.6**	**1.8**	**0.7**	0.37	< 0.2	**6.0**	**1.1**	**0.7**	**1.2**	<0.5	<0.5	<0.5	**1.5**	**1.4**	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.2	<0.17	< 0.2	<0.2	<0.20
o-Xylene		NV	<5	< 0.5	<0.5	<0.5	<0.10	< 0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10
m,p-xylenes		NV	<10	< 1.0	<1.0	<0.5	<0.20	< 1.0	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	<0.1	<0.20	< 1.0	<0.1	<0.10
Xylene (Total)	90 (MAC)	300	<15	<1.5	<1.5	<0.5	<0.20	< 1.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.5	<1.5	<1.5	<0.1	<0.20	< 1.5	<0.1	<0.10
Trichlorofluoromethane (FREON 11)		150					<0.40		<1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0							<0.40		<0.2	<0.20

Note:

Units used are µg/L.

[1] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB03-5 #1	CB03-5 #1	CB03-5 #1	CB03-5 #1	CB03-5 #1	CB03-5 #1	CB03-5 #1B	CB03-5#2	CB03-5#2	CB03-5#2	CB03-5#2	CB03-5#2	CB03-5 #2	CB03-5 #2	CB03-5 #2	CB03-5 #2	CB03-5 #2	CB03-5 #2	CB03-5 #2	CB03-5 #2	CB03-5 #2	CB03-5 #2	CB05-1#1	CB05-1#1	CB05-1#1
Date >			9-Sep-13	16-Sep-14	9-Sep-15	31-Aug-16	12-Sep-17	18-Sep-18	18-Sep-18	2-Feb-04	2-Jun-05	14-Nov-06	5-Dec-07	27-Aug-08	2-Sep-09	30-Aug-10	19-Sep-11	20-Sep-12	9-Sep-13	18-Sep-14	9-Sep-15	31-Aug-16	12-Sep-17	18-Sep-18	21-Nov-05	17-Nov-06	7-Dec-07
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	3.5	2.9	< 0.1	2.4	1.7	1.9	3	2	1.5	1.9	2.4	1.8	<0.5	1.3	2.6	3	0.2	1.4
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	0.6	<0.5	0.6	<0.5	<0.5	0.9	0.8	< 0.1	1.3	0.4	0.41	0.8	0.3	0.17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.4	< 0.4	<0.4	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	< 0.4	<0.4
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	< 0.1	<0.1
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1
1,2-Dichloroethane	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1
cis-1,2-Dichloroethene		1.6	<0.5	**2.5**	**7.4**	**2.8**	1.6	1.3	1.2	<1	<0.1	< 0.1	0.4	0.8	0.36	1.1	<0.1	0.15	<0.5	0.8	1.0	<0.5	<0.5	0.9	<0.1	6.5	<0.1
trans-1,2-Dichloroethene		1.6	<0.5	**2.4**	**11.9**	**5.6**	**4.8**	<0.5	0.8	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1
1,2-Dichloropropane		5	<0.5	**8.0**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	< 0.5	1.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.3	< 0.3	<0.3	<0.1	<0.20	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**3**	< 0.3	<0.3
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<0.3	< 0.3	<0.3	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.3	< 0.3	<0.3
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	0.2	<0.20	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.5	**28.2**	**374**	**245**	**233**	**41.2**	**54.4**	<0.5	**6**	**2.3**	**8.1**	**6.0**	**5.4**	**8.1**	**7.7**	**6.6**	**4.2**	**3.3**	**3.9**	<0.5	**3.5**	**4.4**	< 0.1	0.2	<0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	< 0.2	**0.9**	0.4	**0.52**	**0.6**	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	< 0.2	**0.6**
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	0.1	<0.20	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.5	<1.5	<1.5	0.1	<0.20	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1.5	<1.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0						<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			

Note:

Units used are µg/L.

' = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB05-1#2	CB05-1#2	CB05-1#2	CB05-2#1	CB05-2#1	CB05-2#1	CB05-2#1	CB05-2 #1	CB05-2 #1	CB05-2 #1	CB05-2 #1	CB05-2 #1	CB05-2 #1	CB05-2 #1	CB05-2 #1	CB05-2 #1	CB05-2 #1	CB05-2#2	CB05-2#2	CB05-2#2	CB05-2#2	CB05-2 #2	CB05-2 #2	CB05-2 #2	CB05-2 #2
Date >			21-Nov-05	17-Nov-06	7-Dec-07	21-Nov-05	16-Nov-06	4-Dec-07	28-Aug-08	2-Sep-09	1-Sep-10	16-Sep-11	24-Sep-12	5-Sep-13	19-Sep-14	3-Sep-15	29-Aug-16	15-Sep-17	11-Sep-18	21-Nov-05	16-Nov-06	7-Dec-07	28-Aug-08	2-Sep-09	1-Sep-10	16-Sep-11	24-Sep-12
1,1-Dichloroethane		5	1	< 0.1	1.3	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	< 0.1	< 0.1	<0.1	< 0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10
1,1,1-Trichloroethane		200	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.10
1,1,1,2-Tetrachloroethane		1.1	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.1	<0.10	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	< 0.1	<0.1	<0.20
1,1,2-Trichloroethane		4.7	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20
1,1,2,2-Tetrachloroethane		1	<0.4	< 0.4	<0.4	<0.4	< 0.4	<0.4	<0.2	<0.10	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	< 0.4	<0.4	<0.2	<0.10	< 0.4	<0.2	<0.20
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20
1,2-Dichlorobenzene	200 (MAC)	3	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20
1,2-Dichloroethane	5 (MAC)	1.6	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.20
cis-1,2-Dichloroethene		1.6	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10
trans-1,2-Dichloroethene		1.6	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10
1,2-Dichloropropane		5	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10
1,3-Dichlorobenzene		59	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20
1,4-Dichlorobenzene	5 (MAC)	1	<0.2	< 0.2	<0.2	<0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.2	<0.20
Benzene	1 (MAC)	5	0.7	< 0.5	1.6	<0.5	< 0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.10
Bromodichloromethane		16	<0.1	< 0.1	<0.1	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	< 0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10
Chlorobenzene	80 (MAC)	30	<0.2	< 0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.10	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.10	< 0.2	<0.1	<0.10
Chloroform		2.4	1.1	< 0.3	<0.3	<0.3	< 0.3	<0.3	<0.1	<0.20	< 0.3	0.2	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	1.1	**2.5**	0.9	0.61	< 0.3	<0.1	<0.10
Dibromochloromethane		25	< 0.1	< 0.1	<0.1	< 0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.20
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.3	< 0.3	<0.3	<0.3	< 0.3	<0.3	<0.5	<0.30	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.3	< 0.3	<0.3	<0.5	<0.30	< 0.3	<0.5	<0.50
Ethylbenzene	140 (MAC)	2.4	<0.5	< 0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10
Styrene		5.4	<0.6	< 0.6	<0.6	<0.6	< 0.6	<0.6	<0.2	<0.10	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	< 0.5	<0.2	<0.20
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.2	< 0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.10
Toluene	60 (MAC)	24	<0.5	< 0.5	<0.5	<0.5	< 0.5	1.0	<0.2	<0.20	< 0.5	<0.2	0.34	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	<0.20
Trichloroethene	5 (MAC)	1.6	< 0.1	< 0.1	<0.1	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	0.1	**4.3**	<0.1	<0.20	< 0.1	<0.1	<0.10
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	< 0.2	< 0.2	<0.2	< 0.2	< 0.2	<0.2	<0.2	<0.17	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.2	<0.2	<0.17	< 0.2	<0.2	<0.20
o-Xylene		NV	<0.5	< 0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	<0.10
m,p-xylenes		NV	<1	< 1.0	<1.0	<1	< 1.0	<1.0	0.1	<0.20	< 1.0	<0.1	0.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	0.1	<0.20	< 1.0	<0.1	<0.10
Xylene (Total)	90 (MAC)	300	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	0.1	<0.20	< 1.5	<0.1	0.21	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1.5	<1.5	0.1	<0.20	< 1.5	<0.1	<0.10
Trichlorofluoromethane (FREON 11)		150								<0.40		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0					<0.40		<0.2	<0.20

Note:

Units used are µg/L.

[1] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB05-2 #2	CB05-2 #2	CB05-2 #2	CB05-2 #2	CB05-2 #2	CB05-2 #2	CB06-1	CB06-1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1	CB08-1#1
Date >			5-Sep-13	19-Sep-14	3-Sep-15	29-Aug-16	15-Sep-17	11-Sep-18	5-Dec-07	10-Apr-08	10-Apr-08	18-Jun-08	27-Aug-08	24-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	11-Dec-09	31-Aug-10	16-Sep-11	2-Oct-12	5-Sep-13	26-Sep-14	10-Sep-15	30-Aug-16	18-Sep-17	11-Sep-18
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1	0.1	<0.2	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.1	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	<0.2	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	1.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0										<0.2		<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

[7] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-1#2	CB08-2	CB08-2	CB08-2	CB08-2	CB08-2	CB08-2	CB08-2	CB08-2
Date >			11-Apr-08	18-Jun-08	27-Aug-08	24-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	11-Dec-09	31-Aug-10	16-Sep-11	2-Oct-12	5-Sep-13	26-Sep-14	16-Sep-15	30-Aug-16	18-Sep-17	11-Sep-18	27-Aug-08	24-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	11-Dec-09	31-Aug-10	19-Sep-11
1,1-Dichloroethane		5	<0.1	0.2	0.3	<0.1	0.2	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1
1,1,1-Trichloroethane		200	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	0.3	0.2	0.1	<0.2	< 0.1	<0.1
1,1,1,2-Tetrachloroethane		1.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1
1,1,2-Trichloroethane		4.7	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2
1,1,2,2-Tetrachloroethane		1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.4	<0.2
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2
1,2-Dichloroethane	5 (IMAC)	1.6	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2
cis-1,2-Dichloroethene		1.6	0.3	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.1	1.3	1.2	0.3	<0.5	0.3	< 0.1	<0.1
trans-1,2-Dichloroethene		1.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1
1,2-Dichloropropane		5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1
1,3-Dichlorobenzene		59	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2
1,4-Dichlorobenzene	5 (MAC)	1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.2	<0.2
Benzene	1 (MAC)	5	0.2	0.2	0.2	<0.1	0.2	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	0.7
Bromodichloromethane		16	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1
Chlorobenzene	80 (MAC)	30	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1
Chloroform		2.4	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.2	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	0.1	<0.1	<0.1	<0.2	< 0.3	<0.1
Dibromochloromethane		25	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<2	< 0.3	<0.5
Ethylbenzene	140 (MAC)	2.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1
Styrene		5.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.5	<0.2
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.0	0.5	1.3	0.9	0.7	0.8	0.2	**1.8**
Toluene	60 (MAC)	24	<0.1	<0.2	<0.2	0.2	0.2	<0.2	<0.2	<0.2	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.5	<0.2
Trichloroethene	5 (MAC)	1.6	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	0.7	**26**	**17**	**7.7**	1.0	0.2	0.2
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2
o-Xylene		NV	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1
m,p-xylenes		NV	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 1.0	<0.1
Xylene (Total)	90 (MAC)	300	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 1.5	<0.1
Trichlorofluoromethane (FREON 11)		150						<0.2				<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0				<0.2				<0.2

Note:

Units used are µg/L.

[1] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB08-2	CB08-2	CB08-2	CB08-2	CB08-2	CB08-2	CB08-2	CB08-3#1	CB08-3#1	CB08-3#1	CB08-3#1	CB08-3#1	CB08-3#1	CB08-3#1	CB08-3#1	CB08-3#2	CB08-3#2	CB08-3#2	CB08-3#2	CB08-3#2	CB08-3#2	CB08-3#2	CB08-3#2	CB10-1 #1	CB10-1 #1
Date >			25-Sep-12	5-Sep-13	19-Sep-14	10-Sep-15	30-Aug-16	15-Sep-17	11-Sep-18	12-Sep-08	26-Sep-08	14-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	11-Dec-09	1-Sep-10	12-Sep-08	26-Sep-08	14-Nov-08	18-Mar-09	18-Jun-09	31-Aug-09	11-Dec-09	1-Sep-10	26-Nov-10	22-Dec-10
1,1-Dichloroethane		5	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	0.2	0.2	0.1	0.1	0.1	<0.2	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	< 0.1	< 0.1	< 0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.1	< 0.1	< 0.1	< 0.1
1,1,1-Trichloroethane		200	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	< 0.1	< 0.1
1,1,2-Tetrachloroethane		1.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	< 0.1	< 0.1	< 0.1
1,1,2-Trichloroethane		4.7	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.1	< 0.1	< 0.1	< 0.1
1,1,2,2-Tetrachloroethane		1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.4	< 0.4	< 0.4	< 0.4
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dichlorobenzene	200 (MAC)	3	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dichloroethane	5 (IMAC)	1.6	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	< 0.1	< 0.1	< 0.1
cis-1,2-Dichloroethene		1.6	1.2	<0.5	<0.5	<0.5	<0.5	**16**	**2.1**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	< 0.1	< 0.1	< 0.1
trans-1,2-Dichloroethene		1.6	0.1	<0.5	<0.5	<0.5	<0.5	**5.6**	0.7	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	< 0.1	< 0.1	< 0.1
1,2-Dichloropropane		5	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	< 0.1	< 0.1	< 0.1
1,3-Dichlorobenzene		59	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	5 (MAC)	1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.2	< 0.2	< 0.2	< 0.2
Benzene	1 (MAC)	5	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane		16	<0.10	1.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	< 0.1	< 0.1	< 0.1	< 0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chlorobenzene	80 (MAC)	30	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chloroform		2.4	<0.10	**5.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.3	< 0.3	1.6	
Dibromochloromethane		25	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.1	< 0.1	< 0.1	< 0.1
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	< 0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<2	< 0.3	< 0.3	< 0.3	
Ethylbenzene	140 (MAC)	2.4	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	< 0.5	< 0.5	< 0.5
Styrene		5.4	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	1.5	<0.5	**9.9**	**4.7**	<0.5	**30.0**	**11.5**	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.2	< 0.2	0.6	
Toluene	60 (MAC)	24	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.2	0.3	<0.2	<0.2	0.2	<0.2	< 0.5	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethene	5 (MAC)	1.6	0.28	<0.5	<0.5	<0.5	<0.5	0.8	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.1	**3.2**	**5.0**	
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.20	<0.5	<0.5	<0.5	<0.5	**6.2**	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	< 0.2	< 0.2	< 0.2
o-Xylene		NV	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	< 0.5	< 0.5	< 0.5	
m,p-xylenes		NV	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	<0.1	0.1	<0.1	0.1	<0.1	<0.2	< 1.0	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.2	< 1.0	< 1.0	< 1.0
Xylene (Total)	90 (MAC)	300	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	<0.1	0.1	<0.1	0.1	<0.1	<0.2	< 1.5	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.2	< 1.5	< 1.5	< 1.5
Trichlorofluoromethane (FREON 11)		150	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			<0.2		<0.2							<0.2		<0.2			< 0.1	< 0.1

Note:

Units used are µg/L.

ODWS = Ontario Drinking Water Standards, MECP, January 2018

[1] = Table 2 Standard is for sum of both isomers.

MAC = Maximum Acceptable Concentration

Blank space denotes parameter not tested.

AO = Aesthetic Objective

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB10-1 #1	CB10-1 #1	CB10-1 #1	CB10-1 #1	CB10-1 #1	CB10-1 #1	CB10-1 #1	CB10-1 #1	CB10-1 #1	CB10-1 #2	CB10-1#2	CB10-1#2	CB10-1#2	CB10-1#2	CB10-1#2	CB10-1#2	CB10-1#2	CB10-1#2	CB10-1#2	CB10-2 #1	CB10-2 #1	CB10-2 #1	CB10-2 #1	CB10-2 #1	CB10-2 #1	CB10-2 #1
Date >			19-Sep-11	25-Sep-12	9-Sep-13	19-Sep-14	8-Sep-15	1-Sep-16	12-Sep-17	18-Sep-18	26-Nov-10	22-Dec-10	14-Sep-11	25-Sep-12	9-Sep-13	19-Sep-14	8-Sep-15	1-Sep-16	12-Sep-17	18-Sep-18	26-Nov-10	22-Dec-10	16-Sep-11	26-Sep-12	6-Sep-13	19-Sep-14	10-Sep-15
1,1-Dichloroethane		5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	0.1	0.13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	0.1	0.15	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.20	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.4	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.4	< 0.4	<0.2	<0.20	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	< 0.1	<0.2	<0.20	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	<0.1	<0.10	<0.5	<0.5	<0.5	0.9	0.8	1.4	0.5	0.2	0.1	0.31	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene		1.6	<0.1	<0.10	<0.5	<0.5	<0.5	1.1	1.0	1.6	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	0.9	0.41	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5
Bromodichloromethane		16	0.5	0.18	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.10	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	< 0.2	<0.1	<0.10	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5
Chloroform		2.4	**3.5**	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.3	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.3	< 0.3	<0.1	<0.10	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.2	<0.20	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 0.3	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 0.3	< 0.3	<0.5	<0.50	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.1	0.14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5
Styrene		5.4	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	0.5	0.2	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	< 0.2	< 0.2	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	0.4	0.2	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	0.2	0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.2	<0.20	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	**1.7**	**2.4**	1.4	**3.3**	**3.6**	**10.7**	**43.1**	**27.4**	**23.8**	**13.7**	1.2	**13**	**5.3**	**4.0**	**5.0**	**5.6**	**3.1**	**2.5**	**2.5**	**2.7**	0.4	0.58	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.2	<0.20	<0.5	<0.5	<0.5
o-Xylene		NV	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.1	<0.10	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 1.0	< 1.0	<0.1	0.22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 1.0	< 1.0	<0.1	<0.10	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 1.5	< 1.5	<0.1	0.22	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 1.5	< 1.5	<0.1	<0.10	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 0.1	< 0.1	<0.2	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 0.1	< 0.1	<0.2	<0.20	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

[1] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB10-2 #1	CB10-2 #1	CB10-2 #1	CB10-2 #2	CB10-2 #2	CB10-2 #2	CB10-2 #2	CB10-2 #2	CB10-2 #2	CB10-2 #2	CB10-2 #2	CB10-2 #2	CB10-2 #2	CB11-1#1	CB11-1#1	CB11/1#1	CB11-1 #1	CB11-1 #1	CB11-1 #1	CB11-1 #1	CB11-1 #1	CB11-1#2	CB11-1#2	CB11/1#2
Date >			31-Aug-16	13-Sep-17	17-Sep-18	26-Nov-10	22-Dec-10	16-Sep-11	26-Sep-12	6-Sep-13	19-Sep-14	10-Sep-15	31-Aug-16	13-Sep-17	17-Sep-18	23-Nov-11	16-Dec-11	3-Oct-12	11-Sep-13	18-Sep-14	9-Sep-15	1-Sep-16	19-Sep-17	12-Sep-18	23-Nov-11	16-Dec-11	3-Oct-12
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	< 1	0.2	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	< 1	0.4	<1	<0.50	<0.5	<0.5	<0.5	<0.5	0.7	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	< 1	< 0.1	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	< 1	< 0.1	<1	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<50
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	< 1	0.5	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	< 4	< 0.4	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	< 1	< 0.1	<2	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<2	<4.0	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<20	<50	<50
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	< 1	< 0.1	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
1,2-Dichloroethane	5 (MAC)	1.6	<0.5	<0.5	<0.5	< 1	< 0.1	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
cis-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	< 1	**2.2**	1	1.4	**3.3**	**12.5**	**11.9**	**7.7**	**16.4**	**17.6**	**3**	**4.3**	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**28**	**36**	**33**
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	< 1	0.3	**2**	0.9	0.5	<0.5	0.7	**1.7**	**2.6**	1.3	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	< 1	< 0.1	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	< 1	< 0.1	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	< 2	< 0.2	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	< 5	< 0.5	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
Bromodichloromethane		16	<0.5	<0.5	<0.5	< 1	< 0.1	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	< 2	< 0.2	<1	<0.50	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<2.0	<0.50	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<10	<25	<25
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	< 2	< 0.2	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
Chloroform		2.4	<0.5	<0.5	<0.5	< 3	< 0.3	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
Dibromochloromethane		25	<0.5	<0.5	<0.5	< 1	< 0.1	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	< 3	< 0.3	<5	<2.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<10	<2.5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<50	<130	<130
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	< 5	< 0.5	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
Styrene		5.4	<0.5	<0.5	<0.5	< 5	< 0.5	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	1.1	**4.9**	<0.5	< 2	0.5	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	< 5	< 0.5	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	**212**	**239**	**180**	**83**	**70.2**	**42.4**	**41.4**	**36.7**	**80.6**	**44.6**	**320**	**330**	**69**	**16.7**	<0.5	<0.5	<0.5	**1.7**	<0.5	**2600**	**3200**	**3300**
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	< 2	< 0.2	<2	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2	<4.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<20	<50	<50
o-Xylene		NV	<0.5	<0.5	<0.5	< 5	< 0.5	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
m,p-xylenes		NV	<0.5	<0.5	<0.5	< 10	< 1.0	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	< 15	< 1.5	<1	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<2.0	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<10	<25	<25
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0	< 1	< 0.1	<2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2	<4.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<20	<50	<50

Note:

Units used are µg/L.

[7] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB11-1 #2	CB11-1 #2	CB11-1 #2	CB11-1 #2	CB11-1 #2	CB11-1 #2	CB11-1 #2B	CB12-1	CB12-1	CB12-1	CB12-1	CB12-1	CB12-1	CB12-1	CB12-1	CB12-1	CB13-1 #1	CB13-1 #1	CB13-1 #1	CB13-1 #1	CB13-1 #1	CB13-1 #1	CB13-1 #1	CB13-1 #1	CB13-1 #2
Date >			11-Sep-13	18-Sep-14	9-Sep-15	1-Sep-16	19-Sep-17	12-Sep-18	12-Sep-18	3-Oct-12	14-Nov-12	12-Dec-12	9-Sep-13	26-Sep-14	10-Sep-15	30-Aug-16	25-Sep-17	11-Sep-18	5-Sep-13	9-Oct-13	12-Nov-13	19-Sep-14	10-Sep-15	30-Aug-16	19-Sep-17	12-Sep-18	5-Sep-13
1,1-Dichloroethane		5	**7.9**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	**2.8**	**13.4**	0.8	<0.5	**37.4**	0.9	1.0	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.9	1.1	<0.5	0.7	<0.5	**2.6**	**4.2**	1.3	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	**53.8**	**65.4**	**39.2**	**62.9**	**131**	**99**	**102**	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**174**	**154**	**235**	**97.8**	**84.1**	**305**	**192**	**103**	**13.2**
trans-1,2-Dichloroethene		1.6	**29.9**	**14.4**	**7.4**	**21.4**	**49.4**	**51.2**	**53.7**	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	1.3	**2.1**	1.0	**2.0**	**7.7**	**7.0**	**5.8**	0.6
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	**62.6**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.10	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.11	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.20	0.23	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	**2900**	**2850**	**2790**	**1360**	**2400**	**2320**	**2460**	<0.10	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**461**	**552**	**630**	**585**	**496**	**479**	**749**	**337**	**109**
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	**3.3**	**2.1**	0.5	<0.5	**1.6**	**1.0**	<0.5	<0.20	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**2.9**	**4.5**	**2.8**	**1.9**	**0.8**	<0.5	**1.7**	**0.9**	<0.5
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.18	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.46	0.17	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.64	0.17	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

ODWS = Ontario Drinking Water Standards, MECP, January 2018

" = Table 2 Standard is for sum of both isomers.

MAC = Maximum Acceptable Concentration

Blank space denotes parameter not tested.

AO = Aesthetic Objective

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB13-1 #2	CB13-1 #2	CB13-1 #2	CB13-1 #2	CB13-1 #2	CB13-1 #2	CB13-1 #2	CB13-1 #2	CB14-1 #1	CB14-1 #1	CB14-1 #1	CB14-1 #1	CB14-1 #1	CB14-1 #1	CB14-1 #1	CB14-1 #2	CB14-1 #2	CB14-1 #2	CB14-1 #2	CB14-1 #2	CB14-1 #2	CB14-1 #2	CB14-1 #2	CB14-2 #1	CB14-2 #1	CB14-2 #1	CB14-2 #1
Date >			9-Oct-13	12-Nov-13	19-Sep-14	10-Sep-15	30-Aug-16	19-Sep-17	12-Sep-18	30-Sep-14	23-Oct-14	25-Nov-14	8-Sep-15	30-Aug-16	11-Sep-17	17-Sep-18	30-Sep-14	23-Oct-14	25-Nov-14	8-Sep-15	30-Aug-16	11-Sep-17	17-Sep-18	30-Sep-14	23-Oct-14	25-Nov-14	9-Sep-15
1,1-Dichloroethane		5	<0.5	1.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	0.8	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	**14.4**	**11**	**6.0**	**4.4**	**11.8**	**7.6**	**9.5**	<0.5	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**5.5**	**2.2**	**2.2**	0.8
trans-1,2-Dichloroethene		1.6	1.2	**6.7**	**7.6**	**3.1**	**12.1**	**11.3**	**17.2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**8.5**	**4.5**	**6.0**	**4.7**	**7.8**	**3.9**	1.3	<0.5	<0.5	<0.5	0.7	1.8	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	**79.5**	**148**	**111**	**62.6**	**107**	**76.9**	**33.2**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**18.5**	**9.7**	**6.8**	**2.9**
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	**1.0**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	**0.9**	<0.5	<0.5
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

ODWS = Ontario Drinking Water Standards, MECP, January 2016

[1] = Table 2 Standard is for sum of both isomers.

MAC = Maximum Acceptable Concentration

Blank space denotes parameter not tested.

AO = Aesthetic Objective

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB14-2 #1	CB14-2 #1	CB14-2 #1	CB14-2 #2	CB14-2 #2	CB14-2 #2	CB14-2 #2	CB14-2 #2	CB14-2 #2	CB14-2 #2	CB14-2 #3	CB14-2 #3	CB14-2 #3	CB14-2 #3	CB14-2 #3	CB14-2 #3	CB14-3 #1	CB14-3 #1	CB14-3 #1	CB14-3 #1	CB14-3 #1	CB14-3 #1	CB14-3 #1	CB14-3 #2
Date >			31-Aug-16	13-Sep-17	13-Sep-18	30-Sep-14	23-Oct-14	25-Nov-14	9-Sep-15	31-Aug-16	13-Sep-17	17-Sep-18	30-Sep-14	23-Oct-14	25-Nov-14	9-Sep-15	31-Aug-16	13-Sep-17	13-Sep-18	30-Sep-14	23-Oct-14	25-Nov-14	10-Sep-15	30-Aug-16	18-Sep-17	11-Sep-18	30-Sep-14
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	0.9	<0.5	<0.5	1.6	1.0	0.9	1.0	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	**2.3**	<0.5	<0.5	**6.6**	**4.3**	**3.6**	**2.2**	**2.0**	<0.5	**2.3**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Note:

Units used are µg/L

[1] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 3
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Shallow Wells

	ODWS	TABLE 2	CB14-3 #2	CB14-3 #2	CB14-3 #2	CB14-3 #2	CB14-3 #2	CB14-3 #2
Date >			23-Oct-14	25-Nov-14	10-Sep-15	30-Aug-16	18-Sep-17	11-Sep-18
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-xylenes		NV	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane (FREON 11)		150	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

Note:

Units used are µg/L.

[2] = Table 2 Standard is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

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Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	TW1/65	TW1/65	TW1/65	TW1/65	TW1/65	TW1/65	TW1/65	TW1/65	TW1/65	TW2/63	TW2/63	TW2/63	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87
Date >			19-Jul-01	21-Jul-03	22-Mar-04	23-Mar-05	23-Jun-05	16-Nov-06	7-Dec-07	16-Sep-08	18-Mar-09	21-Jul-03	12-Jul-05	6-Jan-06	22-Jul-03	22-Mar-04	22-Jun-05	15-Nov-06	5-Dec-07	28-Aug-08	19-Mar-09	1-Sep-09	31-Mar-10	2-Sep-10	31-Mar-11	16-Sep-11	6-Mar-12
1,1-Dichloroethane		5		<0.4	<0.4	<0.4	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.4	<0.1	<0.1	<0.4	8.1	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10
1,1,1-Trichloroethane		200		<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10
1,1,2,2-Tetrachloroethane		1.1		<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.1	<0.20
1,1,2-Trichloroethane		4.7		<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20
1,1,2,2-Tetrachloroethane		1		<1	<1	<1	<0.4	< 0.4	<0.4	<0.2	<0.10	<1	<0.4	<0.4	<1	<1	<0.4	< 0.4	<0.4	<0.2	<0.10	<0.10	<0.10	< 0.4	< 0.4	<0.2	<0.20
1,2-DibromoEECCthane (Ethylene Dibromide)		0.2		<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	<0.20	< 0.1	<0.2	<0.20
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20
cis-1,2-Dichloroethene		1.6		<1	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	<1	<0.1	<0.1	<1	<1	<0.1	0.4	0.6	0.6	<0.20	0.61	<0.20	< 0.1	< 0.1	1.1	1.1
trans-1,2-Dichloroethene		1.6		<1	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	<1	<0.1	<0.1	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10
1,2-Dichloropropane		5		<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10
1,3-Dichlorobenzene		59		<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.5	<0.1	<0.1	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.2	<0.20
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.1	<0.10
Bromodichloromethane		16	<0.2	<0.2	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.1	<0.20	<0.2	<0.1	<0.1	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10
Carbon Tetrachloride	2 (MAC)	0.79	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1	<0.10
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.10	<0.5	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.1	<0.10
Chloroform		2.4	<0.2	<0.2	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.1	<0.20	<0.2	<0.3	<0.3	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.1	<0.20	<0.20	<0.20	< 0.3	< 0.3	<0.1	<0.10
Dibromochloromethane		25	<0.2	<0.2	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.2	<0.1	<0.1	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<1	<1	<1	<1	<0.3	< 0.3	<0.3	<0.5	<0.30	<1	<0.3	<0.3	<1	<1	<0.3	< 0.3	<0.3	0.9	<0.30	<0.30	<0.30	< 0.3	< 0.3	<0.5	<0.50
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1	<0.10
Styrene		5.4		<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	<0.5	<0.6	<0.6	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.2	<0.20
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1	<0.10
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.2	<0.20
Trichloroethene	5 (MAC)	1.6	1.3	**6**	<0.5	<0.5	0.8	< 0.1	<0.1	<0.1	<0.20	**3.0**	**1.7**	<0.5	<0.5	<0.5	<0.5	0.7	0.1	<0.1	<0.1	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	**1.0**	<0.2	<0.17	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.2	<0.17	<0.17	<0.17	< 0.2	< 0.2	<0.2	<0.20
o-Xylene			<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1	<0.10
m,p-xylenes			<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	<0.1	<0.20	<1	<1	<1	<0.5	<0.5	<1	< 1.0	<1.0	<0.1	<0.20	<0.20	<0.20	< 1.0	< 1.0	<0.1	<0.10
Xylene (Total)	90 (MAC)	300	<1.0	<1.0	<1.0	<1.0	<1.5	< 1.5	<1.5	<0.1	<0.20	<1.5	<1.5	<1.5	<1.0	<1.0	<1.5	< 1.5	<1.5	<0.1	<0.20	<0.20	<0.20	< 1.5	< 1.5	<0.1	<0.10

Note:

Units used are µg/L.

[1] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/87	TW1/03#1	TW1/03#1	TW1/03#1	TW1/03#1	TW1/03#1	TW1/03#1	TW1/03#1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1
Date >			25-Sep-12	6-Mar-13	4-Sep-13	9-Apr-14	26-Sep-14	26-Mar-15	3-Sep-15	8-Mar-16	1-Sep-16	23-Mar-17	12-Oct-17	21-Mar-18	20-Sep-18	5-Nov-03	22-Mar-04	21-Jun-05	16-Nov-06	6-Dec-07	29-Aug-08	19-Mar-09	1-Sep-09	31-Mar-10	31-Aug-10	28-Mar-11	16-Sep-11
1,1-Dichloroethane		5	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1
1,1,1-Trichloroethane		200	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1
1,1,1,2-Tetrachloroethane		1.1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.1
1,1,2-Trichloroethane		4.7	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2
1,1,2,2-Tetrachloroethane		1	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.4	< 0.4	<0.4	<0.2	<0.10	<0.10	<0.10	< 0.4	< 0.4	<0.2
1,2-DibroMOECCthane (Ethylene Dibromide)		0.2	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2
1,2-Dichloroethane	5 (MAC)	1.6	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2
cis-1,2-Dichloroethene		1.6	0.89	<0.4	0.8	1.1	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<1	<1	1.1	**0.1**	<0.1	**21**	**31**	**18**	**7.5**	< 0.1	**9.3**	**11**
trans-1,2-Dichloroethene		1.6	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.1	0.6	<0.1	0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1
1,2-Dichloropropane		5	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1
1,3-Dichlorobenzene		59	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2
1,4-Dichlorobenzene	5 (MAC)	1	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.2
Benzene	1 (MAC)	5	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.1
Bromodichloromethane		16	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1
Chlorobenzene	80 (MAC)	30	<0.10	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		< 0.2	<0.2	<0.1	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.1
Chloroform		2.4	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.1	<0.20	<0.20	<0.20	< 0.3	< 0.3	<0.1
Dibromochloromethane		25	<0.20	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.50	<4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<0.5	<0.30	<0.30	<0.30	< 0.3	< 0.3	<0.5
Ethylbenzene	140 (MAC)	2.4	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1
Styrene		5.4	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.2
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1
Toluene	60 (MAC)	24	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.2
Trichloroethene	5 (MAC)	1.6	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	0.2	0.3	0.5	0.75	0.4	<0.20	< 0.1	< 0.1	<0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.2	<0.17	<0.17	<0.17	< 0.2	< 0.2	<0.2
o-Xylene			<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1
m,p-xylenes			<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	<0.1	<0.20	<0.20	<0.20	< 1.0	< 1.0	<0.1
Xylene (Total)	90 (MAC)	300	<0.10	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.5	<1.5	<1.5	<0.1	<0.20	<0.20	<0.20	< 1.5	< 1.5	<0.1

Note:

Units used are µg/L.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03 #1	TW1/03#2	TW1/03#2	TW1/03#2	TW1/03#2	TW1/03#2	TW1/03#2	TW1/03#2	TW1/03#2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2
Date >			6-Mar-12	20-Sep-12	6-Mar-13	4-Sep-13	9-Apr-14	26-Sep-14	26-Mar-15	8-Sep-15	8-Mar-16	31-Aug-16	23-Mar-17	21-Sep-17	21-Mar-18	20-Sep-18	5-Nov-03	22-Mar-04	21-Jun-05	16-Nov-06	6-Dec-07	29-Aug-08	19-Mar-09	1-Sep-09	31-Mar-10	31-Aug-10	23-Nov-10
1,1-Dichloroethane		5	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.4	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1
1,1,1-Trichloroethane		200	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1
1,1,2-Tetrachloroethane		1.1	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.10	<0.10	<0.10	< 0.1	< 0.1
1,1,2-Trichloroethane		4.7	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1
1,1,2,2-Tetrachloroethane		1	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.4	< 0.4	<0.4	<0.2	<0.10	<0.10	<0.10	< 0.4	< 0.4
1,2-DibromoEECthane (Ethylene Dibromide)		0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1
1,2-Dichlorobenzene	200 (MAC)	3	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1
1,2-Dichloroethane	5 (IMAC)	1.6	<0.20	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1
cis-1,2-Dichloroethene		1.6	**11**	**11**	<0.4	**9.2**	**8**	**4.1**	**23.4**	**4**	**3.7**	**4.5**	**10.2**	**14.1**	**6.2**	**6.8**	<1	<1	<0.1	0.8	<0.1	**3**	**4.7**	**4.2**	**18**	**19.9**	1.6
trans-1,2-Dichloroethene		1.6	0.11	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1
1,2-Dichloropropane		5	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1
1,3-Dichlorobenzene		59	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1
1,4-Dichlorobenzene	5 (MAC)	1	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.2	<0.10	<0.10	<0.10	< 0.2	< 0.2
Benzene	1 (MAC)	5	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	<0.20	<0.20	< 0.5	< 0.5
Bromodichloromethane		16	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2
Chlorobenzene	80 (MAC)	30	<0.10	<0.10	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		< 0.2	<0.2	<0.1	<0.10	<0.10	<0.10	< 0.2	< 0.2
Chloroform		2.4	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.3	< 0.3	<0.3	<0.1	<0.20	<0.20	<0.20	< 0.3	< 0.3
Dibromochloromethane		25	<0.20	<0.20	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.2	<0.2	<0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.50	<0.50	<4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1	<1	<0.3	< 0.3	<0.3	<0.5	<0.30	<0.30	<0.30	< 0.3	< 0.3
Ethylbenzene	140 (MAC)	2.4	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5
Styrene		5.4	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	< 0.6	<0.6	<0.2	<0.10	<0.10	<0.10	< 0.5	< 0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2
Toluene	60 (MAC)	24	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	<0.20	<0.20	< 0.5	< 0.5
Trichloroethene	5 (MAC)	1.6	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	**1.9**	< 0.1	0.2	<0.1	<0.20	<0.20	0.4	**0.1**	< 0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.20	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.2	<0.17	<0.17	<0.17	< 0.2	< 0.2
o-Xylene			<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 1.0
m,p-xylenes			<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1	< 1.0	<1.0	<0.1	<0.20	<0.20	<0.20	< 1.0	< 0.5
Xylene (Total)	90 (MAC)	300	<0.10	<0.10	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.5	<1.5	<1.5	<0.1	<0.20	<0.20	<0.20	< 1.5	<1.5

Note:

Units used are µg/L.

" = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2	TW1/03 #2 Dup	TW1/03 #2	TW2/05#1	TW2/05#1	TW2/05#1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1
Date >			26-Mar-11	16-Sep-11	6-Mar-12	20-Sep-12	6-Mar-13	4-Sep-13	9-Apr-14	26-Sep-14	26-Mar-15	8-Sep-15	8-Mar-16	31-Aug-16	23-Mar-17	12-Oct-17	21-Mar-18	21-Mar-18	20-Sep-18	4-Dec-07	28-Aug-08	19-Mar-09	2-Sep-09	31-Mar-10	1-Sep-10	28-Mar-11	20-Sep-11
1,1-Dichloroethane		5	< 0.1	<0.1	<0.10	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	< 0.1	<0.1	<0.10	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1
1,1,1-Trichloroethane		200	< 0.1	<0.1	<0.10	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1
1,1,2-Tetrachloroethane		1.1	< 0.1	<0.1	<0.20	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.1
1,1,2-Trichloroethane		4.7	< 0.1	<0.2	<0.20	<0.40	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2
1,1,2,2-Tetrachloroethane		1	< 0.4	<0.2	<0.20	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.4	<0.2	<0.10	<0.10	<0.10	< 0.4	< 0.4	<0.2
1,2-DibroMOECCthane (Ethylene Dibromide)		0.2	< 0.1	<0.2	<0.20	<0.40	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	< 0.1	<0.2	<0.20	<0.40	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2
1,2-Dichloroethane	5 (MAC)	1.6	< 0.1	<0.2	<0.20	<0.40	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2
cis-1,2-Dichloroethene		1.6	**19.4**	**23**	**19**	**26**	**26.4**	**21.7**	**47.6**	**41.6**	5	**22.4**	**15**	**13.1**	**22**	**21.6**	**12.7**	**12.3**	**16.4**	0.9	0.3	<0.20	<0.20	<0.20	< 0.1	0.2	0.2
trans-1,2-Dichloroethene		1.6	< 0.1	<0.1	0.15	<0.20	<0.4	<0.5	0.6	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1
1,2-Dichloropropane		5	< 0.1	<0.1	<0.10	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1
1,3-Dichlorobenzene		59	< 0.1	<0.2	<0.20	<0.40	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2
1,4-Dichlorobenzene	5 (MAC)	1	< 0.2	<0.2	<0.20	<0.40	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.2
Benzene	1 (MAC)	5	< 0.5	<0.1	<0.10	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.1
Bromodichloromethane		16	< 0.1	<0.1	<0.10	<0.20	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1
Carbon Tetrachloride	2 (MAC)	0.79	< 0.2	<0.1	<0.10	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1
Chlorobenzene	80 (MAC)	30	< 0.2	<0.1	<0.10	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.1	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.1
Chloroform		2.4	< 0.3	<0.1	<0.10	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.1	<0.20	<0.20	<0.20	< 0.3	< 0.3	<0.1
Dibromochloromethane		25	< 0.1	<0.2	<0.20	<0.40	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<0.5	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2
Methylene Chloride (Dichloromethane)	50 (MAC)	50	< 0.3	<0.5	<0.50	<1.0	<4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.3	<0.5	<0.30	<0.30	<0.30	< 0.3	< 0.3	<0.5
Ethylbenzene	140 (MAC)	2.4	< 0.5	<0.1	<0.10	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1
Styrene		5.4	< 0.5	<0.2	<0.20	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.6	<0.2	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.2
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	< 0.2	<0.1	<0.10	<0.20	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1
Toluene	60 (MAC)	24	< 0.5	<0.2	<0.20	<0.40	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.2
Trichloroethene	5 (MAC)	1.6	0.7	1.1	0.93	1	1.1	0.8	1.5	0.8	<0.5	0.7	0.8	0.8	1.3	1.5	1.1	1.2	1.6	1.4	1.2	1.5	0.68	0.46	1.1	0.6	0.7
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	< 0.2	<0.2	<0.20	<0.40	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.17	<0.17	<0.17	< 0.2	< 0.2	<0.2
o-Xylene			< 0.5	<0.1	<0.10	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1
m,p-xylenes			< 1.0	<0.1	<0.10	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.1	<0.20	<0.20	<0.20	< 1.0	< 1.0	<0.1
Xylene (Total)	90 (MAC)	300	< 1.5	<0.1	<0.10	<0.20	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<0.1	<0.20	<0.20	<0.20	< 1.5	< 1.5	<0.1

Note:

Units used are µg/L.

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05 #1	TW2/05#2	TW2/05#2	TW2/05#2	TW2/05#2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2
Date >			6-Mar-12	26-Sep-12	6-Mar-13	4-Sep-13	9-Apr-14	26-Sep-14	25-Mar-15	3-Sep-15	8-Mar-16	29-Aug-16	23-Mar-17	26-Sep-17	20-Mar-18	20-Sep-18	16-Nov-06	4-Dec-07	28-Aug-08	19-Mar-09	2-Sep-09	31-Mar-10	1-Sep-10	28-Mar-11	19-Sep-11	6-Mar-12	26-Sep-12
1,1-Dichloroethane		5	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10
1,1,1-Trichloroethane		200	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10
1,1,2-Tetrachloroethane		1.1	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.1	<0.20	<0.20
1,1,2-Trichloroethane		4.7	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20
1,1,2,2-Tetrachloroethane		1	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.4	<0.4	<0.2	<0.10	<0.10	<0.10	< 0.4	< 0.4	<0.2	<0.20	<0.20
1,2-DibromoMOECCthane (Ethylene Dibromide)		0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20
1,2-Dichlorobenzene	200 (MAC)	3	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20
1,2-Dichloroethane	5 (IMAC)	1.6	<0.20	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20
cis-1,2-Dichloroethene		1.6	0.29	0.25	<0.4	<0.5	<0.5	<0.5	<0.5	1	<0.5	<0.5	0.8	<0.5	<0.5	1	0.8	<0.1	0.2	<0.20	<0.20	<0.20	< 0.1	0.5	<0.1	<0.10	<0.10
trans-1,2-Dichloroethene		1.6	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10
1,2-Dichloropropane		5	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10
1,3-Dichlorobenzene		59	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20
1,4-Dichlorobenzene	5 (MAC)	1	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	<0.2	<0.2	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.2	<0.20	<0.20
Benzene	1 (MAC)	5	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.1	<0.10	<0.10
Bromodichloromethane		16	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10
Carbon Tetrachloride	2 (MAC)	0.79	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1	<0.10	<0.10
Chlorobenzene	80 (MAC)	30	<0.10	<0.10	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	<0.2	<0.1	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.1	<0.10	<0.10
Chloroform		2.4	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.3	<0.3	<0.1	<0.20	<0.20	<0.20	< 0.3	< 0.3	<0.1	<0.10	<0.10
Dibromochloromethane		25	<0.20	<0.20	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.50	<0.50	<4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 0.3	<0.3	<0.5	<0.30	<0.30	<0.30	< 0.3	< 0.3	<0.5	<0.50	<0.50
Ethylbenzene	140 (MAC)	2.4	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1	<0.10	<0.10
Styrene		5.4	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.6	<0.6	<0.2	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.2	<0.20	<0.20
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1	<0.10	<0.10
Toluene	60 (MAC)	24	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.2	<0.20	<0.20
Trichloroethene	5 (MAC)	1.6	0.66	0.66	0.8	<0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.5	<0.5	0.9	0.9	0.3	0.8	1.5	0.62	0.55	1	0.8	0.6	0.62	0.69
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.20	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	<0.2	<0.2	<0.17	<0.17	<0.17	< 0.2	< 0.2	<0.2	<0.20	<0.20
o-Xylene			<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1	<0.10	<0.10
m,p-xylenes			<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 1.0	<1.0	<0.1	<0.20	<0.20	<0.20	< 1.0	< 1.0	<0.1	<0.10	<0.10
Xylene (Total)	90 (MAC)	300	<0.10	<0.10	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1.5	<0.1	<0.20	<0.20	<0.20	< 1.5	< 1.5	<0.1	<0.10	<0.10

Note:

Units used are µg/L.

/ = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW2/05 #2	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05
Date >			6-Mar-13	4-Sep-13	9-Apr-14	26-Sep-14	25-Mar-15	3-Sep-15	8-Mar-16	29-Aug-16	23-Mar-17	26-Sep-17	20-Mar-18	20-Sep-18	15-Nov-06	5-Dec-07	28-Aug-08	19-Mar-09	1-Sep-09	31-Mar-10	2-Sep-10	7-Apr-11	16-Sep-11	6-Mar-12	25-Sep-12	6-Mar-13	4-Sep-13
1,1-Dichloroethane		5	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.4	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.4	<0.5
1,1,2,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.1	<0.20	<0.20	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.4	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.4	<0.4	<0.2	<0.10	<0.10	<0.10	< 0.4	< 0.4	<0.2	<0.20	<0.20	<0.5	<0.5
1,2-DibroMOECChane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.4	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.2	<0.5
cis-1,2-Dichloroethene		1.6	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	1.1	1.4	**3.3**	**3.2**	**3.3**	**7.2**	< 0.1	**6.5**	**6.8**	**7.1**	<0.4	**6.8**
trans-1,2-Dichloroethene		1.6	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10	0.11	<0.4	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.4	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	<0.2	<0.2	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.2	<0.20	<0.20	<0.4	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.1	<0.10	<0.10	<0.5	<0.5
Bromodichloromethane		16	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.3	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1	<0.10	<0.10	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	<0.2	<0.1	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.1	<0.10	<0.10	<0.2	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.3	<0.3	<0.1	<0.20	<0.20	<0.20	< 0.3	< 0.3	<0.1	<0.10	<0.10	<0.5	<0.5
Dibromochloromethane		25	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	< 0.1	<0.1	<0.2	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.3	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 0.3	<0.3	<0.5	<0.30	<0.30	<0.30	< 0.3	< 0.3	<0.5	<0.50	<0.50	<4.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1	<0.10	<0.10	<0.5	<0.5
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.6	<0.6	<0.2	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.2	<0.20	<0.20	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	<0.2	<0.1	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1	<0.10	<0.10	<0.3	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.2	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.2	0.28	0.28	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	<0.1	<0.1	<0.20	0.79	0.26	0.4	< 0.1	<0.1	<0.10	<0.10	<0.3	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	<0.2	<0.2	<0.17	<0.17	<0.17	< 0.2	< 0.2	<0.2	<0.20	<0.20	<0.2	<0.5
o-Xylene			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	<0.5	<0.1	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1	<0.10	<0.10	<0.5	<0.5
m,p-xylenes			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 1.0	<1.0	<0.1	<0.20	<0.20	<0.20	< 1.0	< 1.0	<0.1	0.13	0.12	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1.5	<0.1	<0.20	<0.20	<0.20	< 1.5	< 1.5	<0.1	0.13	0.12	<1.0	<0.5

Note:

Units used are µg/L.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW3/05	TW2/08#1	TW2/08 #1	TW2/08 #1	TW2/08#1	TW2/08 #1	TW2/08 #2	TW2/08#2	TW2/08 #2	TW2/08 #2	TW2/08#2	TW2/08 #2	TW3/08#1	TW3/08#1	TW3/08 #1	TW3/08 #1
Date >			9-Apr-14	26-Sep-14	25-Mar-15	3-Sep-15	14-Mar-16	31-Aug-16	23-Mar-17	21-Sep-17	21-Mar-18	20-Sep-18	10-Nov-08	4-Dec-08	19-Dec-08	19-Mar-09	3-Sep-09	24-Oct-08	12-Nov-08	5-Dec-08	19-Dec-08	19-Mar-09	3-Sep-09	31-Oct-08	17-Nov-08	4-Dec-08	19-Dec-08
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.30	<0.30	<0.1	<0.1	<0.1	<0.1	<0.30	<0.30	1.7	1.7	2.3	1.9
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.30	<0.30	<0.1	<0.1	<0.1	<0.1	<0.30	<0.30	0.3	0.3	0.4	0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.30	<0.30	<0.1	<0.1	<0.1	<0.1	<0.30	<0.30	<0.1	<0.1	<0.1	<0.1
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2
1,2-DibromoEtOEC,Cthane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2
cis-1,2-Dichloroethene		1.6	**8.1**	5	**5.4**	**6.2**	**5.1**	**3.1**	**4.9**	**7.1**	**4.3**	**5.1**	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1	<0.20	<0.20	**9.2**	**8.2**	**10**	**9.3**
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1
1,2-Dichloropropane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20	0.3	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1
Dibromochloromethane		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.30	<0.30	<0.5	<0.5	<0.5	<0.5	<0.30	<0.30	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.10	<0.10	0.2	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1
Styrene		5.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.20	<0.20	1.1	<0.2	<0.2	<0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.17	<0.17	<0.2	<0.2	<0.2	<0.2	<0.17	<0.17	<0.2	<0.2	<0.2	<0.2
o-Xylene			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.10	<0.10	0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1
m,p-xylenes			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20	0.4	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20	0.6	<0.1	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.1	<0.1

Note:

Units used are µg/L.

[1] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	TW3/08#1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #1	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08#2	TW3/08 #2
Date >			18-Mar-09	3-Sep-09	31-Mar-10	1-Sep-10	28-Mar-11	16-Sep-11	6-Mar-12	11-Oct-12	6-Mar-13	4-Sep-13	9-Apr-14	30-Sep-14	25-Mar-15	9-Sep-15	8-Mar-16	31-Aug-16	28-Mar-17	21-Sep-17	20-Mar-18	20-Sep-18	21-Nov-08	4-Dec-08	19-Dec-08	18-Mar-09	3-Sep-09
1,1-Dichloroethane		5	2	1.8	1.5	2.3	2.1	0.9	0.38	0.87	0.5	<0.5	1.2	0.8	0.5	<0.5	<0.5	<0.5	<0.5	0.9	0.6	<0.5	<0.5	<0.1	<0.1	<0.1	<0.30	<0.30
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.30	0.32	<0.30	0.5	0.8	0.2	<0.10	0.33	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.30	<0.30
1,1,1-Trichloroethane		200	<0.30	<0.30	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.30	<0.30
1,1,1,2-Tetrachloroethane		1.1	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.1	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.10	<0.10
1,1,2-Trichloroethane		4.7	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.20	<0.20
1,1,2,2-Tetrachloroethane		1	<0.10	<0.10	<0.10	< 0.4	< 0.4	<0.2	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10
1,2-DibroMOECEthane (Ethylene Dibromide)		0.2	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.20	<0.20
1,2-Dichlorobenzene	200 (MAC)	3	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10
1,2-Dichloroethane	5 (IMAC)	1.6	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.20	<0.20
cis-1,2-Dichloroethene		1.6	**9.4**	**7.3**	**5.8**	**11.1**	**6.5**	**9**	**2.3**	**12**	**6.4**	**3.7**	**6.9**	**7.5**	**4.5**	**3.6**	1.6	<0.5	**5**	**3**	**1.7**	1.3	<0.1	<0.1	<0.1	<0.20	<0.20
trans-1,2-Dichloroethene		1.6	<0.20	<0.20	<0.20	< 0.1	< 0.1	0.2	<0.10	0.45	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20
1,2-Dichloropropane		5	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20
1,3-Dichlorobenzene		59	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10
1,4-Dichlorobenzene	5 (MAC)	1	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.2	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10
Benzene	1 (MAC)	5	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20
Bromodichloromethane		16	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20
Carbon Tetrachloride	2 (MAC)	0.79	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.20	<0.20
Chlorobenzene	80 (MAC)	30	<0.10	<0.10	<0.10	< 0.2	< 0.2	<0.1	<0.10	<0.10	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.10	<0.10
Chloroform		2.4	<0.20	<0.20	<0.20	< 0.3	< 0.3	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20
Dibromochloromethane		25	<0.10	<0.10	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.30	<0.30	<0.30	< 0.3	< 0.3	<0.5	<0.50	<0.50	<4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5.0	<5.0	<5.0	<0.5	<0.5	<0.5	<0.5	<0.30	<0.30
Ethylbenzene	140 (MAC)	2.4	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.1	<0.1	<0.1	<0.10	<0.10
Styrene		5.4	<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.2	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.10	<0.10
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.20	<0.20	<0.20	< 0.2	< 0.2	<0.1	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20
Toluene	60 (MAC)	24	<0.20	<0.20	<0.20	< 0.5	< 0.5	<0.2	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.3	<0.2	<0.2	<0.20	<0.20
Trichloroethene	5 (MAC)	1.6	<0.20	<0.20	<0.20	< 0.1	< 0.1	<0.1	<0.10	0.1	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.20	<0.20
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	0.28	<0.17	< 0.2	< 0.2	<0.2	<0.20	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.17	<0.17
o-Xylene			<0.10	<0.10	<0.10	< 0.5	< 0.5	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.1	<0.10	<0.10
m,p-xylenes			<0.20	<0.20	<0.20	< 1.0	< 1.0	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	<0.1	<0.1	<0.20	<0.20
Xylene (Total)	90 (MAC)	300	<0.20	<0.20	<0.20	< 1.5	< 1.5	<0.1	<0.10	<0.10	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	<0.1	<0.1	<0.20	<0.20

Note:

Units used are µg/L.

ODWS = Ontario Drinking Water Standards, MECP, January 2018

[1] = criterion is for sum of both isomers.

MAC = Maximum Acceptable Concentration

Blank space denotes parameter not tested.

AO = Aesthetic Objective

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	TW3/08 #2	Well 3A	Well 3A	Well 3A	Well3A	Well 3A	DUP #6	Well 3A
Date >			31-Mar-10	1-Sep-10	28-Mar-11	16-Sep-11	6-Mar-12	2-Oct-12	6-Mar-13	4-Sep-13	9-Apr-14	30-Sep-14	25-Mar-15	9-Sep-15	8-Mar-16	31-Aug-16	28-Mar-17	21-Sep-17	20-Mar-18	20-Sep-18	6-Sep-05	21-Nov-06	20-Dec-07	2-Sep-08	3-Sep-09	3-Sep-09	13-Oct-10
1,1-Dichloroethane		5	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	< 0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	< 0.1
1,1,1-Trichloroethane		200	<0.30	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.30	<0.30	< 0.1
1,1,1,2-Tetrachloroethane		1.1	<0.10	< 0.1	< 0.1	<0.1	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.10	<0.10	< 0.1
1,1,2-Trichloroethane		4.7	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	< 0.1
1,1,2,2-Tetrachloroethane		1	<0.10	< 0.4	< 0.4	<0.2	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.4	< 0.4	<0.4	<0.2	<0.10	<0.10	< 0.4
1,2-DibroMOETHane (Ethylene Dibromide)		0.2	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	< 0.1
1,2-Dichlorobenzene	200 (MAC)	3	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	< 0.1
1,2-Dichloroethane	5 (MAC)	1.6	<0.20	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.2	<0.20	<0.20	< 0.1
cis-1,2-Dichloroethene		1.6	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	< 0.1
trans-1,2-Dichloroethene		1.6	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	< 0.1
1,2-Dichloropropane		5	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	< 0.1
1,3-Dichlorobenzene		59	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	< 0.1
1,4-Dichlorobenzene	5 (MAC)	1	<0.10	< 0.2	< 0.2	<0.2	<0.20	<0.20	<0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.2	<0.2	<0.10	<0.10	< 0.2
Benzene	1 (MAC)	5	<0.20	< 0.5	< 0.5	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.5	<0.1	<0.20	<0.20	< 0.5
Bromodichloromethane		16	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	< 0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.20	< 0.2	< 0.2	<0.1	<0.10	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 0.2	< 0.2	<0.2	<0.5	<0.20	<0.20	< 0.2
Chlorobenzene	80 (MAC)	30	<0.10	< 0.2	< 0.2	<0.1	<0.10	<0.10	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.2	<0.1	<0.10	<0.10	< 0.2
Chloroform		2.4	<0.20	< 0.3	< 0.3	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.3	< 0.3	<0.3	<0.1	<0.20	<0.20	< 0.3
Dibromochloromethane		25	<0.10	< 0.1	< 0.1	<0.2	<0.20	<0.20	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<0.5	< 0.1	< 0.1	<0.1	<0.2	<0.10	<0.10	< 0.1
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.30	< 0.3	< 0.3	<0.5	<0.50	<0.50	<4.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5	<5.0	<5.0	<5.0	< 0.3	< 0.3	<0.3	<0.5	<0.30	<0.30	< 0.3
Ethylbenzene	140 (MAC)	2.4	<0.10	< 0.5	< 0.5	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.5	<0.2	<0.10	<0.10	< 0.5
Styrene		5.4	<0.10	< 0.5	< 0.5	<0.2	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.6	< 0.6	<0.6	<0.2	<0.10	<0.10	< 0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.20	< 0.2	< 0.2	<0.1	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.2	<0.1	<0.20	<0.20	< 0.2
Toluene	60 (MAC)	24	<0.20	< 0.5	< 0.5	<0.2	<0.20	<0.20	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 0.5	<0.5	<0.2	<0.20	<0.20	< 0.5
Trichloroethene	5 (MAC)	1.6	<0.20	< 0.1	< 0.1	<0.1	<0.10	<0.10	<0.3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.20	<0.20	< 0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	< 0.2	< 0.2	<0.2	<0.20	<0.20	<0.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.2	< 0.2	<0.2	<0.2	<0.17	<0.17	< 0.2
o-Xylene			<0.10	< 0.5	< 0.5	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 1.0	< 0.5	<0.5	<0.1	<0.10	<0.10	< 0.5
m,p-xylenes			<0.20	< 1.0	< 1.0	<0.1	<0.10	<0.10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	< 0.5	< 1.0	<1.0	<0.1	<0.20	<0.20	< 1.0
Xylene (Total)	90 (MAC)	300	<0.20	< 1.5	< 1.5	<0.1	<0.10	<0.10	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.5	<1.5	<1.5	<0.1	<0.20	<0.20	< 1.5

Note:

Units used are µg/L.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	Well 3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well 3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well3A	Well 3A	Well3A	Well3A
Date >			19-Oct-11	17-Mar-14	14-Apr-14	21-May-14	18-Jun-14	21-Jul-14	18-Aug-14	24-Sep-14	30-Sep-14	20-Oct-14	27-Nov-14	22-Dec-14	26-Jan-15	18-Feb-15	19-Mar-15	7-Apr-15	6-May-15	8-Jun-15	8-Jul-15	10-Aug-15	26-Aug-15	1-Sep-15	10-Sep-15	7-Oct-15	6-Sep-16
1,1-Dichloroethane		5	<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.1	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.5	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.5	<0.33	<0.33
1,1,1-Trichloroethane		200	<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5
1,1,2-Trichloroethane		4.7	<0.2	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5
1,1,2,2-Tetrachloroethane		1	<0.2	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.5
1,2-DibroMOECCthane (Ethylene Dibromide)		0.2	<0.2	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	
1,2-Dichlorobenzene	200 (MAC)	3	<0.2	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.5	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.5	<0.41	<0.41
1,2-Dichloroethane	5 (MAC)	1.6	<0.2	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	
cis-1,2-Dichloroethene		1.6	<0.1	0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	
trans-1,2-Dichloroethene		1.6	<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	
1,2-Dichloropropane		5	<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	
1,3-Dichlorobenzene		59	<0.2	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	
1,4-Dichlorobenzene	5 (MAC)	1	<0.2	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.5	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.5	<0.36	<0.36
Benzene	1 (MAC)	5	<0.1	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.5	<0.32	<0.32
Bromodichloromethane		16	<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.26
Carbon Tetrachloride	2 (MAC)	0.79	<0.1	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.2	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.2	<0.16	<0.16
Chlorobenzene	80 (MAC)	30	<0.1	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.5	<0.30	
Chloroform		2.4	<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.29
Dibromochloromethane		25	<0.2	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.37
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<5.0	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<5.0	<0.35	
Ethylbenzene	140 (MAC)	2.4	<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.33
Styrene		5.4	<0.2								<0.5														<0.5		
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.1	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35
Toluene	60 (MAC)	24	<0.2								<0.5														<0.5		<0.36
Trichloroethene	5 (MAC)	1.6	<0.1	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.5	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.5	<0.44	<0.44
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.2	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.5	<0.17	<0.17
o-Xylene			<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.17
m,p-xylenes			<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.43
Xylene (Total)	90 (MAC)	300	<0.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	<0.43

Note:

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Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	Well3A	Well3A	Well5	Well5	Well5	Well5	Well #5	Well5	Well5	Well 5	Well 5	Well 5	Well 5	Well 5	Well 5	Well 5	Well 5	Well 5	Well 5	Well5	Well 5	Well 5	Well 5	Well 5	Well 5
Date >			30-Oct-17	4-Sep-18	6-Sep-05	21-Nov-06	20-Dec-07	2-Sep-08	3-Sep-09	1-Sep-10	19-Oct-11	21-Nov-11	7-Dec-11	23-Jan-12	13-Feb-12	5-Mar-12	11-Apr-12	9-May-12	4-Jun-12	4-Jul-12	2-Aug-12	9-Oct-12	10-Oct-12	6-Nov-12	11-Dec-12	15-Jan-13	5-Feb-13
1,1-Dichloroethane		5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.33	<0.33	< 0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.10	<0.33	<0.33	<0.33	<0.33	<0.33
1,1,1-Trichloroethane		200	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.10	< 0.1	<0.1	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-
1,1,2-Trichloroethane		4.7	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	< 0.4	< 0.4	<0.4	<0.2	<0.10	< 0.4	<0.2	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-
1,2-DibromoEECCthane (Ethylene Dibromide)		0.2	<0.2	<0.2	< 0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-
1,2-Dichlorobenzene	200 (MAC)	3	<0.41	<0.41	< 0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.20	<0.41	<0.41	<0.41	<0.41	<0.41
1,2-Dichloroethane	5 (IMAC)	1.6	<0.35	<0.35	< 0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.20	<0.35	<0.35	<0.35	<0.35	<0.35
cis-1,2-Dichloroethene		1.6	<0.3	<0.3	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	0.5	0.61	0.62	0.64	0.52	0.44	0.85	0.95	0.91	0.84	0.74	0.57	0.75	0.39	0.85	0.9	0.62
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-
1,2-Dichloropropane		5	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-
1,3-Dichlorobenzene		59	<0.5	<0.5	< 0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-
1,4-Dichlorobenzene	5 (MAC)	1	<0.36	<0.36	< 0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.2	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.20	<0.36	<0.36	<0.36	<0.36	<0.36
Benzene	1 (MAC)	5	<0.32	<0.32	< 0.5	< 0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.10	<0.32	<0.32	<0.32	<0.32	<0.32
Bromodichloromethane		16	<0.26	<0.26	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-
Carbon Tetrachloride	2 (MAC)	0.79	<0.16	<0.16	< 0.2	< 0.2	<0.2	<0.5	<0.20	< 0.2	<0.1	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.10	<0.16	<0.16	<0.16	<0.16	<0.16
Chlorobenzene	80 (MAC)	30	<0.3	<0.3	< 0.2	< 0.2	<0.2	<0.1	<0.10	< 0.2	<0.1	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.10	<0.30	<0.30	<0.30	<0.30	<0.30
Chloroform		2.4	<0.29	<0.29	< 0.3	< 0.3	<0.3	<0.1	<0.20	< 0.3	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-
Dibromochloromethane		25	<0.37	<0.37	< 0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.35	<0.35	< 0.3	< 0.3	<0.3	<0.5	<0.30	< 0.3	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.50	<0.35	<0.35	<0.35	<0.35	<0.35
Ethylbenzene	140 (MAC)	2.4	<0.33	<0.33	< 0.5	< 0.5	<0.5	<0.2	<0.10	< 0.5	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-
Styrene		5.4	<0.5	<0.5	< 0.6	< 0.6	<0.6	<0.2	<0.10	< 0.5	<0.2											<0.20					
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.35	<0.35	< 0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.10	<0.35	<0.35	<0.35	<0.35	<0.35
Toluene	60 (MAC)	24	<0.36	<0.36	< 0.5	< 0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-
Trichloroethene	5 (MAC)	1.6	<0.44	<0.44	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.10	<0.43	<0.43	<0.43	<0.43	<0.43
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	<0.17	< 0.2	< 0.2	<0.2	<0.2	<0.17	< 0.2	<0.2	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.20	<0.17	<0.17	<0.17	<0.17	<0.17
o-Xylene			<0.17	<0.17	< 1.0	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-
m,p-xylenes			<0.43	<0.43	< 0.5	< 1.0	<1.0	<0.1	<0.20	< 1.0	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-
Xylene (Total)	90 (MAC)	300	<0.43	<0.43	<1.5	<1.5	<1.5	<0.1	<0.20	< 1.5	<0.1	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-

Note:

Units used are µg/L.

' = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	Well 5	Well 5	Well 5	Well 5	Well 5	Well 5	Well 5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5
Date >			20-Mar-13	9-Apr-13	15-May-13	11-Jun-13	9-Jul-13	14-Aug-13	10-Sep-13	17-Sep-13	15-Oct-13	19-Nov-13	17-Dec-13	14-Jan-14	20-Feb-14	17-Mar-14	14-Apr-14	21-May-14	16-Jun-14	21-Jul-14	11-Sep-14	24-Sep-14	30-Sep-14	20-Oct-14	25-Nov-14	22-Dec-14	26-Jan-15
1,1-Dichloroethane		5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.5	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.5	<0.33	<0.33	<0.33	<0.33
1,1,1-Trichloroethane		200	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
1,1,2-Tetrachloroethane		1.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
1,1,2-Trichloroethane		4.7	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
1,1,2,2-Tetrachloroethane		1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
1,2-DibroMOECCthane (Ethylene Dibromide)		0.2	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-
1,2-Dichlorobenzene	200 (MAC)	3	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.5	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.5	<0.41	<0.41	<0.41	<0.41
1,2-Dichloroethane	5 (MAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35
cis-1,2-Dichloroethene		1.6	0.85	0.82	0.36	0.72	0.85	0.8	0.6	<0.5	0.8	0.7	0.7	<0.3	0.7	0.5	0.8	0.6	0.6	0.7	0.4	0.5	0.9	0.7	0.6	0.6	0.7
trans-1,2-Dichloroethene		1.6	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
1,2-Dichloropropane		5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
1,3-Dichlorobenzene		59	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
1,4-Dichlorobenzene	5 (MAC)	1	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.5	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.5	<0.36	<0.36	<0.36	<0.36
Benzene	1 (MAC)	5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.5	<0.32	<0.32	<0.32	<0.32
Bromodichloromethane		16	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
Carbon Tetrachloride	2 (MAC)	0.79	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.2	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.2	<0.16	<0.16	<0.16	<0.16
Chlorobenzene	80 (MAC)	30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.5	<0.30	<0.30	<0.30	<0.30
Chloroform		2.4 [1]	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
Dibromochloromethane		25	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<5.0	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<5.0	<0.35	<0.35	<0.35	<0.35
Ethylbenzene	140 (MAC)	2.4	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
Styrene		5.4								<0.5													<0.5				
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.35	<0.35	1.4	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35
Toluene	60 (MAC)	24								<0.5													<0.5				
Trichloroethene	5 (MAC)	1.6	<0.43	<0.43	0.44	<0.43	<0.43	<0.44	<0.44	<0.5	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.5	<0.44	<0.44	<0.44	<0.44
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.5	<0.17	<0.17	<0.17	<0.17
o-Xylene			-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
m,p-xylenes			-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-
Xylene (Total)	90 (MAC)	300	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-

Note:

Units used are µg/L.

[1] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

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Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well5	Well7	Well7	Well12	Well12	Well12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12
Date >			18-Feb-15	19-Mar-15	7-Apr-15	6-May-15	8-Jun-15	8-Jul-15	10-Aug-15	1-Sep-15	7-Oct-15	6-Sep-16	30-Oct-17	4-Sep-18	6-Sep-05	21-Nov-06	6-Sep-05	21-Nov-06	20-Dec-07	2-Sep-08	3-Sep-09	1-Sep-10	19-Oct-11	21-Nov-11	7-Dec-11	23-Jan-12	13-Feb-12
1,1-Dichloroethane		5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	-	-	-	-
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	<0.33	<0.33	<0.33	<0.33
1,1,1-Trichloroethane		200	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.30	< 0.1	<0.1	-	-	-	-
1,1,1,2-Tetrachloroethane		1.1	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.10	< 0.1	<0.1	-	-	-	-
1,1,2-Trichloroethane		4.7	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	-	-	-	-
1,1,2,2-Tetrachloroethane		1	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	< 0.4	< 0.4	< 0.4	< 0.4	<0.4	<0.2	<0.10	< 0.4	<0.2	-	-	-	-
1,2-DibromoCECCthane (Ethylene Dibromide)		0.2	-	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.2	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	-	-	-	-
1,2-Dichlorobenzene	200 (MAC)	3	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	<0.41	<0.41	<0.41	<0.41
1,2-Dichloroethane	5 (IMAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.2	<0.20	< 0.1	<0.2	<0.35	<0.35	<0.35	<0.35
cis-1,2-Dichloroethene		1.6	<0.3	0.6	0.4	0.6	0.6	0.4	0.5	0.5	0.5	0.7	0.4	0.7	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.3	<0.3	**2.3**	<0.3
trans-1,2-Dichloroethene		1.6	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	-	-	-	-
1,2-Dichloropropane		5	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	-	-	-	-
1,3-Dichlorobenzene		59	-	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	-	-	-	-
1,4-Dichlorobenzene	5 (MAC)	1	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	< 0.2	< 0.2	< 0.2	< 0.2	<0.2	<0.2	<0.10	< 0.2	<0.2	<0.36	<0.36	<0.36	<0.36
Benzene	1 (MAC)	5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.1	<0.20	< 0.5	<0.1	<0.32	<0.32	<0.32	<0.32
Bromodichloromethane		16	-	-	-	-	-	-	-	-	-	<0.26	<0.26	<0.26	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	-	-	-	-
Carbon Tetrachloride	2 (MAC)	0.79	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	< 0.2	< 0.2	< 0.2	< 0.2	<0.2	<0.5	<0.20	< 0.2	<0.1	<0.16	<0.16	<0.16	<0.16
Chlorobenzene	80 (MAC)	30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	<0.3	< 0.2	< 0.2	< 0.2	< 0.2	<0.2	<0.1	<0.10	< 0.2	<0.1	<0.3	<0.3	<0.3	<0.3
Chloroform		2.4	-	-	-	-	-	-	-	-	-	<0.29	<0.29	<0.29	< 0.3	< 0.3	< 0.3	< 0.3	<0.3	<0.1	<0.20	< 0.3	<0.1	-	-	-	-
Dibromochloromethane		25	-	-	-	-	-	-	-	-	-	<0.37	<0.37	<0.37	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.2	<0.10	< 0.1	<0.2	-	-	-	-
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	< 0.3	< 0.3	< 0.3	< 0.3	<0.3	<0.5	<0.30	< 0.3	<0.5	<0.35	<0.35	<0.35	<0.35
Ethylbenzene	140 (MAC)	2.4	-	-	-	-	-	-	-	-	-	<0.33	<0.33	<0.33	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.2	<0.10	< 0.5	<0.1	-	-	-	-
Styrene		5.4										<0.5	<0.5	<0.5	< 0.6	< 0.6	< 0.6	< 0.6	<0.6	<0.2	<0.10	< 0.5	<0.2				
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	< 0.2	< 0.2	< 0.2	< 0.2	<0.2	<0.1	<0.20	< 0.2	<0.1	<0.35	<0.35	<0.35	<0.35
Toluene	60 (MAC)	24										<0.36	<0.36	<0.36	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.2	<0.20	< 0.5	<0.2	-	-	-	-
Trichloroethene	5 (MAC)	1.6	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	< 0.1	< 0.1	< 0.1	< 0.1	<0.1	<0.1	<0.20	< 0.1	<0.1	<0.44	<0.44	<0.44	<0.44
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	< 0.2	< 0.2	< 0.2	< 0.2	<0.2	<0.2	<0.17	< 0.2	<0.2	<0.17	<0.17	<0.17	<0.17
o-Xylene			-	-	-	-	-	-	-	-	-	<0.17	<0.17	<0.17	< 1.0	< 0.5	< 1.0	< 0.5	<0.5	<0.1	<0.10	< 0.5	<0.1	-	-	-	-
m,p-xylenes			-	-	-	-	-	-	-	-	-	<0.43	<0.43	<0.43	< 0.5	< 1.0	< 0.5	< 1.0	<1.0	<0.1	<0.20	< 1.0	<0.1	-	-	-	-
Xylene (Total)	90 (MAC)	300	-	-	-	-	-	-	-	-	-	<0.43	<0.43	<0.43	<1.5	<1.5	<1.5	<1.5	<1.5	<0.1	<0.20	< 1.5	<0.1	-	-	-	-

Note:

Units used are µg/L.

