STRIK BALDINELLI MONIZ
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1599 Adelaide St. N., Unit 301
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KITCHENER LOCATION
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sbm@sbmltd.ca

1000585742 Ontario Inc.
69 Hunt Club Drive
London, Ontario, N6H 3Y4

12 April 2024
SBM-23-2453

Attn: Todd Bond

Re: **Servicing Feasibility Study**
Proposed Stacked Townhouse Development
24546 Adelaide Road, Strathroy, Ontario

1. INTRODUCTION

This Servicing Feasibility Study (Study) has been prepared by Strik, Baldinelli, Moniz Ltd. (SBM) for 1000585742 Ontario Inc. to address the servicing feasibility for the proposed 0.43 ha stacked townhouse development located at 24546 Adelaide Road, Strathroy.

The site abuts residential lands to the north, a low-density residential dwelling and agriculture lands to the east, Adelaide Road Right-Of-Way (ROW) to the south, and commercial lands to the west. It is our understanding that the proposed development is to include two (2) three and a half storey townhouse buildings (32 units total) with associated parking areas and common amenity spaces. See the proposed Concept Plan by Siv-ik Planning & Design Inc. dated January 16, 2024, provided in Appendix A.

This Study is to determine the adequacy of the existing Municipality of Strathroy-Caradoc services in support of Official Plan Amendment (OPA) and Zoning By-Law Amendment (ZBA) application for the proposed development.

Design requirements have been based on the Municipality of Strathroy-Caradoc Servicing Standards (MSCSS), dated October 2021, the Ministry of the Environment, Conservation and Parks (MECP) design guidelines, and the current edition of the Ontario Building Code (OBC).

2. WATER SERVICING

According to the Municipality's record drawing "Adelaide Road from 0+680.183N to 1+050.183N", prepared by Development Engineering dated April 13, 1999, there is an existing 400 mm PVC watermain in the Adelaide Road ROW. There is one existing 25 mm water service to the proposed site shown on the record drawing, which will not be adequate to service the proposed 32 units therefore it will need to be decommissioned and replaced with a larger service to be designed as part of the Site Plan Approval process.

2.1 Domestic Water Supply

The maximum hour domestic demand, as per the MSCSS for a population of 77 people (32 units at 2.4 people per unit per Section 4.3.2 of the MSCSS) is 1.74 L/s. See the domestic water demand calculations provided in Appendix B.

2.2 Water Supply for Fire Protection

Section 4.3.2 of the MSCSS requires the minimal residual pressure during Maximum Day plus Fire scenario to be not less than 140 kPa (20 psi) at any location in the water distribution system.

Since the proposed buildings are Part 9 per the OBC, a sprinkler system is not required for the proposed buildings and therefore fire-fighting demand is determined as per OBC Vol-2, Section A-3.2.5.7. The calculations, provided in Appendix B, were based on the most conservative building (20-unit stacked townhouse) and result in a required fire flow rate of 3600 L/min which was combined with the maximum day domestic demand of 46.8 L/min to obtain the required supply fire flow + maximum day demand of 3647 L/min.

A fire hydrant test was performed at the municipal hydrant fronting the property by Northern Sprinkler Design dated March 28, 2024, provided in Appendix B. The flow test results show that the static pressure of the water distribution system in the area is 399.9 kPa (58 psi) and the residual pressures are 372.32 kPa (54 psi) and 393.00 kPa (57 psi) at test flow rates of 5806 L/min (1534 USGPM) and 3758 L/min (993 USGPM), respectively.

Upon review of the hydrant flow test results and using linear interpolation of the residual pressure readings at the provided flow rates from the hydrant at the corner of Caradoc Street and Carroll Street, there is sufficient pressure within the system. At the required maximum day plus fire-flow demand rate of 3647 L/min, the residual pressure in the system would be approximately 56.04 psi (386.39 kPa) which exceeds the minimum required pressure of 20 psi (140 kPa) in fire-flow scenarios. Please refer to the calculations provided in Appendix B.

According to the Municipality's record drawing "Adelaide Road from 0+680.183N to 1+050.183N", prepared by Development Engineering dated April 13, 1999, there is an existing hydrant fronting the property available to provide fire flows to the proposed development.

2.3 Water Supply Conclusions

Since there is sufficient water supply for the fire-flow plus maximum day demand of 60.8 L/s (3647 L/min) with residual pressure greater than 40 psi, as demonstrated in Section 2.2, and the peak hour domestic demand of 1.74 L/s is less than the fire-flow plus maximum day demand, it can be concluded that adequate water supply for the proposed development is available from the municipal system.

3. SANITARY SERVICING

As per the Municipality's record drawing "Plan and Profile of Adelaide Road from Sta. 2+590 to Sta. 2+740", prepared by B. M. Ross and Associates Limited dated July 30, 2008, the site is tributary to the 250 mm sanitary sewer in the Adelaide Road ROW with a sanitary PDC (size unknown) currently servicing the site. The existing sanitary PDC will need to be investigated to determine size, invert elevations, and slope so that it can be evaluated to determine suitability to service the proposed development. If found to be inadequate, it will be required to be capped at the property line and a new sanitary PDC shall be installed.

The proposed flows from the subject property are shown on the Sanitary Sewer Design Sheet provided in Appendix C. Using a flow of 300 L/capita/day and a population of 77 people (32 units at 2.4 people per unit) as per the MSCSS results in an anticipated peak sanitary flow of 1.26 L/s. When combined with infiltration, this results in a total peak flow of 1.29 L/s. A private drain connection of a minimum diameter of 200 mm with a minimum slope of 1% is required which has sufficient capacity of 32.82 L/s to convey the proposed flows.

4. STORM SERVICING AND STORMWATER MANAGEMENT

As per the email received from Maria F. Camacho (Municipality of Strathroy-Caradoc) on November 20, 2023, there is no existing storm sewer in the Adelaide Road ROW.

As shown on the Preliminary Infiltration Calculations provided in Appendix D, the post development runoff coefficient is 0.62 for the proposed development which is greater than the pre-development runoff coefficient of 0.23. An infiltration trench is proposed to receive all post-development flows for the 2-year through 100-year storm events. Adequate storage will be provided underground for the minor storm event, while storage requirements exceeding the minor storm will be provided via temporary surface ponding in the parking lot and/or landscape areas. The Phase I&II Environmental Site Assessment (Project No.: LON-00016790-EN) prepared by EXP Services Inc., dated February 1, 2019 (provided in Appendix E) concludes that the site's subsurface generally consists of sand and gravel fill and/or sand fill, overlying native sand with a non-geodetic groundwater elevation of 96.28m, approximately 2.63m below existing ground surface. The infiltration trench

is to be constructed 1.0m minimum above the groundwater elevation as per the MECP design guidelines. An infiltration rate of 15mm/hr was assumed based on SBM's experience with a nearby site with similar soil conditions. A site-specific geotechnical investigation is recommended as part of the detailed design.

The trench stone depth was set as 1.5m. Based on storage requirements, the trench area was set as 315.0m^2. Please refer to Conceptual Storm Servicing Drawing by SBM, provided in Appendix D. The design of the infiltration trench will be confirmed through detailed design at the time of Site Plan Approval. The 250-year storm event will be safely conveyed overland generally matching the existing conditions of the site.

5. SUMMARY

Based on the above, the existing municipal infrastructure and proposed site services have sufficient capacity to accommodate the proposed townhouse development of the 0.43 ha subject site located at 24546 Adelaide Road, Strathroy.

6. LIMITATIONS

This Study was prepared by SBM for 1000585742 Ontario Inc. (owner), the Municipality of Strathroy-Caradoc, and the County of Middlesex. Use of this Study by any third party, or any reliance upon its findings, is solely the responsibility of that party. SBM accepts no responsibility for damages, if any, suffered by a third party as a result of decisions made or actions undertaken as a result of this Study. Third party use of this Study, without the express written consent of the Consultant, denies any claims, whether in contract, tort, and/or any other cause of action in law, against the Consultant.

All findings and conclusions presented in this Study are based on site conditions as they appeared in the information presented to SBM and related to in this document. This Study is not intended to be exhaustive in scope, or to imply a risk-free development. It should be recognized that the passage of time may alter the opinions, conclusions, and recommendations provided herein, as well as any changes in the layout of the development.

The design was limited to the documents referenced herein and SBM accepts no responsibility for the accuracy of the information provided by others. All designs and recommendations presented in this Study are based on the information available at the time of the review.

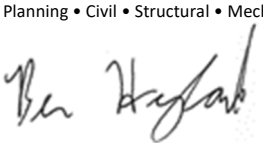
7. CLOSURE

We trust this Study meets your satisfaction. Should you have any questions or require further information, please do not hesitate to contact us.

Respectfully submitted,

Strik, Baldinelli, Moniz Ltd.

Planning • Civil • Structural • Mechanical • Electrical



Ben Hyland, P.Eng., PMP
Civil Team Lead, Eng. IV
Associate I

Cloe Maw, EIT
Civil Engineering Trainee I

List of Appendices

Appendix A:	Concept Plan by Siv-ik Planning & Design Inc. dated January 16, 2024
	Municipality record drawing “Adelaide Road from 0+680.183N to 1+050.183N”
	Municipality record drawing “Plan and Profile of Adelaide Road from Sta. 2+590 to Sta. 2+740”
Appendix B:	Domestic Water Demand Calculations
	Fire Hydrant Flow Test Results by Northern Sprinkler Design dated March 28, 2024
	Fire Flow Calculations (as per OBC Div. B A-3.2.5.7.)
Appendix C:	Sanitary Service Design Sheet
Appendix D:	Preliminary Infiltration Calculations
	Conceptual Storm Servicing Drawing
Appendix E:	Phase I&II Environmental Site Assessment by EXP dated February 1, 2019 (Project No.: LON-00016790-EN)

APPENDIX A

Concept Plan by Siv-ik Planning & Design Inc. dated January 16, 2024

Municipality record drawing “Adelaide Road from 0+680.183N to 1+050.183N”

Municipality record drawing “Plan and Profile of Adelaide Road from Sta. 2+590 to Sta. 2+740”

CONCEPT PLAN

01 DWG

PROJECT SITE
24546 Adelaide Road

SITE DATA

R3 ZONE

Regulations	Required	Proposed
Permitted Uses:	Section 7.2	Multiple-unit Dwelling
	100 m^2 for first 6 units & 15 m^2 for each unit thereafter (min.)	
Lot Area (per unit):	Total Required: 990m^2	4,252.68m^2
Lot Frontage (per unit):	20.0m (min.)	69.8m
Front Yard:	4.5m (min.)	4.5m
Side Yard:	2.0m (min.)	West: 2.0m East: 34.5m
Rear Yard:	10.0m (min.)	6.0m*
Landscape OS:	30% (min.)	40%
Lot Coverage:	45% (max.)	17.4%
Height:	N/A	12.0m
Density:	N/A	75.25uph
Parking:	Multiple Unit: 1.5/unit Visitor Parking: 0.15/unit Total Required: 55	1.53/unit (49 total)*
Parking Coverage:	25% (max.)	36.5%*
Outdoor Common Amenity Area	20m^2 per unit (min.) Total Required: 640m^2	700m^2