[1] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12
Date >			8-Mar-12	11-Apr-12	9-May-12	4-Jun-12	4-Jul-12	2-Aug-12	9-Oct-12	10-Oct-12	6-Nov-12	11-Dec-12	15-Jan-13	5-Feb-13	20-Mar-13	9-Apr-13	15-May-13	11-Jun-13	9-Jul-13	14-Aug-13	10-Sep-13	17-Sep-13	15-Oct-13	19-Nov-13	17-Dec-13	14-Jan-14	20-Feb-14
1,1-Dichloroethane		5	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.10	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.5	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
1,1,1-Trichloroethane		200	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
1,1,2-Tetrachloroethane		1.1	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
1,1,2-Trichloroethane		4.7	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
1,1,2,2-Tetrachloroethane		1	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
1,2-DibroMOECCthane (Ethylene Dibromide)		0.2	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-
1,2-Dichlorobenzene	200 (MAC)	3	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.20	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.5	<0.41	<0.41	<0.41	<0.41	<0.41
1,2-Dichloroethane	5 (MAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.20	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35
cis-1,2-Dichloroethene		1.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.10	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3
trans-1,2-Dichloroethene		1.6	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
1,2-Dichloropropane		5	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
1,3-Dichlorobenzene		59	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
1,4-Dichlorobenzene	5 (MAC)	1	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.20	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.5	<0.36	<0.36	<0.36	<0.36	<0.36
Benzene	1 (MAC)	5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.10	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.5	<0.32	<0.32	<0.32	<0.32	<0.32
Bromodichloromethane		16	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
Carbon Tetrachloride	2 (MAC)	0.79	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.10	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.2	<0.16	<0.16	<0.16	<0.16	<0.16
Chlorobenzene	80 (MAC)	30	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.10	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.5	<0.30	<0.30	<0.30	<0.30	<0.30
Chloroform		2.4	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
Dibromochloromethane		25	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.50	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<5.0	<0.35	<0.35	<0.35	<0.35	<0.35
Ethylbenzene	140 (MAC)	2.4	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
Styrene		5.4							<0.20													<0.5					
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.10	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35
Toluene	60 (MAC)	24	-						<0.20													<0.5					
Trichloroethene	5 (MAC)	1.6	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.10	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.44	<0.44	<0.44	<0.5	<0.44	<0.44	<0.44	<0.44	<0.44
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.20	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.5	<0.17	<0.17	<0.17	<0.17	<0.17
o-Xylene			-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
m,p-xylenes			-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-
Xylene (Total)	90 (MAC)	300	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-

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	ODWS	TABLE 2	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well 12	Well12	Well12	Well12	Well15	Well15	Well 15	Well 15	Well 15
Date >			17-Mar-14	14-Apr-14	21-May-14	16-Jun-14	21-Jul-14	18-Aug-14	24-Sep-14	30-Sep-14	20-Oct-14	27-Nov-14	22-Dec-14	26-Jan-15	19-Feb-15	23-Feb-15	19-Mar-15	7-Apr-15	10-Sep-15	6-Sep-16	30-Oct-17	4-Sep-18	20-Dec-07	2-Sep-08	3-Sep-09	1-Sep-10	19-Oct-11
1,1-Dichloroethane		5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.1	0.2	<0.30	< 0.1	0.1
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.5	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.5	<0.33	<0.33	<0.33	<0.1	<0.1	<0.30	< 0.1	<0.1
1,1,1-Trichloroethane		200	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.30	< 0.1	<0.1
1,1,1,2-Tetrachloroethane		1.1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.10	< 0.1	<0.1
1,1,2-Trichloroethane		4.7	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.20	< 0.1	<0.2
1,1,2,2-Tetrachloroethane		1	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.4	<0.2	<0.10	< 0.4	<0.2
1,2-DibromoOECCthane (Ethylene Dibromide)		0.2	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.1	<0.2	<0.20	< 0.1	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.5	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.5	<0.41	<0.41	<0.41	<0.1	<0.2	<0.10	< 0.1	<0.2
1,2-Dichloroethane	5 (IMAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.1	<0.2	<0.20	< 0.1	<0.2
cis-1,2-Dichloroethene		1.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.5	<0.5	<0.3	<0.3	<0.1	2.3	1.5	< 0.1	1.9
trans-1,2-Dichloroethene		1.6	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.1	<0.1	<0.20	< 0.1	<0.1
1,2-Dichloropropane		5	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.10	< 0.1	<0.2
1,3-Dichlorobenzene		59	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.5	<0.5	<0.5	<0.1	<0.2	<0.10	< 0.1	<0.2
1,4-Dichlorobenzene	5 (MAC)	1	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.5	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.5	<0.36	<0.36	<0.36	<0.2	<0.2	<0.10	< 0.2	<0.2
Benzene	1 (MAC)	5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.5	<0.32	<0.32	<0.32	<0.5	<0.1	<0.20	< 0.5	<0.1
Bromodichloromethane		16	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.26	<0.26	<0.26	<0.1	<0.1	<0.20	< 0.1	<0.1
Carbon Tetrachloride	2 (MAC)	0.79	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.2	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.2	<0.16	<0.16	<0.16	<0.2	<0.1	<0.20	< 0.2	<0.1
Chlorobenzene	80 (MAC)	30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.5	<0.3	<0.3	<0.3	<0.2	<0.1	<0.10	< 0.2	<0.1
Chloroform		2.4	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.29	<0.29	<0.29	<0.3	<0.1	<0.20	< 0.3	<0.1
Dibromochloromethane		25	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.37	<0.37	<0.37	<0.1	<0.2	<0.10	< 0.1	<0.2
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<5.0	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<5.0	<0.35	<0.35	<0.35	<0.3	<0.5	<0.30	< 0.3	<0.5
Ethylbenzene	140 (MAC)	2.4	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.33	<0.33	<0.33	<0.5	<0.1	<0.10	< 0.5	<0.1
Styrene		5.4								<0.5									<0.5	<0.5	<0.5	<0.5	<0.6	<0.2	<0.10	< 0.5	<0.2
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.2	<0.1	<0.20	< 0.2	<0.1
Toluene	60 (MAC)	24								<0.5									<0.5	<0.36	<0.36	<0.36	<0.5	<0.2	<0.20	< 0.5	<0.2
Trichloroethene	5 (MAC)	1.6	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.5	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.5	<0.44	<0.44	<0.44	<0.1	<0.1	<0.20	< 0.1	<0.1
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.5	<0.17	<0.17	<0.17	<0.2	<0.2	<0.17	< 0.2	<0.2
o-Xylene			-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.17	<0.17	<0.17	<0.5	<0.1	<0.10	< 0.5	<0.1
m,p-xylenes			-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.43	<0.43	<0.43	<1.0	<0.1	<0.20	< 1.0	<0.1
Xylene (Total)	90 (MAC)	300	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	<0.5	<0.43	<0.43	<0.43	<1.5	<0.1	<0.20	< 1.5	<0.1

Note:

Units used are µg/L.

' = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15
Date >			21-Nov-11	7-Dec-11	23-Jan-12	13-Feb-12	8-Mar-12	11-Apr-12	9-May-12	4-Jun-12	4-Jul-12	2-Aug-12	9-Oct-12	10-Oct-12	6-Nov-12	11-Dec-12	15-Jan-13	5-Feb-13	20-Mar-13	9-Apr-13	15-May-13	11-Jun-13	9-Jul-13	14-Aug-13	10-Sep-13	17-Sep-13	15-Oct-13
1,1-Dichloroethane		5	-	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.10	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.5	<0.33
1,1,1-Trichloroethane		200	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
1,1,2-Tetrachloroethane		1.1	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
1,1,2-Trichloroethane		4.7	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
1,1,2,2-Tetrachloroethane		1	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
1,2-DibroMOECCthane (Ethylene Dibromide)		0.2	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.2	-
1,2-Dichlorobenzene	200 (MAC)	3	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.20	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.5	<0.41
1,2-Dichloroethane	5 (MAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.20	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35
cis-1,2-Dichloroethene		1.6	**2.2**	**2.3**	<0.3	**2.6**	**3.3**	**3.1**	**2.9**	**3.1**	**3.4**	**3.8**	**2.7**	**3.3**	**2.6**	**3.7**	**3.3**	**3.8**	**3**	**3.1**	**3**	**3.1**	**3.2**	**3.2**	**2.6**	**2.1**	**2.9**
trans-1,2-Dichloroethene		1.6	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
1,2-Dichloropropane		5	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
1,3-Dichlorobenzene		59	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
1,4-Dichlorobenzene	5 (MAC)	1	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.20	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.5	<0.36
Benzene	1 (MAC)	5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.10	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.5	<0.32
Bromodichloromethane		16	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
Carbon Tetrachloride	2 (MAC)	0.79	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.10	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.2	<0.16
Chlorobenzene	80 (MAC)	30	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.10	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.5	<0.30
Chloroform		2.4	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
Dibromochloromethane		25	-	-	-	-	-	-	-	-	-	-	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.50	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<5.0	<0.35
Ethylbenzene	140 (MAC)	2.4	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
Styrene		5.4											<0.20													<0.5	
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.10	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35
Toluene	60 (MAC)	24	-	-	-	-	-						<0.20													<0.5	
Trichloroethene	5 (MAC)	1.6	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.10	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.43	<0.44	<0.44	<0.5	<0.44
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.20	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.5	<0.17
o-Xylene			-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
m,p-xylenes			-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-
Xylene (Total)	90 (MAC)	300	-	-	-	-	-	-	-	-	-	-	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-

Note:

Units used are µg/L.

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15	Well 15
Date >			19-Nov-13	17-Dec-13	27-Jan-14	20-Feb-14	17-Mar-14	14-Apr-14	21-May-14	17-Jul-14	18-Aug-14	24-Sep-14	30-Sep-14	20-Oct-14	25-Nov-14	22-Dec-14	26-Jan-15	19-Feb-15	23-Feb-15	19-Mar-15	7-Apr-15	6-May-15	8-Jun-15	8-Jul-15	10-Aug-15	1-Sep-15	7-Oct-15
1,1-Dichloroethane		5	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.5	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
1,1,1-Trichloroethane		200	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,1,2-Tetrachloroethane		1.1	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2-Trichloroethane		4.7	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,1,2,2-Tetrachloroethane		1	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-DibroMOECCthane (Ethylene Dibromide)		0.2	-	-	-	-	-	-	-	-	-	-	<0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	200 (MAC)	3	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.5	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41	<0.41
1,2-Dichloroethane	5 (IMAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35
cis-1,2-Dichloroethene		1.6	**3.1**	**3.2**	**3.2**	**3.3**	**3.4**	**3.2**	**3.7**	**2.3**	**2.8**	**2.5**	**2.6**	**2.5**	**3**	**2.4**	**2.6**	**2.2**	**2.6**	**2.1**	**2.4**	**2.6**	**2.8**	**2.7**	**2.6**	**2.7**	**3.9**
trans-1,2-Dichloroethene		1.6	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichloropropane		5	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene		59	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	5 (MAC)	1	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.5	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36
Benzene	1 (MAC)	5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.5	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32	<0.32
Bromodichloromethane		16	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride	2 (MAC)	0.79	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.2	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16
Chlorobenzene	80 (MAC)	30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Chloroform		2.4	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane		25	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<5.0	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35
Ethylbenzene	140 (MAC)	2.4	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene		5.4											<0.5														
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.5	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35	<0.35
Toluene	60 (MAC)	24											<0.5														
Trichloroethene	5 (MAC)	1.6	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.5	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44	<0.44
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.5	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
o-Xylene			-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
m,p-xylenes			-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Xylene (Total)	90 (MAC)	300	-	-	-	-	-	-	-	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note:

Units used are µg/L.

[1] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

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Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 4
City of Barrie 2018 Annual Groundwater Monitoring Program
VOC Analyses - Deep Wells

	ODWS	TABLE 2	Well16	Well15	Well16
Date >			6-Sep-16	30-Oct-17	4-Sep-18
1,1-Dichloroethane		5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.33	<0.33	<0.33
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5
1,2-DibroMOECCthane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.41	<0.41	<0.41
1,2-Dichloroethane	5 (MAC)	1.6	<0.35	<0.35	<0.35
cis-1,2-Dichloroethene		1.6	3.6	2.6	2.0
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5
1,2-Dichloropropane		5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.36	<0.36	<0.36
Benzene	1 (MAC)	5	<0.32	<0.32	<0.32
Bromodichloromethane		16	<0.26	<0.26	<0.26
Carbon Tetrachloride	2 (MAC)	0.79	<0.16	<0.16	<0.16
Chlorobenzene	80 (MAC)	30	<0.3	<0.3	<0.3
Chloroform		2.4	<0.29	<0.29	<0.29
Dibromochloromethane		25	<0.37	<0.37	<0.37
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<0.35	<0.35	<0.35
Ethylbenzene	140 (MAC)	2.4	<0.33	<0.33	<0.33
Styrene		5.4	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.35	<0.35	<0.35
Toluene	60 (MAC)	24	<0.36	<0.36	<0.36
Trichloroethene	5 (MAC)	1.6	<0.44	<0.44	<0.44
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.17	<0.17	<0.17
o-Xylene			<0.17	<0.17	<0.17
m,p-xylenes			<0.43	<0.43	<0.43
Xylene (Total)	90 (MAC)	300	<0.43	<0.43	<0.43

Note:

Units used are µg/L.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, April 15, 2011

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 5
City of Barrie 2018 Annual Groundwater Monitoring Program
Major Ion Analyses

			Conductivity	Alkalinity	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium	Hardness	pH	Comments
			µmho/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pH Units	
	ODWS			~~30-500~~ ▶	250	500			200		80-100 (OG)	6.5-8.5	
CB03-1#1	23-Jun-05		1580	820	31.5	2	188	19.7	41.5	21.3	550	6.43	
CB03-1#1	14-Nov-06		1330	800	58	8	178	16.6	43.2	18.2	513	7.50	
CB03-1#1	6-Dec-07		1330	775	80.2	1	188	18.5	56.5	20.2	546	6.79	
CB03-1#1	27-Aug-08		1610	808	37	1	170	19	38	22	510	7.70	
CB03-1#1	31-Aug-09		1440	728	32	<1	165	15.7	31.8	16	480	7.20	
CB03-1#1	30-Aug-10		1370	758	30.1	<10	170	18.5	37.7	20.4	500	6.12	
CB03-1#1	30-Aug-10		1340	780	27.5	<10	169	17.9	37.0	20.5	495	6.23	Duplicate
CB03-1#2	23-Jun-05		893	204	153	27	92.5	7.1	81.6	1.5	260	7.38	
CB03-1#2	14-Nov-06		864	203	143	26	83.6	6.71	75.4	1.4	237	8.18	
CB03-1#2	6-Dec-07		979	200	149	28	88	6.57	82	1.2	247	7.57	
CB03-1#2	26-Aug-08		840	196	130	28	82	7	78	1.2	230	8.30	
CB03-1#2	31-Aug-09		834	194	130	29	76.4	6.23	73.8	1.0	220	7.90	
CB03-1#2	30-Aug-10		769	201	127	29	80.1	6.48	76.4	1.6	227	7.14	
CB03-1#2	6-Sep-13		1370	188	306	30	130	12.3	122	1.95	375	7.38	
CB03-1#2	10-Sep-15		983	222	208	30	101	11.0	102	1.93	297	7.48	
CB03-1#2	29-Aug-16		1109	203	224	36.1	96.5	10.2	87.1	1.58	283	7.14	
CB03-1#2	13-Sep-17		1174	199	249	33.2	116	11.5	102	2.4	336	7.60	
CB03-2#1	23-Jun-05		1400	262	263	38	127	7.28	137	4.9	348	7.11	
CB03-2#1	17-Nov-06		942	216	166	34	107	18.8	55.6	2.5	343	7.94	
CB03-2#1	6-Dec-07		1390	230	242	41	105	6.27	112	3.4	288	7.42	
CB03-2#1	29-Aug-08		1150	211	190	30	104	5.96	128	3.0	290	8.10	
CB03-2#1	31-Aug-09		1230	215	210	25	95.3	5.71	177	4.0	260	7.80	
CB03-2#1	30-Aug-10		1050	231	188	21	119	7.78	111	4.1	330	6.84	
CB03-2#2	23-Jun-05		845	206	132	31	99.6	18.2	42	2.4	324	7.52	
CB03-2#2	17-Nov-06		1090	232	186	26	98.3	5.96	108	3.3	270	8.13	
CB03-2#2	6-Dec-07		995	206	181	35	109	19.4	64.6	2.7	352	7.48	
CB03-2#2	29-Aug-08		1090	210	180	36	118	19.8	69.3	2.0	380	8.20	
CB03-2#2	31-Aug-09		1150	214	210	40	109	18.1	75.1	2.0	350	7.80	
CB03-2#2	31-Aug-09		1150	215	200	41	110	18.2	75	2.0	350	7.90	Duplicate
CB03-2#2	30-Aug-10		964	221	196	43	109	18.5	76	2.4	350	7.14	
CB03-2#2	6-Sep-13		1010	218	138	50	103	18.0	86.6	2.37	333	7.57	
CB03-2#2	9-Sep-15		739	212	168	40	92.0	17.3	102	2.49	301	7.93	
CB03-2#2	9-Sep-15		739	214	177	40	91.9	16.9	91.7	2.48	299	7.93	Duplicate
CB03-2#2	1-Sep-16		1074	223	214	47.3	81.1	19	150	7.36	281	7.65	
CB03-2#2	13-Sep-17		1099	223	198	44.8	98.9	17.5	99.6	2.7	319	7.71	
CB03-2#2	13-Sep-17		1099	216	198	43.0	102	17.9	101	2.8	327	7.71	Duplicate
CB03-3#1	7-Dec-07		2980	314	781	75	199	29.6	370	7.1	618	7.91	
CB03-3#1	29-Aug-08		3160	307	740	70	184	28	386	6.0	570	8.00	
CB03-3#1	31-Aug-09		3090	297	760	48	152	20.3	391	6.0	460	7.80	
CB03-3#1	30-Aug-10		1310	312	236	50	100	14	174	5.2	308	7.10	
CB03-3#2	7-Dec-07		1320	274	239	36	92.2	19.5	133	7.2	311	7.22	
CB03-3#2	29-Aug-08		1580	266	290	38	109	21.2	148	7.0	360	8.10	
CB03-3#2	31-Aug-09		2890	282	710	43	174	31.5	293	7.0	570	7.80	
CB03-3#2	30-Aug-10		1760	295	427	52	110	18.7	251	6.0	353	7.13	
CB03-3#2	5-Sep-13		1872	352	344	150	145	35.7	170	7.5	509	6.81	
CB03-3#2	10-Sep-15		1581	319	284	60	90.6	26.5	174	9.69	336	7.96	
CB03-3#2	29-Aug-16		1577	288	315	83.8	81.1	19	150	7.36	281	7.70	
CB03-3#2	13-Sep-17		1763	272	335	67.4	108	24.4	185	9.6	370	7.48	
CB03-4#1	23-Jun-05		3630	258	975	5.6	225	12.9	507	5.2	617	7.19	
CB03-4#1	14-Nov-06		3150	212	923	38	127	7.44	485	3.4	349	7.88	
CB03-4#1	5-Dec-07		3080	210	817	36	94	4.91	468	2.9	255	7.47	
CB03-4#1	27-Aug-08		2840	233	690	43	99	5.7	480	2.7	270	8.20	
CB03-4#1	1-Sep-09		3300	230	955	51.6	107	6.46	558	2.78	294	8.04	
CB03-4#1	31-Aug-10		2520	225	783	54	148	5.23	117	2.4	393	7.34	
CB03-4#2	23-Jun-05		1170	210	203	<0.1	123	11	120	2.6	352	7.49	
CB03-4#2	14-Nov-06		1530	212	393	28	151	13.9	115	2.8	434	7.66	
CB03-4#2	5-Dec-07		1490	190	342	30	145	12.2	121	2.6	413	7.34	
CB03-4#2	27-Aug-08		1050	202	190	39	100	7.5	98	2.0	290	8.20	
CB03-4#2	1-Sep-09		994	213	179	41.3	104	7.56	80.5	2.16	291	8.20	
CB03-4#2	31-Aug-10		793	202	149	42	99.7	6.94	66.7	1.9	278	7.38	
CB03-4#2	31-Aug-10		798	215	138	37	101	7.01	66.2	1.9	281	7.24	Duplicate
CB03-4#2	9-Sep-13		818	211	114	40	73.5	5.68	93.7	1.84	206	7.40	
CB03-4#2	3-Sep-15		762	181	164	30	97.6	6.68	81.3	1.9	272	7.91	
CB03-4#2	3-Sep-15		762	178	163	30	98.8	6.53	79.3	1.92	274	7.91	Duplicate
CB03-4#2	30-Aug-16		947	188	167	38.6	102	6.87	82.1	1.63	284	7.33	
CB03-4#2	11-Sep-17		855	177	163	30.8	86.6	6.9	78.5	2.1	245	7.78	
CB03-4#2	11-Sep-17		855	178	157	28.2	87.5	7.0	79.7	1.8	247	7.78	Duplicate
CB03-5#1	23-Jun-05		1550	224	224	0.8	128	7.61	169	3.3	350	7.35	
CB03-5#1	14-Nov-06		1060	203	198	39	92.9	5.61	108	2.5	255	7.95	
CB03-5#1	5-Dec-07		1120	224	180	30	87.7	5.07	128	2.5	240	7.47	
CB03-5#1	27-Aug-08		1010	204	180	36	90	5.5	92	2.2	250	8.20	
CB03-5#1	2-Sep-09		1320	243	300	44.9	114	6.47	186	2.35	311	7.98	
CB03-5#1	30-Aug-10		1300	295	257	55	106	7.26	187	3.0	294	7.00	
CB03-5#2	23-Jun-05		1190	274	274	0.2	147	12	101	2.5	417	7.26	
CB03-5#2	14-Nov-06		1080	304	168	57	126	11	94.4	2.3	359	7.80	
CB03-5#2	5-Dec-07		1150	302	183	39	119	10.2	110	2.0	339	7.38	
CB03-5#2	27-Aug-08		1150	299	170	45	130	11	90	1.9	360	8.20	
CB03-5#2	2-Sep-09		1240	301	224	56.3	146	12.5	119	2.02	416	7.96	
CB03-5#2	30-Aug-10		1140	310	196	59	132	12	113	2.1	378	6.96	
CB03-5#2	9-Sep-13		1638	330	282	100	168	14.8	156	2.31	481	6.84	
CB03-5#2	9-Sep-15		1204	321	310	100	171	16.2	181	2.64	494	7.78	
CB03-5#2	31-Aug-16		1632	311	384	103						7.13	
CB03-5#2	12-Sep-17		1469	280	264	93.8	138	13.9	142	2.6	402	7.22	

Table 5
City of Barrie 2018 Annual Groundwater Monitoring Program
Major Ion Analyses

			Conductivity	Alkalinity	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium	Hardness	pH	Comments
			µmho/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pH Units	
	ODWS →			~~30-500~~ →	250	500			200		80-100 (OG)	6.5-8.5	
CB05-1#1	26-Aug-05		1340	416	182	4	145	25.4	123	10.6	466	6.70	
CB05-1#1	17-Nov-06		1460	600	187	2	159	23.7	147	9.8	495	7.83	
CB05-1#1	7-Dec-07		1410	528	183	4	165	18.1	110	8.9	487	7.62	
CB05-1#2	21-Nov-05		1220	398	162	9	141	29.9	109	9.4	475	7.10	
CB05-1#2	17-Nov-06		1550	516	226	< 1	152	29.4	134	10.4	500	7.83	
CB05-1#2	17-Nov-06		1540	525	227	< 1	151	29.1	131	10	496	7.82	Duplicate
CB05-1#2	7-Dec-07		1430	435	227	2	132	21.2	128	7.3	417	7.47	
CB05-2#1	21-Nov-05		3990	392	977	90	174	15.4	801	18.9	499	7.20	
CB05-2#1	16-Nov-06		4420	448	1190	138	296	19	577	14.9	818	7.43	
CB05-2#1	4-Dec-07		3390	726	694	213	135	7.19	577	10.8	367	7.54	
CB05-2#1	28-Aug-08		1670	449	180	91	100	5.2	290	7	270	8.20	
CB05-2#1	2-Sep-09		3480	341	1010	59.6	430	25.9	245	12.5	1180	7.73	
CB05-2#1	1-Sep-10		3760	365	1260	44	171	7.99	928	12.2	460	7.08	
CB05-2#2	21-Nov-05		1380	238	243	36	134	19	164	5.5	414	7.30	
CB05-2#2	16-Nov-06		1830	284	417	46	121	13.8	221	7.5	359	7.61	
CB05-2#2	4-Dec-07		1660	242	340	40	127	13.8	178	6.7	375	7.37	
CB05-2#2	28-Aug-08		1170	237	190	39	110	11	110	4.9	330	8.10	
CB05-2#2	28-Aug-08		1370	264	210	43	110	12	110	4.9	330	8.10	Duplicate
CB05-2#2	2-Sep-09		1260	246	234	38.5	119	12.2	117	4.95	347	8.09	
CB05-2#2	1-Sep-10		1060	268	201	39	101	10.9	134	5.5	297	7.30	
CB05-2#2	1-Sep-10		1130	272	206	39	100	10.9	134	5.5	296	7.05	Duplicate
CB05-2#2	5-Sep-13		1398	270	280	40	132	14.3	140	3.4	388	7.05	
CB05-2#2	3-Sep-15		1163	247	267	30	113	13.5	155	2.96	339	7.67	
CB05-2#2	29-Aug-16		1373	263	260	35.3	101	12.9	144	2.32	305	7.62	
CB05-2#2	15-Sep-17		815	280	248	32.5	108	14.7	141	2.8	331	7.49	
CB08-1#1	27-Aug-08		1440	367	210	<1	130	15	140	6.6	390	7.90	
CB08-1#1	31-Aug-09		1660	387	270	19	157	12.9	141	3.0	440	7.40	
CB08-1#1	31-Aug-10		1300	360	262	30	142	13	132	2.9	408	6.54	
CB08-1#2	27-Aug-08		1570	415	240	<1	120	22	180	5.2	380	8.00	
CB08-1#2	31-Aug-09		2490	447	510	<1	163	17.7	280	8.0	480	7.50	
CB08-1#2	31-Aug-10		2090	490	539	<10	191	16.9	381	12.3	546	6.56	
CB08-1#2	5-Sep-13		1603	534	478	<10	140	14.4	307	12.5	409	6.52	
CB08-1#2	10-Sep-15		1543	380	321	<10	116	13.4	227	9.73	345	7.40	
CB08-1#2	30-Aug-16		1311	379	213	<10.0	88.2	9.66	190	6.59	260	7.32	
CB08-1#2	20-Sep-17		1138	381	166	<10.0	127	14.5	71.1	7.2	376	6.93	
CB08-2	27-Aug-08		1240	202	210	24	94	5.9	140	2.5	260	8.30	
CB08-2	31-Aug-09		1070	229	190	23	65.9	3.77	131	2.0	180	7.90	
CB08-2	31-Aug-10		1160	206	277	17	101	6.11	168	2.3	279	7.19	
CB08-2	5-Sep-13		1209	187	284	10	117	6.6	105	<3.0	319	7.06	
CB08-3#1	12-Sep-08		1880	240	400	57	104	28.1	223	7.0	380	7.60	
CB08-3#1	31-Aug-09		2260	242	540	34	137	19.4	239	3.0	420	7.70	
CB08-3#1	1-Sep-10		2270	254	753	36	196	23.8	340	4.0	588	7.16	
CB08-3#2	12-Sep-08		515	188	42.0	20	40	16	31.8	3.0	170	8.10	
CB08-3#2	31-Aug-09		379	166	14.0	22	36.2	11.2	21.8	2.0	140	7.90	
CB08-3#2	1-Sep-10		338	163	21.1	20	35.9	10.7	20.6	2.1	134	7.61	
CB10-1#1	26-Nov-10		2100	246	516	45	148	10.6	304	2.37	412	7.27	
CB10-1#2	26-Nov-10		903	207	175	30	89.6	16.6	69.5	3.12	292	7.25	
CB10-1#3	26-Nov-10		933	209	187	32	90.7	16.9	73.0	3.21	296	7.26	Duplicate
CB10-1#2	9-Sep-13		2880	229	230	40	117	15.0	106	2.63	355	7.12	
CB10-1#2	8-Sep-15		1331	219	317	40	148	20.8	177	3.36	456	7.71	
CB10-1#2	1-Sep-16		1930	205	344	39.1						7.58	
CB10-1#2	12-Sep-17		2001	235	496	53.8	125	17.0	254	3.5	382	7.50	
CB10-2#1	26-Nov-10		426	158	37.4	12	59.5	5.43	24	1.34	171	7.45	
CB10-2#2	26-Nov-10		1090	203	252	41	95.4	7.9	116	1.77	271	7.35	
CB10-2#2	6-Sep-13		1299	225	250	30	135	10.4	103	1.76	377	7.30	
CB10-2#2	10-Sep-15		1183	247	232	40	101	8.0	149	1.87	285	7.86	
CB10-2#2	31-Aug-16		1299	236	334	45.2						7.09	
CB10-2#2	13-Sep-17		1596	247	345	50.4	141	10.5	161	3.2	395	7.32	
CB11-1#1	23-Nov-11		1134	254	270	50	88.2	11.8	197	4.0	270	7.64	
CB11-1#1	14-Dec-11		1183	245	290	47	96.4	12.8	180	3.0	290	7.57	
CB11-1#2	23-Nov-11		4369	313	1800	49	325	50.2	713	5.0	1000	7.03	
CB11-1#2	14-Dec-11		4662	317	1900	45	368	57.0	747	5.0	1200	6.80	
CB11-1#2	9-Sep-15		>3999	331	1940	60	365	62.7	1020	4.3	1170	7.52	
CB11-1#2	1-Sep-16		>3999	316	1950	59.5						7.16	
CB11-1#2	19-Sep-17		6009	301	1630	54.6	332	53.8	776	5.8	1050	7.10	
CB11-1#2	19-Sep-17		6009	301	1840	52.1	338	55.8	806	6.6	1070	7.10	Duplicate
CB12-1	3-Oct-12		484				49	9.4	37	1.9		8.03	
CB12-1	14-Nov-12		383	200	2	7	49	10.0	23	1.7	160	7.35	
CB12-1	12-Dec-12		380	210	1	5	51	9.8	21	1.7	170	8.24	
CB12-1	9-Sep-13		400	212	0.8	<10	58.8	10.1	13.5	1.8	187	7.50	
CB12-1	10-Sep-15		426	202	15.8	10	39.6	9.45	20	1.83	138	8.07	
CB12-1	30-Aug-16		407	200	6.56	<10.0	55.6	10.4	20.8	1.46	181	6.84	
CB12-1	25-Sep-17		382	194	2.81	<10.0	53.8	9.9	16.3	1.3	175	8.01	
CB13-1#1	5-Sep-13		1092	241	180	50	97	24.0	82.2	<3.0	341	7.01	
CB13-1#1	9-Oct-13		1305	233	174	50	95.3	26.1	87.9	4.4	345	6.64	
CB13-1#1	12-Nov-13		1264	252	179	50	104	26.5	88.8	<3.0	369	7.58	
CB13-1#2	5-Sep-13		1097	251	176	50	88	11.0	109	<3.0	265	7.04	
CB13-1#2	9-Oct-13		1238	242	142	50	85.3	10.8	107	3.8	257	6.75	
CB13-1#2	12-Nov-13		1202	251	173	50	93.6	11.5	114	3.1	281	7.61	
CB13-1#2	10-Sep-15		1306	211	303	20	114	15.7	156	3.3	349	7.68	
CB13-1#2	30-Aug-16		1659	199	408	29.5	168	23.9	141	3.26	517	7.73	
CB13-1#2	30-Aug-16		1659	188	405	29.1	153	23.1	130	3.13	478	7.73	Duplicate
CB13-1#2	19-Sep-17		2509	203	568	36.2	200	23.9	250	4.6	597	7.31	

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			µmho/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pH Units	
	ODWS			~~30-500~~ ►	250	500			200		80-100 (OG)	6.5-8.5	
CB14-1#1	23-Oct-14		4655	288	1360	50	205	17.3	669	5.2	583	8.16	
CB14-1#1	25-Nov-14		4328	336	1280		167	13.4	696	5.8	472	7.48	
CB14-1#2	23-Oct-14		1072	248	153	80	89.1	19.6	106	4.4	303	8.37	
CB14-1#2	25-Nov-14		1016	233	153		93.6	18.3	99.5	4.0	309	7.71	
CB14-1#2	8-Sep-15		837	228	147	60	91.9	18.8	104	3.8	307	8.01	
CB14-1#2	30-Aug-16		>3999	233	134	63.8	106	19.5	99.7	3.24	346	7.83	
CB14-1#2	11-Sep-17		1109	222	193	65.8	98.2	18.4	81.4	3.1	306	7.83	
CB14-2#1	23-Oct-14		1934	322	370	80	155	24.6	206	7.8	488	***8.51***	
CB14-2#1	25-Nov-14		705	306	290		129	19.6	173	7.2	403	7.46	
CB14-2#2	23-Oct-14		1359	302	219	60	133	20.3	119	6.1	416	8.24	
CB14-2#2	25-Nov-14		1322	300	236		125	18.8	122	6.3	390	7.40	
CB14-2#2	9-Sep-15		1203	311	324	60	154	26.0	176	4.1	492	7.61	
CB14-2#2	31-Aug-16		2723	366	698	68.6						7.46	
CB14-2#2	13-Sep-17		1647	362	567	61.2	134	22.1	373	5.4	426	7.41	
CB14-2#3	23-Oct-14		1334	276	240	50	114	25.3	125	4.6	389	***8.55***	
CB14-2#3	25-Nov-14		1286	273	244		114	23.2	117	3.6	380	7.03	
CB14-2#3	9-Sep-15		1004	308	251	60	127	25.7	132	3.3	422	7.65	
CB14-2#3	31-Aug-16		1446	277	317	62.6						7.52	
CB14-2#3	15-Sep-17		2422	290	333	64.2	147	27.2	148	3.9	478	7.38	
CB14-3#1	23-Oct-14		3401	987	597	<10	416	68.5	172	12.8	1320	7.86	
CB14-3#1	25-Nov-14		3014	868	554		382	58.8	153	12.7	1200	6.80	
CB14-3#2	23-Oct-14		1108	233	207	20	97.3	25.0	93.4	3.0	346	***8.84***	
CB14-3#2	25-Nov-14		1080	235	202		85.4	21.0	89.4	<3.0	300	7.69	
CB14-3#2	10-Sep-15		1763	259	465	40	187	31.8	165	3.6	600	7.99	
CB14-3#2	30-Aug-16		2057	272	484	38.4	182	46.7	169	3.51	647	7.79	
CB14-3#2	18-Sep-17		2422	294	490	41.1	157	41.4	235	4.2	561	7.38	
MW1/00#1	25-Sep-08		641	267	20	37	72.7	4.94	33.9	35.0	200	8.20	
MW1/00#1	2-Sep-09		540	241	8.94	29.1	84.7	5.90	23.1	30.5	236	8.04	
MW1/00#1	30-Aug-10		520	272	6.6	20	78.5	5.97	19.9	27.6	221	7.12	
MW2/00#1	25-Sep-08		1300	320	130	131	150	9.63	74.4	49	410	7.90	
MW2/00#1	2-Sep-09		1030	345	45.9	97.4	131	10.2	51.5	46.8	369	7.93	
MW2/00#1	30-Aug-10		778	331	22.8	56	95.8	7.67	38.3	46.9	271	6.95	
MW2/00#2	25-Sep-08		1140	219	150	62	145	14.8	54.7	2.0	420	7.00	
MW2/00#2	2-Sep-09		1020	242	168	56.6	145	13.4	61.3	2.04	417	8.02	
MW2/00#2	2-Sep-09		1040	242	168	56.6	143	13.8	63	2.08	414	8.01	Duplicate
MW2/00#2	30-Aug-10		933	253	131	54	118	12.1	68.2	2.8	346	7.04	
MW2/00#2	11-Sep-13		854	258	136	70	124	11.5	74.9	1.78	357	6.95	
MW2/00#2	9-Sep-15		719	238	101	60	116	14.5	73.4	2.18	348	7.85	
MW2/00#2	31-Aug-16		1016	249	164	69.6						7.16	
MW2/00#2	19-Sep-17		1064	254	212	46.9	123	15.6	76.4	2.1	372	7.40	
MW3/00#1	3-Sep-08		750	218	64	29	93.7	9.52	50.3	2.0	270	8.10	
MW3/00#1	2-Sep-09		647	226	37.7	31.5	87	9.12	30.3	2.13	255	8.15	
MW3/00#1	1-Sep-10		593	220	42.7	24	88.6	9.2	31.2	2.5	259	7.25	
MW3/00#2	3-Sep-08		935	251	110	46	78.6	10.9	108	1.0	240	8.10	
MW3/00#2	2-Sep-09		805	224	97.1	42.9	98.8	13.6	37.9	1.18	303	8.12	
MW3/00#2	1-Sep-10		762	261	83.4	53	102	14.4	51.1	1.2	315	7.32	
MW3/00#2	10-Sep-13		869	259	92.0	40	113	14.6	54.5	1.38	343	7.13	
MW3/00#2	3-Sep-15		786	212	128	30	113	15.1	21.9	1.27	344	7.07	
MW3/00#2	29-Aug-16		1031	238	158	46.3	119	16.8	54.4	1.04	366	7.79	
MW3/00#2	12-Sep-17		980	238	150	37	112	15.5	59.3	1.3	344	7.39	
MW4/00#1	3-Sep-08		1000	299	92	101	145	14.5	59.7	2.0	420	8.00	
MW4/00#1	2-Sep-09		946	306	90.7	77.2	122	12.9	62.7	1.64	358	8.10	
MW4/00#1	1-Sep-10		866	333	84.4	93	132	14.2	56.6	1.6	389	6.95	
MW4/00#2	3-Sep-08		1020	329	88	79	129	15.2	69.4	2.0	380	8.10	
MW4/00#2	2-Sep-09		1020	326	106	78	137	15.3	64.8	1.94	405	7.98	
MW4/00#2	1-Sep-10		862	320	95.6	82	127	14.9	58.4	1.8	379	7.03	
MW4/00#2	10-Sep-13		965	338	70.0	80	122	13.8	56.0	1.87	360	6.91	
MW4/00#2	2-Sep-15		792	296	67.0	60	129	13.7	52.6	1.96	390	7.21	
MW4/00#2	29-Aug-16		880	313	59.8	67	121	13.8	48.4	1.66	359	7.46	
MW4/00#2	14-Sep-17		817	295	63.4	60.8	115	13.0	44.1	2.1	341	7.36	
MW7/00#1	23-Jun-05		2590	380	571	86	189	23.9	372	4.6	572	6.81	
MW7/00#1	14-Nov-06		2040	394	456	43	168	16.7	292	3.0	488	7.75	
MW7/00#1	7-Dec-07		1490	320	334	42	159	16.2	170	2.8	465	7.17	
MW7/00#1	29-Aug-08		2060	397	350	112	156	17.4	226	3.0	460	7.90	
MW7/00#1	1-Sep-09		1400	468	175	32.7	110	17.7	156	2.74	348	7.96	
MW7/00#1	1-Sep-10		1210	373	221	33	119	22.1	133	3.3	389	6.82	
MW7/00#2	23-Jun-05		726	222	314	23	112	8.17	36.6	2.0	314	7.43	
MW7/00#2	14-Nov-06		1320	368	229	34	138	25.9	98.3	2.9	451	7.83	
MW7/00#2	7-Dec-07		1380	348	233	40	122	18	102	2.5	380	7.35	
MW7/00#2	29-Aug-08		1200	310	190	29	140	19.9	71	2.0	430	8.10	
MW7/00#2	1-Sep-09		1350	258	281	42.9	118	23.7	102	2.31	392	8.12	
MW7/00#2	1-Sep-10		980	280	182	43	98.2	19	96.1	2.1	324	7.18	
MW7/00#2	6-Sep-13		1226	293	198	60	118	24.0	95.2	2.44	394	7.26	
MW7/00#2	8-Sep-15		832	229	155	60	91.7	21.0	96	2.74	316	7.77	
MW7/00#2	30-Aug-16		1027	235	148	64.6	93.4	21	89.5	2.32	320	7.54	
MW7/00#2	30-Aug-16		1027	201	154	61.8	198	46.4	188	4.67	685	7.54	Duplicate
MW7/00#2	11-Sep-17		985	226	146	68.2	88	17.5	85.3	2.6	292	7.66	

Table 5
City of Barrie 2018 Annual Groundwater Monitoring Program
Major Ion Analyses

			Conductivity	Alkalinity	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium	Hardness	pH	Comments
			µmho/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pH Units	
	ODWS			~~30-500~~	▶ 250	500			200		80-100 (OG)	6.5-8.5	
MW8/00#1	23-Jun-05		3010	288	792	55	236	16	475	3.7	656	6.93	
MW8/00#1	17-Nov-06		3650	232	1090	50	182	11	470	3.9	501	7.80	
MW8/00#1	5-Dec-07		2850	306	747	46	162	7.03	420	3.1	435	7.16	
MW8/00#1	29-Aug-08		3370	384	790	55	174	8.97	636	3.0	470	8.00	
MW8/00#1	29-Aug-08		3940	350	960	62	184	9.21	581	3.0	500	8.00	Duplicate
MW8/00#1	1-Sep-09		2130	343	501	35.3	133	6.43	295	2.47	359	8.05	
MW8/00#1	31-Aug-10		2540	329	783	53	167	7.59	535	3.2	449	6.71	
MW8/00#2	23-Jun-05		726	222	91.3	23	112	8.17	36.6	2.0	314	7.43	
MW8/00#2	17-Nov-06		797	229	122	23	106	7.49	48.8	2.1	297	8.01	
MW8/00#2	17-Nov-06		791	219	119	23	107	7.58	48.6	2.1	298	7.99	Duplicate
MW8/00#2	5-Dec-07		952	214	153	24	114	7.69	56.6	2.3	316	7.42	
MW8/00#2	29-Aug-08		1010	218	180	26	122	8.1	60.1	2.0	340	8.10	
MW8/00#2	1-Sep-09		997	209	183	26.2	127	8.67	49.2	2.16	353	8.07	
MW8/00#2	31-Aug-10		860	237	186	27	131	9.32	41.2	2.1	365	7.03	
MW8/00#2	9-Sep-13		963	224	154	40	112	8.99	68.7	2.23	314	7.05	
MW8/00#2	8-Sep-15		674	219	109	30	96.6	8.11	74.3	2.35	275	7.97	
MW8/00#2	8-Sep-15		674	207	121	40	90.7	8.8	70.8	2.5	263	7.97	Duplicate
MW8/00#2	30-Aug-16		770	201	95.2	38.1	83.7	6.94	61.7	1.83	238	7.46	
MW8/00#2	12-Sep-17		765	199	98.4	39.8	85	7.9	54.9	2.4	245	7.64	
MW9/00#1	3-Sep-08		1100	284	170	23	130	9.82	89.9	3.0	360	8.10	
MW9/00#1	1-Sep-09		1800	310	368	63.7	148	9.56	212	1.28	409	8.13	
MW9/00#1	1-Sep-09		1720	319	343	58	139	8.84	204	1.26	383	8.08	Duplicate
MW9/00#1	31-Aug-10		1130	239	216	24	76.9	4.1	190	1.0	209	7.36	
MW9/00#2	3-Sep-08		1670	329	280	52	106	5.84	316	2.0	290	8.20	
MW9/00#2	1-Sep-09		934	298	120	20	110	8.33	63.9	2.47	309	8.17	
MW9/00#2	31-Aug-10		852	314	114	20	136	10.8	69.9	2.6	384	7.22	
MW9/00#2	10-Sep-13		760	275	62.0	30	106	8.67	49.1	2.19	299	7.12	
MW9/00#2	8-Sep-15		439	190	42.8	10	75.6	6.42	24.9	1.78	215	7.83	
MW9/00#2	1-Sep-16		493	185	45.2	<10						7.74	
MW9/00#2	18-Sep-17		606	199	63.0	<10.0	84.1	6.5	26.1	1.6	237	7.81	
MW10/00#1	3-Sep-08		5060	321	1400	68	140	9.37	818	6.0	390	8.00	
MW10/00#1	1-Sep-09		5980	351	1960	91	337	25.4	803	6.84	946	7.99	
MW10/00#1	31-Aug-10		4010	343	1380	70	283	18.4	912	7.1	783	6.93	
MW10/00#2	3-Sep-08		5110	259	1400	44	345	26.4	686	4.0	970	7.90	
MW10/00#2	1-Sep-09		4920	239	1620	60.2	308	24.8	640	4.06	871	7.93	
MW10/00#2	31-Aug-10		4560	278	1790	48	401	26.3	983	5.3	1110	6.84	
MW10/00#2	10-Sep-13		7939	306	2440	70	443	38.9	1290	4.61	1270	6.50	
MW10/00#2	3-Sep-15		>3999	290	3380	70	505	41.3	1500	6.53	1430	7.05	
MW10/00#2	1-Sep-16		>3999	208	3140	43.3						7.33	
MW10/00#2	13-Sep-17		12065	365	4230	103	472	38.8	2470	12.1	1340	7.04	
MW1/02#1	25-Nov-08		1590	290	270	40	145	7.13	177	3.0	390	8.00	
MW1/02#1	1-Sep-09		1540	291	322	44.9	131	6.68	173	2.74	355	8.03	
MW1/02#1	1-Sep-09		1530	279	322	44.9	127	6.44	164	2.63	344	8.07	Duplicate
MW1/02#1	31-Aug-10		1310	303	275	38	133	6.29	179	2.7	360	7.07	
MW1/02#2	25-Nov-08		1680	327	280	72	201	34.5	74.4	3.0	640	8.00	
MW1/02#2	17-Sep-09		1570	323	297	90.5	198	35.8	69.9	2.92	642	7.81	
MW1/02#2	31-Aug-10		1290	341	305	70	226	34.8	74.1	2.9	708	6.90	
MW1/02#2	9-Sep-13		1463	323	264	60	180	33.8	70.0	2.54	589	6.76	
MW1/02#2	9-Sep-13		1463	319	250	60	179	33.5	70.5	2.66	584	6.76	Duplicate
MW1/02#2	8-Sep-15		1168	335	278	60	174	25.9	80.4	2.72	542	7.65	
MW1/02#2	31-Aug-16		1349	310	270	55						7.38	
MW1/02#2	31-Aug-16		1349	312	273	55.6						7.38	Duplicate
MW1/02#2	15-Sep-17		1322	297	280	55.8	152	33.4	74.7	2.9	518	7.30	
MW3/02#2	25-Sep-08		5360	163	1600	58	414	42.4	343	4.0	1200	7.80	
MW3/02#2	31-Aug-09		2300	211	636	91.2	156	16.4	301	2.11	457	7.93	
MW3/02#2	30-Aug-10		744	217	70.2	64	34.4	3.63	112	0.9	101	7.54	
MW3/02#2	30-Aug-10		746	212	70.2	67	36.9	3.88	123	1.0	108	7.60	Duplicate
MW4/02#1	25-Sep-08		485	218	17	13	75.4	4.48	20.1	13	210	7.90	
MW4/02#1	2-Sep-09		377	184	12	4.19	46.4	2.68	24.6	12.2	127	7.89	
MW4/02#1	30-Aug-10		411	200	9.5	11	58.9	3.66	18.7	17.2	162	6.95	
MW4/02#2	25-Sep-08		877	249	95	68	112	11.6	46.4	16	330	8.00	
MW4/02#2	2-Sep-09		779	274	55.7	65.9	115	12.3	43	16.5	338	8.01	
MW4/02#2	30-Aug-10		749	280	59	71	109	12.1	36.6	18.2	323	7.02	
MW4/02#2	11-Sep-13		1194	401	110	60	153	17.0	75.3	5.39	451	6.70	
MW4/02#2	9-Sep-15		673	200	40.2	40	127	17.7	69.4	3.19	390	7.53	
MW4/02#2	1-Sep-16		924	231	66.2	51.4						7.33	
MW4/02#2	19-Sep-17		880	326	68.6	75.8	116	15.4	58.2	2.9	352	7.27	
MW4/02#2	19-Sep-17		880	329	66.0	75.0	112	14.9	56.3	2.4	342	7.27	Duplicate
MW5/02#1	29-Aug-08		780	233	93	16	106	7.39	46.6	1.0	300	8.10	
MW5/02#1	2-Sep-09		733	233	75.6	17.1	93.6	7.2	38.7	1.34	263	8.15	
MW5/02#1	2-Sep-09		725	234	75	17.1	96.6	7.31	39.1	1.32	271	8.11	Duplicate
MW5/02#1	1-Sep-10		673	265	72.2	16	102	7.33	51.6	1.6	285	7.17	
MW5/02#2	3-Sep-08		881	313	67	56	126	11	61.5	1.0	360	8.00	
MW5/02#2	2-Sep-09		910	330	61.6	77.5	123	10.9	52.6	1.47	352	8.13	
MW5/02#2	1-Sep-10		761	318	59	80	137	11.8	38.1	1.2	391	7.12	
MW5/02#2	10-Sep-13		796	272	48.0	60	130	11.1	29.3	1.26	369	6.78	
MW5/02#2	3-Sep-15		704	247	267	30	113	13.5	155	2.96	339	7.39	
MW5/02#2	29-Aug-16		797	263	70.2	58.9	119	13.1	34.8	1.17	351	7.63	
MW5/02#2	14-Sep-17		815	247	90.2	57.2	116	10.9	34	1.4	335	7.49	
TW 2/63	23-Jun-05		1760	270	392	33	161	16.8	201	3.0	470	7.35	

Table 5
City of Barrie 2018 Annual Groundwater Monitoring Program
Major Ion Analyses

			Conductivity	Alkalinity	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium	Hardness	pH	Comments
			µmho/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pH Units	
	ODWS			~~30-500~~ →	250	500			200		80-100 (OG)	6.5-8.5	
TW1/03#1	23-Jun-05		504	202	267	43	75.3	19.2	8	1.7	267	7.61	
TW1/03#1	16-Nov-06		573	216	45.4	38	78.4	19.6	15.9	2.0	277	8.01	
TW1/03#1	6-Dec-07		538	200	38	35	71.3	21.1	14	2.4	265	7.32	
TW1/03#1	29-Aug-08		740	231	69	46	97	21.9	22.7	2.0	330	8.10	
TW1/03#1	1-Sep-09		746	235	75.9	52.4	94	20.8	22.4	2.02	320	8.19	
TW1/03#1	31-Aug-10		580	228	52.4	49	88	22.9	15.8	2.1	314	7.43	
TW1/03#2	23-Jun-05		466	190	9.6	38	65.8	21.3	6.3	1.9	252	7.60	
TW1/03#2	16-Nov-06		506	207	26.8	34	65.8	20.7	9.4	2.0	250	8.26	
TW1/03#2	6-Dec-07		681	222	56.9	44	88	21.1	21.1	2.3	307	7.57	
TW1/03#2	29-Aug-08		550	208	36	34	71.6	19.4	11.6	2.0	260	8.20	
TW1/03#2	1-Sep-09		679	221	64.3	46.3	82.2	22.9	17.7	2.05	300	8.22	
TW1/03#2	31-Aug-10		670	253	72.2	60	107	21.7	24	2.1	358	7.26	
TW1/65	23-Jun-05		967	210	177	23	90.3	27.2	73.6	3.4	337	7.54	
TW1/65	16-Nov-06		657	47	160	2	9.1	21.5	66.4	3.4	111	8.29	
TW1/65	7-Dec-07		675	72	150	2	6.96	23.9	66.7	3.5	116	7.39	
TW1/65	16-Sep-08		1040	194	190	19	72.7	25.2	89.5	3	290	8.00	
TW1/87	23-Jun-05		884	208	150	31	91.1	20.6	68	2.5	313	7.51	
TW1/87	15-Nov-06		1060	217	201	31	83.8	21.8	84.2	3.0	299	7.98	
TW1/87	5-Dec-07		760	54	209	<1	21	26	83	2.7	159	7.75	
TW1/87	28-Aug-08		1540	195	320	25	88	24	130	3.1	320	8.20	
TW1/87	1-Sep-09		1600	161	428	15.7	88.3	29.1	164	3.24	340	8.17	
TW1/87	2-Sep-10		1710	166	412	13	80.5	28.3	213	3.4	318	7.12	
TW2/05#1	29-Dec-05		1140	224	198	33	125	22.7	72.3	2.9	407	7.77	
TW2/05#1	19-Jan-06		1180	224	216	34	116	22.4	79.1	2.9	382	7.52	
TW2/05#1	16-Nov-06		1160	222	222	34	120	22	76.8	3.2	390	7.88	
TW2/05#1	4-Dec-07		1160	140	236	34	113	20.5	89.6	2.9	366	7.68	
TW2/05#1	28-Aug-08		1190	213	210	36	110	20	93	2.9	370	8.10	
TW2/05#1	2-Sep-09		1360	223	344	37.5	141	25.2	121	3.12	456	7.97	
TW2/05#1	1-Sep-10		1190	230	308	34	119	22	104	3.1	388	7.31	
TW2/05#2	29-Dec-05		1790	255	346	40	144	28	186	4.3	474	7.72	
TW2/05#2	19-Jan-06		1810	254	373	40	129	26.2	188	4.2	430	7.60	
TW2/05#2	16-Nov-06		1590	252	369	43	113	21.7	183	3.9	373	7.73	
TW2/05#2	4-Dec-07		1670	244	418	43	124	23.2	200	4.3	407	7.51	
TW2/05#2	28-Aug-08		1610	238	320	48	120	23	190	3.9	380	8.20	
TW2/05#2	28-Aug-08		1610	238	320	48	110	21	180	3.7	370	8.10	Duplicate
TW2/05#2	2-Sep-09		1610	232	393	40.6	129	24	194	3.9	421	8.01	
TW2/05#2	1-Sep-10		1390	249	366	41	118	20.6	182	4.0	380	7.19	
TW3/05	29-Dec-05		730	225	77.9	35	99	18.5	28.7	2.1	324	7.85	
TW3/05	15-Nov-06		787	244	112	41	103	19.9	37.3	2.2	339	7.82	
TW3/05	5-Dec-07		959	238	153	42	113	22	46	2.4	373	7.29	
TW3/05	28-Aug-08		1360	243	240	44	140	27	85	2.7	470	8.20	
TW3/05	1-Sep-09		1340	253	284	44.8	127	23.6	82.5	2.57	414	8.11	
TW3/05	2-Sep-10		1390	275	275	37	327	29.5	107	2.8	939	7.13	
TW2/08#1	10-Nov-08		671	215	75	29	86.8	18.4	22.6	2.0	290	8.10	
TW2/08 #1	3-Sep-09		552	197	54.6	23.8	80	16.7	21.4	1.64	269	8.10	
TW2/08#2	10-Nov-08		525	192	37	28	72.3	17.7	20.2	2.0	250	8.10	
TW2/08 #2	3-Sep-09		434	189	15.1	22.7	67.5	15.9	11.5	1.83	234	8.13	
TW3/08#1	17-Nov-08		697	207	79	29	79	18.8	34.5	2.0	270	8.20	
TW3/08 #1	3-Sep-09		702	203	109	29.7	87.4	20.6	40.5	2.07	303	8.01	
TW3/08 #1	1-Sep-10		583	221	66.6	28	70.8	17	27.8	2.2	247	7.40	
TW3/08#2	21-Nov-08		435	188	15	21	60.9	15.5	8.8	2.0	220	8.10	
TW3/08 #2	3-Sep-09		424	187	16.4	20.5	66.4	16.5	8.17	1.61	234	8.13	
TW3/08 #2	1-Sep-10		407	202	14.4	20	59.2	15.1	7.4	1.5	210	7.26	
Well7	26-Aug-05		406	208	7	13	61	17	6.7	1.7	218	8.18	
Well7	21-Nov-06		143	207	6.8	24	62.3	15.1	5.9	1.5	218	8.04	
Well3	26-Aug-05		487	212	36	15	74.6	17	17.3	1.8	256	7.99	
Well3	21-Nov-06		529	213	45	25	73.2	15.5	19.4	1.6	247	7.96	
Well3	20-Dec-07		597	197	45.3	25	73.4	15.3	19.2	1.7	246	7.52	
Well3	2-Sep-08		601	207	52	27	78.9	16	21.7	2.0	260	8.20	
Well3	3-Sep-09		622	204	72.5	27.1	86.1	17.8	26.9	1.79	288	8.08	
Well3	3-Sep-09		614	203	69.7	26.5	86.3	17.5	26	1.76	288	8.05	Duplicate
Well3	13-Oct-10		564	214	54.9	29	78.5	16.9	22.9	1.61	266	7.18	
Well5	26-Aug-05		414	209	15	23	61.7	ND	12.2	1.8	226	8.28	
Well5	21-Nov-06		455	209	16.2	25	61.8	15.9	11.5	1.6	220	8.05	
Well5	20-Dec-07		493	180	16.6	25	61.5	15.6	10.5	1.6	218	7.73	
Well5	2-Sep-08		530	201	35	27	69.2	17.2	15.1	2.0	240	8.20	
Well5	3-Sep-09		510	195	39.2	30.9	74.4	18.8	15.6	1.74	263	8.06	
Well5	1-Sep-10		512	215	41.1	30	67.9	17	17.8	1.7	240	7.40	
Well12	26-Aug-05		926	235	179	15	89.1	24	96	2.7	311	7.95	
Well12	21-Nov-06		953	236	170	26	90.2	19.8	80.4	2.6	307	7.94	
Well12	20-Dec-07		1030	222	204	27	94.7	20.6	98.8	2.7	321	7.51	
Well12	20-Dec-07		1050	220	204	28	94	20.4	97.9	2.6	319	7.60	Duplicate
Well12	2-Sep-08		948	218	160	24	86.4	18.6	75.4	2.0	290	8.20	
Well12	3-Sep-09		962	216	197	25.5	97	20.6	87.1	2.41	327	8.08	
Well12	1-Sep-10		791	224	138	23	81.8	18.1	68	2.3	279	7.32	
Well12	4-Jun-12			224					93.3			7.32	

Table 5
City of Barrie 2018 Annual Groundwater Monitoring Program
Major Ion Analyses

			Conductivity	Alkalinity	Chloride	Sulphate	Calcium	Magnesium	Sodium	Potassium	Hardness	pH	Comments
			µmho/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pH Units	
	ODWS			~~30-500~~ →	250	500			200		80-100 (OG)	6.5-8.5	
Well15	20-Dec-07		517	190	33.5	19	64.7	15.7	14	1.7	226	7.63	
Well15	2-Sep-08		514	198	37	19	67.8	16.3	16.1	2.0	240	8.20	
Well15	2-Sep-08		516	196	39	18	68.1	16.2	15.6	2.0	240	8.20	Duplicate
Well15	3-Sep-09		515	203	37.1	19.4	75	17.6	18.3	1.74	260	8.09	
Well15	1-Sep-10		465	204	30.9	18	63.3	15.4	14.6	1.6	222	7.41	

Note:

ODWS = Ontario Drinking Water Standards, MOE, June, 2006.

Shaded denotes concentration elevated above ODWS.

Table 6
City of Barrie 2018 Annual Groundwater Monitoring Program
QA/QC Samples

	ODWS	TABLE 2	TW1/03 #2	TW1/03 #2 Dup	RPD	CB03-1#1	CB03-1#1B	RPD	CB03-2#2	CB03-2#2B	RPD	CB03-4 #2	CB03-4 #2B	RPD
Monitoring Well Location>				TW1/03 #2			CB03-1#1			CB03-2#2			CB03-4#2	
Date			21-Mar-2018	21-Mar-2018	21-Mar-2018	13-Sep-2018	13-Sep-2018	13-Sep-2018	13-Sep-2018	13-Sep-2018	13-Sep-2018	18-Sep-2018	18-Sep-2018	18-Sep-2018
1,1-Dichloroethane		5	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	93.6	87.9	NC
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	NC	<0.5	<0.5	NC	0.9	0.8	12%	333	310	NC
1,1,1-Trichloroethane		200	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	18.5	19.6	NC
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,1,2-Trichloroethane		4.7	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	NC	<0.2	<0.2	NC	<0.2	<0.2	NC	<0.2	<0.2	NC
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	NC	0.6	0.6	0%	<0.5	<0.5	NC	<0.5	<0.5	NC
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	2.7	2.9	-7%
cis-1,2-Dichloroethene		1.6	12.7	12.3	3%	<0.5	<0.5	NC	274	259	6%	17.2	16.4	5%
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	NC	<0.5	<0.5	NC	3.3	2.6	24%	38.7	32.1	19%
1,3-Dichlorobenzene		59	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	NC	21	21.4	-2%	<0.5	<0.5	NC	<0.5	<0.5	NC
Benzene	1 (MAC)	5	<0.5	<0.5	NC	5.5	5.5	0%	<0.5	<0.5	NC	<0.5	<0.5	NC
Bromodichloromethane		16	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Bromoform		25	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Bromomethane		0.89	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	NC	<0.2	<0.2	NC	<0.2	<0.2	NC	<0.2	<0.2	NC
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	NC	99.6	96.5	3%	<0.5	<0.5	NC	<0.5	<0.5	NC
Chloroform		2.4	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Dibromochloromethane		25	<1.0	<1.0	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	NC	<5.0	<5.0	NC	<5.0	<5.0	NC	<5.0	<5.0	NC
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	NC	0.7	0.8	-13%	<0.5	<0.5	NC	<0.5	<0.5	NC
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Toluene	60 (MAC)	24	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Trichloroethene	5 (MAC)	1.6	1.1	1.2	-9%	<0.5	<0.5	NC	1.7	1.5	13%	71.7	84.0	-16%
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	NC	<0.5	<0.5	NC	1.2	1.3	-8%	1.5	1.4	7%
o-Xylene			<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
m,p-Xylene			<0.5	<0.5	NC	33.4	33.6	-1%	<0.5	<0.5	NC	<0.5	<0.5	NC
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	NC	33.4	33.6	-1%	<0.5	<0.5	NC	<0.5	<0.5	NC

Note:

Units used are µg/L.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, 2009

NC = Not calculable

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

OG = OperatioNCl Guideline

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 6
City of Barrie 2018 Annual Groundwater Monitoring Program
QA/QC Samples

	ODWS	TABLE 2	CB03-5 #1	CB03-5 #1B	RPD	MW/04 #2	MW/04 #2B	RPD	CB11-1 #2	CB11-1 #2B	RPD
Monitoring Well Location>				CB03-5#1			MW/04 #2			CB11-1 #2	
Date			18-Sep-2018	18-Sep-2018	18-Sep-2018	12-Sep-2018	12-Sep-2018	12-Sep-2018	12-Sep-2018	12-Sep-2018	12-Sep-2018
1,1-Dichloroethane		5	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	NC	<0.5	<0.5	NC	0.9	1.0	-11%
1,1,1-Trichloroethane		200	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,1,2-Trichloroethane		4.7	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	NC	<0.2	<0.2	NC	<0.2	<0.2	NC
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,2-Dichloroethane	5 (MAC)	1.6	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
cis-1,2-Dichloroethene		1.6	1.3	1.2	8%	23.8	23.5	1%	99	102	-3%
trans-1,2-Dichloroethene		1.6	<0.5	0.8	NC	1.4	1.1	24%	51.2	53.7	-5%
1,3-Dichlorobenzene		59	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Benzene	1 (MAC)	5	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Bromodichloromethane		16	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Bromoform		25	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Bromomethane		0.89	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	NC	<0.2	<0.2	NC	<0.2	<0.2	NC
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Chloroform		2.4	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Dibromochloromethane		25	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	NC	<5.0	<5.0	NC	<5.0	<5.0	NC
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Toluene	60 (MAC)	24	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Trichloroethene	5 (MAC)	1.6	41.2	54.4	-28%	80	75	7%	2320	2460	-6%
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	NC	0.9	0.8	12%	1.0	<0.5	NC
o-Xylene			<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
m,p-Xylene			<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	NC	<0.5	<0.5	NC	<0.5	<0.5	NC

Note:

Units used are µg/L.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, 2009

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Table 6
City of Barrie 2018 Annual Groundwater Monitoring Program
QA/QC Samples

	ODWS	TABLE 2	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK	FIELD BLANK
Monitoring Well Location>											
Date			20-Mar-2018	21-Mar-2018	11-Sep-2018	12-Sep-2018	13-Sep-2018	17-Sep-2018	18-Sep-2018	19-Sep-2018	20-Sep-2018
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane		0.89	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-Xylene			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Note:

Units used are µg/L.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, 2009

NC = Not calculable

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

OG = OperatioNCl Guideline

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

Table 6
City of Barrie 2018 Annual Groundwater Monitoring Program
QA/QC Samples

	ODWS	TABLE 2	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
Monitoring Well Location>											
Date			14-Mar-2018	14-Mar-2018	06-Sep-18	6-Sep-2018	6-Sep-2018	6-Sep-2018	6-Sep-2018	6-Sep-2018	6-Sep-2018
1,1-Dichloroethane		5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene (Vinylidene Dichloride)	14 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane		200	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane		1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane		4.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane		1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dibromoethane (Ethylene Dibromide)		0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	200 (MAC)	3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	5 (IMAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethene		1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene		59	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	5 (MAC)	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Benzene	1 (MAC)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane		16	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromoform		25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane		0.89	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	2 (MAC)	0.79	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	80 (MAC)	30	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform		2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane		25	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methylene Chloride (Dichloromethane)	50 (MAC)	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	140 (MAC)	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene (Perchloroethylene)	10 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	60 (MAC)	24	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5 (MAC)	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl Chloride (Chloroethene)	1 (MAC)	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
o-Xylene			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
m,p-Xylene			<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Xylene (Total)	90 (MAC)	300	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Note:

Units used are µg/L.

[2] = criterion is for sum of both isomers.

Blank space denotes parameter not tested.

TABLE 2 = Full Depth Site Condition Standards for Coarse Textured Soils in a Potable Groundwater Condition, MECP, 2009

NC = Not calculable

ODWS = Ontario Drinking Water Standards, MECP, January 2018

MAC = Maximum Acceptable Concentration

AO = Aesthetic Objective

OG = OperatioNCl Guideline

Bold-faced type denotes concentration elevated above "Table 2" criterion.

Shaded denotes concentration elevated above ODWS.

APPENDIX A

Laboratory Certificates of Analysis

E3 Laboratories Inc.
SS#4, 360 York Rd., Unit 10, Niagara-on-the-Lake, Ontario L0S 1J0
Email: info@e3labs.ca
Tel: (905) 641-9000, Fax: (905) 641-9001

CERTIFICATE OF ANALYSIS

Corporation of the City of Barrie
Stephanie Huyssen
272 Ferndale Drive
Barrie
L4M4T5
Tel: 705-739-4220 Fax: E-mail
Email: stephanie.huyssen@barrie.ca

Work Order No.:2575775
Received : 2018-03-22
PO Number: 37534
Reported: 2018-03-29
Project Name: GWMP
Chain of Custody No.: 36266

Client Sample ID	Sample Date	Lab ID	Parameter	Result	Unit	RDL	Date Analyzed	Method
Trip Blank	2018-03-21	**536101**	VOC Scan	See	Attached	N/A	2018-03-25	Subcontracted
Field Blank	2018-03-21	**536102**	VOC Scan	See	Attached	N/A	2018-03-25	Subcontracted
TW1/03 #1	2018-03-21	**536103**	VOC Scan	See	Attached	N/A	2018-03-25	Subcontracted
TW1/03 #2	2018-03-21	**536104**	VOC Scan	See	Attached	N/A	2018-03-25	Subcontracted
TW3/05	2018-03-21	**536105**	VOC Scan	See	Attached	N/A	2018-03-25	Subcontracted
TW1/87	2018-03-21	**536106**	VOC Scan	See	Attached	N/A	2018-03-25	Subcontracted
TW1/03 #2 Dup	2018-03-21	**536107**	VOC Scan	See	Attached	N/A	2018-03-25	Subcontracted

Reported by:

Nilou Ghazi, Ph.D.,P.Eng.
Laboratory Manager

All work has been performed using accepted testing methodologies, except where otherwise agreed to by the client in writing. Our total liability in connection with this work shall be limited to the amount paid by the client.
Results relate only to items tested.

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Certificate of Analysis

E-3 Laboratories Inc.

RR#4, 360 York Rd. Unit 10
Niagara-on-the-Lake, ON L0S 1J0
Attn: Kristy Berry

Client PO: 2575775
Project: City of Barrie
Custody:

Report Date: 28-Mar-2018
Order Date: 22-Mar-2018

Order #: 1812505

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1812505-01	536101 - Trip Blank
1812505-02	536102 - Field Blank
1812505-03	536103 - TW1/03 #1
1812505-04	536104 - TW1/03 #2
1812505-05	536105 - TW3/05
1812505-06	536106 - TW1/87
1812505-07	536107 - TW1/03 #2 Dup

Approved By: Mark Foto

Mark Foto, M.Sc.
Lab Supervisor

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
REG 153: VOCs by P&T GC/MS	EPA 624 - P&T GC-MS	23-Mar-18	25-Mar-18

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2575775

Report Date: 28-Mar-2018
Order Date: 22-Mar-2018
Project Description: City of Barrie

	Client ID:	536101 - Trip Blank	536102 - Field Blank	536103 - TW1/03 #1	536104 - TW1/03 #2
	Sample Date:	03/14/2018 00:00	03/21/2018 00:00	03/21/2018 00:00	03/21/2018 00:00
	Sample ID:	1812505-01	1812505-02	1812505-03	1812505-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	6.2	12.7
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylene dibromide (dibromoethan	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2575775

Report Date: 28-Mar-2018
Order Date: 22-Mar-2018
Project Description: City of Barrie

	Client ID:	536101 - Trip Blank	536102 - Field Blank	536103 - TW1/03 #1	536104 - TW1/03 #2
	Sample Date:	03/14/2018 00:00	03/21/2018 00:00	03/21/2018 00:00	03/21/2018 00:00
	Sample ID:	1812505-01	1812505-02	1812505-03	1812505-04
	MDL/Units	Water	Water	Water	Water
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	1.1
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	102%	103%	100%	100%
Dibromofluoromethane	Surrogate	103%	105%	104%	104%
Toluene-d8	Surrogate	100%	100%	99.0%	101%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2575775

Report Date: 28-Mar-2018
Order Date: 22-Mar-2018
Project Description: City of Barrie

	Client ID:	536105 - TW3/05	536106 - TW1/87	536107 - TW1/03 #2 Dup	-
	Sample Date:	03/21/2018 00:00	03/21/2018 00:00	03/21/2018 00:00	-
	Sample ID:	1812505-05	1812505-06	1812505-07	-
	MDL/Units	Water	Water	Water	-
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	-
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	-
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	-
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	-
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	-
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-
cis-1,2-Dichloroethylene	0.5 ug/L	4.3	<0.5	12.3	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	-
Ethylene dibromide (dibromoethar	0.2 ug/L	<0.2	<0.2	<0.2	-
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	-
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	-
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	-
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	-
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	-

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2575775

Report Date: 28-Mar-2018
Order Date: 22-Mar-2018
Project Description: City of Barrie

	Client ID:	536105 - TW3/05	536106 - TW1/87	536107 - TW1/03 #2 Dup	-
	Sample Date:	03/21/2018 00:00	03/21/2018 00:00	03/21/2018 00:00	-
	Sample ID:	1812505-05	1812505-06	1812505-07	-
	MDL/Units	Water	Water	Water	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	-
Trichloroethylene	0.5 ug/L	<0.5	<0.5	1.2	-
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	-
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	-
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	-
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	-
4-Bromofluorobenzene	Surrogate	101%	99.8%	99.8%	-
Dibromofluoromethane	Surrogate	103%	103%	103%	-
Toluene-d8	Surrogate	100%	101%	101%	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroform	ND	0.5	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Ethylene dibromide (dibromoethane	ND	0.2	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*78.4*		*ug/L*		*98.0*	*50-140*			
Surrogate: Dibromofluoromethane	*80.8*		*ug/L*		*101*	*50-140*			
Surrogate: Toluene-d8	*82.9*		*ug/L*		*104*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND				30	
Benzene	ND	0.5	ug/L	ND				30	
Bromodichloromethane	3.78	0.5	ug/L	4.16			9.6	30	
Bromoform	ND	0.5	ug/L	ND				30	
Bromomethane	ND	0.5	ug/L	ND				30	
Carbon Tetrachloride	ND	0.2	ug/L	ND				30	
Chlorobenzene	ND	0.5	ug/L	ND				30	
Chloroform	6.68	0.5	ug/L	8.78			27.2	30	
Dibromochloromethane	2.04	0.5	ug/L	1.98			3.0	30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND				30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,1-Dichloroethane	ND	0.5	ug/L	ND				30	
1,2-Dichloroethane	ND	0.5	ug/L	ND				30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND				30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
1,2-Dichloropropane	ND	0.5	ug/L	ND				30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Ethylene dibromide (dibromoethane	ND	0.2	ug/L	ND				30	
Hexane	ND	1.0	ug/L	ND				30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND				30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND				30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND				30	
Methylene Chloride	ND	5.0	ug/L	ND				30	
Styrene	ND	0.5	ug/L	ND				30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
Tetrachloroethylene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND				30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND				30	
Trichloroethylene	ND	0.5	ug/L	ND				30	
Trichlorofluoromethane	ND	1.0	ug/L	ND				30	
Vinyl chloride	ND	0.5	ug/L	ND				30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: 4-Bromofluorobenzene	*79.6*		*ug/L*		*99.5*	*50-140*			
Surrogate: Dibromofluoromethane	*79.6*		*ug/L*		*99.4*	*50-140*			
Surrogate: Toluene-d8	*83.8*		*ug/L*		*105*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	89.4	5.0	ug/L		89.4	50-140			
Benzene	34.0	0.5	ug/L		85.0	60-130			
Bromodichloromethane	31.8	0.5	ug/L		79.5	60-130			
Bromoform	43.8	0.5	ug/L		110	60-130			
Bromomethane	36.8	0.5	ug/L		91.9	50-140			
Carbon Tetrachloride	33.6	0.2	ug/L		84.0	60-130			
Chlorobenzene	38.3	0.5	ug/L		95.8	60-130			
Chloroform	33.8	0.5	ug/L		84.6	60-130			
Dibromochloromethane	43.3	0.5	ug/L		108	60-130			
Dichlorodifluoromethane	50.0	1.0	ug/L		125	50-140			
1,2-Dichlorobenzene	40.6	0.5	ug/L		101	60-130			
1,3-Dichlorobenzene	40.9	0.5	ug/L		102	60-130			
1,4-Dichlorobenzene	39.9	0.5	ug/L		99.7	60-130			
1,1-Dichloroethane	35.0	0.5	ug/L		87.6	60-130			
1,2-Dichloroethane	35.2	0.5	ug/L		88.0	60-130			
1,1-Dichloroethylene	33.2	0.5	ug/L		83.1	60-130			
cis-1,2-Dichloroethylene	34.0	0.5	ug/L		85.0	60-130			
trans-1,2-Dichloroethylene	33.4	0.5	ug/L		83.6	60-130			
1,2-Dichloropropane	34.8	0.5	ug/L		87.0	60-130			
cis-1,3-Dichloropropylene	34.5	0.5	ug/L		86.3	60-130			
trans-1,3-Dichloropropylene	34.8	0.5	ug/L		87.1	60-130			
Ethylbenzene	44.4	0.5	ug/L		111	60-130			
Ethylene dibromide (dibromoethane	40.5	0.2	ug/L		101	60-130			
Hexane	35.9	1.0	ug/L		89.7	60-130			
Methyl Ethyl Ketone (2-Butanone)	92.3	5.0	ug/L		92.3	50-140			
Methyl Isobutyl Ketone	95.0	5.0	ug/L		95.0	50-140			
Methyl tert-butyl ether	81.3	2.0	ug/L		81.3	50-140			
Methylene Chloride	36.1	5.0	ug/L		90.3	60-130			
Styrene	47.1	0.5	ug/L		118	60-130			
1,1,1,2-Tetrachloroethane	41.5	0.5	ug/L		104	60-130			
1,1,2,2-Tetrachloroethane	40.6	0.5	ug/L		101	60-130			
Tetrachloroethylene	38.2	0.5	ug/L		95.5	60-130			
Toluene	39.8	0.5	ug/L		99.6	60-130			
1,1,1-Trichloroethane	33.4	0.5	ug/L		83.6	60-130			
1,1,2-Trichloroethane	33.2	0.5	ug/L		82.9	60-130			
Trichloroethylene	33.6	0.5	ug/L		84.0	60-130			
Trichlorofluoromethane	29.7	1.0	ug/L		74.3	60-130			
Vinyl chloride	36.6	0.5	ug/L		91.5	50-140			
m,p-Xylenes	83.3	0.5	ug/L		104	60-130			
o-Xylene	42.5	0.5	ug/L		106	60-130			
Surrogate: 4-Bromofluorobenzene	*76.3*		*ug/L*		*95.4*	*50-140*			

Qualifier Notes:

Login Qualifiers :

Sample not received in Paracel verified container / media

Applies to samples: 536103 - TW1/03 #1, 536104 - TW1/03 #2, 536105 - TW3/05, 536106 - TW1/87, 536107 - TW1/03 #2 Dup

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

E3 Laboratories Inc.
SS#4, 360 York Rd., Unit 10, Niagara-on-the-Lake, Ontario L0S 1J0
Email: info@e3labs.ca
Tel: (905) 641-9000, Fax: (905) 641-9001

CERTIFICATE OF ANALYSIS

Corporation of the City of Barrie
Stephanie Huyssen
272 Ferndale Drive
Barrie
L4M4T5
Tel: 705-739-4220 Fax: E-mail
Email: stephanie.huyssen@barrie.ca

Work Order No.:2575704
Received : 2018-03-21
PO Number: 37534
Reported: 2018-03-28
Project Name: GWMP
Chain of Custody No.: 36265

Client Sample ID	Sample Date	Lab ID	Parameter	Result	Unit	RDL	Date Analyzed	Method
Trip Blank	2018-03-20	**535859**	VOC Scan	See	Attached	N/A	2018-03-24	Subcontracted
Field Blank	2018-03-20	**535860**	VOC Scan	See	Attached	N/A	2018-03-24	Subcontracted
TW03/08 #1	2018-03-20	**535861**	VOC Scan	See	Attached	N/A	2018-03-24	Subcontracted
TW3/08 #2	2018-03-20	**535862**	VOC Scan	See	Attached	N/A	2018-03-24	Subcontracted
TW2/05 #1	2018-03-20	**535863**	VOC Scan	See	Attached	N/A	2018-03-24	Subcontracted
TW2/05 #2	2018-03-20	**535864**	VOC Scan	See	Attached	N/A	2018-03-24	Subcontracted

Reported by:

Nilou Ghazi, Ph.D.,P.Eng.
Laboratory Manager

All work has been performed using accepted testing methodologies, except where otherwise agreed to by the client in writing. Our total liability in connection with this work shall be limited to the amount paid by the client.
Results relate only to items tested.

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Certificate of Analysis

E-3 Laboratories Inc.