* - Requires Special Provision

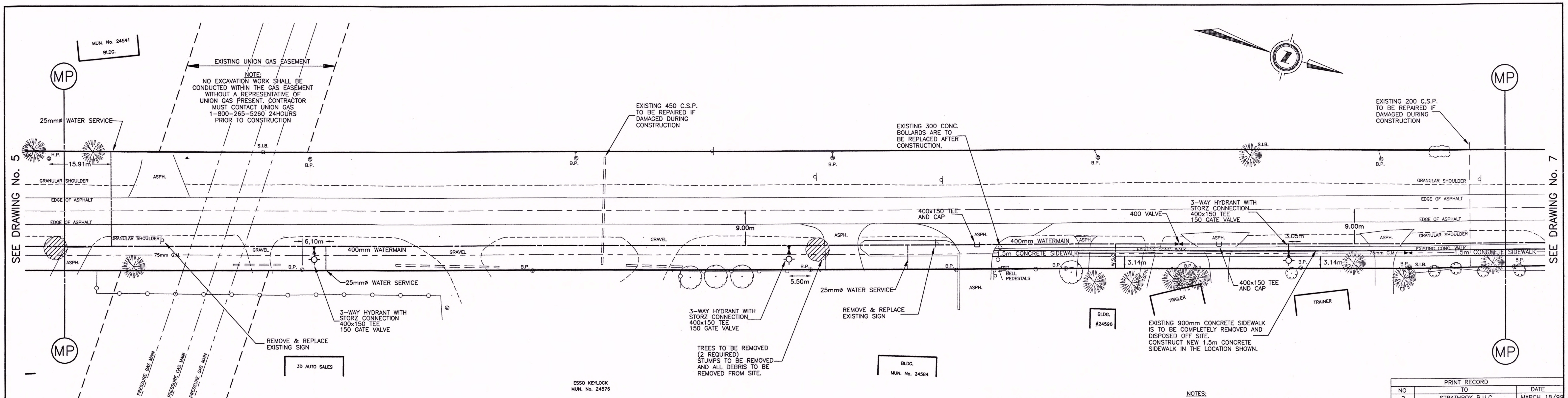
Client:	Todd Bond & Ashraf Ghadban
Date:	01/16/2024
Drawn By:	D. Murphy
Plan Scale:	nts
File No:	245646A
Version	2.0

N

[siv-ik] PLANNING / DESIGN

Contact Us
www.siv-ik.ca
info@siv-ik.ca
905.921.9029

Lot Boundary Disclaimer: *Site dimensions have been assumed based on a survey completed by Farncomb & Kirkpatrick OLS (dated 01/23/1963). Siv-ik planning and design inc. makes no warranties or guarantees regarding the accuracy of the lot boundaries.*



NOTE

1. LOCATIONS OF EXISTING UTILITIES AND SEWERS SHOWN ON THIS PLAN ARE APPROXIMATE ONLY.
2. FOR GENERAL NOTES SEE SHEET 1.
3. DISTURBED AREAS WITHIN BOULEVARD UNLESS OTHERWISE STATED, TO BE RESTORED WITH 100mm(MIN) TOPSOIL AND HYDROSEED.

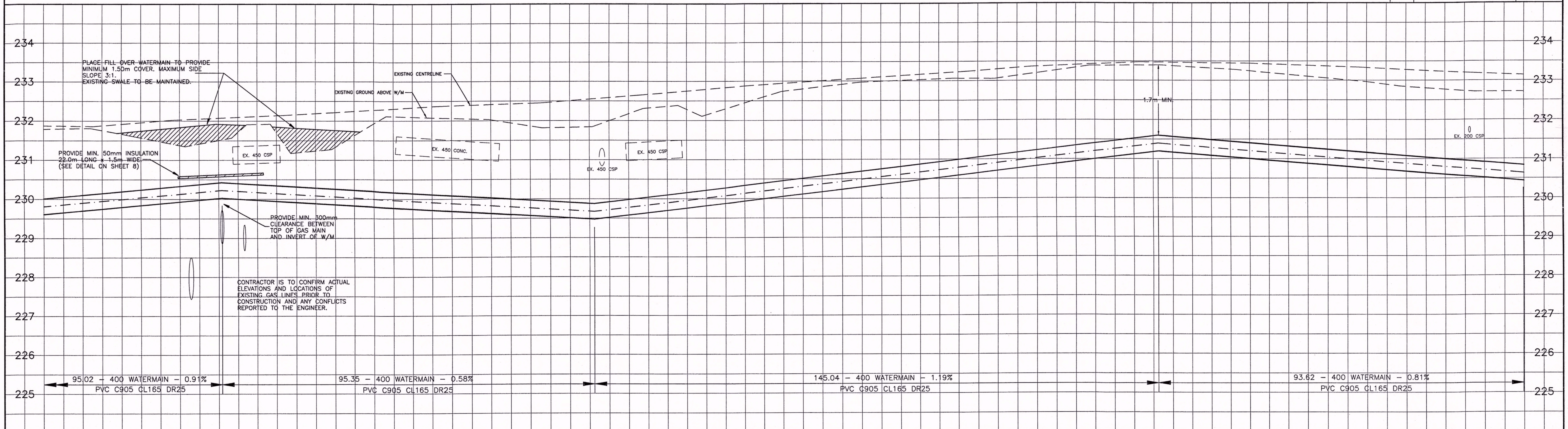
NOTES:

1. FOR GENERAL NOTES SEE SHEET No. 98096-1.
2. FOR TYPICAL CROSS SECTIONS SEE SHEET No. 98099-9.
3. RESTORATION OF ADELAIDE ROAD
   - 45mm HL3 SURFACE ASPHALT COMPACTED TO 97% MARSHALL
   - 50mm HL8 BASE ASPHALT COMPACTED TO 97% MARSHALL.
   - 150mm GRANULAR 'A' BASE COMPACTED TO 100% SPMDD
   - 600mm GRANULAR 'B' BASE COMPACTED TO 97% SPMDD
   - MILLING OF ASPHALT 40mm DEEP x 450mm WIDE.
4. RESTORATION OF GRAVEL DRIVEWAYS
   - 150mm GRANULAR 'A'
   - 300mm GRANULAR 'B'
5. RESTORATION OF ASPHALT DRIVEWAYS
   - 25mm HL3 SURFACE ASPHALT
   - 40mm HL8 BASE ASPHALT
   - 150mm GRANULAR 'A'
   - 300mm GRANULAR 'B'
6. RESTORATION OF CONCRETE DRIVEWAYS
   - 150mm CONCRETE (30 MPa)
   - 150 GRANULAR 'A'

   ALL ASPHALT AND CONCRETE SHALL BE SAWCUT PRIOR TO ITS REMOVAL.
7. ALL WATER SERVICES SHALL BE 19mmx TYPE 'K' COPPER UNLESS OTHERWISE SHOWN.

PRINT RECORD

NO	TO	DATE
2	STRATHROY P.U.C.	MARCH 18/99
1	UNION GAS	MARCH 29/99
1	BELL CANADA	MARCH 29/99
1	COUNTY OF MIDDLESEX	MARCH 29/99
1	S.C.R.C.A.	APRIL 7/99
2	STRATHROY P.U.C.	APRIL 13/99
2	M.O.E.E.	APRIL 13/99



C/L WATERMAIN ELEVATION	230.227	229.674	231.400	230.641

STORM SEWER INVERT

SANITARY SEWER INVERT

STATION: 0+690, 0+720, 0+720.864, 0+750, 0+780, 0+810, 0+816.21, 0+840, 0+870, 0+900, 0+930, 0+960, 0+961.25, 0+990, 1+020, 1+050, 1+054.87

PRINTED APR 1 3 1999

Tue Apr 13 10:15:27 1999

AS CONSTRUCTED NOTES	AS CONSTRUCTED SERVICES	COMPLETION		No.	REVISIONS	DATE	BY
1 SEE DRAWING NO. FOR FURTHER DETAIL			DESIGN TDM	1	FOR APPROVAL	APR. 1/99	TDM
2 SEWER DESIGN; TRANSITION WIDTH OR AS NOTED			DRAWN TDM, CAO				
3 REFERENCE B.M. ELEVATION			CHECKED RWC				
			APPROVED				
			DATE JAN. 13/99				
			98096-6				
			FB 719				

CONSULTANT OR DIVISION
Consulting Civil Engineers and Planners
361 Dufferin Avenue
London , Ontario N6B 1Z5
Phone (519)672-8310
Fax (519)672-4182
e-mail: deveng@wwdc.com
development engineering (London) Limited

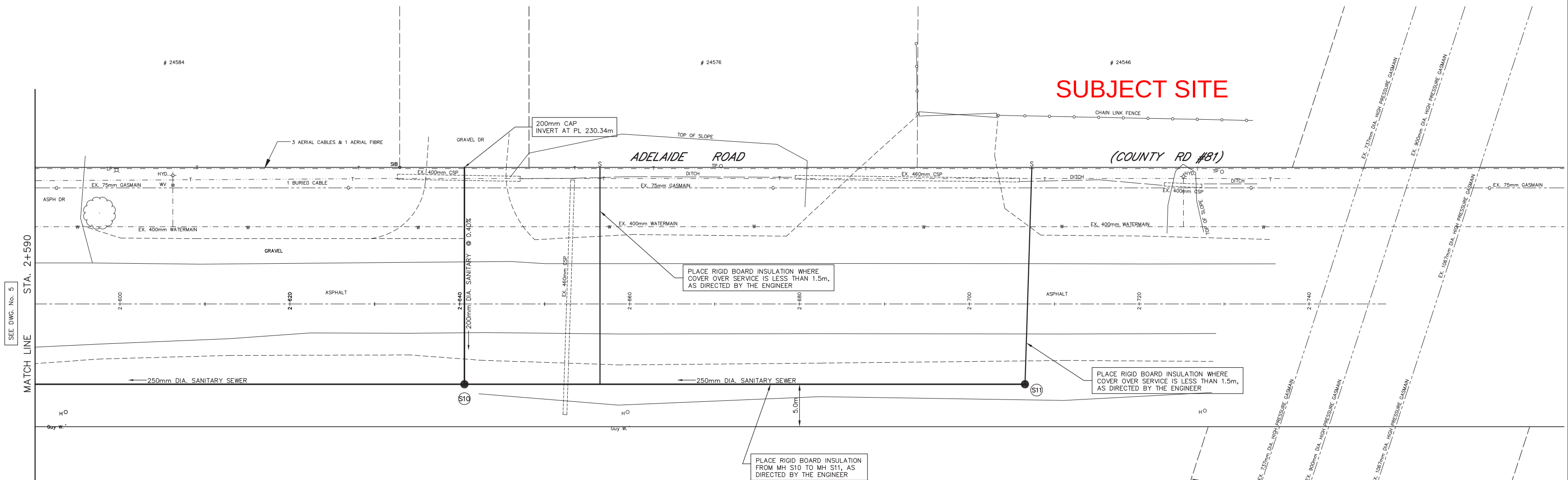
ENGINEER'S STAMP
LICENSED PROFESSIONAL ENGINEER R.W. CLARK 13/4/99 PROVINCE OF ONTARIO

STRATHROY P.U.C.
STRATHROY PUBLIC UTILITIES COMMISSION
351 Frances Street
Strathroy, Ontario
N7G 2L7
Tel: (519) 245-2010
Fax: (519) 245-5384

SCALE
1 : 500 HORIZONTAL (5 0 10m)
1 : 50 VERTICAL (0.5 0 1m)

TITLE
ADELAIDE ROAD WATERMAIN
ADELAIDE ROAD
From 0+680.183N. to 1+050.183N.

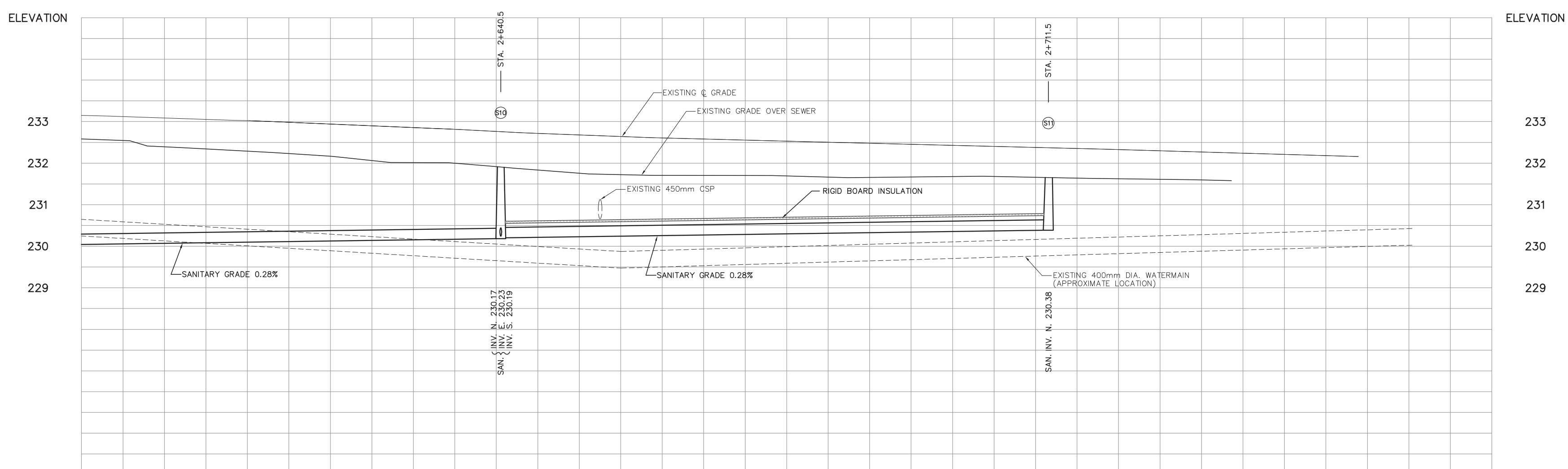
PROJECT No. 98096
SHEET No. 6 of 9
PLAN FILE No.



M.H. & C.B. DATA					
No	Station	O/S	Desc.	Grate	
S10	2+640.5	RT	701.010	401.010A	(B)
S11	2+711.5	RT	701.010	401.010A	(B)

(S) DENOTES SUMP
(B) DENOTES BENCHED

SEWER DATA				
No to No	Size	Type	Class	Length
S9–S10	250	PVC	SDR–35	83.5
S10–S11	250	PVC	SDR–35	66.0



FINISHED ASPHALT GRADE	232.581	232.394	232.289	232.167	232.013	231.918	231.759	231.706	231.704	231.666	231.667	231.679	231.640	231.611		
EXISTING ℄ GRADE	233.151	233.089	233.024	232.942	232.858	232.765	232.680	232.608	232.557	232.506	232.456	232.405	232.354	232.297	232.239	232.182
STATION		2+600		2+620		2+640		2+660		2+680		2+700		2+720		2+740

LEGEND

SAN. or STM.	EXISTING SEWERS, SANITARY or STORM
MH. CB.	MANHOLE and CATCHBASIN
W	WATERMAIN, FIRE HYDRANT
G	GASMAIN
T	UNDERGROUND TELEPHONE
H	UNDERGROUND HYDRO
TV	UNDERGROUND T.V. CABLE
H B T H–B LT	UTILITY POLES
	GRUBBING
	REMOVE EXISTING CONC. SIDEWALK AND DRIVES
	REMOVE AND PLACE CONC. SIDEWALK AND DRIVES
	PLACE CONC. SIDEWALK AND DRIVES
	REMOVE EXISTING ASPHALT PAV'T
	PLACE HOT MIX ASPHALT (DRIVES 50mm HL-3 HOT MIX MISC.)
	REMOVE EXISTING CONC. CURB

N

NOTE

The locations of existing underground utilities are shown in an approximate way only and have not been independently verified by the owner or its representative. The contractor shall determine the exact location of all existing utilities before commencing work and agrees to be fully responsible for any damages which might be occasioned by the contractor's failure to exactly locate and preserve any and all underground utilities.

BENCHMARK INFORMATION

B.M. Elev. 233.576
CST nail and flag in north-east face of HP on sout-west side of Adelaide Road (Cty Rd 81) @ Sta. 2+525.5±

BENCHMARK INFORMATION

B.M. Elev. 232.630
Top of south bolt at the base of Traffic Signal - Light Pole at the east corner of the Canadian Tire entrance (Sta. 2+310±)

Design By: R.R.R. Checked By: R.M.C.

No.	DATE	REVISION
1.	March 5, 2008	Issued for MOE Approval
2.	May 21, 2008	Issued for Tender
3.	July 30, 2008	Issued for Construction

BMROSS engineering better communities

Goderich (519) 524-2641 Mount Forest (519) 323-2945

STRATHROY-CARADOC URBAN OPPORTUNITY · RURAL HOSPITALITY

Municipality of Strathroy-Caradoc

Adelaide Road (Cty Rd 81)

Plan and Profile of Adelaide Road from Sta. 2+590 to Sta. 2+740

Contract No. 07143	Project No. 07143
Scale Horizontal: 1 : 250 Vertical: 1 : 50	Drawing No. 6 of 6

APPENDIX B

Domestic Water Demand Calculations

Fire Hydrant Flow Test Results by Northern Sprinkler Design dated March 28, 2024

Fire Flow Calculations (as per OBC Div. B A-3.2.5.7.)

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DOMESTIC WATER DEMAND, VELOCITY, AND TURNOVER CALCULATION

DATE:	January 22, 2024
JOB No.:	SBM-23-2453
Client:	**1000585742 Ontario Inc.**
Project:	**Proposed Stacked Townhouse Development**
Location:	**24546 Adelaide Road, Strathroy, ON**

DEMAND CALCULATION

Avg. Day Demand =	250	L/day/cap
Avg. Day Demand =	0.002893519	L/s/cap
Max. Day Peaking Factor =	3.5	
Max. Hour Peaking Factor =	7.8	
Medium Density Residential =	2.4	p/unit

	Units/Area (ha)	Population	Avg. Day (L/s)	Max. Hour (L/s)	Max. Day (L/s)
Medium Density Residential	32	77	0.22	1.74	0.78
Total			**0.22**	**1.74**	**0.78**

NORTHERN SPRINKLER DESIGN

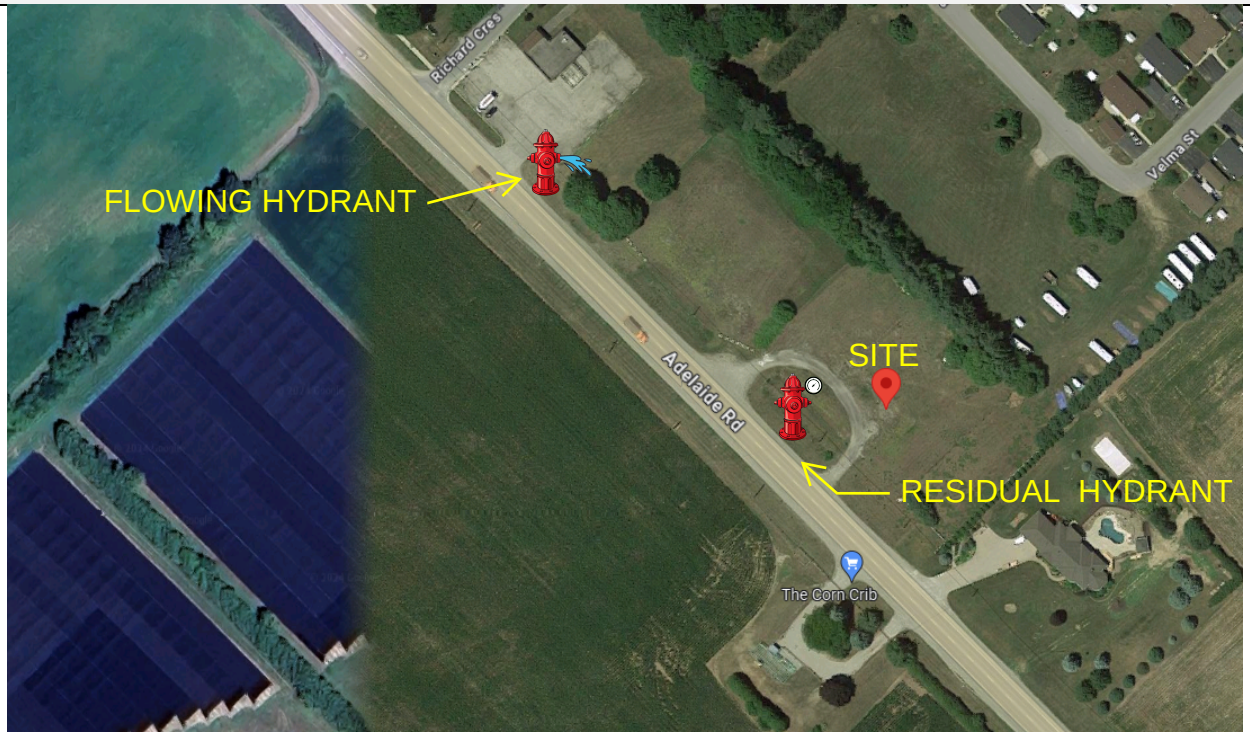
FLOW TEST REPORT

Form SD-003A RevDate: Dec 01, 2021

PROJECT INFORMATION			
Project Name:	24546 Adelaide Road Flow Test	Design Project #:	2024-NSD-020
Site Address:	24546 Adelaide Road Strathroy ON	Const. Project #:	NA
City Contact:	Lori Vander Tuin	Phone #:	519-245-1105 x270
Flow Tester:	Jon Noszenko	Phone #:	
Technical Contact:	**Andy Coghlin**	Phone #:	**519-476-0761**