RR#4, 360 York Rd. Unit 10
Niagara-on-the-Lake, ON L0S 1J0
Attn: Kristy Berry

Client PO: 2575704
Project: City of Barrie
Custody:

Report Date: 27-Mar-2018
Order Date: 21-Mar-2018

Order #: 1812347

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1812347-01	535859 - Trip Blank
1812347-02	535860 - Field Blank
1812347-03	535861 - TW03/08 #1
1812347-04	535862 - TW03/08 #2
1812347-05	535863 - TW02/05 #1
1812347-06	535864 - TW02/05 #2

Approved By: Mark Foto

Mark Foto, M.Sc.
Lab Supervisor

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2575704

Report Date: 27-Mar-2018
Order Date: 21-Mar-2018
Project Description: City of Barrie

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
REG 153: VOCs by P&T GC/MS	EPA 624 - P&T GC-MS	23-Mar-18	24-Mar-18

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2575704

Report Date: 27-Mar-2018
Order Date: 21-Mar-2018
Project Description: City of Barrie

	Client ID:	535859 - Trip Blank	535860 - Field Blank	535861 - TW03/08 #1	535862 - TW03/08 #2
	Sample Date:	03/14/2018 00:00	03/20/2018 00:00	03/20/2018 00:00	03/20/2018 00:00
	Sample ID:	1812347-01	1812347-02	1812347-03	1812347-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	1.7	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylene dibromide (dibromoethan	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2575704

Report Date: 27-Mar-2018
Order Date: 21-Mar-2018
Project Description: City of Barrie

	Client ID:	535859 - Trip Blank	535860 - Field Blank	535861 - TW03/08 #1	535862 - TW03/08 #2
	Sample Date:	03/14/2018 00:00	03/20/2018 00:00	03/20/2018 00:00	03/20/2018 00:00
	Sample ID:	1812347-01	1812347-02	1812347-03	1812347-04
	MDL/Units	Water	Water	Water	Water
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	99.6%	102%	100%	101%
Dibromofluoromethane	Surrogate	99.8%	101%	101%	98.6%
Toluene-d8	Surrogate	101%	101%	102%	103%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2575704

Report Date: 27-Mar-2018
Order Date: 21-Mar-2018
Project Description: City of Barrie

	Client ID:	535863 - TW02/05 #1	535864 - TW02/05 #2	-	-
	Sample Date:	03/20/2018 00:00	03/20/2018 00:00	-	-
	Sample ID:	1812347-05	1812347-06	-	-
	MDL/Units	Water	Water	-	-
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	-	-
Benzene	0.5 ug/L	<0.5	<0.5	-	-
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	-	-
Bromoform	0.5 ug/L	<0.5	<0.5	-	-
Bromomethane	0.5 ug/L	<0.5	<0.5	-	-
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	-	-
Chlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
Chloroform	0.5 ug/L	<0.5	<0.5	-	-
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	-	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	-	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	-	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	-	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	-	-
Ethylene dibromide (dibromoethar	0.2 ug/L	<0.2	<0.2	-	-
Hexane	1.0 ug/L	<1.0	<1.0	-	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	-	-
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	-	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	-	-
Methylene Chloride	5.0 ug/L	<5.0	<5.0	-	-
Styrene	0.5 ug/L	<0.5	<0.5	-	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	-	-
Toluene	0.5 ug/L	<0.5	<0.5	-	-

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2575704

Report Date: 27-Mar-2018
Order Date: 21-Mar-2018
Project Description: City of Barrie

	Client ID:	535863 - TW02/05 #1	535864 - TW02/05 #2	-	-
	Sample Date:	03/20/2018 00:00	03/20/2018 00:00	-	-
	Sample ID:	1812347-05	1812347-06	-	-
	MDL/Units	Water	Water	-	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-
Trichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	-	-
Vinyl chloride	0.5 ug/L	<0.5	<0.5	-	-
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	-	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	-	-
4-Bromofluorobenzene	Surrogate	101%	98.1%	-	-
Dibromofluoromethane	Surrogate	102%	99.4%	-	-
Toluene-d8	Surrogate	103%	101%	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroform	ND	0.5	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Ethylene dibromide (dibromoethane	ND	0.2	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*78.4*		*ug/L*		*98.0*	*50-140*			
Surrogate: Dibromofluoromethane	*80.8*		*ug/L*		*101*	*50-140*			
Surrogate: Toluene-d8	*82.9*		*ug/L*		*104*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND				30	
Benzene	ND	0.5	ug/L	ND				30	
Bromodichloromethane	3.78	0.5	ug/L	4.16			9.6	30	
Bromoform	ND	0.5	ug/L	ND				30	
Bromomethane	ND	0.5	ug/L	ND				30	
Carbon Tetrachloride	ND	0.2	ug/L	ND				30	
Chlorobenzene	ND	0.5	ug/L	ND				30	
Chloroform	6.68	0.5	ug/L	8.78			27.2	30	
Dibromochloromethane	2.04	0.5	ug/L	1.98			3.0	30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND				30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,1-Dichloroethane	ND	0.5	ug/L	ND				30	
1,2-Dichloroethane	ND	0.5	ug/L	ND				30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND				30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
1,2-Dichloropropane	ND	0.5	ug/L	ND				30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Ethylene dibromide (dibromoethane	ND	0.2	ug/L	ND				30	
Hexane	ND	1.0	ug/L	ND				30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND				30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND				30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND				30	
Methylene Chloride	ND	5.0	ug/L	ND				30	
Styrene	ND	0.5	ug/L	ND				30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
Tetrachloroethylene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND				30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND				30	
Trichloroethylene	ND	0.5	ug/L	ND				30	
Trichlorofluoromethane	ND	1.0	ug/L	ND				30	
Vinyl chloride	ND	0.5	ug/L	ND				30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: 4-Bromofluorobenzene	*79.6*		*ug/L*		*99.5*	*50-140*			
Surrogate: Dibromofluoromethane	*79.6*		*ug/L*		*99.4*	*50-140*			
Surrogate: Toluene-d8	*83.8*		*ug/L*		*105*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	89.4	5.0	ug/L		89.4	50-140			
Benzene	34.0	0.5	ug/L		85.0	60-130			
Bromodichloromethane	31.8	0.5	ug/L		79.5	60-130			
Bromoform	43.8	0.5	ug/L		110	60-130			
Bromomethane	36.8	0.5	ug/L		91.9	50-140			
Carbon Tetrachloride	33.6	0.2	ug/L		84.0	60-130			
Chlorobenzene	38.3	0.5	ug/L		95.8	60-130			
Chloroform	33.8	0.5	ug/L		84.6	60-130			
Dibromochloromethane	43.3	0.5	ug/L		108	60-130			
Dichlorodifluoromethane	50.0	1.0	ug/L		125	50-140			
1,2-Dichlorobenzene	40.6	0.5	ug/L		101	60-130			
1,3-Dichlorobenzene	40.9	0.5	ug/L		102	60-130			
1,4-Dichlorobenzene	39.9	0.5	ug/L		99.7	60-130			
1,1-Dichloroethane	35.0	0.5	ug/L		87.6	60-130			
1,2-Dichloroethane	35.2	0.5	ug/L		88.0	60-130			
1,1-Dichloroethylene	33.2	0.5	ug/L		83.1	60-130			
cis-1,2-Dichloroethylene	34.0	0.5	ug/L		85.0	60-130			
trans-1,2-Dichloroethylene	33.4	0.5	ug/L		83.6	60-130			
1,2-Dichloropropane	34.8	0.5	ug/L		87.0	60-130			
cis-1,3-Dichloropropylene	34.5	0.5	ug/L		86.3	60-130			
trans-1,3-Dichloropropylene	34.8	0.5	ug/L		87.1	60-130			
Ethylbenzene	44.4	0.5	ug/L		111	60-130			
Ethylene dibromide (dibromoethane	40.5	0.2	ug/L		101	60-130			
Hexane	35.9	1.0	ug/L		89.7	60-130			
Methyl Ethyl Ketone (2-Butanone)	92.3	5.0	ug/L		92.3	50-140			
Methyl Isobutyl Ketone	95.0	5.0	ug/L		95.0	50-140			
Methyl tert-butyl ether	81.3	2.0	ug/L		81.3	50-140			
Methylene Chloride	36.1	5.0	ug/L		90.3	60-130			
Styrene	47.1	0.5	ug/L		118	60-130			
1,1,1,2-Tetrachloroethane	41.5	0.5	ug/L		104	60-130			
1,1,2,2-Tetrachloroethane	40.6	0.5	ug/L		101	60-130			
Tetrachloroethylene	38.2	0.5	ug/L		95.5	60-130			
Toluene	39.8	0.5	ug/L		99.6	60-130			
1,1,1-Trichloroethane	33.4	0.5	ug/L		83.6	60-130			
1,1,2-Trichloroethane	33.2	0.5	ug/L		82.9	60-130			
Trichloroethylene	33.6	0.5	ug/L		84.0	60-130			
Trichlorofluoromethane	29.7	1.0	ug/L		74.3	60-130			
Vinyl chloride	36.6	0.5	ug/L		91.5	50-140			
m,p-Xylenes	83.3	0.5	ug/L		104	60-130			
o-Xylene	42.5	0.5	ug/L		106	60-130			
Surrogate: 4-Bromofluorobenzene	*76.3*		*ug/L*		*95.4*	*50-140*			

Qualifier Notes:

Login Qualifiers :

Sample not received in Paracel verified container / media

Applies to samples: 535861 - TW03/08 #1, 535862 - TW03/08 #2, 535863 - TW02/05 #1, 535864 - TW02/05 #2

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

E3 Laboratories Inc.
SS#4, 360 York Rd., Unit 10, Niagara-on-the-Lake, Ontario L0S 1J0
Email: info@e3labs.ca
Tel: (905) 641-9000, Fax: (905) 641-9001

CERTIFICATE OF ANALYSIS

Corporation of the City of Barrie
Stephanie Huyssen
272 Ferndale Drive
Barrie
L4M4T5
Tel: 705-739-4220 Fax: E-mail
Email: stephanie.huyssen@barrie.ca

Work Order No.:2583732
Received : 2018-09-21
PO Number: 88985
Reported: 2018-10-01
Project Name: GWMP
Chain of Custody No.: 37640

Client Sample ID	Sample Date	Lab ID	Parameter	Result	Unit	RDL	Date Analyzed	Method
TW1/03 #1	2018-09-20	**560756**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
TW1/03 #2	2018-09-20	**560757**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
TW1/87	2018-09-20	**560758**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
TW3/05	2018-09-20	**560759**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
TW3/08 #1	2018-09-20	**560760**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
TW3/08 #2	2018-09-20	**560761**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
TW2/05 #1	2018-09-20	**560762**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
TW2/05 #2	2018-09-20	**560763**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
Trip Blank	2018-09-20	**560764**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
Field Blank	2018-09-20	**560765**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted

Reported by:

Nilou Ghazi, Ph.D.,P.Eng.
Laboratory Manager

All work has been performed using accepted testing methodologies, except where otherwise agreed to by the client in writing. Our total liability in connection with this work shall be limited to the amount paid by the client.
Results relate only to items tested.

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Certificate of Analysis

E-3 Laboratories Inc.

RR#4, 360 York Rd. Unit 10
Niagara-on-the-Lake, ON L0S 1J0
Attn: Kristy Berry

Client PO: 2583732
Project: City of Barrie
Custody:

Report Date: 27-Sep-2018
Order Date: 21-Sep-2018

Order #: 1838620

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1838620-01	560756 - TW1/03 #1
1838620-02	560757 - TW1/03 #2
1838620-03	560758 - TW1/87
1838620-04	560759 - TW3/05
1838620-05	560760 - TW3/08 #1
1838620-06	560761 - TW3/08 #2
1838620-07	560762 - TW2/05 #1
1838620-08	560763 - TW2/05 #2
1838620-09	560764 - Trip Blank
1838620-10	560765 - Field Blank

Approved By: Mark Foto

Mark Foto, M.Sc.
Lab Supervisor

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	26-Sep-18	26-Sep-18

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583732

Report Date: 27-Sep-2018
Order Date: 21-Sep-2018
Project Description: City of Barrie

	Client ID:	560756 - TW1/03 #1	560757 - TW1/03 #2	560758 - TW1/87	560759 - TW3/05
	Sample Date:	09/20/2018 00:00	09/20/2018 00:00	09/20/2018 00:00	09/20/2018 00:00
	Sample ID:	1838620-01	1838620-02	1838620-03	1838620-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	6.8	16.4	0.8	5.1
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	6.8	16.4	0.8	5.1
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583732

Report Date: 27-Sep-2018
Order Date: 21-Sep-2018
Project Description: City of Barrie

	Client ID:	560756 - TW1/03 #1	560757 - TW1/03 #2	560758 - TW1/87	560759 - TW3/05
	Sample Date:	09/20/2018 00:00	09/20/2018 00:00	09/20/2018 00:00	09/20/2018 00:00
	Sample ID:	1838620-01	1838620-02	1838620-03	1838620-04
	MDL/Units	Water	Water	Water	Water
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	1.6	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	99.7%	100%	100%	100%
Dibromofluoromethane	Surrogate	118%	120%	120%	121%
Toluene-d8	Surrogate	97.3%	97.1%	97.6%	97.5%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583732

Report Date: 27-Sep-2018
Order Date: 21-Sep-2018
Project Description: City of Barrie

	Client ID:	560760 - TW3/08 #1	560761 - TW3/08 #2	560762 - TW2/05 #1	560763 - TW2/05 #2
	Sample Date:	09/20/2018 00:00	09/20/2018 00:00	09/20/2018 00:00	09/20/2018 00:00
	Sample ID:	1838620-05	1838620-06	1838620-07	1838620-08
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	1.3	<0.5	1.0	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	1.3	<0.5	1.0	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583732

Report Date: 27-Sep-2018
Order Date: 21-Sep-2018
Project Description: City of Barrie

	Client ID:	560760 - TW3/08 #1	560761 - TW3/08 #2	560762 - TW2/05 #1	560763 - TW2/05 #2
	Sample Date:	09/20/2018 00:00	09/20/2018 00:00	09/20/2018 00:00	09/20/2018 00:00
	Sample ID:	1838620-05	1838620-06	1838620-07	1838620-08
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	0.9	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	100%	101%	100%	99.8%
Dibromofluoromethane	Surrogate	120%	118%	119%	120%
Toluene-d8	Surrogate	97.2%	98.3%	98.1%	97.2%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583732

Report Date: 27-Sep-2018
Order Date: 21-Sep-2018
Project Description: City of Barrie

	Client ID:	560764 - Trip Blank	560765 - Field Blank	-	-
	Sample Date:	09/06/2018 00:00	09/20/2018 00:00	-	-
	Sample ID:	1838620-09	1838620-10	-	-
	MDL/Units	Water	Water	-	-
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	-	-
Benzene	0.5 ug/L	<0.5	<0.5	-	-
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	-	-
Bromoform	0.5 ug/L	<0.5	<0.5	-	-
Bromomethane	0.5 ug/L	<0.5	<0.5	-	-
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	-	-
Chlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
Chloroethane	1.0 ug/L	<1.0	<1.0	-	-
Chloroform	0.5 ug/L	<0.5	<0.5	-	-
Chloromethane	3.0 ug/L	<3.0	<3.0	-	-
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	-	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	-	-
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	-	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	-	-
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	-	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	-	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	-	-
Hexane	1.0 ug/L	<1.0	<1.0	-	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	-	-
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	-	-
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	-	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	-	-
Methylene Chloride	5.0 ug/L	<5.0	<5.0	-	-
Styrene	0.5 ug/L	<0.5	<0.5	-	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583732

Report Date: 27-Sep-2018
Order Date: 21-Sep-2018
Project Description: City of Barrie

	Client ID:	560764 - Trip Blank	560765 - Field Blank	-	-
	Sample Date:	09/06/2018 00:00	09/20/2018 00:00	-	-
	Sample ID:	1838620-09	1838620-10	-	-
	MDL/Units	Water	Water	-	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	-	-
Toluene	0.5 ug/L	<0.5	<0.5	-	-
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-
Trichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	-	-
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	-	-
Vinyl chloride	0.5 ug/L	<0.5	<0.5	-	-
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	-	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	-	-
4-Bromofluorobenzene	Surrogate	98.1%	100%	-	-
Dibromofluoromethane	Surrogate	119%	120%	-	-
Toluene-d8	Surrogate	96.5%	96.8%	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroethane	ND	1.0	ug/L						
Chloroform	ND	0.5	ug/L						
Chloromethane	ND	3.0	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dibromoethane	ND	0.2	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloroethylene, total	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,2,4-Trichlorobenzene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
1,3,5-Trimethylbenzene	ND	0.5	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*84.0*		*ug/L*		*105*	*50-140*			
Surrogate: Dibromofluoromethane	*82.2*		*ug/L*		*103*	*50-140*			
Surrogate: Toluene-d8	*77.5*		*ug/L*		*96.9*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND				30	
Benzene	ND	0.5	ug/L	ND				30	
Bromodichloromethane	ND	0.5	ug/L	ND				30	
Bromoform	ND	0.5	ug/L	ND				30	
Bromomethane	ND	0.5	ug/L	ND				30	
Carbon Tetrachloride	ND	0.2	ug/L	ND				30	
Chlorobenzene	ND	0.5	ug/L	ND				30	
Chloroethane	ND	1.0	ug/L	ND				30	
Chloroform	ND	0.5	ug/L	ND				30	
Chloromethane	ND	3.0	ug/L	ND				30	
Dibromochloromethane	ND	0.5	ug/L	ND				30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND				30	
1,2-Dibromoethane	ND	0.2	ug/L	ND				30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,1-Dichloroethane	ND	0.5	ug/L	ND				30	
1,2-Dichloroethane	ND	0.5	ug/L	ND				30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND				30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
1,2-Dichloropropane	ND	0.5	ug/L	ND				30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Hexane	ND	1.0	ug/L	ND				30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND				30	
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L	ND				30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND				30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND				30	
Methylene Chloride	ND	5.0	ug/L	ND				30	
Styrene	ND	0.5	ug/L	ND				30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
Tetrachloroethylene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
1,2,4-Trichlorobenzene	ND	0.5	ug/L	ND				30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND				30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND				30	
Trichloroethylene	ND	0.5	ug/L	ND				30	
Trichlorofluoromethane	ND	1.0	ug/L	ND				30	
1,3,5-Trimethylbenzene	ND	0.5	ug/L	ND				30	
Vinyl chloride	ND	0.5	ug/L	ND				30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: 4-Bromofluorobenzene	*82.1*		*ug/L*		*103*	*50-140*			
Surrogate: Dibromofluoromethane	*95.0*		*ug/L*		*119*	*50-140*			
Surrogate: Toluene-d8	*82.6*		*ug/L*		*103*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	83.0	5.0	ug/L		83.0	50-140			
Benzene	36.4	0.5	ug/L		91.0	60-130			
Bromodichloromethane	34.5	0.5	ug/L		86.3	60-130			
Bromoform	33.8	0.5	ug/L		84.6	60-130			
Bromomethane	34.3	0.5	ug/L		85.8	50-140			
Carbon Tetrachloride	33.1	0.2	ug/L		82.8	60-130			
Chlorobenzene	34.9	0.5	ug/L		87.2	60-130			
Chloroethane	42.8	1.0	ug/L		107	50-140			
Chloroform	37.4	0.5	ug/L		93.6	60-130			
Chloromethane	50.6	3.0	ug/L		126	50-140			
Dibromochloromethane	37.3	0.5	ug/L		93.2	60-130			
Dichlorodifluoromethane	41.4	1.0	ug/L		104	50-140			
1,2-Dibromoethane	39.0	0.2	ug/L		97.4	60-130			
1,2-Dichlorobenzene	40.6	0.5	ug/L		102	60-130			
1,3-Dichlorobenzene	41.6	0.5	ug/L		104	60-130			
1,4-Dichlorobenzene	44.9	0.5	ug/L		112	60-130			
1,1-Dichloroethane	46.2	0.5	ug/L		116	60-130			
1,2-Dichloroethane	37.4	0.5	ug/L		93.4	60-130			
1,1-Dichloroethylene	39.1	0.5	ug/L		97.8	60-130			
cis-1,2-Dichloroethylene	40.7	0.5	ug/L		102	60-130			
trans-1,2-Dichloroethylene	37.5	0.5	ug/L		93.8	60-130			
1,2-Dichloropropane	38.5	0.5	ug/L		96.3	60-130			
cis-1,3-Dichloropropylene	42.1	0.5	ug/L		105	60-130			
trans-1,3-Dichloropropylene	37.1	0.5	ug/L		92.7	60-130			
Ethylbenzene	37.0	0.5	ug/L		92.4	60-130			
Hexane	44.5	1.0	ug/L		111	60-130			
Methyl Ethyl Ketone (2-Butanone)	124	5.0	ug/L		124	50-140			
Methyl Butyl Ketone (2-Hexanone)	89.3	10.0	ug/L		89.3	50-140			
Methyl Isobutyl Ketone	72.0	5.0	ug/L		72.0	50-140			
Methyl tert-butyl ether	110	2.0	ug/L		110	50-140			
Methylene Chloride	39.4	5.0	ug/L		98.5	60-130			
Styrene	36.0	0.5	ug/L		90.0	60-130			
1,1,1,2-Tetrachloroethane	34.9	0.5	ug/L		87.2	60-130			
1,1,2,2-Tetrachloroethane	37.5	0.5	ug/L		93.7	60-130			
Tetrachloroethylene	38.4	0.5	ug/L		95.9	60-130			
Toluene	38.8	0.5	ug/L		97.0	60-130			
1,2,4-Trichlorobenzene	34.4	0.5	ug/L		86.0	60-130			
1,1,1-Trichloroethane	34.0	0.5	ug/L		85.1	60-130			
1,1,2-Trichloroethane	36.8	0.5	ug/L		91.9	60-130			
Trichloroethylene	33.1	0.5	ug/L		82.8	60-130			
Trichlorofluoromethane	41.0	1.0	ug/L		102	60-130			
1,3,5-Trimethylbenzene	39.6	0.5	ug/L		98.9	60-130			
Vinyl chloride	47.8	0.5	ug/L		119	50-140			
m,p-Xylenes	81.9	0.5	ug/L		102	60-130			
o-Xylene	40.0	0.5	ug/L		100	60-130			
Surrogate: 4-Bromofluorobenzene	*64.6*		*ug/L*		*80.8*	*50-140*			

Qualifier Notes:

Login Qualifiers :

Sample - One or more parameter received past hold time - VOC, proceed regrdless of hold time
Applies to samples: 560764 - Trip

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

E3 Laboratories Inc.
SS#4, 360 York Rd., Unit 10, Niagara-on-the-Lake, Ontario L0S 1J0
Email: info@e3labs.ca
Tel: (905) 641-9000, Fax: (905) 641-9001

CERTIFICATE OF ANALYSIS

Corporation of the City of Barrie
Stephanie Huyssen
272 Ferndale Drive
Barrie
L4M4T5
Tel: 705-739-4220 Fax: E-mail
Email: stephanie.huyssen@barrie.ca

Work Order No.:2583630
Received : 2018-09-20
PO Number: 88985
Reported: 2018-09-27
Project Name: GWMP
Chain of Custody No.: 37691

Client Sample ID	Sample Date	Lab ID	Parameter	Result	Unit	RDL	Date Analyzed	Method
MW9/00 #1	2018-09-19	**560517**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
MW9/00 #2	2018-09-19	**560518**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
MW10/00 #1	2018-09-19	**560519**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
MW10/00 #2	2018-09-19	**560520**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
MW3/00 #1	2018-09-19	**560521**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
MW3/00 #2	2018-09-19	**560522**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
Trip Blank	2018-09-19	**560523**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
Field Blank	2018-09-19	**560524**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
MW5/02 #1	2018-09-19	**560525**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
MW5/02 #2	2018-09-19	**560526**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
MW4/00 #1	2018-09-19	**560527**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted
MW4/00 #2	2018-09-19	**560528**	VOC Scan	See	Attached	N/A	2018-09-26	Subcontracted

Reported by:

Nilou Ghazi, Ph.D.,P.Eng.
Laboratory Manager

All work has been performed using accepted testing methodologies, except where otherwise agreed to by the client in writing. Our total liability in connection with this work shall be limited to the amount paid by the client.
Results relate only to items tested.

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Certificate of Analysis

E-3 Laboratories Inc.

RR#4, 360 York Rd. Unit 10
Niagara-on-the-Lake, ON L0S 1J0
Attn: Kristy Berry

Client PO: 2583630
Project: City of Barrie
Custody:

Report Date: 26-Sep-2018
Order Date: 20-Sep-2018

Order #: 1838459

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1838459-01	560517 - MW9/00 #1
1838459-02	560518 - MW9/00 #2
1838459-03	560519 - MW10/00 #1
1838459-04	560520 - MW10/00 #2
1838459-05	560521 - MW3/00 #1
1838459-06	560522 - MW3/00 #2
1838459-07	560523 - Trip Blank
1838459-08	560524 - Field Blank
1838459-09	560525 - MW5/02 #1
1838459-10	560526 - MW5/02 #2
1838459-11	560527 - MW4/00 #1
1838459-12	560528 - MW4/00 #2

Approved By:

Dale Robertson, BSc
Laboratory Director

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583630

Report Date: 26-Sep-2018
Order Date: 20-Sep-2018
Project Description: City of Barrie

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	26-Sep-18	26-Sep-18

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583630

Report Date: 26-Sep-2018
Order Date: 20-Sep-2018
Project Description: City of Barrie

	Client ID:	560517 - MW9/00 #1	560518 - MW9/00 #2	560519 - MW10/00 #1	560520 - MW10/00 #2
	Sample Date:	09/19/2018 00:00	09/19/2018 00:00	09/19/2018 00:00	09/19/2018 00:00
	Sample ID:	1838459-01	1838459-02	1838459-03	1838459-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583630

Report Date: 26-Sep-2018
Order Date: 20-Sep-2018
Project Description: City of Barrie

	Client ID:	560517 - MW9/00 #1	560518 - MW9/00 #2	560519 - MW10/00 #1	560520 - MW10/00 #2
	Sample Date:	09/19/2018 00:00	09/19/2018 00:00	09/19/2018 00:00	09/19/2018 00:00
	Sample ID:	1838459-01	1838459-02	1838459-03	1838459-04
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	103%	98.7%	113%	104%
Dibromofluoromethane	Surrogate	114%	106%	116%	111%
Toluene-d8	Surrogate	91.3%	93.0%	91.6%	94.4%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583630

Report Date: 26-Sep-2018
Order Date: 20-Sep-2018
Project Description: City of Barrie

	Client ID:	560521 - MW3/00 #1	560522 - MW3/00 #2	560523 - Trip Blank	560524 - Field Blank
	Sample Date:	09/19/2018 00:00	09/19/2018 00:00	09/06/2018 00:00	09/19/2018 00:00
	Sample ID:	1838459-05	1838459-06	1838459-07	1838459-08
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583630

Report Date: 26-Sep-2018
Order Date: 20-Sep-2018
Project Description: City of Barrie

	Client ID:	560521 - MW3/00 #1	560522 - MW3/00 #2	560523 - Trip Blank	560524 - Field Blank
	Sample Date:	09/19/2018 00:00	09/19/2018 00:00	09/06/2018 00:00	09/19/2018 00:00
	Sample ID:	1838459-05	1838459-06	1838459-07	1838459-08
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	103%	102%	102%	97.8%
Dibromofluoromethane	Surrogate	114%	117%	111%	111%
Toluene-d8	Surrogate	96.4%	96.3%	88.8%	84.6%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583630

Report Date: 26-Sep-2018
Order Date: 20-Sep-2018
Project Description: City of Barrie

	Client ID:	560525 - MW5/02 #1	560526 - MW5/02 #2	560527 - MW4/00 #1	560528 - MW4/00 #2
	Sample Date:	09/19/2018 00:00	09/19/2018 00:00	09/19/2018 00:00	09/19/2018 00:00
	Sample ID:	1838459-09	1838459-10	1838459-11	1838459-12
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583630

Report Date: 26-Sep-2018
Order Date: 20-Sep-2018
Project Description: City of Barrie

	Client ID:	560525 - MW5/02 #1	560526 - MW5/02 #2	560527 - MW4/00 #1	560528 - MW4/00 #2
	Sample Date:	09/19/2018 00:00	09/19/2018 00:00	09/19/2018 00:00	09/19/2018 00:00
	Sample ID:	1838459-09	1838459-10	1838459-11	1838459-12
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	120%	107%	97.3%	98.8%
Dibromofluoromethane	Surrogate	119%	126%	121%	120%
Toluene-d8	Surrogate	113%	78.7%	93.9%	83.7%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583630

Report Date: 26-Sep-2018
Order Date: 20-Sep-2018
Project Description: City of Barrie

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroethane	ND	1.0	ug/L						
Chloroform	ND	0.5	ug/L						
Chloromethane	ND	3.0	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dibromoethane	ND	0.2	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloroethylene, total	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,2,4-Trichlorobenzene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
1,3,5-Trimethylbenzene	ND	0.5	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*84.0*		*ug/L*		*105*	*50-140*			
Surrogate: Dibromofluoromethane	*82.2*		*ug/L*		*103*	*50-140*			
Surrogate: Toluene-d8	*77.5*		*ug/L*		*96.9*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND				30	
Benzene	ND	0.5	ug/L	ND				30	
Bromodichloromethane	ND	0.5	ug/L	ND				30	
Bromoform	ND	0.5	ug/L	ND				30	
Bromomethane	ND	0.5	ug/L	ND				30	
Carbon Tetrachloride	ND	0.2	ug/L	ND				30	
Chlorobenzene	ND	0.5	ug/L	ND				30	
Chloroethane	ND	1.0	ug/L	ND				30	
Chloroform	ND	0.5	ug/L	ND				30	
Chloromethane	ND	3.0	ug/L	ND				30	
Dibromochloromethane	ND	0.5	ug/L	ND				30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND				30	
1,2-Dibromoethane	ND	0.2	ug/L	ND				30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,1-Dichloroethane	ND	0.5	ug/L	ND				30	
1,2-Dichloroethane	ND	0.5	ug/L	ND				30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND				30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
1,2-Dichloropropane	ND	0.5	ug/L	ND				30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Hexane	ND	1.0	ug/L	ND				30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND				30	
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L	ND				30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND				30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND				30	
Methylene Chloride	ND	5.0	ug/L	ND				30	
Styrene	ND	0.5	ug/L	ND				30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
Tetrachloroethylene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
1,2,4-Trichlorobenzene	ND	0.5	ug/L	ND				30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND				30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND				30	
Trichloroethylene	ND	0.5	ug/L	ND				30	
Trichlorofluoromethane	ND	1.0	ug/L	ND				30	
1,3,5-Trimethylbenzene	ND	0.5	ug/L	ND				30	
Vinyl chloride	ND	0.5	ug/L	ND				30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: 4-Bromofluorobenzene	*82.1*		*ug/L*		*103*	*50-140*			
Surrogate: Dibromofluoromethane	*95.0*		*ug/L*		*119*	*50-140*			
Surrogate: Toluene-d8	*82.6*		*ug/L*		*103*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	83.0	5.0	ug/L		83.0	50-140			
Benzene	36.4	0.5	ug/L		91.0	60-130			
Bromodichloromethane	34.5	0.5	ug/L		86.3	60-130			
Bromoform	33.8	0.5	ug/L		84.6	60-130			
Bromomethane	34.3	0.5	ug/L		85.8	50-140			
Carbon Tetrachloride	33.1	0.2	ug/L		82.8	60-130			
Chlorobenzene	34.9	0.5	ug/L		87.2	60-130			
Chloroethane	42.8	1.0	ug/L		107	50-140			
Chloroform	37.4	0.5	ug/L		93.6	60-130			
Chloromethane	50.6	3.0	ug/L		126	50-140			
Dibromochloromethane	37.3	0.5	ug/L		93.2	60-130			
Dichlorodifluoromethane	41.4	1.0	ug/L		104	50-140			
1,2-Dibromoethane	39.0	0.2	ug/L		97.4	60-130			
1,2-Dichlorobenzene	40.6	0.5	ug/L		102	60-130			
1,3-Dichlorobenzene	41.6	0.5	ug/L		104	60-130			
1,4-Dichlorobenzene	44.9	0.5	ug/L		112	60-130			
1,1-Dichloroethane	46.2	0.5	ug/L		116	60-130			
1,2-Dichloroethane	37.4	0.5	ug/L		93.4	60-130			
1,1-Dichloroethylene	39.1	0.5	ug/L		97.8	60-130			
cis-1,2-Dichloroethylene	40.7	0.5	ug/L		102	60-130			
trans-1,2-Dichloroethylene	37.5	0.5	ug/L		93.8	60-130			
1,2-Dichloropropane	38.5	0.5	ug/L		96.3	60-130			
cis-1,3-Dichloropropylene	42.1	0.5	ug/L		105	60-130			
trans-1,3-Dichloropropylene	37.1	0.5	ug/L		92.7	60-130			
Ethylbenzene	37.0	0.5	ug/L		92.4	60-130			
Hexane	44.5	1.0	ug/L		111	60-130			
Methyl Ethyl Ketone (2-Butanone)	124	5.0	ug/L		124	50-140			
Methyl Butyl Ketone (2-Hexanone)	89.3	10.0	ug/L		89.3	50-140			
Methyl Isobutyl Ketone	72.0	5.0	ug/L		72.0	50-140			
Methyl tert-butyl ether	110	2.0	ug/L		110	50-140			
Methylene Chloride	39.4	5.0	ug/L		98.5	60-130			
Styrene	36.0	0.5	ug/L		90.0	60-130			
1,1,1,2-Tetrachloroethane	34.9	0.5	ug/L		87.2	60-130			
1,1,2,2-Tetrachloroethane	37.5	0.5	ug/L		93.7	60-130			
Tetrachloroethylene	38.4	0.5	ug/L		95.9	60-130			
Toluene	38.8	0.5	ug/L		97.0	60-130			
1,2,4-Trichlorobenzene	34.4	0.5	ug/L		86.0	60-130			
1,1,1-Trichloroethane	34.0	0.5	ug/L		85.1	60-130			
1,1,2-Trichloroethane	36.8	0.5	ug/L		91.9	60-130			
Trichloroethylene	33.1	0.5	ug/L		82.8	60-130			
Trichlorofluoromethane	41.0	1.0	ug/L		102	60-130			
1,3,5-Trimethylbenzene	39.6	0.5	ug/L		98.9	60-130			
Vinyl chloride	47.8	0.5	ug/L		119	50-140			
m,p-Xylenes	81.9	0.5	ug/L		102	60-130			
o-Xylene	40.0	0.5	ug/L		100	60-130			
Surrogate: 4-Bromofluorobenzene	*64.6*		*ug/L*		*80.8*	*50-140*			

Qualifier Notes:

Login Qualifiers :

Sample - One or more parameter received past hold time - VOC's proceed regardless of Hold time
Applies to samples: 560523 - Trip

Sample Data Revisions

None

Work Order Revisions / Comments:

Hold time based on preparation date for this QA sample (Trip Blank and/or Trip Spike) and the associated analytical requirements. Hold time exceedances do not preclude the validity of the Trip Blank/Spike data.

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

E3 Laboratories Inc.
SS#4, 360 York Rd., Unit 10, Niagara-on-the-Lake, Ontario L0S 1J0
Email: info@e3labs.ca
Tel: (905) 641-9000, Fax: (905) 641-9001

CERTIFICATE OF ANALYSIS

Corporation of the City of Barrie
Stephanie Huyssen
272 Ferndale Drive
Barrie
L4M4T5
Tel: 705-739-4220 Fax: E-mail
Email: stephanie.huyssen@barrie.ca

Work Order No.:2583455
Received : 2018-09-18
PO Number: 88985
Reported: 2018-09-25
Project Name: GWMP
Chain of Custody No.: 37639

Client Sample ID	Sample Date	Lab ID	Parameter	Result	Unit	RDL	Date Analyzed	Method
CB14-2 #2	2018-09-17	**559942**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted
MW-06	2018-09-17	**559943**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted
CB10-2 #1	2018-09-17	**559944**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted
CB10-2 #2	2018-09-17	**559945**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted
CB14-1 #1	2018-09-17	**559946**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted
CB14-1 #2	2018-09-17	**559947**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted
MW7/00 #1	2018-09-17	**559948**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted
MW7/00 #2	2018-09-17	**559949**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted
Field Blank	2018-09-17	**559950**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted
Trip Blank	2018-09-17	**559951**	VOC Scan	See	Attached	N/A	2018-09-21	Subcontracted

Reported by:

Nilou Ghazi, Ph.D.,P.Eng.
Laboratory Manager

All work has been performed using accepted testing methodologies, except where otherwise agreed to by the client in writing. Our total liability in connection with this work shall be limited to the amount paid by the client.
Results relate only to items tested.

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Certificate of Analysis

E-3 Laboratories Inc.