SITE INFORMATION

SITE MAP



Note: If the main is a dead end, the flowing hydrant shall be closest to the dead end

ITEMS TO LABEL ON MAP	HYDRANTS USED	MAIN SIZE
☑ Static / Residual & Flow Hydrants	☑ City Hydrant(s)	City:
☐ Flow Direction (if the main is dead end)	☐ Site Hydrant(s)	Site:

SITE NOTES

445 Colborne St. London, ON N6B 2T2 northernsprinklerdesign.com 1-866-798-1154

NORTHERN SPRINKLER DESIGN

FLOW TEST REPORT

Form SD-003A RevDate: Dec 01, 2021

TEST INFORMATION			
Minimum Required Flow:	NA	Min Ports:	2
Personnel Present:	Jon Noszenko	Test Date:	2024-03-28
City / External Company:	Town of Strathroy	Test Time:	10:00am

TEST EQUIPMENT	
☐ Hose Monsters with built in Pitot	Hose length used:
☐ Hand held pitot gauge	☑ Pollard diffuser elbow with built in Pitot
☐ Other:	

TEST RESULTS

Number of Ports	Outlet Size (IN)	Discharge Coefficient	Pitot Reading (PSI)				Total Flow (GPM)	Static / Residual Pressure (PSI)
0 Ports								58
1 Port	2.5	0.9	35				993	57
2 Ports	2.5	0.9	24	18			1,534	54
3 Ports	2.5	0.9					0	
4 Ports	2.5	0.9					0	
0 Ports	**STATIC RE-CHECK**							

TEST NOTES

HYDRAULIC ADJUSTMENTS (FOR OFFICE USE ONLY)

ADJUSTMENTS FOR HYDRAULIC GRADE LINE (HGL)

Reservoir HGL (m):		Site Elevation (m):	
Theoretical Static Head (PSI):	0	PSI to subtract from test pressures:	0

OTHER HYDRAULIC ADJUSTMENTS

Other adjustment as required by the City / AHJ:	

445 Colborne St. London, ON N6B 2T2 northernsprinklerdesign.com 1-866-798-1154

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Fire-Fighting Flow (OBC A-3.2.5.7.)

	For data entry
	Calculated, not for data entry

DATE:	April 3, 2024
JOB N0.:	SBM-23-2453

Client:	**1000585742 Ontario Inc.**
Project:	**Proposed Stacked Townhouse Development**
Location:	**24546 Adelaide Road, Strathroy, ON**

$Q=K*V*S_{Tot}$

Building Classification (3.1.2.1):	C	
Type of Construction:	Combustible	
K (Table 1):	**23**	
Building Area, m^2:	480.00	
Building Height, m:	12.00	
Building Volume, m^3:	**5760.00**	

$S_{Tot} = 1.0 + (S_{side1} + S_{side2} + S_{side3} + S_{side4})$

S_{side1} (Figure 1) =	0.00	(North)
S_{side2} (Figure 1) =	0.00	(East)
S_{side3} (Figure 1) =	0.00	(South)
S_{side4} (Figure 1) =	0.00	(West)
S_{Tot} =	1.00	
S_{Tot} < or = 2, therefore S_{Tot} =	**1.00**	
Q, L =	**132480**	

Required Supply Flow Rate, L/min (Table 2) =	3600	
Maximum day domestic demand (as per separate calculation sheet)	0.78	L/sec
	46.80	L/min
Required Supply Fire Flow + Maximum Day Demand, L/min =	**3647**	

Provided Supply Flow Rate @	**58.00**	*psi (399.9 kPa) =	**0**	*L/min (0 USGPM)
	54.00	*psi (372.32 kPa) =	**5806**	*L/min (1534 USGPM)
	57.00	*psi (393 kPa) =	**3758**	*L/min (993 USGPM)
Using linear interpolation, residual pressure at hydrant =	**56.04**	*psi (386.39 kPa) =	**3647**	*L/min (963 USGPM)

*Refer to the Hydrant Flow Test by Northern Sprinkler Design dated March 28, 2024.

APPENDIX C

Sanitary Service Design Sheet

STRIK BALDINELLI sbm MONIZ
PLANNING · CIVIL · STRUCTURAL · MECHANICAL · ELECTRICAL

LONDON LOCATION
1599 Adelaide St. N., Unit 301
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Kitchener, ON N2G 1V9
P: 519-725-8093

www.sbmltd.ca sbm@sbmltd.ca

Sanitary Service Design Sheet

Residential Population Densities

(A) Area Basis

Low Density Residential	= 30 Units/hectare @ 2.4 people/unit
Medium Density Residential	**=75 Units/hectare @ 2.4 people/unit**
High Density Residential	=150-300 Units/hectare @ 1.6 people/unit

Design Parameters

Daily Flow (L/cap/day) =	300
Sewage Infiltration (Litres/hectare/day) =	6740
Harmon Formula (Peaking Factor)	
M = (1 + 14/(4+P^0.5))	
Uncertainty Factor	1.1

Date: April 11, 2024
Job Number: SBM-23-2453
Client: 1000585742 Ontario Inc.
Project: Proposed Stacked Townhouse Development
Location: 24546 Adelaide Road, Strathroy, ON
Designed By: CM
Reviewed By: BH

Location			Area						Sewage Flows				Sewer design				
Area No.	From MH	To MH	Delta Hectare	Total Hectare	People Per Unit	No. of Units	*Delta Pop.	Total Pop.	**Harmon Peaking Factor	Infilt L/S	Sewage L/S	Total L/S	n	Pipe Slope %	Dia. mm	Capacity L/S	Velocity m/s
Proposed Conditions																	
24546 Adelaide Road, Strathroy, ON	Site	Ex. Sewer	0.418	0.418	2.4	32	77	77	4.27	0.03	1.26	1.29	0.013	1.00%	200	32.82	1.04

Design Parameters per the Municipality of Strathroy-Caradoc Servicing Standards Section 2.3 dated October 2021

APPENDIX D

Preliminary Infiltration Calculations

Conceptual Storm Servicing Drawing

STRIK BALDINELLI MONIZ
PLANNING · CIVIL · STRUCTURAL · MECHANICAL · ELECTRICAL

LONDON LOCATION
1599 Adelaide St. N., Unit 301
London, ON N5X 4E8
P: 519-471-6667

KITCHENER LOCATION
132 Queen St. S. Unit 4
Kitchener, ON N2G 1V9
P: 519-725-8093

www.sbmltd.ca

sbm@sbmltd.ca

Preliminary Infiltration Calculations

DATE: April 11, 2024
JOB No.: SBM-23-2453

Client: 1000585742 Ontario Inc.
Project: Proposed Stacked Townhouse Development
Location: 24546 Adelaide Road, Strathroy, ON

***STRATHROY-CARADOC - 3 CHICAGO RAINFALL DISTRIBUTION PARAMETERS:**

Return Period (years)	A,B,C Parameters		
	A	B	C
25mm	538.85	6.331	0.809
5	1137.257	7.184	0.830
10	1425.011	7.382	0.843
25	1835.325	7.844	0.858
50	2225.884	8.620	0.871
100	2561.151	9.093	0.88
250	3048.220	10.030	0.888

**Intensity i=A/(t+B)^C (mm/hr)*

PRE-DEVELOPMENT CONDITIONS*

* Pre-Development Conditions were obtained from the Phase I & II ESA - Site Plan prepared by EXP Services Inc. dated February 2019

PRE-DEVELOPMENT OVERALL SITE

	Area (m^2)	C	A*C
Total Area:	4252.68		
Building Area:	0.00	0.9	0.000
Asphalt:	0.00	0.9	0.000
Gravel:	252.08	0.7	176.456
Landscaped/Open:	4000.60	0.2	800.120
Totals:	4252.68		976.576
C_{eq} = Sum(A*C)/Sum(A) =	0.23		

5-Year Pre-Development Flows:

C-value =	0.23	
**Time of concentration t_c =	10	min
Intensity, i (@ t_c) =	107.33	mm/hr
Pre-Development Flow, Q_t = 2.78*C*i*A =	29.14	l/s

100-Year Pre-Development Flows:

C-value =	0.23	
**Time of concentration t_c =	10	min
Intensity, i (@ t_c) =	191.10	mm/hr
Pre-Development Flow, Q_t = 2.78*C*i*A =	51.88	l/s

POST-DEVELOPMENT CONDITIONS**

** Post-Development Conditions were obtained from the Concept Site Plan prepared by Siv-ik Planning & Design Inc. dated January 16, 2024

PRE-DEVELOPMENT OVERALL SITE

	Area (m^2)	C	A*C
Total Area:	4252.68		
Building Area:	739.97	0.9	665.970
Asphalt:	1811.64	0.9	1630.478
Gravel:	0.00	0.7	0.000
Landscaped/Open:	1701.07	0.2	340.214
Totals:	4252.68		2636.662
C_{eq} = Sum(A*C)/Sum(A) =	0.62		

5-Year Pre-Development Flows:

C-value =	0.62	
**Time of concentration t_c =	10	min
Intensity, i (@ t_c) =	107.33	mm/hr
Pre-Development Flow, Q_t = 2.78*C*i*A =	78.67	l/s

100-Year Pre-Development Flows:

C-value =	0.62	
**Time of concentration t_c =	10	min
Intensity, i (@ t_c) =	191.10	mm/hr
Pre-Development Flow, Q_t = 2.78*C*i*A =	140.08	l/s

PRELIMINARY STORAGE CALCULATIONS

RAINFALL DATA:

Rainfall Data - Strathroy-Cardoc Rainfall Intensity Duration

5 Year Design Storm Event

Duration (min.)	Intensity "i" (mm/hr)	Inflow, Q_t (A201) 2.78*C*i*A (l/s)	Volume In Qt*t*60/1000 (m^3)	Allowable Release Outflow Q_o (L/s)	Exfiltration Volume (m^3)	Total Volume Out Q_o*t*60/1000 (m^3)	Difference/ Storage (m^3)
10	107.33	78.67	47.20	0.00	0.79	0.79	46.41
19	75.66	55.46	63.23	0.00	1.50	1.50	61.73
30	56.55	41.45	74.62	0.00	2.36	2.36	72.25
60	34.61	25.37	91.33	0.00	4.73	4.73	86.61
120	20.38	14.94	107.55	0.00	9.45	9.45	98.10
180	14.79	10.84	117.06	0.00	14.18	14.18	102.88
						Max. Storage Volume (m^3) =	**102.88**

100 Year Design Storm Event

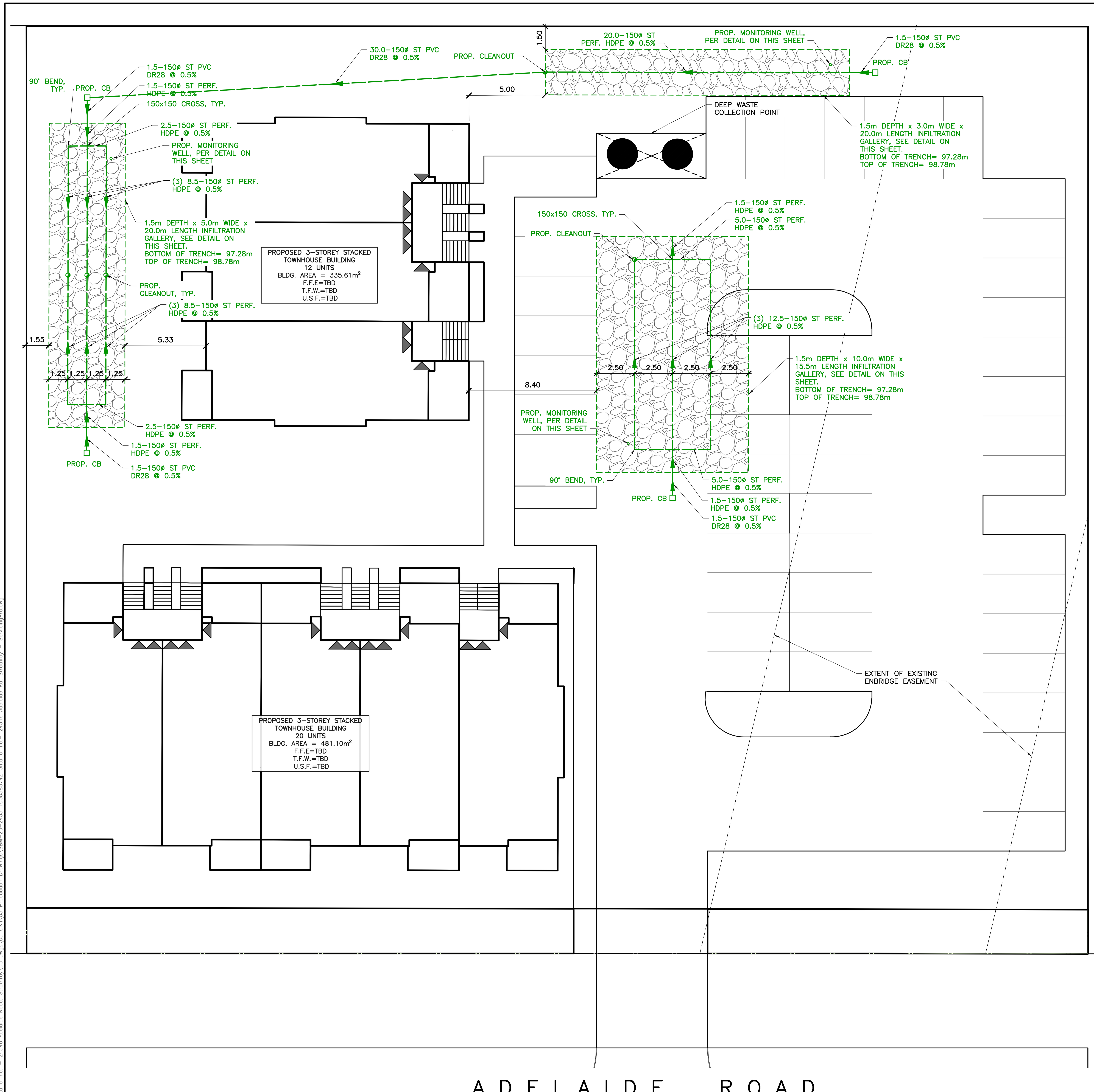
Duration (min.)	Intensity "i" (mm/hr)	Inflow, Q_t (A201) 2.78*C*i*A (l/s)	Volume In Qt*t*60/1000 (m^3)	Allowable Release Outflow Q_o (L/s)	Exfiltration Volume (m^3)	Total Volume Out Q_o*t*60/1000 (m^3)	Difference/ Storage (m^3)
10	191.10	140.08	84.05	0.00	0.79	0.79	83.26
19	136.04	99.72	113.68	0.00	1.50	1.50	112.18
30	101.72	74.56	134.20	0.00	2.36	2.36	131.84
60	61.62	45.17	162.61	0.00	4.73	4.73	157.88
120	35.55	26.06	187.62	0.00	9.45	9.45	178.17
180	25.41	18.62	201.13	0.00	14.18	14.18	186.96
						Max. Storage Volume (m^3) =	**186.96**

INFILTRATION TRENCH PARAMETERS:

Approximate Groundwater Elevation=	96.28	m	*(Borehole 7 from Phase I&II Environmental Site Assessment by EXP dated Febraury 1, 2019 - LON-00016790-EN)*
Bottom of Trench Elevation=	97.28	m	*(1.0m above groundwater elevation)*
Top of Trench=	98.78	m	*(Min. 1.22m frost cover to be provided to top of stone)*
Stone Depth (min)=	1.50	m	
Stone Area=	315.00	m^2	
19mm Washed Stone Void Ratio=	0.4	(assume 0.4)	
*Infiltration rate=	15.00	mm/hr	*(Assumed, to be confirmed via site-specific geotechnical investigation prior to detailed design)*
Infiltration Rate (Units Conversion) =	4.17E-06	m/s	
Total Storage of Crushed Stone=	189.00	m^3	
Contact Area to Soil (Bottom)=	315.00	m^2	**(Note: Contact area includes bottom of trench only per MECP SWMPDM Section 4.5.8)**

INFILTRATION RATE CALCULATIONS:

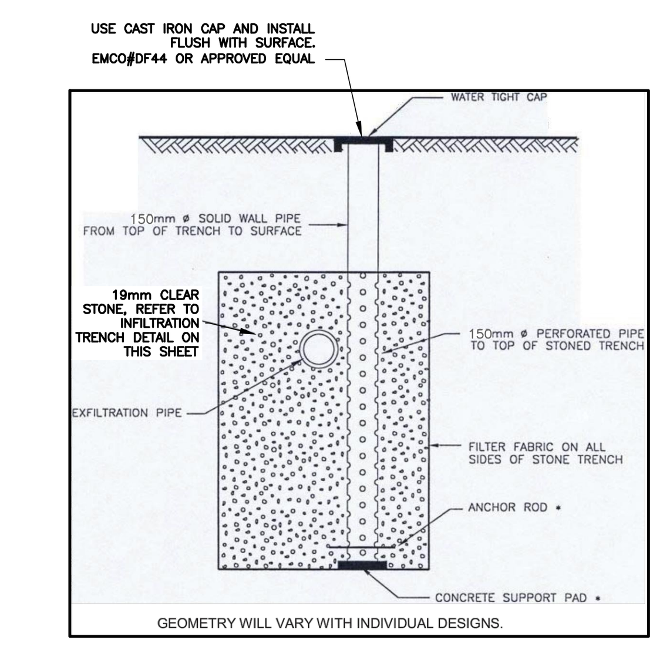
A=	315.000	m^2 Contact Area to Soil
I=	4.17E-06	m/s Infiltration Rate
A*I =	**0.00131**	m^3/s



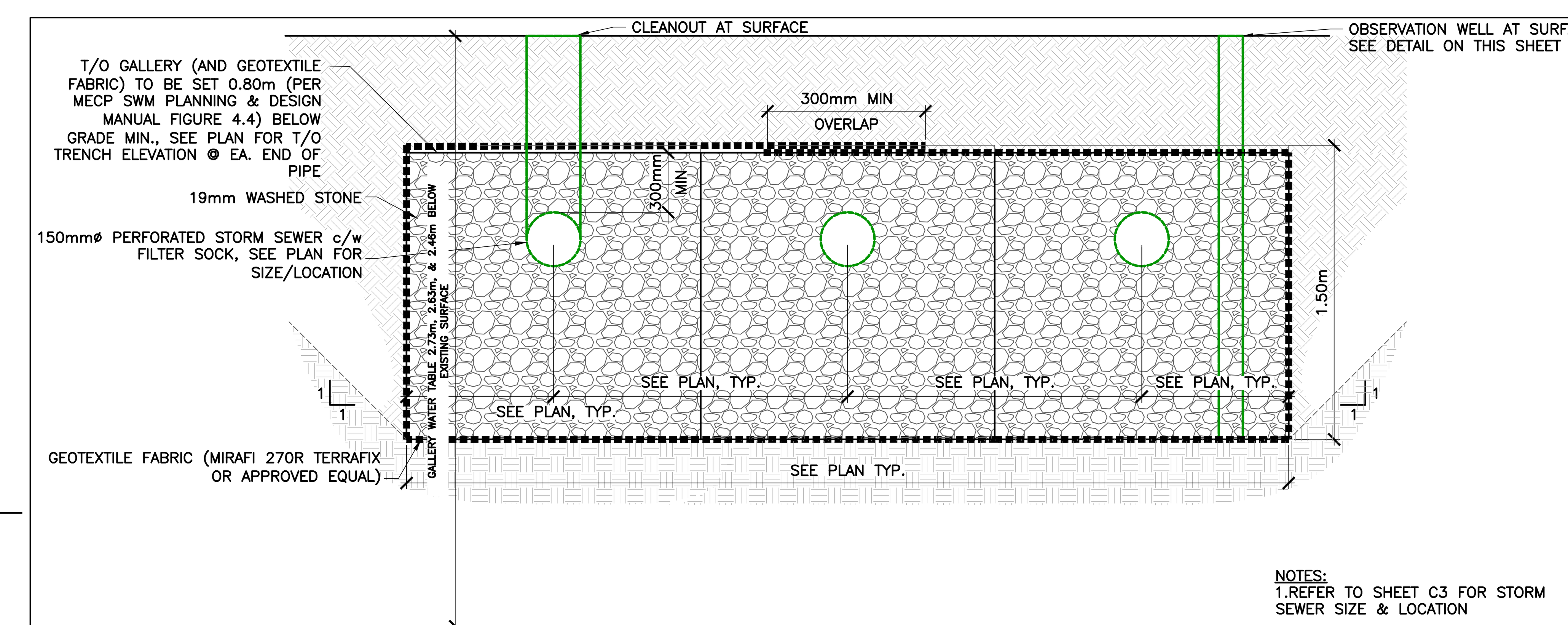
KEY PLAN
N.T.S.