RR#4, 360 York Rd. Unit 10
Niagara-on-the-Lake, ON L0S 1J0
Attn: Kristy Berry

Client PO: 2583455
Project: City of Barrie
Custody:

Report Date: 24-Sep-2018
Order Date: 18-Sep-2018

Order #: 1838212

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1838212-01	559942 - CB14-2 #2
1838212-02	559943 - MW-06
1838212-03	559944 - CB10-2 #1
1838212-04	559945 - CB10-2 #2
1838212-05	559946 - CB14-1 #1
1838212-06	559947 - CB14-1 #2
1838212-07	559948 - MW7/00 #1
1838212-08	559949 - MW7/00 #2
1838212-09	559950 - Field Blank
1838212-10	559951 - Trip Blank

Approved By:

Dale Robertson, BSc
Laboratory Director

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583455

Report Date: 24-Sep-2018
Order Date: 18-Sep-2018
Project Description: City of Barrie

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	21-Sep-18	21-Sep-18

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583455

Report Date: 24-Sep-2018
Order Date: 18-Sep-2018
Project Description: City of Barrie

	Client ID:	559942 - CB14-2 #2	559943 - MW-06	559944 - CB10-2 #1	559945 - CB10-2 #2
	Sample Date:	09/17/2018 00:00	09/17/2018 00:00	09/17/2018 00:00	09/17/2018 00:00
	Sample ID:	1838212-01	1838212-02	1838212-03	1838212-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	17.6
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	1.3
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	<0.5	19.0
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583455

Report Date: 24-Sep-2018
Order Date: 18-Sep-2018
Project Description: City of Barrie

	Client ID:	559942 - CB14-2 #2	559943 - MW-06	559944 - CB10-2 #1	559945 - CB10-2 #2
	Sample Date:	09/17/2018 00:00	09/17/2018 00:00	09/17/2018 00:00	09/17/2018 00:00
	Sample ID:	1838212-01	1838212-02	1838212-03	1838212-04
	MDL/Units	Water	Water	Water	Water
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	2.3	<0.5	<0.5	44.6
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	105%	102%	105%	103%
Dibromofluoromethane	Surrogate	112%	115%	116%	115%
Toluene-d8	Surrogate	97.4%	97.1%	96.5%	98.1%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583455

Report Date: 24-Sep-2018
Order Date: 18-Sep-2018
Project Description: City of Barrie

	Client ID:	559946 - CB14-1 #1	559947 - CB14-1 #2	559948 - MW7/00 #1	559949 - MW7/00 #2
	Sample Date:	09/17/2018 00:00	09/17/2018 00:00	09/17/2018 00:00	09/17/2018 00:00
	Sample ID:	1838212-05	1838212-06	1838212-07	1838212-08
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	1.3	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583455

Report Date: 24-Sep-2018
Order Date: 18-Sep-2018
Project Description: City of Barrie

	Client ID:	559946 - CB14-1 #1	559947 - CB14-1 #2	559948 - MW7/00 #1	559949 - MW7/00 #2
	Sample Date:	09/17/2018 00:00	09/17/2018 00:00	09/17/2018 00:00	09/17/2018 00:00
	Sample ID:	1838212-05	1838212-06	1838212-07	1838212-08
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	1.2	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	101%	102%	103%	109%
Dibromofluoromethane	Surrogate	117%	116%	117%	102%
Toluene-d8	Surrogate	95.5%	97.0%	95.5%	97.1%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583455

Report Date: 24-Sep-2018
Order Date: 18-Sep-2018
Project Description: City of Barrie

	Client ID:	559950 - Field Blank	559951 - Trip Blank	-	-
	Sample Date:	09/17/2018 00:00	09/06/2018 00:00	-	-
	Sample ID:	1838212-09	1838212-10	-	-
	MDL/Units	Water	Water	-	-
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	-	-
Benzene	0.5 ug/L	<0.5	<0.5	-	-
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	-	-
Bromoform	0.5 ug/L	<0.5	<0.5	-	-
Bromomethane	0.5 ug/L	<0.5	<0.5	-	-
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	-	-
Chlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
Chloroethane	1.0 ug/L	<1.0	<1.0	-	-
Chloroform	0.5 ug/L	<0.5	<0.5	-	-
Chloromethane	3.0 ug/L	<3.0	<3.0	-	-
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	-	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	-	-
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	-	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	-	-
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	-	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	-	-
Ethylbenzene	0.5 ug/L	<0.5	<0.5	-	-
Hexane	1.0 ug/L	<1.0	<1.0	-	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	-	-
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	-	-
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	-	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	-	-
Methylene Chloride	5.0 ug/L	<5.0	<5.0	-	-
Styrene	0.5 ug/L	<0.5	<0.5	-	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583455

Report Date: 24-Sep-2018
Order Date: 18-Sep-2018
Project Description: City of Barrie

	Client ID:	559950 - Field Blank	559951 - Trip Blank	-	-
	Sample Date:	09/17/2018 00:00	09/06/2018 00:00	-	-
	Sample ID:	1838212-09	1838212-10	-	-
	MDL/Units	Water	Water	-	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	-	-
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	-	-
Toluene	0.5 ug/L	<0.5	<0.5	-	-
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	-	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	-	-
Trichloroethylene	0.5 ug/L	<0.5	<0.5	-	-
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	-	-
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	-	-
Vinyl chloride	0.5 ug/L	<0.5	<0.5	-	-
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	-	-
o-Xylene	0.5 ug/L	<0.5	<0.5	-	-
Xylenes, total	0.5 ug/L	<0.5	<0.5	-	-
4-Bromofluorobenzene	Surrogate	106%	106%	-	-
Dibromofluoromethane	Surrogate	106%	108%	-	-
Toluene-d8	Surrogate	98.4%	98.6%	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroethane	ND	1.0	ug/L						
Chloroform	ND	0.5	ug/L						
Chloromethane	ND	3.0	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dibromoethane	ND	0.2	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloroethylene, total	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,2,4-Trichlorobenzene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
1,3,5-Trimethylbenzene	ND	0.5	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*85.2*		*ug/L*		*107*	*50-140*			
Surrogate: Dibromofluoromethane	*85.2*		*ug/L*		*107*	*50-140*			
Surrogate: Toluene-d8	*78.2*		*ug/L*		*97.7*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND				30	
Benzene	ND	0.5	ug/L	ND				30	
Bromodichloromethane	ND	0.5	ug/L	ND				30	
Bromoform	ND	0.5	ug/L	ND				30	
Bromomethane	ND	0.5	ug/L	ND				30	
Carbon Tetrachloride	ND	0.2	ug/L	ND				30	
Chlorobenzene	ND	0.5	ug/L	ND				30	
Chloroethane	ND	1.0	ug/L	ND				30	
Chloroform	ND	0.5	ug/L	ND				30	
Chloromethane	ND	3.0	ug/L	ND				30	
Dibromochloromethane	ND	0.5	ug/L	ND				30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND				30	
1,2-Dibromoethane	ND	0.2	ug/L	ND				30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,1-Dichloroethane	ND	0.5	ug/L	ND				30	
1,2-Dichloroethane	ND	0.5	ug/L	ND				30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND				30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
1,2-Dichloropropane	ND	0.5	ug/L	ND				30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Hexane	ND	1.0	ug/L	ND				30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND				30	
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L	ND				30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND				30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND				30	
Methylene Chloride	ND	5.0	ug/L	ND				30	
Styrene	ND	0.5	ug/L	ND				30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
Tetrachloroethylene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
1,2,4-Trichlorobenzene	ND	0.5	ug/L	ND				30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND				30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND				30	
Trichloroethylene	ND	0.5	ug/L	ND				30	
Trichlorofluoromethane	ND	1.0	ug/L	ND				30	
1,3,5-Trimethylbenzene	ND	0.5	ug/L	ND				30	
Vinyl chloride	ND	0.5	ug/L	ND				30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: 4-Bromofluorobenzene	*84.8*		*ug/L*		*106*	*50-140*			
Surrogate: Dibromofluoromethane	*89.3*		*ug/L*		*112*	*50-140*			
Surrogate: Toluene-d8	*78.1*		*ug/L*		*97.6*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	79.2	5.0	ug/L	ND	79.2	50-140			
Benzene	36.0	0.5	ug/L	ND	90.0	50-140			
Bromodichloromethane	40.4	0.5	ug/L	3.79	91.5	50-140			
Bromoform	29.8	0.5	ug/L	ND	74.5	50-140			
Bromomethane	21.7	0.5	ug/L	ND	54.2	50-140			
Carbon Tetrachloride	33.0	0.2	ug/L	ND	82.5	50-140			
Chlorobenzene	33.1	0.5	ug/L	ND	82.8	50-140			
Chloroethane	40.3	1.0	ug/L	ND	101	50-140			
Chloroform	43.7	0.5	ug/L	7.36	90.9	50-140			
Chloromethane	42.6	3.0	ug/L	ND	107	50-140			
Dibromochloromethane	38.3	0.5	ug/L	2.96	88.2	50-140			
Dichlorodifluoromethane	33.4	1.0	ug/L	ND	83.6	50-140			
1,2-Dibromoethane	36.3	0.2	ug/L	ND	90.6	50-140			
1,2-Dichlorobenzene	38.6	0.5	ug/L	ND	96.5	50-140			
1,3-Dichlorobenzene	38.2	0.5	ug/L	ND	95.5	50-140			
1,4-Dichlorobenzene	43.3	0.5	ug/L	ND	108	50-140			
1,1-Dichloroethane	45.1	0.5	ug/L	ND	113	50-140			
1,2-Dichloroethane	36.0	0.5	ug/L	ND	90.0	50-140			
1,1-Dichloroethylene	34.1	0.5	ug/L	ND	85.4	50-140			
cis-1,2-Dichloroethylene	43.9	0.5	ug/L	ND	110	50-140			
trans-1,2-Dichloroethylene	34.4	0.5	ug/L	ND	85.9	50-140			
1,2-Dichloropropane	37.8	0.5	ug/L	ND	94.6	50-140			
cis-1,3-Dichloropropylene	27.6	0.5	ug/L	ND	69.0	50-140			
trans-1,3-Dichloropropylene	21.5	0.5	ug/L	ND	53.7	50-140			
Ethylbenzene	32.8	0.5	ug/L	ND	82.0	50-140			
Hexane	25.8	1.0	ug/L	ND	64.6	50-140			
Methyl Ethyl Ketone (2-Butanone)	92.0	5.0	ug/L	ND	92.0	50-140			
Methyl Butyl Ketone (2-Hexanone)	66.9	10.0	ug/L	ND	66.9	50-140			
Methyl Isobutyl Ketone	59.9	5.0	ug/L	ND	59.9	50-140			
Methyl tert-butyl ether	114	2.0	ug/L	ND	114	50-140			
Methylene Chloride	33.3	5.0	ug/L	ND	83.3	50-140			
Styrene	36.1	0.5	ug/L		90.2	60-130			
1,1,1,2-Tetrachloroethane	34.1	0.5	ug/L	ND	85.2	50-140			
1,1,2,2-Tetrachloroethane	33.3	0.5	ug/L	ND	83.4	50-140			
Tetrachloroethylene	34.2	0.5	ug/L	ND	85.4	50-140			
Toluene	33.3	0.5	ug/L	ND	83.3	50-140			
1,2,4-Trichlorobenzene	33.8	0.5	ug/L	ND	84.5	50-140			
1,1,1-Trichloroethane	34.0	0.5	ug/L	ND	85.0	50-140			
1,1,2-Trichloroethane	35.4	0.5	ug/L	ND	88.4	50-140			
Trichloroethylene	36.2	0.5	ug/L	ND	90.4	50-140			
Trichlorofluoromethane	38.5	1.0	ug/L	ND	96.2	50-140			
1,3,5-Trimethylbenzene	34.6	0.5	ug/L	ND	86.5	50-140			
Vinyl chloride	40.1	0.5	ug/L	ND	100	50-140			
m,p-Xylenes	24.7	0.5	ug/L	ND	30.9	50-140			
o-Xylene	26.2	0.5	ug/L	ND	65.4	50-140			
Surrogate: 4-Bromofluorobenzene	*64.2*		*ug/L*		*80.2*	*50-140*			

Qualifier Notes:

None

Sample Data Revisions

None

Work Order Revisions / Comments:

Hold time based on preparation date for this QA sample (Trip Blank and/or Trip Spike) and the associated analytical requirements. Hold time exceedances do not preclude the validity of the Trip Blank/Spike data.

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

E3 Laboratories Inc.
SS#4, 360 York Rd., Unit 10, Niagara-on-the-Lake, Ontario L0S 1J0
Email: info@e3labs.ca
Tel: (905) 641-9000, Fax: (905) 641-9001

CERTIFICATE OF ANALYSIS

Corporation of the City of Barrie
Stephanie Huyssen
272 Ferndale Drive
Barrie
L4M4T5
Tel: 705-739-4220 Fax: E-mail
Email: stephanie.huyssen@barrie.ca

Work Order No.:2583374
Received : 2018-09-14
PO Number: 88985
Reported: 2018-09-25
Project Name: GWMP
Chain of Custody No.: 37637

Note: Re-issued to include revised subcontract report (Originally reported September 20, 2018).

Client Sample ID	Sample Date	Lab ID	Parameter	Result	Unit	RDL	Date Analyzed	Method
CB14-2 #1	2018-09-13	**559729**	VOC Scan	See	Attached			Subcontracted
CB14-2 #3	2018-09-13	**559730**	VOC Scan	See	Attached			Subcontracted
CB03-2 #1	2018-09-13	**559731**	VOC Scan	See	Attached			Subcontracted
Field Blank	2018-09-13	**559732**	VOC Scan	See	Attached			Subcontracted
CB03-2 #2	2018-09-13	**559733**	VOC Scan	See	Attached			Subcontracted
CB03-2 #2B	2018-09-13	**559734**	VOC Scan	See	Attached			Subcontracted
CB03-1 #1	2018-09-13	**559735**	VOC Scan	See	Attached			Subcontracted
CB03-1 #1B	2018-09-13	**559736**	VOC Scan	See	Attached			Subcontracted
CB03-1 #2	2018-09-13	**559737**	VOC Scan	See	Attached			Subcontracted
MW-04	2018-09-13	**559738**	VOC Scan	See	Attached			Subcontracted
MW-05	2018-09-13	**559739**	VOC Scan	See	Attached			Subcontracted
Trip Blank	2018-09-13	**559740**	VOC Scan	See	Attached			Subcontracted

Reported by:

Nilou Ghazi, Ph.D.,P.Eng.
Laboratory Manager

All work has been performed using accepted testing methodologies, except where otherwise agreed to by the client in writing. Our total liability in connection with this work shall be limited to the amount paid by the client.
Results relate only to items tested.

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Certificate of Analysis

E-3 Laboratories Inc.

RR#4, 360 York Rd. Unit 10
Niagara-on-the-Lake, ON L0S 1J0
Attn: Kristy Berry

Client PO: 2583374
Project: City of Barrie
Custody:

Report Date: 24-Sep-2018
Order Date: 14-Sep-2018

Revised Report **Order #: 1837596**

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1837596-01	559729 - CB14-2 #1
1837596-02	559730 - CB14-2 #3
1837596-03	559731 - CB03-2 #1
1837596-04	559732 - Field Blank
1837596-05	559733 - CB03-2 #2
1837596-06	559734 - CB03-2 #2B
1837596-07	559735 - CB03-1 #1
1837596-08	559736 - CB03-1 #1B
1837596-09	559737 - CB03-1 #2
1837596-10	559738 - MW-04
1837596-11	559739 - MW-05
1837596-12	559740 - Trip Blank

Approved By:

Dale Robertson, BSc
Laboratory Director

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 24-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	19-Sep-18	19-Sep-18

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 24-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559729 - CB14-2 #1	559730 - CB14-2 #3	559731 - CB03-2 #1	559732 - Field Blank
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00
	Sample ID:	1837596-01	1837596-02	1837596-03	1837596-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 24-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559729 - CB14-2 #1	559730 - CB14-2 #3	559731 - CB03-2 #1	559732 - Field Blank
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00
	Sample ID:	1837596-01	1837596-02	1837596-03	1837596-04
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	108%	108%	101%	99.6%
Dibromofluoromethane	Surrogate	97.4%	96.9%	98.2%	96.6%
Toluene-d8	Surrogate	108%	108%	109%	108%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 24-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559733 - CB03-2 #2	559734 - CB03-2 #2B	559735 - CB03-1 #1	559736 - CB03-1 #1B
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00
	Sample ID:	1837596-05	1837596-06	1837596-07	1837596-08
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	5.5	5.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	99.6	96.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	0.6	0.6
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	21.0	21.4
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	0.9	0.8	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	274	259	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	3.3	2.6	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	277	262	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	0.7	0.8
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

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	Client ID:	559733 - CB03-2 #2	559734 - CB03-2 #2B	559735 - CB03-1 #1	559736 - CB03-1 #1B
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00
	Sample ID:	1837596-05	1837596-06	1837596-07	1837596-08
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	1.7	1.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	2.8	3.0
Vinyl chloride	0.5 ug/L	1.2	1.3	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	33.4	33.6
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	33.4	33.6
4-Bromofluorobenzene	Surrogate	93.5%	98.1%	77.8%	82.7%
Dibromofluoromethane	Surrogate	98.6%	97.6%	96.7%	95.1%
Toluene-d8	Surrogate	106%	105%	99.1%	106%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 24-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559737 - CB03-1 #2	559738 - MW-04	559739 - MW-05	559740 - Trip Blank
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/06/2018 00:00
	Sample ID:	1837596-09	1837596-10	1837596-11	1837596-12
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	12.4	5.2	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	14.6	19.6	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	7.3	2.2	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	0.8	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	71.2	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	71.2	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 24-Sep-2018
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Project Description: City of Barrie

	Client ID:	559737 - CB03-1 #2	559738 - MW-04	559739 - MW-05	559740 - Trip Blank
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/06/2018 00:00
	Sample ID:	1837596-09	1837596-10	1837596-11	1837596-12
	MDL/Units	Water	Water	Water	Water
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	0.6	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	0.7	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	0.9	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	1.9	1.7	<0.5
Vinyl chloride	0.5 ug/L	1.2	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	5.4	0.9	<0.5
o-Xylene	0.5 ug/L	<0.5	0.8	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	6.1	0.9	<0.5
4-Bromofluorobenzene	Surrogate	105%	79.6%	89.0%	104%
Dibromofluoromethane	Surrogate	98.1%	97.6%	99.0%	103%
Toluene-d8	Surrogate	111%	104%	110%	108%

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroethane	ND	1.0	ug/L						
Chloroform	ND	0.5	ug/L						
Chloromethane	ND	3.0	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dibromoethane	ND	0.2	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloroethylene, total	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,2,4-Trichlorobenzene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
1,3,5-Trimethylbenzene	ND	0.5	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*80.6*		*ug/L*		*101*	*50-140*			
Surrogate: Dibromofluoromethane	*69.6*		*ug/L*		*87.0*	*50-140*			
Surrogate: Toluene-d8	*84.4*		*ug/L*		*105*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND				30	
Benzene	ND	0.5	ug/L	ND				30	
Bromodichloromethane	ND	0.5	ug/L	ND				30	
Bromoform	ND	0.5	ug/L	ND				30	
Bromomethane	ND	0.5	ug/L	ND				30	
Carbon Tetrachloride	ND	0.2	ug/L	ND				30	
Chlorobenzene	ND	0.5	ug/L	ND				30	
Chloroethane	ND	1.0	ug/L	ND				30	
Chloroform	ND	0.5	ug/L	ND				30	
Chloromethane	ND	3.0	ug/L	ND				30	
Dibromochloromethane	ND	0.5	ug/L	ND				30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND				30	
1,2-Dibromoethane	ND	0.2	ug/L	ND				30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,1-Dichloroethane	ND	0.5	ug/L	ND				30	
1,2-Dichloroethane	ND	0.5	ug/L	ND				30	
1,1-Dichloroethylene	1.15	0.5	ug/L	1.30			12.2	30	
cis-1,2-Dichloroethylene	136	0.5	ug/L	103			27.6	30	GEN-14
trans-1,2-Dichloroethylene	6.52	0.5	ug/L	5.82			11.3	30	
1,2-Dichloropropane	ND	0.5	ug/L	ND				30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Hexane	ND	1.0	ug/L	ND				30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND				30	
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L	ND				30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND				30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND				30	
Methylene Chloride	ND	5.0	ug/L	ND				30	
Styrene	ND	0.5	ug/L	ND				30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
Tetrachloroethylene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
1,2,4-Trichlorobenzene	ND	0.5	ug/L	ND				30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND				30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND				30	
Trichloroethylene	482	0.5	ug/L	337			35.4	30	GEN-14
Trichlorofluoromethane	ND	1.0	ug/L	ND				30	
1,3,5-Trimethylbenzene	ND	0.5	ug/L	ND				30	
Vinyl chloride	0.74	0.5	ug/L	0.94			23.8	30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: 4-Bromofluorobenzene	*84.8*		*ug/L*		*106*	*50-140*			
Surrogate: Dibromofluoromethane	*72.0*		*ug/L*		*90.0*	*50-140*			
Surrogate: Toluene-d8	*86.8*		*ug/L*		*109*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	117	5.0	ug/L		117	50-140			
Benzene	34.0	0.5	ug/L		84.9	60-130			
Bromodichloromethane	34.0	0.5	ug/L		85.0	60-130			
Bromoform	39.0	0.5	ug/L		97.4	60-130			
Bromomethane	26.8	0.5	ug/L		67.0	50-140			
Carbon Tetrachloride	35.2	0.2	ug/L		87.9	60-130			
Chlorobenzene	34.0	0.5	ug/L		85.0	60-130			
Chloroethane	32.2	1.0	ug/L		80.5	50-140			
Chloroform	34.0	0.5	ug/L		85.0	60-130			
Chloromethane	30.9	3.0	ug/L		77.3	50-140			
Dibromochloromethane	36.8	0.5	ug/L		91.9	60-130			
Dichlorodifluoromethane	31.4	1.0	ug/L		78.6	50-140			
1,2-Dibromoethane	31.2	0.2	ug/L		78.0	60-130			
1,2-Dichlorobenzene	31.3	0.5	ug/L		78.2	60-130			
1,3-Dichlorobenzene	32.0	0.5	ug/L		79.9	60-130			
1,4-Dichlorobenzene	30.8	0.5	ug/L		77.0	60-130			
1,1-Dichloroethane	34.0	0.5	ug/L		85.0	60-130			
1,2-Dichloroethane	35.8	0.5	ug/L		89.4	60-130			
1,1-Dichloroethylene	36.4	0.5	ug/L		91.1	60-130			
cis-1,2-Dichloroethylene	31.9	0.5	ug/L		79.7	60-130			
trans-1,2-Dichloroethylene	38.1	0.5	ug/L		95.3	60-130			
1,2-Dichloropropane	30.3	0.5	ug/L		75.8	60-130			
cis-1,3-Dichloropropylene	30.9	0.5	ug/L		77.3	60-130			
trans-1,3-Dichloropropylene	34.3	0.5	ug/L		85.8	60-130			
Ethylbenzene	31.2	0.5	ug/L		78.0	60-130			
Hexane	48.4	1.0	ug/L		121	60-130			
Methyl Ethyl Ketone (2-Butanone)	83.3	5.0	ug/L		83.3	50-140			
Methyl Butyl Ketone (2-Hexanone)	73.8	10.0	ug/L		73.8	50-140			
Methyl Isobutyl Ketone	71.2	5.0	ug/L		71.2	50-140			
Methyl tert-butyl ether	81.5	2.0	ug/L		81.5	50-140			
Methylene Chloride	45.1	5.0	ug/L		113	60-130			
Styrene	28.4	0.5	ug/L		71.0	60-130			
1,1,1,2-Tetrachloroethane	36.7	0.5	ug/L		91.8	60-130			
1,1,2,2-Tetrachloroethane	31.3	0.5	ug/L		78.3	60-130			
Tetrachloroethylene	37.5	0.5	ug/L		93.8	60-130			
Toluene	33.0	0.5	ug/L		82.4	60-130			
1,2,4-Trichlorobenzene	24.7	0.5	ug/L		61.8	60-130			
1,1,1-Trichloroethane	34.6	0.5	ug/L		86.6	60-130			
1,1,2-Trichloroethane	31.1	0.5	ug/L		77.8	60-130			
Trichloroethylene	33.4	0.5	ug/L		83.4	60-130			
Trichlorofluoromethane	37.7	1.0	ug/L		94.2	60-130			
1,3,5-Trimethylbenzene	36.2	0.5	ug/L		90.6	60-130			
Vinyl chloride	31.2	0.5	ug/L		78.0	50-140			
m,p-Xylenes	69.6	0.5	ug/L		87.0	60-130			
o-Xylene	35.3	0.5	ug/L		88.2	60-130			
Surrogate: 4-Bromofluorobenzene	*76.4*		*ug/L*		*95.6*	*50-140*			

Qualifier Notes:

QC Qualifiers :

GEN-14 : This result exceeds the calibration range of the instrument. The result may be biased.

Sample Data Revisions

None

Work Order Revisions / Comments:

Revision 1 - This report includes an updated qualifier list.

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

E3 Laboratories Inc.
SS#4, 360 York Rd., Unit 10, Niagara-on-the-Lake, Ontario L0S 1J0
Email: info@e3labs.ca
Tel: (905) 641-9000, Fax: (905) 641-9001

CERTIFICATE OF ANALYSIS

Corporation of the City of Barrie
Stephanie Huyssen
272 Ferndale Drive
Barrie
L4M4T5
Tel: 705-739-4220 Fax: E-mail
Email: stephanie.huyssen@barrie.ca

Work Order No.:2583296
Received : 2018-09-13
PO Number: 88985
Reported: 2018-09-20
Project Name: GWMP
Chain of Custody No.: 37725

Client Sample ID	Sample Date	Lab ID	Parameter	Result	Unit	RDL	Date Analyzed	Method
CB13-1 #1	2018-09-12	**559579**	VOC Scan	See	Attached			Subcontracted
CB13-1 #2	2018-09-12	**559580**	VOC Scan	See	Attached			Subcontracted
CB11-1 #1	2018-09-12	**559581**	VOC Scan	See	Attached			Subcontracted
CB11-1 #2	2018-09-12	**559582**	VOC Scan	See	Attached			Subcontracted
CB11-1 #2B	2018-09-12	**559583**	VOC Scan	See	Attached			Subcontracted
MW2/00 #1	2018-09-12	**559584**	VOC Scan	See	Attached			Subcontracted
MW2/00 #2	2018-09-12	**559585**	VOC Scan	See	Attached			Subcontracted
MW4/02 #1	2018-09-12	**559586**	VOC Scan	See	Attached			Subcontracted
MW4/02 #2	2018-09-12	**559587**	VOC Scan	See	Attached			Subcontracted
MW4/02 #2B	2018-09-12	**559588**	VOC Scan	See	Attached			Subcontracted
MW1/00 #1	2018-09-12	**559589**	VOC Scan	See	Attached			Subcontracted
Trip Blank	2018-09-12	**559590**	VOC Scan	See	Attached			Subcontracted
Field Blank	2018-09-12	**559591**	VOC Scan	See	Attached			Subcontracted

Reported by:

Nilou Ghazi, Ph.D.,P.Eng.
Laboratory Manager

All work has been performed using accepted testing methodologies, except where otherwise agreed to by the client in writing. Our total liability in connection with this work shall be limited to the amount paid by the client.
Results relate only to items tested.

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300 - 2319 St. Laurent Blvd
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www.paracellabs.com

Certificate of Analysis

E-3 Laboratories Inc.

RR#4, 360 York Rd. Unit 10
Niagara-on-the-Lake, ON L0S 1J0
Attn: Kristy Berry

Client PO: 2583296
Project: City of Barrie
Custody:

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018

Order #: 1837435

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1837435-01	559579 - CB13-1 #1
1837435-02	559580 - CB13-1 #2
1837435-03	559581 - CB11-1 #1
1837435-04	559582 - CB11-1 #2
1837435-05	559583 - CB11-1 #2B
1837435-06	559584 - MW2/00 #1
1837435-07	559585 - MW2/00 #2
1837435-08	559586 - MW4/02 #1
1837435-09	559587 - MW4/02 #2
1837435-10	559588 - MW4/02 #2B
1837435-11	559589 - MW1/00 #1
1837435-12	559590 - Trip Blank
1837435-13	559591 - Field Blank

Approved By:

Dale Robertson, BSc
Laboratory Director

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583296

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018
Project Description: City of Barrie

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	19-Sep-18	19-Sep-18

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583296

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018
Project Description: City of Barrie

	Client ID:	559579 - CB13-1 #1	559580 - CB13-1 #2	559581 - CB11-1 #1	559582 - CB11-1 #2
	Sample Date:	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00
	Sample ID:	1837435-01	1837435-02	1837435-03	1837435-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	1.3	<0.5	<0.5	0.9
cis-1,2-Dichloroethylene	0.5 ug/L	103	9.5	<0.5	99.0
trans-1,2-Dichloroethylene	0.5 ug/L	5.8	17.2	<0.5	51.2
1,2-Dichloroethylene, total	0.5 ug/L	109	26.8	<0.5	150
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583296

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018
Project Description: City of Barrie

	Client ID:	559579 - CB13-1 #1	559580 - CB13-1 #2	559581 - CB11-1 #1	559582 - CB11-1 #2
	Sample Date:	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00
	Sample ID:	1837435-01	1837435-02	1837435-03	1837435-04
	MDL/Units	Water	Water	Water	Water
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	337	33.2	<0.5	2320
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	0.9	<0.5	<0.5	1.0
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	102%	109%	102%	110%
Dibromofluoromethane	Surrogate	87.0%	92.8%	91.8%	93.9%
Toluene-d8	Surrogate	105%	111%	105%	111%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583296

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018
Project Description: City of Barrie

	Client ID:	559583 - CB11-1 #2B	559584 - MW2/00 #1	559585 - MW2/00 #2	559586 - MW4/02 #1
	Sample Date:	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00
	Sample ID:	1837435-05	1837435-06	1837435-07	1837435-08
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	1.0	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	102	<0.5	109	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	53.7	<0.5	24.1	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	156	<0.5	133	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583296

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018
Project Description: City of Barrie

	Client ID:	559583 - CB11-1 #2B	559584 - MW2/00 #1	559585 - MW2/00 #2	559586 - MW4/02 #1
	Sample Date:	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00
	Sample ID:	1837435-05	1837435-06	1837435-07	1837435-08
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	2460	1.4	770	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	106%	104%	97.5%	101%
Dibromofluoromethane	Surrogate	94.2%	92.9%	93.6%	97.4%
Toluene-d8	Surrogate	109%	110%	109%	109%

SGS

Request for Laboratory Services and CHAIN OF CUSTODY (specific SDWA/HPPA - 1st Party)

SGS Environmental Services - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Toll Free: 877-747-7658 Fax: 705-652-6365 Web: www.ca.sgs.com {4}
SGS Environmental Services - London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361 Web: www.ca.sgs.com {4}

Laboratory Information Section

Received Date (mm/dd/yyyy): ~~SEP 0 5 2018~~ XU
Received Time (After Hours Only):
LAB LIMS #: SEP 16114
Temperature Upon Receipt (°C): 7x3

Billing & Reporting Information

Invoice/ Receipt to:	Company:	Corporation of the City of Barrie		
	Attention:	Water Operations Branch - Surface Water Supply		
	Address:	P.O Box 400; Barrie, ON; L4M 4T5		
	Email:	labtech@barrie.ca		
Report to: {3}	Attention:	WT Overall Responsible Operator	PO #:	
	Email:	labtech@barrie.ca		
	Phone:	705-835-1327	Fax: 705-792-7921	

Quote #: JAMEY
Attached Parameter List: ☑ YES ☐ NO

Turnaround Time
Is *Rush Turnaround Time Required? ☐ YES ☐ NO
Specify:
* Rush TA Requests Require Lab Approval

Drinking Water System Information (Exceedance Reporting Information)

System Name:	Barrie Drinking Water Systems - GWS	Waterworks/DWS #:	220001192
Physical Address:	20 Royal Parkside Drive	Contact Phone Number:	(705) 790-1788
Contact Name:	GWS Operator-In-Charge	Contact Fax Number:	(705) 792-7921
MOH Unit (Ministry of Health):	Simcoe Muskoka District	Day Care Licence # or SFIS #:	Client Lab #:

Please check the regulation that applies to your water samples: O.Reg. 170/03 ☑ | O.Reg 318/08 O.Reg 319/08 ☐ | O.Reg 243/07 ☐ | Certificate of Approval Requirement ☐ | Samples NOT Regulated ☐

As per the Ontario Safe Drinking Water Act and Health Protection and Promotion Act, the water facility information and the sample information sections **must be filled out prior to processing samples**. Sample Source Codes * indicate whether samples are Reportable or Not Reportable. The laboratory will report all exceedances to the SDWA/HPPA as per sample the applicable regulation and source codes.

Sample Information

Bottle #	Sample Source Code*	Sample Location Name	Check if Re-Sample From an Adverse Report	Date Sampled (mm/dd/yy)	Time Sampled	# of Bottles	Field Total Residual Chlorine	Field Free Residual Chlorine	Analysis Requested (please enter the analysis required below and check off which analysis applies to each sample) VOC's (see attached)				
Rw	GW	WPS03A - Anne		09/07/18	1336	2	N/A	N/A	x				
	GW	WPS05 - John		09/07/18	1308	2	N/A	N/A	x				
	GW	WPS12 - Centennial		09/07/18	0900	2	N/A	N/A	x				
	GW	WPS15 - Centennial		09/07/18	0930	2	N/A	N/A	x				

Sampled By {1}: (Name) K.K Lowe (Signature) [signature] Date: 09 07 18 (mm/dd/yy)
Relinquished by {2}: (Name) Michael Street (Signature) [signature] Date: 09 07 18 (mm/dd/yy)

*** Sample Source Codes**

DW-Distribution Water: Water in the DWS that is in the distribution system. These samples are reportable under applicable Ontario drinking water regulations
TW-Treated Water: Water in the DWS at the point of entry to the distribution system. These samples are not for consumption and not reportable under applicable Ontario drinking water regulations
RW-Raw Water: Water source for a DWS that has a treatment system. These samples are reportable under applicable Ontario drinking water regulations
RWFC-Raw Water For Consumption: Water source for a DWS that **does not** have a treatment system. These samples **are for consumption** and are reportable under applicable Ontario drinking water regulations
TAP-Tap Water: Water taken for the purposes of lead testing under O.Reg. 243/07
NR-Not Reportable: Water samples that are not reportable under applicable Ontario drinking water regulations

Note: {1} Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. {2} Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). {3} Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. {4} Completion of work may require the subcontracting of samples between the London and Lakefield laboratories.

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

14614115492
?? KS 9:30

List of VOC Parameters

1,1-Dichloroethane
1, 1-Dichloroethene (Vinylidene Dichloride)
1, 1, 1-Trichloroethane
1, 1, 1, 2-Tetrachloroethane
1, 1, 2-Trichloroethane
1, 1, 2, 2-Tetrachloroethane
1, 2-Dibromoethane (Ethylene Dibromide)
1, 2-Dichlorobenzene
1, 2-Dichloroethane
cis-1, 2-Dichloroethene
trans-1, 2-Dichloroethene
1, 2-Dichloropropane
1, 3-Dichlorobenzene
1, 2, 4-Trichlorobenzene
cis-1, 3-Dichloropropene
trans-1, 3-Dichloropropene
1, 3-Dichloropropene (Cis + Trans)
1, 3, 5-Trimethylbenzene
Acetone
Benzene
Bromodichloromethane
Bromoform
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
Dibromochloromethane
Dichlorodifluoromethane
Methylene Chloride (Dichloromethane)
Ethylbenzene
n-Hexane
Methyl Isobutyl Ketone
Methyl Ethyl Ketone
Methyl t-butyl ether
Methyl n-butyl Ketone (2-Hexanone)
Styrene
Tetrachloroethene (Perchloroethylene)
Toluene
Trichloroethene
Vinyl Chloride (Chloroethene)
o-Xylene
m, p-xylenes
Xylene (Total)
Trichlorofluoromethane (FREON 11)

SGS

Request for Laboratory Services and CHAIN OF CUSTODY (specific SDWA/HPPA - 1st Party)

SGS Environmental Services - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Toll Free: 877-747-7658 Fax: 705-652-6365 Web: www.ca.sgs.com {4}

SGS Environmental Services - London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361 Web: www.ca.sgs.com {4}

Laboratory Information Section

Received Date (mm/dd/yyyy): ___/___/____	LAB LIMS #:
Received Time (After Hours Only): ___:___	Temperature Upon Receipt (°C):

Billing & Reporting Information

Invoice/ Receipt to:	Company:	Corporation of the City of Barrie			Quote #: JAMEY
	Attention:	Water Operations Branch - Surface Water Supply			Attached Parameter List: ☑ YES ☐ NO
	Address:	P.O Box 400; Barrie, ON; L4M 4T5			
	Email:	labtech@barrie.ca			**Turnaround Time**
Report to: {3}	Attention:	WT Overall Responsible Operator	PO #:		Is *Rush Turnaround Time Required? ☐ YES ☐ NO
	Email:	labtech@barrie.ca			Specify:
	Phone:	705-835-1327	Fax:	705-792-7921	* Rush TA Requests Require Lab Approval

Drinking Water System Information (Exceedance Reporting Information)

System Name:	**Barrie Drinking Water Systems - GWS**	**Waterworks/DWS #:**	**220001192**
Physical Address:	**20 Royal Parkside Drive**	**Contact Phone Number:**	**(705) 790-1788**
Contact Name:	**GWS Operator-In-Charge**	**Contact Fax Number:**	**(705) 792-7921**
MOH Unit (Ministry of Health):	**Simcoe Muskoka District**	**Day Care Licence # or SFIS #:**	**Client Lab #:**

Please check the regulation that applies to your water samples: O.Reg. 170/03 ☑ | O.Reg 318/08 O.Reg 319/08 ☐ | O.Reg 243/07 ☐ | Certificate of Approval Requirement ☐ | Samples NOT Regulated ☐

As per the Ontario Safe Drinking Water Act and Health Protection and Promotion Act, the water facility information and the sample information sections **must be filled out prior to processing samples**. Sample Source Codes * indicate whether samples are Reportable or Not Reportable. The laboratory will report all exceedances to the SDWA/HPPA as per sample the applicable regulation and source codes.

Sample Information

Bottle #	Sample Source Code*	Sample Location Name	Check if Re-Sample From an Adverse Report	Date Sampled (mm/dd/yy)	Time Sampled	# of Bottles	Field Total Residual Chlorine	Field Free Residual Chlorine	Analysis Requested (please enter the analysis required below and check off which analysis applies to each sample) VOC's (see attached)				
	GW	WPS03A - Anne		09/07/12	1338	2	N/A	N/A	x				
	GW	WPS05 - John		09/07/12	1308	2	N/A	N/A	x				
	GW	WPS12 - Centennial		09/07/12	0900	2	N/A	N/A	x				
	GW	WPS15 - Centennial		09/07/12	0930	2	N/A	N/A	x				

Sampled By {1}:	(Name) K.K Issic	(Signature)		Date: 09/07/12	(mm/dd/yy)
Relinquished by {2}:	(Name) Michael STREET	(Signature)		Date: 09/07/12	(mm/dd/yy)

* Sample Source Codes

DW-Distribution Water: Water in the DWS that is in the distribution system. These samples are reportable under applicable Ontario drinking water regulations
TW-Treated Water: Water in the DWS at the point of entry to the distribution system. These samples are reportable under applicable Ontario drinking water regulations
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RWFC-Raw Water For Consumption: Water source for a DWS that **does not** have a treatment system. These samples **are for consumption** and are reportable under applicable Ontario drinking water regulations
TAP-Tap Water: Water taken for the purposes of lead testing under O.Reg. 243/07
NR-Not Reportable: Water samples that are not reportable under applicable Ontario drinking water regulations

Note: {1} Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. {2} Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). {3} Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. {4} Completion of work may require the subcontracting of samples between the London and Lakefield laboratories.