LEGEND:

□	PROPOSED CATCH BASIN
◉	PROPOSED STORM CLEANOUT
20.0–300ø ST @ 1.0%	PROPOSED STORM SEWER
▲	BUILDING ENTRANCE
━━	PROPOSED BUILDING
——	LIMITS OF SUBJECT PROPERTY



MONITORING WELL DETAIL
N.T.S.



NOTES:
1. REFER TO SHEET C3 FOR STORM SEWER SIZE & LOCATION
2. REFER TO SHEET C3 FOR EXTENT & DEPTH OF INFILTRATION GALLERIES
3. REFER TO INFILTRATION GALLERY NOTES ON THIS SHEET

INFILTRATION GALLERY DETAIL
N.T.S.

AS CONSTRUCTED SERVICES	COMPLETION			No.	REVISIONS	D/M/Y	BY
		DESIGN	CMa	1	FOR ZBA/OPA SUBMISSION	11/04/24	CMa
		DRAWN	CMa				
		CHECKED	BH				
		APPROVED	BH				
		DATE	11/04/2024				
		CAD	23–2453				

CONSULTANT

sbm STRIK BALDINELLI MONIZ
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Email: sbm@sbmltd.ca

ENGINEER'S STAMP | ENGINEER'S STAMP

PRELIMINARY

CLIENT
1000585742 ONTARIO INC.
69 HUNT CLUB DRIVE
LONDON, ON
N6H 3Y4
P: 519.318.0544

SCALE
SCALE – 1:150
1.5 0 3.0m

TITLE
CONCEPTUAL STORM SERVICING PLAN

PROPOSED STACKED TOWNHOUSE DEVELOPMENT
24546 ADELAIDE ROAD
STRATHROY, ON.

PROJECT No. SBM–23–2453
SHEET No. C3
PLAN FILE No. –

APPENDIX E

Phase I&II Environmental Site Assessment by EXP dated February 1, 2019 (Project No.: LON-00016790-EN)

WolfAJM Holdings Inc.
48 Front Street,
Strathroy, ON
N7G 1Y6

Phase I&II Environmental Site Assessment

24546 Adelaide Road
Strathroy, ON

Project Number
LON-00016790-EN

Prepared By:

EXP Services Inc.
15701 Robin's Hill Road, Unit 2
London, Ontario
N5V 0A5 Canada

Date Submitted
February 1, 2019

Executive Summary

EXP Services Inc. (EXP) was retained by WolfAJM Holdings Inc. to complete a Phase I & II Environmental Site Assessment (ESA) of the property located at 24546 Adelaide Road in Strathroy, Ontario (Figure 1 – Site Location Plan). This area is hereinafter referred to as the "Site". It is EXP's understanding that the Phase I and II ESA was required for due diligence purposes to support the potential purchase of the property and that a Record of Site Condition is not required at this time.

The objective of the Phase I ESA portion of this investigation was to identify potential sources of environmental concern to the Site. A Phase I ESA is a systematic qualitative process to assess the environmental condition of a Site based on its historical and current uses. The Phase I ESA portion of this investigation was completed in general accordance to CSA Standard Z768-01, November 2001 (R 2016). The Phase II ESA portion was completed in general accordance to CSA Standard Z769-00, November 2001 (R 2013). Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 10 of this report.

With reference to Figure 2 (Site Plan) the Site is located on the east side of Adelaide Road, approximately 590 metres south of Carroll Street East, in the Town of Strathroy, Ontario. The Site is approximately 0.41 hectares (1.03 acres) in size and has a lot frontage along Adelaide Road of approximately 68 metres (225 feet). At the time of the December 14, 2018 Site visit the Site was vacant and undeveloped. A degraded asphalt U-shaped driveway was present on Site. The remainder of the Site was covered with vegetation.

Based on a review of historical aerial photographs, city directories, historical maps, and other records review, the Site was agricultural and/or vacant until at least the mid 1950s. As of the early 1970s, it was noted that the Site was developed with a U-shaped driveway, with one (1) small structure on the southeast of it, with a possible second small structure to the north of it. Historical information reviewed as part of this assessment indicate that the Site may have been used for bulk fuel storage and distribution since its initial development. The Site appeared to be in this configuration until the late 1990s. All structures were gone by the early 2000s and the Site has remained more-or-less in its current state since then. The surrounding lands have mainly been occupied by residential properties historically.

The results of this Phase I ESA indicate the following conclusions in table format regarding the expected environmental conditions and potential liabilities of the Site:

Areas of Potential Environmental Concern	Media and Potential Contaminants of Concern	Comments
Site		
Suspected former bulk fuel outlet	Soil and Groundwater PHCs and VOCs	Any leaks or spills from the former bulk fuel outlet could have negatively impacted the soil and/or groundwater quality at the Site. The environmental risk with this was considered to be high.

Areas of Potential Environmental Concern	Media and Potential Contaminants of Concern	Comments
Unknown quality of fill material on Site used for Site grading and backfilling of former structures on Site.	Soil and Groundwater Metals and PAHs	The quality of fill material on Site is unknown therefore the associated risk was considered to be somewhat moderate.
Surrounding Properties		
Former bulk fuel outlet adjacent north of the Site.	Soil and Groundwater PHCs and VOCs	Leaks or spills of the former bulk fuel outlet could have migrated toward and on the subject Site, negatively impacting the soil and/or groundwater quality. Due to the variable soil types and the upgradient position to the Site, the associated risk was considered to be somewhat high.

The results of the Phase I ESA portion of this investigation further confirmed the need for additional subsurface investigative activities to more fully assess potential issues of environmental concern on the Site and surrounding properties. The fieldwork for this investigation, including the borehole drilling and installation of a groundwater monitoring wells and purging/sampling of the groundwater monitoring wells was carried out between December 20, 2018 and January 3, 2019.

The Phase II ESA portion of this investigation was completed in general accordance to CSA Standard Z769-00, November 2001 (R 2013). Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 10 of this report.

The Phase II ESA portion of this investigation consisted of the advancement of a total of fifteen (15) boreholes were advanced on the Site by Landshark Drilling to depths ranging between 3.1 and 4.6 metres below ground surface (bgs) under the full-time supervision of EXP staff. A track-mounted Geoprobe© 7822DT drill rig equipped with continuous flight (“standard”) augers with tube samplers and direct push sampling equipment was used. The general stratigraphy at the site, as revealed in the boreholes, consisted of a surficial layer topsoil or fill overlying native sand to termination.

The results of the borehole drilling and soil and groundwater sampling program carried out as part of this investigation revealed analyte concentrations in the soil and groundwater samples collected from the boreholes and monitoring wells below the applicable 2011 MECP Table 2 SCSs for Industrial / Commercial / Community Property Use, Coarse Textured Soils. Given these findings, the assumed historical bulk fuel dispensing operations at the Site and adjacent northern property do not appear to have had any significant impact to the subsurface of the Site. The analytical testing results further indicate that the fill material at the Site has likewise not been impacted by former on-Site activities or from the importation of deleterious materials.

Therefore, based on the findings of this investigation, the potential issues of environmental concern at the Site should be considered as having been fully addressed. As a result, no further investigative work is considered necessary at this time.

Table of Contents

List of Figures

List of Appendices

1 Introduction

EXP Services Inc. (EXP) was retained by WolfAJM Holdings Inc. to complete a Phase I & II Environmental Site Assessment (ESA) of the property located at 24546 Adelaide Road in Strathroy, Ontario (Figure 1 – Site Location Plan). This area is hereinafter referred to as the "Site". It is EXP's understanding that the Phase I & II ESA was required for due diligence purposes to support the potential purchase of the property and that a Record of Site Condition is not required at this time.

1.1 Objective

The objective of the Phase I ESA portion of this investigation was to identify potential sources of environmental concern to the Site. A Phase I ESA is a systematic qualitative process to assess the environmental condition of a Site based on its historical and current uses. The Phase I ESA portion was completed in general accordance to CSA Standard Z768-01, November 2001 (R 2016). The Phase II ESA portion was completed in general accordance to CSA Standard Z769-00, November 2001 (R 2013). Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. The limitation of liability, scope of report and third-party reliance are outlined in Section 10 of this report.

1.2 Site Description

With reference to Figure 2 (Site Plan) the Site is located on the east side of Adelaide Road, approximately 590 metres south of Carroll Street East, in the Town of Strathroy, Ontario. The Site is approximately 0.41 hectares (1.03 acres) in size and has a lot frontage along Adelaide Road of approximately 68 metres (225 feet). At the time of the December 14, 2018 Site visit the Site was vacant and undeveloped. A degraded asphalt U-shaped driveway was present on Site. The remainder of the Site was covered with vegetation.

Selected photographs of the Site are included in Appendix A of this report.

2 Scope of Investigation

The scope of work for the Phase I ESA portion of this investigation consisted of the following activities:

- Reviewing the historical occupancy of the Site through the use of available archived and relevant municipal and business directories, fire insurance plans (FIPs), topographical maps, and aerial photographs;
- Contacting municipal and/or provincial agencies to determine the existence of records of environmental regulatory non-compliance, if any, and reviewing such records where available;
- Reviewing available geological maps, well records and utility maps for the vicinity of the Site;
- Conducting a Site reconnaissance of the Site and Site infrastructure in order to identify the presence of actual and/or potential environmental contaminants or concerns of significance;
- Conducting interviews with designated Site representative(s) as a resource for current and historical Site information, as well as to provide EXP staff with unrestricted access to all areas of the Site and Site buildings;
- Reviewing the current uses of the Site and any land use practices that may have impacted the environmental conditions at the Site;
- From the Site and publically accessible areas, reviewing the current use of the surrounding properties and any land use practices that may have impacted the environmental condition of the Site; and,
- Preparing a report to document the findings.

In completing the Phase I ESA portion scope of work, EXP did not conduct any intrusive investigations, including sampling, analyses or monitoring of materials. This was completed during the subsequent Phase II ESA portion. In addition, general environmental management and housekeeping practices were reviewed as part of this assessment insofar as they could impact the environmental condition of the property; however, a detailed review of regulatory compliance issues was beyond the scope of this investigation.

EXP personnel who conducted assessment work for this project included Ms. Mona Ungerer and Mr. Bob Dufton, P.Geo. An outline of their qualifications is provided in Section 8.

3 Records Review

3.1 General

The Phase I ESA study area consisted of the Site property and the adjacent and surrounding properties to a search distance considered appropriate by the QP (approximately 250 metres).

Based on a review of historical aerial photographs, city directories, historical maps, and other records review, the Site was agricultural and/or vacant until at least the mid 1950s. As of the early 1970s, it was noted that the Site was developed with a U-Shaped driveway, with one (1) small structure on the southeast of it, with a possible second small structure to the north of it. Historical information reviewed as part of this assessment indicate that the Site may have been used for bulk fuel storage and distribution since its initial development. The Site appeared to be in this configuration until the late 1990s. All structures were gone by the early 2000s and the Site has remained more-or-less in its current state since then. The surrounding lands have mainly been occupied by residential properties historically.

3.2 Aerial Photographs

Aerial photographs for the Site dated 1955, 1972, 1989, 1992, 1999-2001, 2006 and 2016 were obtained from the University of Western Ontario Map Library, the St. Clair Conservation Authority and Google Earth and the Middlesex County online GIS site. The aerial photographs were collected in order to review the development and land use history of the Site and surrounding area. Copies of selected aerial photographs are included in Appendix B.

The development and land use history of the Site and adjacent properties as depicted on the reviewed aerial photographs are summarized below.

Aerial Photograph	Details
1955	• The Site appeared to be occupied by agricultural land • The surrounding are was mainly occupied by agricultural land, with associated farmsteads along Adelaide Road.
1972	• As shown on Figure 2, a small structure was noted on the southeast corner of the U-Shaped driveway. Another possible structure was noted to the north of this structure. • The adjacent property to the north of the Site was also occupied by a similar-type structure and possible above-ground storage tank. • A trailer park was noted to the far north of the Site. • Part of the current residential subdivision was constructed to the far northeast of the Site • No other significant changes were noted to the surrounding area.
1989	• No significant changes were noted on Site or on the adjacent northern property. • The current subdivision to the northeast and east of the Site was now observed more-or-less in its current form. • No other significant changes were noted to the surrounding area.

Aerial Photograph	Details
1992	• No significant changes occurred on Site, although it was noted that the possible second structure noted on the 1972 photo no longer appeared to be present (if ever present to begin with) • The adjacent building to the north of the Site was no longer present. • No other significant changes were noted to the surrounding area.
1999-2001	• No significant changes occurred on Site or to the surrounding area.
2006	• The Site building was no longer observed on Site. Some soil disturbance was observed on the southeast corner of the Site. • No significant changes were noted to the surrounding area.
2018	• No significant changes to the Site were noted. • The residential house to the southwest of the Site was no longer present. • No other significant changes were noted to the surrounding area.

3.3 Fire Insurance Plans

A search of Canadian Underwriter's Association Fire Insurance Plans (FIPs) of the general area was completed at the J.J. Tallman Regional Collections Library at the University of Western Ontario. The collection of Strathroy Fire Insurance Plans dated 1913, 1929 and 1938 were available for review; however the FIPs did not cover the Site or surrounding area.

3.4 City Directories

No city directories are available for the Town of Strathroy.

3.5 Previous Reports

No previous reports were found.

3.6 Chain of Title

A chain of title was not completed for the Site as it was not included in the project-defined scope-of-work. However, given the other information searched as part of this investigation, the history of the Site is relatively well defined.

3.7 Regulatory Requests

The appropriate regulatory agencies at the provincial and municipal levels were contacted to obtain information regarding environmental permits, past or pending environmental control orders or complaints, outstanding environmental regulatory non-compliance issues and Sewer Use By-Law infractions. EXP did not identify the need to contact any federal agencies.

3.7.1 Ministry of the Environment & Climate Change

A request for information was submitted to the Ontario Ministry of Environment, Conservation and Parks (MECP) Freedom of Information, Protection of Privacy Office for information in their files regarding the Site that pertain to any Environmental Concerns, Orders and Spills. A copy of this request is included in Appendix C of this report.

A written response from the MECP typically requires several months. If upon receipt of the response from the MECP, any significant environmental issues are identified, EXP will forward their response to the client as an addendum to this report.

3.7.2 Technical Standards and Safety Authority

The Technical Standards and Safety Authority (TSSA) is the Provincial regulatory agency responsible for overseeing the storage of fuels in Ontario. As such, the TSSA maintains a database (approximately 1987 to present) of all registered fuel storage tanks in Ontario.

TSSA was contacted by email on December 11, 2018 and requested to search the TSSA database for records of fuel storage at the Site. Based on the review of their database, the TSSA indicated that there was no record of fuel storage at the Site.

3.8 Maps

The following maps were reviewed:

- Topographic Maps dated 1930, 1950, 1973, 1992 and 2000.
- ''Susceptibility of Groundwater to Contamination" MECP, Map S105 Strathroy Sheet.
- "Bedrock Geology of Ontario, Southern Sheet," Ontario Geological Survey, Map 2544. Scale 1: 1,000,000 Issued 1991.

The review of these maps indicated the following:

- The review of the topographic maps indicated that the Site is relatively flat with a slight slope to the south towards Sydenham River, located approximately 400 metres south of the Site.
- Due to the scales of the topographic maps no detailed observations could be made. The former Site building outline was observed on the 1992 and 2000 topographic maps.
- According to the susceptibility mapping, there is generally a variable susceptibility to contamination in the area of the Site, where surficial materials consist of eolian, fine to medium sand deposits from one to nine metres in thickness overlying glacial tills, silts and/or clays.
- According to the Bedrock Geology of Ontario, Southern Sheet the bedrock in the general area was part of a group belonging to the Middle Devonian Formation consisting of limestone, dolostone, and shale.

Copies of selected topographic maps are included in Appendix D.

3.9 Company Records

Legal survey plans were provided by the Client. On the plan called "Plan showing Part of Lot 12 Concession 9 Township of Caradoc County of Middlesex" the Site was labeled as the British American Oil Co. Ltd.

3.10 Environmental Source Information

Environmental source information includes documents published by the MECP and online databases maintained by the MECP. These documents and databases were reviewed to determine if waste disposal, coal tar, coal gasification, PCB storage sites or sites that generate hazardous wastes were located on or in the immediate vicinity of the Site. The review of the Environmental source information is provided below.

3.10.1 Federal and Provincial Database Search

An EcoLog Environmental Risk Information Services Ltd. (ERIS) report was requested by EXP. A copy of the report is provided in Appendix E. The ERIS system contains over 2 million current and historical environment records from federal, provincial and private sources. The following four (4) databases out of the 65 included in the EcoLog report provided information pertaining to the Site and surrounding properties within the 250 metre search radius.

Ten (10) Ontario Regulation 347 Waste Generator listings were found within the study area:

- All ten (10) listing was for Imperial Oil Limited, located at 24576 Adelaide Road (Adjacent north of the Site), was described as "other gasoline stations" as was listed as a waste generator of waste classes 251 (oil skimmings & sludges) in 2007 to 2018, 221 (light fuels) in 2013 to 2018, and 252 (waste oils & lubricants) in 2013 to 2018.

One (1) entry within the Phase I ESA study area was found in the TSSA Pipeline Incidents database:

- A natural gas pipeline strike occurred at 481 Richard Crescent (approximately 130 metres north of the Site) in 2011, with no environmental or health impact.

One (1) entry within the Phase I ESA study area was found in the Ontario Spills database:

- Parkbridge Lifestyle Communities Inc., located at 478 Richard Crescent (approximately 250 metres north of the Site) had a sewage break or leak in 2013 resulting in some soil contamination.

There were twenty-six (26) listings for water wells within the Phase I ESA study area according to the Water Well Information System database.

- Several domestic wells, as well as observation well were listed within the Phase I ESA study area. The general stratigraphy encountered during well construction consisted of sand. The static water level was generally found around 11 feet.

Several unplottable entries were found due to the unknown locations of these Sites, however due to the address names being along Highway 81 south and some listed in being part of Lot 12 Concession 9 indicate that these Sites are either on Site or located to the immediate surrounding area. Below is a list of the databases that were unable to be plotted in relation to the Site:

One (1) entry was found within the Certificate of Approval database:

- Gord Jones Bruce Mcallum, located at Highway 81 S. side, applied for approval for municipal water in 1987, but was cancelled.

Five (5) entries were found in the List of TSSA Expired Facilities database:

- Four (4) listings were for Imperial Oil Limited c/o Audrey Sturge, located at Highway 81 S. side, and was listed as an expired card/keylock gasoline station, FS piping and FS Fuel Tank. The expired date was listed as 1993.

- One (1) listing was for Rowe Fuels Div. of 399966 Ontario Ltd. located in Lot 12 (N part) Concession 9 and was listed as an expired FS facility since 1990.

Three (3) entries were found in the Historic Fuel Storage Tank database:

- Two (2) listings were for Petro Canada Refining & Supply Products Distribution Department – Chris Vanderz, located at Highway 81 N R.R. 6 Strathroy, was listed as an active self-serve gasoline station since 1977.

- One (1) listing for Energy Transportation Inc., located at Highway 81 N of Highway 22, was listed as an active self-serve gasoline station since 1990.

- The above listed properties are expected to be located to the north of Metcalfe Street East in Strathroy as the properties are located on Highway 81 north, which begins over 1 km north of the Site.

Six (6) entries were found in the Ontario Regulation 347 Waste Generators database:

- Three (3) listings were for Esso Petroleum Canada, located on the north side of Highway 81 S., between concession 9 and 10. The property was listed as a waste generator of waste classes 146 (other specified inorganics), 221 (light fuels) and 251 (oil skimmings & sludges, with approval years 1992 to 2001.

- Three (3) listings were for Petro-Canada Products, located on Highway 81, Concession 9 N. part of Lot 12 and was listed as a waste generator of waste class 221 (light fuels) with approval years 19986 to 1998.

Two (2) entries were found in the Private and Retail Fuel Storage Tanks database:

- One (1) entry was for Imperial Oil Limited Linda Bowes, located on Highway 81 S., and was listed as retail which expired in 1996.

- One (1) entry was for UCO Petroleum Inc. c/o Shirley Wonnell, located on Highway 81 Concession 9, and was listed as retail which expired in 1996.

Copy of the ERIS EcoLog is provided in Appendix E.

3.10.2 Waste Disposal Sites

The MECP maintains an inventory of all known active and closed waste disposal sites in Ontario. The review of Waste Disposal Site Inventory published by the Ontario Ministry of the Environment (MOE) in 1991 did not indicate any past or current waste disposal sites within 1 km of the Site.

3.10.3 Inventory of Industrial Site Producing or Using Coal Tar and Related Tars in Ontario

This inventory (Volumes 1 & 2) was published by the MOE in November 1988 to document the industrial facilities in Ontario that produced or used coal tar and other related tars. The information included in this inventory includes: facility type, size, land use, soil condition, site operators/occupants, site description, and potential environmental impacts. A review of these documents revealed the following:

- Based on the review, no coal gasification sites were identified within 1km of the Site.

3.10.4 Inventory of Coal Gasification Plant Waste Sites in Ontario

This inventory (Volumes 1 & 2) was published by the MOE in April 1987 and provided a preliminary assessment of potential environmental impacts of manufactured gas plant waste site in the Province of Ontario. A review of these documents revealed the following:

- Based on the review, no coal gasification sites were identified within 1km of the Site .