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Revision # 3.2
Date of Issue: 24 Jan. 2014

List of VOC Parameters

1,1-Dichloroethane
1, 1-Dichloroethene (Vinylidene Dichloride)
1, 1, 1-Trichloroethane
1, 1, 1, 2-Tetrachloroethane
1, 1, 2-Trichloroethane
1, 1, 2, 2-Tetrachloroethane
1, 2-Dibromoethane (Ethylene Dibromide)
1, 2-Dichlorobenzene
1, 2-Dichloroethane
cis-1, 2-Dichloroethene
trans-1, 2-Dichloroethene
1, 2-Dichloropropane
1, 3-Dichlorobenzene
1, 2, 4-Trichlorobenzene
cis-1, 3-Dichloropropene
trans-1, 3-Dichloropropene
1, 3-Dichloropropene (Cis + Trans)
1, 3, 5-Trimethylbenzene
Acetone
Benzene
Bromodichloromethane
Bromoform
Carbon Tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
Dibromochloromethane
Dichlorodifluoromethane
Methylene Chloride (Dichloromethane)
Ethylbenzene
n-Hexane
Methyl Isobutyl Ketone
Methyl Ethyl Ketone
Methyl t-butyl ether
Methyl n-butyl Ketone (2-Hexanone)
Styrene
Tetrachloroethene (Perchloroethylene)
Toluene
Trichloroethene
Vinyl Chloride (Chloroethene)
o-Xylene
m, p-xylenes
Xylene (Total)
Trichlorofluoromethane (FREON 11)

SENDER RETAIN THIS COPY / CONSERVEZ CET EXEMPLAIRE

SENDER ACCOUNT NO. / N° DE COMPTE DE L'EXPÉDITEUR

IMPORTANT - TELEPHONE

(705)792-7920

SHIP MODE / MODE DE TRANSPORT

AIR / AÉRIEN ☐ GROUND / ROUTIER ☑

BILL OF LADING NO. / NOT NEGOTIABLE / N° DE CONNAISSEMENT / NON NÉGOCIABLE

1461 411 5492

Purolator

purolator.com 1 888 SHIP-123

SENDER (FROM) / EXPÉDITEUR (DE)

MO. DY/JR YR/AN

NATALIA CARBILES WTP 09 04 18

STREET ADDRESS / ADRESSE (N° ET RUE) APT., SUITE / APP., BUREAU

20 ROYAL PARK SIDE DR

CITY / VILLE PROV./STATE / ÉTAT POSTAL / ZIP

BARRIE ON L4N0C4

PKG / EMBAL. ☐ SERVICE

PURO-LETTER ☐ 9 AM 9 h ☐

PURO-PAK ☐ 10:30AM 10 h 30 ☑

OTHER / AUTRE ☐ SAT. SAM. ☐

COURIER INITIALS / INITIALES DU COURRIER: [illegible] COURIER ROUTE / ITINÉRAIRE DU COURRIER: 001 MO. DY/JR YR/AN: 09 04 18

RECEIVER (TO) / DESTINATAIRE (A)

SGS

STREET ADDRESS / ADRESSE (N° ET RUE) APT., SUITE / APP., BUREAU

165 CONCESSION ST

CITY / VILLE PROV./STATE/ÉTAT POSTAL / ZIP

CAREFILED ON K0L2H0

ATTN: (NAME / DEPT.) À L'ATTENTION DE (NOM / SERVICE) IMPORTANT - TELEPHONE

GS-CARRIE G. (705)652-2000

PAYMENT / PAIEMENT

CASH / COMPTANT ☐ CREDIT CARD / CARTE DE CRÉDIT ☐

NO./N° TYPE ☐ VISA ☐ MC ☐ AMEX EXP. DATE / D'EXP.

RECEIVER / DESTINATAIRE ☐ 3RD PARTY / TIERS ☑

RECEIVER OR THIRD PARTY ACCOUNT NO. / N° DE COMPTE DU DESTINATAIRE OU TIERS

4840797

CHARGES / FRAIS

TOTAL AMOUNT / MONTANT TOTAL

SENDER / EXPÉDITEUR ☐

THIRD PARTY BILLING NAME & ADDRESS / FACTURATION À UN TIERS (NOM & ADRESSE)

DESCRIPTION (INCLUDING DANGEROUS GOODS / INCLUANT MARCHANDISES DANGEREUSES)

DG ☐ MD ☐

SHIPMENT DETAILS / EXPÉDITION

NO. OF PCS. / NBRE DE COLIS

WEIGHT / POIDS SUBJECT TO CORRECTION / SUJET À CORRECTION

KG LB

1 5

SENDER REFERENCE (IF ANY) / RÉF. DE L'EXPÉD.

PICKUP / CUEILLETTE N° DE CODE

DECLARED VALUE / VALEUR DÉCLARÉE

SURCHARGE APPLIES OVER $100 / SUPPLÉMENT AU DESSUS DE 100 $

$

SEE CONDITIONS OF CARRIAGE ON REVERSE / CONDITIONS DE TRANSPORT AU VERSO

$5 000 CDN MAX $5 000

LIMITATION OF LIABILITY – IMPORTANT – PLEASE READ THE AMOUNT OF ANY LOSS OR DAMAGE FOR WHICH THE CARRIER MAY BE LIABLE SHALL NOT EXCEED $2.00 PER POUND (OR $4.41 PER KILOGRAM) COMPUTED ON THE TOTAL WEIGHT OF THE SHIPMENT UNLESS A HIGHER VALUE IS DECLARED ON THE FACE OF THE BILL OF LADING BY THE SENDER. MAXIMUM DECLARED VALUE SHALL NOT EXCEED $5000. N.B. NOTE CAREFULLY CONDITIONS ON BACK HEREOF, INCLUDING LIMITATIONS AND EXCLUSIONS OF CARRIER'S LIABILITY, WHICH ARE HEREBY ACCEPTED. LIMITATION DE RESPONSABILITÉ – IMPORTANT – LISEZ S.V.P. LE MONTANT DE TOUTE PERTE OU TOUT DOMMAGE DONT LE TRANSPORTEUR POURRAIT ÊTRE RESPONSABLE NE DOIT PAS EXCÉDER 2,00 $ LA LIVRE (OU 4,41 $ LE KILOGRAMME), CALCULÉ SUR LE POIDS TOTAL DE L'EXPÉDITION, À MOINS QU'UNE VALEUR SUPÉRIEURE NE SOIT ÉTÉ DÉCLARÉE AU LE RECTO DU CONNAISSEMENT PAR L'EXPÉDITEUR. LA VALEUR DÉCLARÉE MAXIMALE NE DOIT PAS DÉPASSER PAS 5 000 $. N.B. VEUILLEZ PRENDRE CONNAISSANCE DES CONDITIONS, AU VERSO, Y COMPRIS LES LIMITATIONS ET EXCLUSIONS DE RESPONSABILITÉ DU TRANSPORTEUR, QUI SONT ACCEPTÉES PAR LES PRÉSENTES.

SENDER SIGNATURE / SIGNATURE DE L'EXPÉDITEUR

X X

SEE CONDITIONS OF CARRIAGE ON REVERSE / CONDITIONS DE TRANSPORT AU VERSO

PLEASE REFER TO BILL OF LADING NUMBER FOR SHIPMENT STATUS / INQUIRIES.
POUR TOUTE RENSEIGNEMENT, VEUILLEZ NOUS COMMUNIQUER LE NUMÉRO DE CONNAISSEMENT.

SENDER RETAIN THIS COPY / COPIE DE L'EXPÉDITEUR

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Barrie Drinking Water System (Ground Water)
Attn : Groundwater Supply On-Call Operator

20 Royal Parkside Dr.
Barrie, ON
L4M 0C4, Canada

Phone: 705-790-1788
Fax:pdf, excel

Works #: 220001192
Project : PO#68987 Line#6
GL#01-2610-0000-3560

25-September-2018

Date Rec. : 19 September 2018
LR Report: **CA18862-SEP18**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	6: Half MAC	7: AO/OG	8: MDL	9: QC - Blank	10: QC - DUP % RPD	13: RW WPS12-Centennial	14: RW WPS15-Centennial
Sample Date & Time											17-Sep-18 08:32	17-Sep-18 08:51
Temperature Upon Receipt [°C]	---	---	---	---	---	---	---	---	---	---	18.0	18.0
Benzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	1	0.5	--	0.32	0.32 <MDL	NSS	0.32 <MDL	0.32 <MDL
Carbon tetrachloride [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	2	1	--	0.16	0.16 <MDL	NSS	0.16 <MDL	0.16 <MDL
1,2-Dichlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	200	100	--	0.41	0.41 <MDL	NSS	0.41 <MDL	0.41 <MDL
1,4-Dichlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	5	2.5	1	0.36	0.36 <MDL	NSS	0.36 <MDL	0.36 <MDL
1,1-Dichloroethylene (vinylidene chloride) [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	14	7	--	0.33	0.33 <MDL	NSS	0.33 <MDL	0.33 <MDL
1,1-Dichloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
Ethylbenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	140	---	1.6	0.33	0.33 <MDL	NSS	0.33 <MDL	0.33 <MDL
Tetrachloroethylene (perchloroethylene) [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	10	5	--	0.35	0.35 <MDL	NSS	0.35 <MDL	0.35 <MDL
Toluene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	60	---	24	0.36	0.36 <MDL	NSS	0.36 <MDL	0.36 <MDL
Trichloroethylene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	5	2.5	--	0.44	0.44 <MDL	NSS	0.44 <MDL	0.44 <MDL
Bromodichloromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.26	0.26 <MDL	NSS	0.26 <MDL	0.26 <MDL
Bromoform [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.34	0.34 <MDL	NSS	0.34 <MDL	0.34 <MDL
Chloroform [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.29	0.29 <MDL	NSS	0.29 <MDL	0.29 <MDL
Dibromochloromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.37	0.37 <MDL	NSS	0.37 <MDL	0.37 <MDL
Vinyl Chloride [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	1	0.5	--	0.17	0.17 <MDL	NSS	0.17 <MDL	0.17 <MDL
Xylene (total) [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	90	---	20	0.43	---	---	0.43 <MDL	0.43 <MDL
m/p-xylene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.43	0.43 <MDL	NSS	0.43 <MDL	0.43 <MDL
o-xylene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.17	0.17 <MDL	NSS	0.17 <MDL	0.17 <MDL
1,1,1-Trichloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,1,1,2-Tetrachloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,1,2-Trichloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,1,2,2-Tetrachloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,2-Dibromoethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.2	< 0.2	NSS	0.2 <MDL	0.2 <MDL
1,2-Dichloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.35	0.35 <MDL	NSS	0.35 <MDL	0.35 <MDL

OnLine LIMS

0001521008

Data reported represents the sample submitted to SGS. Reproduction of this analytical report in full or in part is prohibited without prior written approval. Please refer to SGS General Conditions of Services located at http://www.sgs.com/terms_and_conditions_service.htm. (Printed copies are available upon request.)
Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 220001192
Project : PO#68987 Line#6
LR Report : GL#01-2610-0000-3560 ~~CA18662-SEP18~~

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	6: Half MAC	7: AO/OG	8: MDL	9: QC - Blank	10: QC - DUP % RPD	13: RW WPS12-Centennial	14: RW WPS15-Centennial
cis-1,2-Dichloroethylene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.3	0.30 <MDL	NSS	0.3 <MDL	1.9
trans-1,2-Dichloroethene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,2-Dichloropropane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,3-Dichlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.50	< 0.5	NSS	0.5 <MDL	0.5 <MDL
cis-1,3-Dichloropropene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
trans-1,3-Dichloropropene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,3-Dichloropropane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,2,4-Trimethylbenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL
1,3,5-Trimethylbenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL
Acetone [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	30	< 30	NSS	30 <MDL	30 <MDL
Bromomethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.32	< 0.32	NSS	0.32 <MDL	0.32 <MDL
Monochlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.30	0.30 <MDL	NSS	0.3 <MDL	0.3 <MDL
Chloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL
Chloromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL
Dichlorodifluoromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	2	< 2	NSS	2 <MDL	2 <MDL
Dichloromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.35	0.35 <MDL	NSS	0.35 <MDL	0.35 <MDL
Styrene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
Trichlorofluoromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,2,4-Trichlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				0.50	< 0.5	NSS	0.5 <MDL	0.5 <MDL
n-Hexane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				1	< 1	NSS	1 <MDL	1 <MDL
Methyl Isobutyl Ketone [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				20	< 20	NSS	20 <MDL	20 <MDL
Methyl ethyl ketone [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				20	< 20	NSS	20 <MDL	20 <MDL
Methyl-t-butyl Ether [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				0.7	0.70 <MDL	NSS	0.7 <MDL	0.7 <MDL
2-Hexanone [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				20	< 20	NSS	20 <MDL	20 <MDL

MAC - Maximum Acceptable Concentration
Half MAC - Half of the Maximum Acceptable Concentration
AO/OG - Aesthetic Objective / Operational Guideline
MDL - SGS Method Detection Limit

Method Descriptions

Units	Description	SGS Method Code
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004

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0001521008

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 220001192
Project : PO#68987 Line#6
LR Report : GL#01-2610-0000-3560 CA18662-SEP18

Units	Description	SGS Method Code
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - bromomethane	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - 1,3-dichloropropene	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - MtBE	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - 1,3-dichloropropene	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004

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Works #: 220001192
Project : PO#68987 Line#6
LR Report : GL#01-2610-0000-3560 ~~CA18662-SEP18~~

Carrie Greenlaw
Project Specialist
Environmental Services, Analytical

OnLine LIMS

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Barrie Drinking Water System (Ground Water)
Attn : Groundwater Supply On-Call Operator

20 Royal Parkside Dr.
Barrie, ON
L4M 0C4, Canada

Phone: 705-790-1788
Fax:pdf, excel

Works #: 220001192
Project : PO#68987 Line#6
GL#01-2610-0000-3560

25-September-2018

Date Rec. : 19 September 2018
LR Report: **CA18862-SEP18**

Copy: #1

CERTIFICATE OF ANALYSIS
Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	6: Half MAC	7: AO/OG	8: MDL	9: QC - Blank	10: QC - DUP % RPD	11: RW WPS03A-Anne	12: RW WPS05-John
Sample Date & Time											17-Sep-18 11:04	17-Sep-18 11:47
Temperature Upon Receipt [°C]	---	---	---	---	---	---	---	---	---	---	18.0	18.0
Benzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	1	0.5	--	0.32	0.32 <MDL	NSS	0.32 <MDL	0.32 <MDL
Carbon tetrachloride [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	2	1	--	0.16	0.16 <MDL	NSS	0.16 <MDL	0.16 <MDL
1,2-Dichlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	200	100	--	0.41	0.41 <MDL	NSS	0.41 <MDL	0.41 <MDL
1,4-Dichlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	5	2.5	1	0.36	0.36 <MDL	NSS	0.36 <MDL	0.36 <MDL
1,1-Dichloroethylene (vinylidene chloride) [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	14	7	--	0.33	0.33 <MDL	NSS	0.33 <MDL	0.33 <MDL
1,1-Dichloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
Ethylbenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	140	---	1.6	0.33	0.33 <MDL	NSS	0.33 <MDL	0.33 <MDL
Tetrachloroethylene (perchloroethylene) [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	10	5	--	0.35	0.35 <MDL	NSS	0.35 <MDL	0.35 <MDL
Toluene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	60	---	24	0.36	0.36 <MDL	NSS	0.36 <MDL	0.36 <MDL
Trichloroethylene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	5	2.5	--	0.44	0.44 <MDL	NSS	0.44 <MDL	0.44 <MDL
Bromodichloromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.26	0.26 <MDL	NSS	0.26 <MDL	0.26 <MDL
Bromoform [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.34	0.34 <MDL	NSS	0.34 <MDL	0.34 <MDL
Chloroform [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.29	0.29 <MDL	NSS	0.29 <MDL	0.29 <MDL
Dibromochloromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.37	0.37 <MDL	NSS	0.37 <MDL	0.37 <MDL
Vinyl Chloride [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	1	0.5	--	0.17	0.17 <MDL	NSS	0.17 <MDL	0.17 <MDL
Xylene (total) [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	90	---	20	0.43	---	---	0.43 <MDL	0.43 <MDL
m/p-xylene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.43	0.43 <MDL	NSS	0.43 <MDL	0.43 <MDL
o-xylene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	--	---	--	0.17	0.17 <MDL	NSS	0.17 <MDL	0.17 <MDL
1,1,1-Trichloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,1,1,2-Tetrachloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,1,2-Trichloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,1,2,2-Tetrachloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,2-Dibromoethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:10	---	---	---	0.2	< 0.2	NSS	0.2 <MDL	0.2 <MDL
1,2-Dichloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.35	0.35 <MDL	NSS	0.35 <MDL	0.35 <MDL

OnLine LIMS

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P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 220001192
Project : PO#68987 Line#6
LR Report : GL#01-2610-0000-3560 ~~CA18862-SEP18~~

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	6: Half MAC	7: AO/OG	8: MDL	9: QC - Blank	10: QC - DUP % RPD	11: RW WPS03A-Anne	12: RW WPS05-John
cis-1,2-Dichloroethylene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.3	0.30 <MDL	NSS	0.3 <MDL	0.6
trans-1,2-Dichloroethene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,2-Dichloropropane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,3-Dichlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.50	< 0.5	NSS	0.5 <MDL	0.5 <MDL
cis-1,3-Dichloropropene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
trans-1,3-Dichloropropene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,3-Dichloropropane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:11	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,2,4-Trimethylbenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL
1,3,5-Trimethylbenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL
Acetone [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	30	< 30	NSS	30 <MDL	30 <MDL
Bromomethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.32	< 0.32	NSS	0.32 <MDL	0.32 <MDL
Monochlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.30	0.30 <MDL	NSS	0.3 <MDL	0.3 <MDL
Chloroethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL
Chloromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL
Dichlorodifluoromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	2	< 2	NSS	2 <MDL	2 <MDL
Dichloromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.35	0.35 <MDL	NSS	0.35 <MDL	0.35 <MDL
Styrene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
Trichlorofluoromethane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL
1,2,4-Trichlorobenzene [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				0.50	< 0.5	NSS	0.5 <MDL	0.5 <MDL
n-Hexane [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				1	< 1	NSS	1 <MDL	1 <MDL
Methyl Isobutyl Ketone [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				20	< 20	NSS	20 <MDL	20 <MDL
Methyl ethyl ketone [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				20	< 20	NSS	20 <MDL	20 <MDL
Methyl-t-butyl Ether [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				0.7	0.70 <MDL	NSS	0.7 <MDL	0.7 <MDL
2-Hexanone [ug/L]	21-Sep-18	07:13	25-Sep-18	13:18				20	< 20	NSS	20 <MDL	20 <MDL

MAC - Maximum Acceptable Concentration
Half MAC - Half of the Maximum Acceptable Concentration
AO/OG - Aesthetic Objective / Operational Guideline
MDL - SGS Method Detection Limit

Method Descriptions

Units	Description	SGS Method Code
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004

OnLine LIMS

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Works #: 220001192
Project : PO#68987 Line#6
LR Report : GL#01-2610-0000-3560 CA18862-SEP18

Units	Description	SGS Method Code
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - bromomethane	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - 1,3-dichloropropene	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - MtBE	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - 1,3-dichloropropene	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004

OnLine LIMS

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Carrie Greenlaw
Project Specialist
Environmental Services, Analytical

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Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

SGS

Request for Laboratory Services and CHAIN OF CUSTODY (specific SDWA/HPPA - 1st Party)

SGS Environmental Services - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Toll Free: 877-747-7658 Fax: 705-652-6365 Web: www.ca.sgs.com {4}

SGS Environmental Services - London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361 Web: www.ca.sgs.com {4}

Laboratory Information Section

Received Date (mm/dd/yyyy): 09.19.2018 HA

Received Time (After Hours Only): ___ : ___

LAB LIMS #: Sep 18862

Temperature Upon Receipt (°C): 18.3

Billing & Reporting Information

Invoice/ Receipt to:	Company:	Corporation of the City of Barrie		
	Attention:	Water Operations Branch - Surface Water Supply		
	Address:	P.O Box 400; Barrie, ON; L4M 4T5		
	Email:	labtech@barrie.ca		
Report to: {3}	Attention:	WT Overall Responsible Operator	PO #:	
	Email:	labtech@barrie.ca		
	Phone:	705-835-1327	Fax:	705-792-7921

Quote #: JAMEY

Attached Parameter List: ☑ YES ☐ NO

Turnaround Time

Is *Rush Turnaround Time Required? ☐ YES ☐ NO

Specify: ___

* Rush TA Requests Require Lab Approval

Drinking Water System Information (Exceedance Reporting Information)

System Name:	Barrie Drinking Water Systems - SGWS	Waterworks/DWS #:	220001192
Physical Address:	20 Royal Parkside Dr	Contact Phone Number:	(705) 790-1788
Contact Name:	GWS Operator-In-Charge	Contact Fax Number:	(705) 792-7921
MOH Unit (Ministry of Health):	Simcoe Muskoka District	Day Care Licence # or SFIS #:	

Please check the regulation that applies to your water samples: O.Reg. 170/03 ☑ | O.Reg 318/08 O.Reg 319/08 ☐ | O.Reg 243/07 ☐ | Certificate of Approval Requirement ☐ | Samples NOT Regulated ☑

As per the Ontario Safe Drinking Water Act and Health Protection and Promotion Act, the water facility information and the sample information sections **must be filled out prior to processing samples**. Sample Source Codes * indicate whether samples are Reportable or Not Reportable. The laboratory will report all exceedances to the SDWA/HPPA as per sample the applicable regulation and source codes.

Sample Information

Bottle #	Sample Source Code*	Sample Location Name	Check if Re-Sample From an Adverse Report	Date Sampled (mm/dd/yy)	Time Sampled	# of Bottles	Field Total Residual Chlorine	Field Free Residual Chlorine	Analysis Requested (please enter the analysis required below and check off which analysis applies to each sample) VOC's (See attached)				
	GW	WPS03A - Anne		09/17/18	11:04	2	N/A	N/A	x				
	GW	WPS05 - John		09/17/18	11:47	2	N/A	N/A	x				
	GW	WPS12 - Centennial		09/17/18	08:32	2	N/A	N/A	x				
	GW	WPS15 - Centennial		09/17/18	08:51	2	N/A	N/A	x				

Sampled By {1}: (Name) Tyler Roy (Signature) [signature] Date: 09.17.18 (mm/dd/yy)

Relinquished by {2}: (Name) MICHAEL STOCKER (Signature) [signature] 1343 Date: 09.17.18 (mm/dd/yy)

* Sample Source Codes

DW-Distribution Water: Water in the DWS that is in the distribution system. These samples are reportable under applicable Ontario drinking water regulations

TW-Treated Water: Water in the DWS at the point of entry to the distribution system. These samples are reportable under applicable Ontario drinking water regulations

RW-Raw Water: Water source for a DWS that has a treatment system. These samples are not for consumption and not reportable under applicable Ontario drinking water regulations

RWFC-Raw Water For Consumption: Water source for a DWS that **does not** have a treatment system. These samples **are for consumption** and are reportable under applicable Ontario drinking water regulations

TAP-Tap Water: Water taken for the purposes of lead testing under O.Reg. 243/07

NR-Not Reportable: Water samples that are not reportable under applicable Ontario drinking water regulations

Note: {1} Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. {2} Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). {3} Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. {4} Completion of work may require the subcontracting of samples between the London and Lakefield laboratories.

This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

9:30 HA 1641 414 2736 PP



golder.com

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583296

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018
Project Description: City of Barrie

	Client ID:	559587 - MW4/02 #2	559588 - MW4/02 #2B	559589 - MW1/00 #1	559590 - Trip Blank
	Sample Date:	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00	09/06/2018 00:00
	Sample ID:	1837435-09	1837435-10	1837435-11	1837435-12
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	23.8	23.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	1.4	1.1	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	25.1	24.6	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583296

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018
Project Description: City of Barrie

	Client ID:	559587 - MW4/02 #2	559588 - MW4/02 #2B	559589 - MW1/00 #1	559590 - Trip Blank
	Sample Date:	09/12/2018 00:00	09/12/2018 00:00	09/12/2018 00:00	09/06/2018 00:00
	Sample ID:	1837435-09	1837435-10	1837435-11	1837435-12
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	80.3	74.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	0.9	0.8	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	100%	97.2%	106%	98.6%
Dibromofluoromethane	Surrogate	97.1%	94.5%	97.4%	93.7%
Toluene-d8	Surrogate	109%	107%	109%	106%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583296

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018
Project Description: City of Barrie

	Client ID:	559591 - Field Blank	-	-	-
	Sample Date:	09/12/2018 00:00	-	-	-
	Sample ID:	1837435-13	-	-	-
	MDL/Units	Water	-	-	-
Volatiles					
Acetone	5.0 ug/L	<5.0	-	-	-
Benzene	0.5 ug/L	<0.5	-	-	-
Bromodichloromethane	0.5 ug/L	<0.5	-	-	-
Bromoform	0.5 ug/L	<0.5	-	-	-
Bromomethane	0.5 ug/L	<0.5	-	-	-
Carbon Tetrachloride	0.2 ug/L	<0.2	-	-	-
Chlorobenzene	0.5 ug/L	<0.5	-	-	-
Chloroethane	1.0 ug/L	<1.0	-	-	-
Chloroform	0.5 ug/L	<0.5	-	-	-
Chloromethane	3.0 ug/L	<3.0	-	-	-
Dibromochloromethane	0.5 ug/L	<0.5	-	-	-
Dichlorodifluoromethane	1.0 ug/L	<1.0	-	-	-
1,2-Dibromoethane	0.2 ug/L	<0.2	-	-	-
1,2-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-
1,3-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-
1,4-Dichlorobenzene	0.5 ug/L	<0.5	-	-	-
1,1-Dichloroethane	0.5 ug/L	<0.5	-	-	-
1,2-Dichloroethane	0.5 ug/L	<0.5	-	-	-
1,1-Dichloroethylene	0.5 ug/L	<0.5	-	-	-
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	-	-	-
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	-	-	-
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	-	-	-
1,2-Dichloropropane	0.5 ug/L	<0.5	-	-	-
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	-	-	-
1,3-Dichloropropene, total	0.5 ug/L	<0.5	-	-	-
Ethylbenzene	0.5 ug/L	<0.5	-	-	-
Hexane	1.0 ug/L	<1.0	-	-	-
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	-	-	-
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	-	-	-
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	-	-	-
Methyl tert-butyl ether	2.0 ug/L	<2.0	-	-	-
Methylene Chloride	5.0 ug/L	<5.0	-	-	-
Styrene	0.5 ug/L	<0.5	-	-	-

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583296

Report Date: 19-Sep-2018
Order Date: 13-Sep-2018
Project Description: City of Barrie

	Client ID:	559591 - Field Blank	-	-	-
	Sample Date:	09/12/2018 00:00	-	-	-
	Sample ID:	1837435-13	-	-	-
	MDL/Units	Water	-	-	-
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	-	-	-
Tetrachloroethylene	0.5 ug/L	<0.5	-	-	-
Toluene	0.5 ug/L	<0.5	-	-	-
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	-	-	-
1,1,1-Trichloroethane	0.5 ug/L	<0.5	-	-	-
1,1,2-Trichloroethane	0.5 ug/L	<0.5	-	-	-
Trichloroethylene	0.5 ug/L	<0.5	-	-	-
Trichlorofluoromethane	1.0 ug/L	<1.0	-	-	-
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	-	-	-
Vinyl chloride	0.5 ug/L	<0.5	-	-	-
m,p-Xylenes	0.5 ug/L	<0.5	-	-	-
o-Xylene	0.5 ug/L	<0.5	-	-	-
Xylenes, total	0.5 ug/L	<0.5	-	-	-
4-Bromofluorobenzene	Surrogate	97.8%	-	-	-
Dibromofluoromethane	Surrogate	95.5%	-	-	-
Toluene-d8	Surrogate	108%	-	-	-

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroethane	ND	1.0	ug/L						
Chloroform	ND	0.5	ug/L						
Chloromethane	ND	3.0	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dibromoethane	ND	0.2	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloroethylene, total	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,2,4-Trichlorobenzene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
1,3,5-Trimethylbenzene	ND	0.5	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*80.6*		*ug/L*		*101*	*50-140*			
Surrogate: Dibromofluoromethane	*69.6*		*ug/L*		*87.0*	*50-140*			
Surrogate: Toluene-d8	*84.4*		*ug/L*		*105*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND				30	
Benzene	ND	0.5	ug/L	ND				30	
Bromodichloromethane	ND	0.5	ug/L	ND				30	
Bromoform	ND	0.5	ug/L	ND				30	
Bromomethane	ND	0.5	ug/L	ND				30	
Carbon Tetrachloride	ND	0.2	ug/L	ND				30	
Chlorobenzene	ND	0.5	ug/L	ND				30	
Chloroethane	ND	1.0	ug/L	ND				30	
Chloroform	ND	0.5	ug/L	ND				30	
Chloromethane	ND	3.0	ug/L	ND				30	
Dibromochloromethane	ND	0.5	ug/L	ND				30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND				30	
1,2-Dibromoethane	ND	0.2	ug/L	ND				30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,1-Dichloroethane	ND	0.5	ug/L	ND				30	
1,2-Dichloroethane	ND	0.5	ug/L	ND				30	
1,1-Dichloroethylene	1.15	0.5	ug/L	1.30			12.2	30	
cis-1,2-Dichloroethylene	136	0.5	ug/L	103			27.6	30	GEN-14
trans-1,2-Dichloroethylene	6.52	0.5	ug/L	5.82			11.3	30	
1,2-Dichloropropane	ND	0.5	ug/L	ND				30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Hexane	ND	1.0	ug/L	ND				30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND				30	
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L	ND				30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND				30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND				30	
Methylene Chloride	ND	5.0	ug/L	ND				30	
Styrene	ND	0.5	ug/L	ND				30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
Tetrachloroethylene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
1,2,4-Trichlorobenzene	ND	0.5	ug/L	ND				30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND				30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND				30	
Trichloroethylene	482	0.5	ug/L	337			35.4	30	GEN-14
Trichlorofluoromethane	ND	1.0	ug/L	ND				30	
1,3,5-Trimethylbenzene	ND	0.5	ug/L	ND				30	
Vinyl chloride	0.74	0.5	ug/L	0.94			23.8	30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: 4-Bromofluorobenzene	*84.8*		*ug/L*		*106*	*50-140*			
Surrogate: Dibromofluoromethane	*72.0*		*ug/L*		*90.0*	*50-140*			
Surrogate: Toluene-d8	*86.8*		*ug/L*		*109*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	117	5.0	ug/L		117	50-140			
Benzene	34.0	0.5	ug/L		84.9	60-130			
Bromodichloromethane	34.0	0.5	ug/L		85.0	60-130			
Bromoform	39.0	0.5	ug/L		97.4	60-130			
Bromomethane	26.8	0.5	ug/L		67.0	50-140			
Carbon Tetrachloride	35.2	0.2	ug/L		87.9	60-130			
Chlorobenzene	34.0	0.5	ug/L		85.0	60-130			
Chloroethane	32.2	1.0	ug/L		80.5	50-140			
Chloroform	34.0	0.5	ug/L		85.0	60-130			
Chloromethane	30.9	3.0	ug/L		77.3	50-140			
Dibromochloromethane	36.8	0.5	ug/L		91.9	60-130			
Dichlorodifluoromethane	31.4	1.0	ug/L		78.6	50-140			
1,2-Dibromoethane	31.2	0.2	ug/L		78.0	60-130			
1,2-Dichlorobenzene	31.3	0.5	ug/L		78.2	60-130			
1,3-Dichlorobenzene	32.0	0.5	ug/L		79.9	60-130			
1,4-Dichlorobenzene	30.8	0.5	ug/L		77.0	60-130			
1,1-Dichloroethane	34.0	0.5	ug/L		85.0	60-130			
1,2-Dichloroethane	35.8	0.5	ug/L		89.4	60-130			
1,1-Dichloroethylene	36.4	0.5	ug/L		91.1	60-130			
cis-1,2-Dichloroethylene	31.9	0.5	ug/L		79.7	60-130			
trans-1,2-Dichloroethylene	38.1	0.5	ug/L		95.3	60-130			
1,2-Dichloropropane	30.3	0.5	ug/L		75.8	60-130			
cis-1,3-Dichloropropylene	30.9	0.5	ug/L		77.3	60-130			
trans-1,3-Dichloropropylene	34.3	0.5	ug/L		85.8	60-130			
Ethylbenzene	31.2	0.5	ug/L		78.0	60-130			
Hexane	48.4	1.0	ug/L		121	60-130			
Methyl Ethyl Ketone (2-Butanone)	83.3	5.0	ug/L		83.3	50-140			
Methyl Butyl Ketone (2-Hexanone)	73.8	10.0	ug/L		73.8	50-140			
Methyl Isobutyl Ketone	71.2	5.0	ug/L		71.2	50-140			
Methyl tert-butyl ether	81.5	2.0	ug/L		81.5	50-140			
Methylene Chloride	45.1	5.0	ug/L		113	60-130			
Styrene	28.4	0.5	ug/L		71.0	60-130			
1,1,1,2-Tetrachloroethane	36.7	0.5	ug/L		91.8	60-130			
1,1,2,2-Tetrachloroethane	31.3	0.5	ug/L		78.3	60-130			
Tetrachloroethylene	37.5	0.5	ug/L		93.8	60-130			
Toluene	33.0	0.5	ug/L		82.4	60-130			
1,2,4-Trichlorobenzene	24.7	0.5	ug/L		61.8	60-130			
1,1,1-Trichloroethane	34.6	0.5	ug/L		86.6	60-130			
1,1,2-Trichloroethane	31.1	0.5	ug/L		77.8	60-130			
Trichloroethylene	33.4	0.5	ug/L		83.4	60-130			
Trichlorofluoromethane	37.7	1.0	ug/L		94.2	60-130			
1,3,5-Trimethylbenzene	36.2	0.5	ug/L		90.6	60-130			
Vinyl chloride	31.2	0.5	ug/L		78.0	50-140			
m,p-Xylenes	69.6	0.5	ug/L		87.0	60-130			
o-Xylene	35.3	0.5	ug/L		88.2	60-130			
Surrogate: 4-Bromofluorobenzene	*76.4*		*ug/L*		*95.6*	*50-140*			

Qualifier Notes:

QC Qualifiers :

GEN-14 : This result exceeds the calibration range of the instrument. The result may be biased.

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

E3 Laboratories Inc.
SS#4, 360 York Rd., Unit 10, Niagara-on-the-Lake, Ontario L0S 1J0
Email: info@e3labs.ca
Tel: (905) 641-9000, Fax: (905) 641-9001

CERTIFICATE OF ANALYSIS

Corporation of the City of Barrie
Stephanie Huyssen
272 Ferndale Drive
Barrie
L4M4T5
Tel: 705-739-4220 Fax: E-mail
Email: stephanie.huyssen@barrie.ca

Work Order No.:2583374
Received : 2018-09-14
PO Number: 88985
Reported: 2018-09-20
Project Name: GWMP
Chain of Custody No.: 37637

Client Sample ID	Sample Date	Lab ID	Parameter	Result	Unit	RDL	Date Analyzed	Method
CB14-2 #1	2018-09-13	**559729**	VOC Scan	See	Attached			Subcontracted
CB14-2 #3	2018-09-13	**559730**	VOC Scan	See	Attached			Subcontracted
CB03-2 #1	2018-09-13	**559731**	VOC Scan	See	Attached			Subcontracted
Field Blank	2018-09-13	**559732**	VOC Scan	See	Attached			Subcontracted
CB03-2 #2	2018-09-13	**559733**	VOC Scan	See	Attached			Subcontracted
CB03-2 #2B	2018-09-13	**559734**	VOC Scan	See	Attached			Subcontracted
CB03-1 #1	2018-09-13	**559735**	VOC Scan	See	Attached			Subcontracted
CB03-1 #1B	2018-09-13	**559736**	VOC Scan	See	Attached			Subcontracted
CB03-1 #2	2018-09-13	**559737**	VOC Scan	See	Attached			Subcontracted
MW-04	2018-09-13	**559738**	VOC Scan	See	Attached			Subcontracted
MW-05	2018-09-13	**559739**	VOC Scan	See	Attached			Subcontracted
Trip Blank	2018-09-13	**559740**	VOC Scan	See	Attached			Subcontracted

Reported by:

Nilou Ghazi, Ph.D.,P.Eng.
Laboratory Manager

All work has been performed using accepted testing methodologies, except where otherwise agreed to by the client in writing. Our total liability in connection with this work shall be limited to the amount paid by the client.
Results relate only to items tested.

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Certificate of Analysis

E-3 Laboratories Inc.

RR#4, 360 York Rd. Unit 10
Niagara-on-the-Lake, ON L0S 1J0
Attn: Kristy Berry

Client PO: 2583374
Project: City of Barrie
Custody:

Report Date: 20-Sep-2018
Order Date: 14-Sep-2018

Order #: 1837596

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1837596-01	559729 - CB14-2 #1
1837596-02	559730 - CB14-2 #3
1837596-03	559731 - CB03-2 #1
1837596-04	559732 - Field Blank
1837596-05	559733 - CB03-2 #2
1837596-06	559734 - CB03-2 #2B
1837596-07	559735 - CB03-1 #1
1837596-08	559736 - CB03-1 #1B
1837596-09	559737 - CB03-1 #2
1837596-10	559738 - MW-04
1837596-11	559739 - MW-05
1837596-12	559740 - Trip Blank

Approved By:

Dale Robertson, BSc
Laboratory Director

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 20-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	19-Sep-18	19-Sep-18

PARACEL LABORATORIES LTD.

Order #: 1837596

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 20-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559729 - CB14-2 #1	559730 - CB14-2 #3	559731 - CB03-2 #1	559732 - Field Blank
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00
	Sample ID:	1837596-01	1837596-02	1837596-03	1837596-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 20-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559729 - CB14-2 #1	559730 - CB14-2 #3	559731 - CB03-2 #1	559732 - Field Blank
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00
	Sample ID:	1837596-01	1837596-02	1837596-03	1837596-04
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	108%	108%	101%	99.6%
Dibromofluoromethane	Surrogate	97.4%	96.9%	98.2%	96.6%
Toluene-d8	Surrogate	108%	108%	109%	108%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 20-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559733 - CB03-2 #2	559734 - CB03-2 #2B	559735 - CB03-1 #1	559736 - CB03-1 #1B
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00
	Sample ID:	1837596-05	1837596-06	1837596-07	1837596-08
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	5.5	5.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	99.6	96.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	0.6	0.6
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	21.0	21.4
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	0.9	0.8	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	274	259	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	3.3	2.6	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	277	262	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	0.7	0.8
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 20-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559733 - CB03-2 #2	559734 - CB03-2 #2B	559735 - CB03-1 #1	559736 - CB03-1 #1B
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00
	Sample ID:	1837596-05	1837596-06	1837596-07	1837596-08
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	1.7	1.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	2.8	3.0
Vinyl chloride	0.5 ug/L	1.2	1.3	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	33.4	33.6
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	33.4	33.6
4-Bromofluorobenzene	Surrogate	93.5%	98.1%	77.8%	82.7%
Dibromofluoromethane	Surrogate	98.6%	97.6%	96.7%	95.1%
Toluene-d8	Surrogate	106%	105%	99.1%	106%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 20-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559737 - CB03-1 #2	559738 - MW-04	559739 - MW-05	559740 - Trip Blank
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/06/2018 00:00
	Sample ID:	1837596-09	1837596-10	1837596-11	1837596-12
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	12.4	5.2	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	14.6	19.6	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	7.3	2.2	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	0.8	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	71.2	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	71.2	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583374

Report Date: 20-Sep-2018
Order Date: 14-Sep-2018
Project Description: City of Barrie

	Client ID:	559737 - CB03-1 #2	559738 - MW-04	559739 - MW-05	559740 - Trip Blank
	Sample Date:	09/13/2018 00:00	09/13/2018 00:00	09/13/2018 00:00	09/06/2018 00:00
	Sample ID:	1837596-09	1837596-10	1837596-11	1837596-12
	MDL/Units	Water	Water	Water	Water
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	0.6	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	0.7	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	0.9	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	1.9	1.7	<0.5
Vinyl chloride	0.5 ug/L	1.2	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	5.4	0.9	<0.5
o-Xylene	0.5 ug/L	<0.5	0.8	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	6.1	0.9	<0.5
4-Bromofluorobenzene	Surrogate	105%	79.6%	89.0%	104%
Dibromofluoromethane	Surrogate	98.1%	97.6%	99.0%	103%
Toluene-d8	Surrogate	111%	104%	110%	108%

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroethane	ND	1.0	ug/L						
Chloroform	ND	0.5	ug/L						
Chloromethane	ND	3.0	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dibromoethane	ND	0.2	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloroethylene, total	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,2,4-Trichlorobenzene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
1,3,5-Trimethylbenzene	ND	0.5	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*80.6*		*ug/L*		*101*	*50-140*			
Surrogate: Dibromofluoromethane	*69.6*		*ug/L*		*87.0*	*50-140*			
Surrogate: Toluene-d8	*84.4*		*ug/L*		*105*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND				30	
Benzene	ND	0.5	ug/L	ND				30	
Bromodichloromethane	ND	0.5	ug/L	ND				30	
Bromoform	ND	0.5	ug/L	ND				30	
Bromomethane	ND	0.5	ug/L	ND				30	
Carbon Tetrachloride	ND	0.2	ug/L	ND				30	
Chlorobenzene	ND	0.5	ug/L	ND				30	
Chloroethane	ND	1.0	ug/L	ND				30	
Chloroform	ND	0.5	ug/L	ND				30	
Chloromethane	ND	3.0	ug/L	ND				30	
Dibromochloromethane	ND	0.5	ug/L	ND				30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND				30	
1,2-Dibromoethane	ND	0.2	ug/L	ND				30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,1-Dichloroethane	ND	0.5	ug/L	ND				30	
1,2-Dichloroethane	ND	0.5	ug/L	ND				30	
1,1-Dichloroethylene	1.15	0.5	ug/L	1.30			12.2	30	
cis-1,2-Dichloroethylene	136	0.5	ug/L	103			27.6	30	GEN-14
trans-1,2-Dichloroethylene	6.52	0.5	ug/L	5.82			11.3	30	
1,2-Dichloropropane	ND	0.5	ug/L	ND				30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Hexane	ND	1.0	ug/L	ND				30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND				30	
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L	ND				30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND				30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND				30	
Methylene Chloride	ND	5.0	ug/L	ND				30	
Styrene	ND	0.5	ug/L	ND				30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
Tetrachloroethylene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
1,2,4-Trichlorobenzene	ND	0.5	ug/L	ND				30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND				30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND				30	
Trichloroethylene	482	0.5	ug/L	337			35.4	30	GEN-14
Trichlorofluoromethane	ND	1.0	ug/L	ND				30	
1,3,5-Trimethylbenzene	ND	0.5	ug/L	ND				30	
Vinyl chloride	0.74	0.5	ug/L	0.94			23.8	30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: 4-Bromofluorobenzene	*84.8*		*ug/L*		*106*	*50-140*			
Surrogate: Dibromofluoromethane	*72.0*		*ug/L*		*90.0*	*50-140*			
Surrogate: Toluene-d8	*86.8*		*ug/L*		*109*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	117	5.0	ug/L		117	50-140			
Benzene	34.0	0.5	ug/L		84.9	60-130			
Bromodichloromethane	34.0	0.5	ug/L		85.0	60-130			
Bromoform	39.0	0.5	ug/L		97.4	60-130			
Bromomethane	26.8	0.5	ug/L		67.0	50-140			
Carbon Tetrachloride	35.2	0.2	ug/L		87.9	60-130			
Chlorobenzene	34.0	0.5	ug/L		85.0	60-130			
Chloroethane	32.2	1.0	ug/L		80.5	50-140			
Chloroform	34.0	0.5	ug/L		85.0	60-130			
Chloromethane	30.9	3.0	ug/L		77.3	50-140			
Dibromochloromethane	36.8	0.5	ug/L		91.9	60-130			
Dichlorodifluoromethane	31.4	1.0	ug/L		78.6	50-140			
1,2-Dibromoethane	31.2	0.2	ug/L		78.0	60-130			
1,2-Dichlorobenzene	31.3	0.5	ug/L		78.2	60-130			
1,3-Dichlorobenzene	32.0	0.5	ug/L		79.9	60-130			
1,4-Dichlorobenzene	30.8	0.5	ug/L		77.0	60-130			
1,1-Dichloroethane	34.0	0.5	ug/L		85.0	60-130			
1,2-Dichloroethane	35.8	0.5	ug/L		89.4	60-130			
1,1-Dichloroethylene	36.4	0.5	ug/L		91.1	60-130			
cis-1,2-Dichloroethylene	31.9	0.5	ug/L		79.7	60-130			
trans-1,2-Dichloroethylene	38.1	0.5	ug/L		95.3	60-130			
1,2-Dichloropropane	30.3	0.5	ug/L		75.8	60-130			
cis-1,3-Dichloropropylene	30.9	0.5	ug/L		77.3	60-130			
trans-1,3-Dichloropropylene	34.3	0.5	ug/L		85.8	60-130			
Ethylbenzene	31.2	0.5	ug/L		78.0	60-130			
Hexane	48.4	1.0	ug/L		121	60-130			
Methyl Ethyl Ketone (2-Butanone)	83.3	5.0	ug/L		83.3	50-140			
Methyl Butyl Ketone (2-Hexanone)	73.8	10.0	ug/L		73.8	50-140			
Methyl Isobutyl Ketone	71.2	5.0	ug/L		71.2	50-140			
Methyl tert-butyl ether	81.5	2.0	ug/L		81.5	50-140			
Methylene Chloride	45.1	5.0	ug/L		113	60-130			
Styrene	28.4	0.5	ug/L		71.0	60-130			
1,1,1,2-Tetrachloroethane	36.7	0.5	ug/L		91.8	60-130			
1,1,2,2-Tetrachloroethane	31.3	0.5	ug/L		78.3	60-130			
Tetrachloroethylene	37.5	0.5	ug/L		93.8	60-130			
Toluene	33.0	0.5	ug/L		82.4	60-130			
1,2,4-Trichlorobenzene	24.7	0.5	ug/L		61.8	60-130			
1,1,1-Trichloroethane	34.6	0.5	ug/L		86.6	60-130			
1,1,2-Trichloroethane	31.1	0.5	ug/L		77.8	60-130			
Trichloroethylene	33.4	0.5	ug/L		83.4	60-130			
Trichlorofluoromethane	37.7	1.0	ug/L		94.2	60-130			
1,3,5-Trimethylbenzene	36.2	0.5	ug/L		90.6	60-130			
Vinyl chloride	31.2	0.5	ug/L		78.0	50-140			
m,p-Xylenes	69.6	0.5	ug/L		87.0	60-130			
o-Xylene	35.3	0.5	ug/L		88.2	60-130			
Surrogate: 4-Bromofluorobenzene	*76.4*		*ug/L*		*95.6*	*50-140*			

Qualifier Notes:

Login Qualifiers :

Sample not received in Paracel verified container / media

Applies to samples: 559729 - CB14-2 #1, 559730 - CB14-2 #3, 559731 - CB03-2 #1, 559732 - Field , 559733 - CB03-2 #2, 559734 - CB03-2 #2B, 559735 - CB03-1 #1, 559736 - CB03-1 #1B, 559737 - CB03-1 #2, 559738 - MW-04, 559739 - MW-05, 559740 - Trip

QC Qualifiers :

GEN-14 : This result exceeds the calibration range of the instrument. The result may be biased.

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

E3 Laboratories Inc.
SS#4, 360 York Rd., Unit 10, Niagara-on-the-Lake, Ontario L0S 1J0
Email: info@e3labs.ca
Tel: (905) 641-9000, Fax: (905) 641-9001

CERTIFICATE OF ANALYSIS

Corporation of the City of Barrie
Stephanie Huyssen
272 Ferndale Drive
Barrie
L4M4T5
Tel: 705-739-4220 Fax: E-mail
Email: stephanie.huyssen@barrie.ca

Work Order No.:2583189
Received : 2018-09-12
PO Number: 88985
Reported: 2018-09-18
Project Name: GWMP
Chain of Custody No.: 37722

Client Sample ID	Sample Date	Lab ID	Parameter	Result	Unit	RDL	Date Analyzed	Method
CB14-3 #1	2018-09-11	**559224**	VOC Scan	See	Attached			Subcontracted
CB14-3 #2	2018-09-11	**559225**	VOC Scan	See	Attached			Subcontracted
CB08-1 #1	2018-09-11	**559226**	VOC Scan	See	Attached			Subcontracted
CB08-1 #2	2018-09-11	**559227**	VOC Scan	See	Attached			Subcontracted
CB12-1	2018-09-11	**559228**	VOC Scan	See	Attached			Subcontracted
CB08-2	2018-09-11	**559229**	VOC Scan	See	Attached			Subcontracted
CB03-3 #1	2018-09-11	**559230**	VOC Scan	See	Attached			Subcontracted
CB03-3 #2	2018-09-11	**559231**	VOC Scan	See	Attached			Subcontracted
CB05-2 #1	2018-09-11	**559232**	VOC Scan	See	Attached			Subcontracted
CB05-2 #2	2018-09-11	**559233**	VOC Scan	See	Attached			Subcontracted
Trip Blank	2018-09-11	**559234**	VOC Scan	See	Attached			Subcontracted
Field Blank	2018-09-11	**559235**	VOC Scan	See	Attached			Subcontracted

Reported by:

Nilou Ghazi, Ph.D.,P.Eng.
Laboratory Manager

All work has been performed using accepted testing methodologies, except where otherwise agreed to by the client in writing. Our total liability in connection with this work shall be limited to the amount paid by the client.
Results relate only to items tested.

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Certificate of Analysis

E-3 Laboratories Inc.

RR#4, 360 York Rd. Unit 10
Niagara-on-the-Lake, ON L0S 1J0
Attn: Kristy Berry

Client PO: 2583189
Project: City of Barrie
Custody:

Report Date: 18-Sep-2018
Order Date: 12-Sep-2018

Order #: 1837308

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
1837308-01	559224 - CB14-3 #1
1837308-02	559225 - CB14-3 #2
1837308-03	559226 - CB08-1 #1
1837308-04	559227 - CB08-1 #2
1837308-05	559228 - CB12-1
1837308-06	559229 - CB08-2
1837308-07	559230 - CB03-3 #1
1837308-08	559231 - CB03-3 #2
1837308-09	559232 - CB05-2 #1
1837308-10	559233 - CB05-2 #2
1837308-11	559234 - Trip Blank
1837308-12	559235 - Field Blank

Approved By: Mark Foto

Mark Foto, M.Sc.
Lab Supervisor

Any use of these results implies your agreement that our total liabilty in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583189

Report Date: 18-Sep-2018
Order Date: 12-Sep-2018
Project Description: City of Barrie

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	16-Sep-18	16-Sep-18

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583189

Report Date: 18-Sep-2018
Order Date: 12-Sep-2018
Project Description: City of Barrie

	Client ID:	559224 - CB14-3 #1	559225 - CB14-3 #2	559226 - CB08-1 #1	559227 - CB08-1 #2
	Sample Date:	09/11/2018 00:00	09/11/2018 00:00	09/11/2018 00:00	09/11/2018 00:00
	Sample ID:	1837308-01	1837308-02	1837308-03	1837308-04
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583189

Report Date: 18-Sep-2018
Order Date: 12-Sep-2018
Project Description: City of Barrie

	Client ID:	559224 - CB14-3 #1	559225 - CB14-3 #2	559226 - CB08-1 #1	559227 - CB08-1 #2
	Sample Date:	09/11/2018 00:00	09/11/2018 00:00	09/11/2018 00:00	09/11/2018 00:00
	Sample ID:	1837308-01	1837308-02	1837308-03	1837308-04
	MDL/Units	Water	Water	Water	Water
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	103%	108%	104%	108%
Dibromofluoromethane	Surrogate	95.9%	96.6%	97.6%	96.8%
Toluene-d8	Surrogate	104%	104%	105%	103%

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583189

Report Date: 18-Sep-2018
Order Date: 12-Sep-2018
Project Description: City of Barrie

	Client ID:	559228 - CB12-1	559229 - CB08-2	559230 - CB03-3 #1	559231 - CB03-3 #2
	Sample Date:	09/11/2018 00:00	09/11/2018 00:00	09/11/2018 00:00	09/11/2018 00:00
	Sample ID:	1837308-05	1837308-06	1837308-07	1837308-08
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	2.1	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	0.7	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	2.8	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583189

Report Date: 18-Sep-2018
Order Date: 12-Sep-2018
Project Description: City of Barrie

	Client ID:	559228 - CB12-1	559229 - CB08-2	559230 - CB03-3 #1	559231 - CB03-3 #2
	Sample Date:	09/11/2018 00:00	09/11/2018 00:00	09/11/2018 00:00	09/11/2018 00:00
	Sample ID:	1837308-05	1837308-06	1837308-07	1837308-08
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	11.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	105%	104%	109%	107%
Dibromofluoromethane	Surrogate	96.2%	95.9%	99.9%	96.2%
Toluene-d8	Surrogate	102%	104%	107%	106%

PARACEL LABORATORIES LTD.

Order #: 1837308

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583189

Report Date: 18-Sep-2018
Order Date: 12-Sep-2018
Project Description: City of Barrie

	Client ID:	559232 - CB05-2 #1	559233 - CB05-2 #2	559234 - Trip Blank	559235 - Field Blank
	Sample Date:	09/11/2018 00:00	09/11/2018 00:00	09/06/2018 00:00	09/11/2018 00:00
	Sample ID:	1837308-09	1837308-10	1837308-11	1837308-12
	MDL/Units	Water	Water	Water	Water
Volatiles					
Acetone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromoform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Carbon Tetrachloride	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
Chlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloroethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Chloroform	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Chloromethane	3.0 ug/L	<3.0	<3.0	<3.0	<3.0
Dibromochloromethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2 ug/L	<0.2	<0.2	<0.2	<0.2
1,2-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethylene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Hexane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl Butyl Ketone (2-Hexanone)	10.0 ug/L	<10.0	<10.0	<10.0	<10.0
Methyl Isobutyl Ketone	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Methyl tert-butyl ether	2.0 ug/L	<2.0	<2.0	<2.0	<2.0
Methylene Chloride	5.0 ug/L	<5.0	<5.0	<5.0	<5.0
Styrene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5

Certificate of Analysis
Client: E-3 Laboratories Inc.
Client PO: 2583189

Report Date: 18-Sep-2018
Order Date: 12-Sep-2018
Project Description: City of Barrie

	Client ID:	559232 - CB05-2 #1	559233 - CB05-2 #2	559234 - Trip Blank	559235 - Field Blank
	Sample Date:	09/11/2018 00:00	09/11/2018 00:00	09/06/2018 00:00	09/11/2018 00:00
	Sample ID:	1837308-09	1837308-10	1837308-11	1837308-12
	MDL/Units	Water	Water	Water	Water
1,1,1,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Tetrachloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Toluene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,2,4-Trichlorobenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichloroethylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	1.0 ug/L	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
m,p-Xylenes	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
o-Xylene	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
Xylenes, total	0.5 ug/L	<0.5	<0.5	<0.5	<0.5
4-Bromofluorobenzene	Surrogate	109%	103%	110%	109%
Dibromofluoromethane	Surrogate	95.3%	94.3%	96.9%	97.6%
Toluene-d8	Surrogate	106%	106%	104%	101%

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L						
Benzene	ND	0.5	ug/L						
Bromodichloromethane	ND	0.5	ug/L						
Bromoform	ND	0.5	ug/L						
Bromomethane	ND	0.5	ug/L						
Carbon Tetrachloride	ND	0.2	ug/L						
Chlorobenzene	ND	0.5	ug/L						
Chloroethane	ND	1.0	ug/L						
Chloroform	ND	0.5	ug/L						
Chloromethane	ND	3.0	ug/L						
Dibromochloromethane	ND	0.5	ug/L						
Dichlorodifluoromethane	ND	1.0	ug/L						
1,2-Dibromoethane	ND	0.2	ug/L						
1,2-Dichlorobenzene	ND	0.5	ug/L						
1,3-Dichlorobenzene	ND	0.5	ug/L						
1,4-Dichlorobenzene	ND	0.5	ug/L						
1,1-Dichloroethane	ND	0.5	ug/L						
1,2-Dichloroethane	ND	0.5	ug/L						
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloroethylene, total	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,2,4-Trichlorobenzene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
1,3,5-Trimethylbenzene	ND	0.5	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	*93.8*		*ug/L*		*117*	*50-140*			
Surrogate: Dibromofluoromethane	*78.5*		*ug/L*		*98.2*	*50-140*			
Surrogate: Toluene-d8	*82.6*		*ug/L*		*103*	*50-140*			

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	ND	5.0	ug/L	ND				30	
Benzene	ND	0.5	ug/L	ND				30	
Bromodichloromethane	ND	0.5	ug/L	ND				30	
Bromoform	ND	0.5	ug/L	ND				30	
Bromomethane	ND	0.5	ug/L	ND				30	
Carbon Tetrachloride	ND	0.2	ug/L	ND				30	
Chlorobenzene	ND	0.5	ug/L	ND				30	
Chloroethane	ND	1.0	ug/L	ND				30	
Chloroform	ND	0.5	ug/L	ND				30	
Chloromethane	ND	3.0	ug/L	ND				30	
Dibromochloromethane	ND	0.5	ug/L	ND				30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND				30	
1,2-Dibromoethane	ND	0.2	ug/L	ND				30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND				30	
1,1-Dichloroethane	ND	0.5	ug/L	ND				30	
1,2-Dichloroethane	ND	0.5	ug/L	ND				30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND				30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND				30	
1,2-Dichloropropane	ND	0.5	ug/L	ND				30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND				30	
Ethylbenzene	ND	0.5	ug/L	ND				30	
Hexane	ND	1.0	ug/L	ND				30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND				30	
Methyl Butyl Ketone (2-Hexanone)	ND	10.0	ug/L	ND				30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND				30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND				30	
Methylene Chloride	ND	5.0	ug/L	ND				30	
Styrene	ND	0.5	ug/L	ND				30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND				30	
Tetrachloroethylene	ND	0.5	ug/L	ND				30	
Toluene	ND	0.5	ug/L	ND				30	
1,2,4-Trichlorobenzene	ND	0.5	ug/L	ND				30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND				30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND				30	
Trichloroethylene	ND	0.5	ug/L	ND				30	
Trichlorofluoromethane	ND	1.0	ug/L	ND				30	
1,3,5-Trimethylbenzene	ND	0.5	ug/L	ND				30	
Vinyl chloride	ND	0.5	ug/L	ND				30	
m,p-Xylenes	ND	0.5	ug/L	ND				30	
o-Xylene	ND	0.5	ug/L	ND				30	
Surrogate: 4-Bromofluorobenzene	*82.0*		*ug/L*		*103*	*50-140*			
Surrogate: Dibromofluoromethane	*76.3*		*ug/L*		*95.4*	*50-140*			
Surrogate: Toluene-d8	*83.8*		*ug/L*		*105*	*50-140*			

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Volatiles									
Acetone	83.6	5.0	ug/L	ND	83.6	50-140			
Benzene	31.4	0.5	ug/L	ND	78.6	50-140			
Bromodichloromethane	41.7	0.5	ug/L	3.13	96.4	50-140			
Bromoform	48.6	0.5	ug/L	ND	121	50-140			
Bromomethane	28.8	0.5	ug/L	ND	72.1	50-140			
Carbon Tetrachloride	42.9	0.2	ug/L	ND	107	50-140			
Chlorobenzene	35.4	0.5	ug/L	ND	88.5	50-140			
Chloroethane	33.0	1.0	ug/L	ND	82.5	50-140			
Chloroform	39.9	0.5	ug/L	7.13	81.9	50-140			
Chloromethane	32.9	3.0	ug/L	ND	82.2	50-140			
Dibromochloromethane	48.2	0.5	ug/L	2.73	114	50-140			
Dichlorodifluoromethane	32.1	1.0	ug/L	ND	80.2	50-140			
1,2-Dibromoethane	33.0	0.2	ug/L	ND	82.4	50-140			
1,2-Dichlorobenzene	32.5	0.5	ug/L	ND	81.2	50-140			
1,3-Dichlorobenzene	32.7	0.5	ug/L	ND	81.8	50-140			
1,4-Dichlorobenzene	32.0	0.5	ug/L	ND	79.9	50-140			
1,1-Dichloroethane	32.8	0.5	ug/L	ND	82.0	50-140			
1,2-Dichloroethane	34.4	0.5	ug/L	ND	86.1	50-140			
1,1-Dichloroethylene	37.3	0.5	ug/L	ND	93.2	50-140			
cis-1,2-Dichloroethylene	31.4	0.5	ug/L	ND	78.4	50-140			
trans-1,2-Dichloroethylene	38.9	0.5	ug/L	ND	97.3	50-140			
1,2-Dichloropropane	29.9	0.5	ug/L	ND	74.8	50-140			
cis-1,3-Dichloropropylene	33.5	0.5	ug/L	ND	83.6	50-140			
trans-1,3-Dichloropropylene	43.6	0.5	ug/L	ND	109	50-140			
Ethylbenzene	30.7	0.5	ug/L	ND	76.8	50-140			
Hexane	30.1	1.0	ug/L	ND	75.4	50-140			
Methyl Ethyl Ketone (2-Butanone)	73.6	5.0	ug/L	ND	73.6	50-140			
Methyl Butyl Ketone (2-Hexanone)	74.3	10.0	ug/L	ND	74.3	50-140			
Methyl Isobutyl Ketone	68.1	5.0	ug/L	ND	68.1	50-140			
Methyl tert-butyl ether	65.4	2.0	ug/L	ND	65.4	50-140			
Methylene Chloride	31.1	5.0	ug/L	ND	77.8	50-140			
Styrene	31.9	0.5	ug/L	ND	79.7	50-140			
1,1,1,2-Tetrachloroethane	42.6	0.5	ug/L	ND	107	50-140			
1,1,2,2-Tetrachloroethane	38.4	0.5	ug/L	ND	96.1	50-140			
Tetrachloroethylene	38.2	0.5	ug/L	ND	95.4	50-140			
Toluene	32.1	0.5	ug/L	ND	80.2	50-140			
1,2,4-Trichlorobenzene	22.9	0.5	ug/L	ND	57.2	50-140			
1,1,1-Trichloroethane	35.7	0.5	ug/L	ND	89.4	50-140			
1,1,2-Trichloroethane	31.6	0.5	ug/L	ND	79.0	50-140			
Trichloroethylene	28.6	0.5	ug/L	ND	71.5	50-140			
Trichlorofluoromethane	40.5	1.0	ug/L	ND	101	50-140			
1,3,5-Trimethylbenzene	35.5	0.5	ug/L	ND	88.7	50-140			
Vinyl chloride	30.0	0.5	ug/L	ND	75.0	50-140			
m,p-Xylenes	70.7	0.5	ug/L	ND	88.4	50-140			
o-Xylene	35.5	0.5	ug/L	ND	88.8	50-140			
Surrogate: 4-Bromofluorobenzene	*79.5*		*ug/L*		*99.4*	*50-140*			

Qualifier Notes:

None

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable
ND: Not Detected
MDL: Method Detection Limit
Source Result: Data used as source for matrix and duplicate samples
%REC: Percent recovery.
RPD: Relative percent difference.

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Barrie Drinking Water System (Ground Water)
Attn : Groundwater Supply On-Call Operator

20 Royal Parkside Dr.
Barrie, ON
L4M 0C4, Canada

Phone: 705-790-1788
Fax:pdf, excel

Works #: 220001192
Project : PO#68987 Line#6
GL#01-2610-0000-3560

17-September-2018

Date Rec. : 05 September 2018
LR Report: **CA16114-SEP18**

Copy: #1

CERTIFICATE OF ANALYSIS

Final Report

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	6: Half MAC	7: AO/OG	8: MDL	9: QC - Blank	10: QC - DUP % RPD	11: RW WPS03A-Anne	12: RW WPS05-John	13: RW WPS12-Centennial	14: RW WPS15-Centennial
Sample Date & Time											04-Sep-18 13:38	04-Sep-18 13:08	04-Sep-18 09:00	04-Sep-18 09:30
Temperature Upon Receipt [°C]	---	---	---	---	---	---	---	---	---	---	7.0	7.0	7.0	7.0
Benzene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	1	0.5	--	0.32	0.32 <MDL	NSS	0.32 <MDL	0.32 <MDL	0.32 <MDL	0.32 <MDL
Carbon tetrachloride [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	2	1	--	0.16	0.16 <MDL	NSS	0.16 <MDL	0.16 <MDL	0.16 <MDL	0.16 <MDL
1,2-Dichlorobenzene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	200	100	--	0.41	0.41 <MDL	NSS	0.41 <MDL	0.41 <MDL	0.41 <MDL	0.41 <MDL
1,4-Dichlorobenzene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	5	2.5	1	0.36	0.36 <MDL	NSS	0.36 <MDL	0.36 <MDL	0.36 <MDL	0.36 <MDL
1,1-Dichloroethylene (vinylidene chloride) [	07-Sep-18	16:28	13-Sep-18	13:21	14	7	--	0.33	0.33 <MDL	NSS	0.33 <MDL	0.33 <MDL	0.33 <MDL	0.33 <MDL
1,1-Dichloroethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
Ethylbenzene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	140	---	1.6	0.33	0.33 <MDL	NSS	0.33 <MDL	0.33 <MDL	0.33 <MDL	0.33 <MDL
Tetrachloroethylene (perchloroethylene) [u	07-Sep-18	16:28	13-Sep-18	13:21	10	5	--	0.35	0.35 <MDL	NSS	0.35 <MDL	0.35 <MDL	0.35 <MDL	0.35 <MDL
Toluene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	60	---	24	0.36	0.36 <MDL	NSS	0.36 <MDL	0.36 <MDL	0.36 <MDL	0.36 <MDL
Trichloroethylene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	5	2.5	--	0.44	0.44 <MDL	NSS	0.44 <MDL	0.44 <MDL	0.44 <MDL	0.44 <MDL
Bromodichloromethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	--	---	--	0.26	0.26 <MDL	NSS	0.26 <MDL	0.26 <MDL	0.26 <MDL	0.26 <MDL
Bromoform [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	--	---	--	0.34	0.34 <MDL	NSS	0.34 <MDL	0.34 <MDL	0.34 <MDL	0.34 <MDL
Chloroform [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	--	---	--	0.29	0.29 <MDL	NSS	0.29 <MDL	0.29 <MDL	0.29 <MDL	0.29 <MDL
Dibromochloromethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	--	---	--	0.37	0.37 <MDL	NSS	0.37 <MDL	0.37 <MDL	0.37 <MDL	0.37 <MDL
Vinyl Chloride [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	1	0.5	--	0.17	0.17 <MDL	NSS	0.17 <MDL	0.17 <MDL	0.17 <MDL	0.17 <MDL
Xylene (total) [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	90	---	20	0.43	---	---	0.43 <MDL	0.43 <MDL	0.43 <MDL	0.43 <MDL
m/p-xylene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	--	---	--	0.43	0.43 <MDL	NSS	0.43 <MDL	0.43 <MDL	0.43 <MDL	0.43 <MDL
o-xylene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	--	---	--	0.17	0.17 <MDL	NSS	0.17 <MDL	0.17 <MDL	0.17 <MDL	0.17 <MDL
1,1,1-Trichloroethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
1,1,1,2-Tetrachloroethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL

OnLine LMS

00015103968

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Test method information available upon request. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

SGS Canada Inc.
P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 220001192
Project : PO#68987 Line#6
LR Report : GL#01-2610-0000-3560 CA16114-SEP18

Analysis	1: Analysis Start Date	2: Analysis Start Time	3: Analysis Completed Date	4: Analysis Completed Time	5: MAC	6: Half MAC	7: AO/OG	8: MDL	9: QC - Blank	10: QC - DUP % RPD	11: RW WPS03A-Anne	12: RW WPS05-John	13: RW WPS12-Centennial	14: RW WPS15-Centennial
1,1,2-Trichloroethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
1,1,2,2-Tetrachloroethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
1,2-Dibromoethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.2	< 0.2	NSS	0.2 <MDL	0.2 <MDL	0.2 <MDL	0.2 <MDL
1,2-Dichloroethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.35	0.35 <MDL	NSS	0.35 <MDL	0.35 <MDL	0.35 <MDL	0.35 <MDL
cis-1,2-Dichloroethylene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.3	0.30 <MDL	NSS	0.3 <MDL	0.7	0.3 <MDL	2.0
trans-1,2-Dichloroethene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
1,2-Dichloropropane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
1,3-Dichlorobenzene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
cis-1,3-Dichloropropene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.3	< 0.5	NSS	0.3 <MDL	0.3 <MDL	0.3 <MDL	0.3 <MDL
trans-1,3-Dichloropropene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:21	---	---	---	0.5	< 0.5	NSS	0.46 <MDL	0.46 <MDL	0.46 <MDL	0.46 <MDL
1,3-dichloropropene (total) [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	0.5	---	---	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
1,2,4-Trimethylbenzene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL	1 <MDL	1 <MDL
1,3,5-Trimethylbenzene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	1	< 1	NSS	1 <MDL	1 <MDL	1 <MDL	1 <MDL
Acetone [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	30	< 30	NSS	30 <MDL	30 <MDL	30 <MDL	30 <MDL
Bromomethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	0.3	< 0.5	NSS	0.32 <MDL	0.32 <MDL	0.32 <MDL	0.32 <MDL
Monochlorobenzene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	0.3	0.30 <MDL	NSS	0.3 <MDL	0.3 <MDL	0.3 <MDL	0.3 <MDL
Chloroethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	1	< 5	NSS	1 <MDL	1 <MDL	1 <MDL	1 <MDL
Chloromethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	1	< 5	NSS	1 <MDL	1 <MDL	1 <MDL	1 <MDL
Dichlorodifluoromethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	2	< 2	NSS	2 <MDL	2 <MDL	2 <MDL	2 <MDL
Dichloromethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	0.35	0.35 <MDL	NSS	0.35 <MDL	0.35 <MDL	0.35 <MDL	0.35 <MDL
Styrene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
Trichlorofluoromethane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23	---	---	---	0.5	< 5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
1,2,4-Trichlorobenzene [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23				0.5	< 0.5	NSS	0.5 <MDL	0.5 <MDL	0.5 <MDL	0.5 <MDL
n-Hexane [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23				1	< 1	NSS	1 <MDL	1 <MDL	1 <MDL	1 <MDL
Methyl Isobutyl Ketone [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23				20	< 20	NSS	20 <MDL	20 <MDL	20 <MDL	20 <MDL
Methyl ethyl ketone [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23				20	< 20	NSS	20 <MDL	20 <MDL	20 <MDL	20 <MDL
Methyl-t-butyl Ether [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23				0.7	0.70 <MDL	NSS	0.7 <MDL	0.7 <MDL	0.7 <MDL	0.7 <MDL
2-Hexanone [ug/L]	07-Sep-18	16:28	13-Sep-18	13:23				20	< 20	NSS	20 <MDL	20 <MDL	20 <MDL	20 <MDL

MAC - Maximum Acceptable Concentration
Half MAC - Half of the Maximum Acceptable Concentration
AO/OG - Aesthetic Objective / Operational Guideline
MDL - SGS Method Detection Limit

OnLine LIMS

0001510398

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Phone: 705-652-2000 FAX: 705-652-6365

Works #: 220001192
Project : PO#68987 Line#6
LR Report : GL#01-2610-0000-3560 CA16114-SEP18

Method Descriptions

Parameter	Units	Description	SGS Method Code
1,1,1,2-Tetrachloroethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,1,1-Trichloroethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,1,2,2-Tetrachloroethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,1,2-Trichloroethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,1-Dichloroethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,1-Dichloroethylene (vinylidene chloride)	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,2,4-Trichlorobenzene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,2,4-Trimethylbenzene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,2-Dibromoethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,2-Dichlorobenzene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,2-Dichloroethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,2-Dichloropropane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,3,5-Trimethylbenzene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,3-Dichlorobenzene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,3-dichloropropene (total)	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
1,4-Dichlorobenzene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
2-Hexanone	ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
Acetone	ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
Benzene	ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
Bromodichloromethane	ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Bromoform	ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Bromomethane	ug/L	VOC wtr - bromomethane	ME-CA-[ENV]GC-LAK-AN-004
Carbon tetrachloride	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
Chloroethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
Chloroform	ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Chloromethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
cis-1,2-Dichloroethylene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
cis-1,3-Dichloropropene	ug/L	VOC wtr - 1,3-dichloropropene	ME-CA-[ENV]GC-LAK-AN-004
Dibromochloromethane	ug/L	VOC wtr - THM	ME-CA-[ENV]GC-LAK-AN-004
Dichlorodifluoromethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
Dichloromethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
Ethylbenzene	ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
m/p-xylene	ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
Methyl ethyl ketone	ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
Methyl Isobutyl Ketone	ug/L	VOC wtr - ketones	ME-CA-[ENV]GC-LAK-AN-004
Methyl-t-butyl Ether	ug/L	VOC wtr - MtBE	ME-CA-[ENV]GC-LAK-AN-004
Monochlorobenzene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
n-Hexane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
o-xylene	ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
Styrene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
Tetrachloroethylene (perchloroethylene)	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
Toluene	ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004
trans-1,2-Dichloroethene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
trans-1,3-Dichloropropene	ug/L	VOC wtr - 1,3-dichloropropene	ME-CA-[ENV]GC-LAK-AN-004

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0001510398

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P.O. Box 4300 - 185 Concession St.
Lakefield - Ontario - KOL 2HO
Phone: 705-652-2000 FAX: 705-652-6365

Works #: 220001192
Project : PO#68987 Line#6
LR Report : GL#01-2610-0000-3560 ~~CA16114-SEP18~~

Parameter	Units	Description	SGS Method Code
Trichloroethylene	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
Trichlorofluoromethane	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
Vinyl Chloride	ug/L	VOC wtr	ME-CA-[ENV]GC-LAK-AN-004
Xylene (total)	ug/L	VOC wtr - BTEX	ME-CA-[ENV]GC-LAK-AN-004

Patti Stark
Project Specialist Environmental Services, Analytical

OnLine LIMS

0001510398

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Appendix G
Aerial Photo Summary

Year	Source	Scale	Notes
1946	NAPL	1:3,000	The central portion of the Site appears to be developed and the south portion appears to be densely vegetated. Due to the quality of the image, further description is not possible. The local road network is present with Bradford Street immediately east of the Site and Sanford to the west. Surrounding properties appear to consist largely of residential developments with the exception of the abutting property to the southeast and directly east of the Site, east of Bradford Street, which appear to be commercial/industrial developments. The abutting property to the southwest is undeveloped.
1955	NAPL	1:3,000	The Site appears to be further developed with the dense vegetation observed in the 1946 photo, no longer present. Due to the quality of the image, further description is not possible. Further development appears to be occurring southeast of the Site along Bradford Street.
1967	NAPL	1:2,500	The Site appears to be developed with two buildings, a commercial style building and a smaller building, inferred to be a dwelling, on the central portion of the Site. The north portion of the Site appears to be used for outdoor storage. Surrounding properties are developed with commercial/industrial style buildings to the south and east of Bradford Street and dwellings to the north and west.
1989	Simcoe	1:2,000	The Site and surrounding properties are relatively unchanged from the 1967 photo. The property east of the Site, east of Bradford Street, has been redeveloped and the property southwest of the Site appears to have been developed with multi-unit residential.
1997	Simcoe	1:1,500	The Site and surrounding properties are similar to the 1989 photo. The stream south of the Site is visible entering a culvert prior to a developed property along the west side of Bradford Street.
2002	Simcoe	1:2,000	The Site and surrounding properties are relatively unchanged from the 1997 photo.

Year	Source	Scale	Notes
2008	Simcoe	1:2,000	The Site and surrounding properties are similar to the 2002 photo. A building has been demolished on a property south of the Site and further development appears to be occurring on the property east of Bradford Street.
2013	Simcoe	1:2,000	The Site is now vacant and undeveloped. Surrounding properties are similar to 2008. Further development has occurred on the property east of Bradford Street and the stream south of the Site is now an open channel where a building had previously been.

NAPL – National Air Photo Library
Simcoe – County of Simcoe online GIS

Appendix H
Photographs



Photo 1 Looking southwest toward the Site from Bradford Street.



Photo 2 Looking east at the southeast portion of the Site.



Photo 3 Looking north at the retaining wall along the northeast property boundary of the Site.



Photo 4 Looking southwest at the southwest portion of the Site that extends to Sanford Street.



Photo 5 Looking north at the densely vegetated north portion of the Site.



Photo 6 Looking west at commercial and residential properties north of the Site along Bradford Street.



Photo 7 Looking southwest at the commercial property adjacent to the south of the Site.



Photo 8 The aboveground storage tank observed on adjacent property south of the Site.



Photo 9 Looking north at the residential properties west of the Site along Sanford Street.



Photo 10 Looking east at the wastewater treatment facility east of the Site.