3.10.5 Ontario Inventory of PCB Storage Sites

The MECP maintains an inventory of all known PCB storage sites in Ontario. The review of the Ontario MECP Inventory of PCB Storage Sites in Ontario (2004) indicated the following:

- No PCB storage sites were encountered in the database within 1 km of the Site.

3.10.6 Hazardous Waste Information Network (HWIN)

The review of the Ontario Regulation 347 Waste Generators Summary (HWIN) identifies companies listed as waste generators and/or receivers. An online search was conducted on December 11, 2018. Search parameters included names of surrounding businesses, street names and city names and were contained to the Site and surrounding properties within 250m:

- No waste generators were listed for the Site or within the Phase I ESA study area. However, based on the information provided in Section 3.10.1, it is known that the adjacent property to the north (24576 Adelaide Road), was formerly a generator of multiple waste classes.

3.10.7 Record of Site Condition

A Record of Site Condition (RSC) summarizes the environmental conditions of a property as determined by a qualified person (QP) by conducting a Phase I ESA, a Phase II ESA and where necessary, confirmatory sampling and risk assessment. Upon completion of the necessary environmental Site assessments, a RSC for an assessed property can be filed with the MECP and added to the Environmental Brownfields Site Registry database. This online, publicly available database can be searched to identify what properties may have potential environmental concerns.

Based on the search of the MECP's Environmental Brownfields Site Registry database, completed on December 11, 2018 no RSCs were filed for the Site or immediately surrounding properties.

3.11 Utility Company Records

No utility company records were reviewed at the time of this Phase I ESA.

3.12 Public Health Concerns

No public health concerns were identified at the time of EXP's Phase I ESA.

4 Interviews

Interviews were conducted by EXP with the individuals identified to be the most knowledgeable about both the current and historical Site uses. The interviews were conducted in order to obtain information to assist in identifying areas of potential environmental concern and identify details of potentially contaminating activities or potential contaminant pathways, in, on or below the Site.

- Ms. Anne Wolf, realtor for the Site, was available to interview during the December 14, 2018 Site visit.

5 Site Reconnaissance

On December 14, 2018, Ms. Mona Ungerer of EXP conducted the Site visit in accordance with EXP's internal health and safety protocols and with the Ministry of Labour health and safety regulations. The purpose of the Site visit was to assess the current conditions of the Site.

The general environmental management and housekeeping practices at the Site were reviewed as part of this assessment insofar as they could impact the environmental condition of the property; however, a detailed review of regulatory compliance issues was beyond the scope of EXP's investigation.

The Site and the adjoining properties were observed from the Site and/or publicly accessible areas. Photographs documenting the Site visit are included in Appendix A.

5.1 Site

5.1.1 Property Use

At the time of EXP's Site visit, the Site utilized vacant and undeveloped. Base on the historical information reviewed as part of this assessment, it is known that the subject Site and adjacent northern property formerly operated as retail bulk fuel outlets.

5.1.2 Buildings and Structures

No buildings or structures were present at the time of the Site visit.

5.1.3 Limitations at the Site

No limitations were encountered during EXP's site visit.

5.1.4 Chemical Inventory, Storage and Handling

No chemicals were noted on Site.

5.1.5 Storage Tanks and Containers

The presence/absence and condition (if present) of Underground Storage Tanks (USTs) and Aboveground Storage Tanks (ASTs) at the Site were assessed during the Site visit. No evidence of USTs (i.e., vent and fill pipes) or ASTs were noted at the time of the Site visit. However; due to the former bulk fuel outlet operation on Site, it was expected that fuel tanks were present on Site historically.

5.1.6 Special Attention Substances

5.1.6.1 Polychlorinated Biphenyls (PCBs)

The manufacture of PCBs in North America was prohibited under the Toxic Substances Control Act (1977). Their use as a constituent of new products manufactured in or imported into Canada was prohibited by regulations in 1977 and 1980. As such, sites developed or significantly renovated after 1980 are unlikely to have PCBs-containing equipment on the Site. Potential equipment, which could contain PCBs include fluorescent mercury and sodium vapour light ballasts, oil filled capacitors and transformers. A review of the Site was conducted to evaluate the potential presence of PCBs-containing equipment in use or stored at the Site.

Any electrical equipment containing PCBs must be disposed in accordance with Ontario Regulation 362 when it is removed from service. Ongoing operation of equipment containing PCBs is permissible.

No potential PCB containing equipment was observed on Site at the time of the Site visit.

5.1.6.2 Asbestos-Containing Materials (ACMs)

Asbestos-containing materials (ACMs) are fibrous hydrated silicates and can be found in building materials as either "unbound" or "bound" asbestos. Friable asbestos refers to materials where the asbestos fibres can be separated from the material with which it is associated. Non-Friable asbestos refers to asbestos, which is associated with a binding agent (such as tar or cement). Friable asbestos is commonly found in boiler and pipe insulation. Non-Friable asbestos is typically found in roofing tars, floor and ceiling tiles, and asbestos-containing cement.

ACMs in the workplace are defined as a Designated Substance under the Ontario Occupational Health and Safety Act (OHSA). Under OHSA, persons in the workplace are required to be notified of the presence of ACMs once they are suspected to be present, and if there is a potential for workers to be exposed. The use of ACMs was discontinued in Canada in the late 1970s/early 1980s, although friable asbestos can still be found in recently constructed buildings.

No building or structures were present on Site at the time of the Site visit. As such, no suspected ACMs were observed or expected to be present at the Site.

5.1.6.3 Ozone Depleting Substances (ODSs)

Chlorofluorocarbons (CFCs) often referred to as Freons, ceased production in Canada in 1993 as a result of their ozone-depleting characteristics. Importation of CFCs into Canada ceased in 1997 and a total ban on their use is proposed for 2030. The use of these materials is still permitted in existing equipment, but equipment must be serviced by a licensed contractor such that CFCs are contained and not released to the environment during servicing or operation.

Under the management of a licensed contractor, the subject systems do not represent a significant threat to human health or the environment. However, if present, CFCs will require replacement by 2030 and as such consideration should be given to future phase out programs.

No refrigeration or air conditioning units were observed on Site.

5.1.6.4 Lead

Lead has frequently been used in oil-based paints, roofing materials, cornices, tank linings, electrical conduits and soft solders for tinplate and plumbing. The use of lead-based paints (LBPs) was phased out circa 1976. Paint that was produced or used between 1976 and 1980 may contain small amounts of lead. Paint that was produced or used prior to 1950 may contain high levels of lead. The main concern regarding lead paint is its potential to become lead dust or chips either through deterioration and/or mechanical means (i.e., sanding, abrasion, etc.). Exposure to lead dust or chips occurs by ingestion or inhalation.

No building or structures were present on Site at the time of the Site visit. As such, no potential lead containing paints or materials were observed or expected to be present at the Site.

5.1.6.5 Urea Formaldehyde Foam Insulation (UFFI)

UFFI was formerly sprayed into cavities of walls and above ceilings as an insulating material. UFFI has been discontinued from commercial use since the early 1980s.

No obvious evidence of UFFI was noted during EXP's Site visit.

5.1.6.6 Mercury

Mercury was used in some batteries, light bulbs, old paints, thermostats, old mirrors, etc. Based on an investigation by Consumer and Corporate Affairs Canada, and an assessment of potential health risks by Health and Welfare Canada, in 1991 the decision was made to eliminate the use of mercury compounds in indoor latex paints. The Canadian Paint and Coatings Association (CPCA) supported the withdrawal and all Canadian manufacturers and formulators of the preservative voluntarily agreed to remove "interior uses" from their product labels.

No building or structures were present on Site at the time of the Site visit. As such, no potential mercury containing paints or equipment were observed or expected to be present at the Site.

5.1.6.7 Mould

Mould is found in the natural environment and is required for the breakdown of plant debris such as leaves and wood. Mould spores are found in the air in both the indoor and outdoor environments. In order for mould to grow it requires a food source (i.e. gypsum wallboard, carpets, wallpaper, wood, etc.) and moist conditions. Mould can have an impact on human health depending on the species and concentration of the mould. Health effects can include allergies and mucous membrane irritation.

Currently there are no regulations governing mould; however, there are several guidelines addressing mould assessments and abatement. At the moment the industry standards include the Canadian Construction Association (CCA) document 82-2004 titled "Mould guidelines for the Canadian construction industry" and the Environmental Abatement Council of Ontario (EACO) guidelines titled "EACO Mould Abatement Guidelines, Edition 2 (2010)".

It is important to note that the Ontario Ministry of Labour (MOL) has governed protecting workers under the Occupational Health and Safety Act, which states that employers are required to take every precaution reasonable to protect their workers. This includes protecting workers from mould within workplace buildings.

No obvious mould growth was observed during EXP's Site visit.

5.1.6.8 Radon

Radon is a colourless, odourless, radioactive gas that occurs naturally in the environment. It comes from the natural breakdown of uranium in soils and rocks. Exposure to high levels of radon increases the risk of developing lung cancer. This relationship has prompted concern that radon levels in some Canadian buildings may pose a health risk. Radon gas can move through small spaces in the soil and rock and seep into a building through cracks in concrete, sumps, joints and basement drains. Concrete-block walls are particularly porous to radon and radon trapped in water from wells can be released into the air when the water is used.

Due to the potential health concerns associated with radon, Health Canada released a guideline in June 2007 for a maximum acceptable level of radon gas of 200 becquerels per cubic metre (Bq/m3). Where radon gas is present, and the annual radon concentration exceeds 200 Bq/m3 in the normal occupancy area, Health Canada recommends taking the necessary actions to reduce radon levels.

Based on the overburden and bedrock materials underlying the Site, it is unlikely that radon gas emissions would be a concern. However, the presence of Radon at the Site can only be determined by actual testing which was beyond the scope-of-work for this assessment.

5.1.6.9 Other Substances

No other special attention substances (such as acrylonitrile or isocyanates) were suspected to be present at the Site at the time of this Phase I ESA.

5.1.7 Unidentified Substances

No unidentified substances were present at the Site at the time of this Phase I ESA.

5.1.8 Drains and Sumps

No drains or sumps were observed on Site.

5.1.9 Building Heating and Cooling Systems

As the Site is currently vacant, no heating or cooling systems were present.

5.1.10 Mechanical Equipment

No mechanical equipment was noted at the time of the Site visit.

5.1.11 Air Emissions

Air emissions in Ontario are regulated under the Environmental Protection Act (EPA) and its Regulations (O. Reg. 419/05, O. Reg. 245/11). Owners and operators of activities that may discharge a contaminant into the natural environment must seek approval from the Ministry of the Environment (ministry) to carry out these activities. As of October 31, 2011 amendments to the EPA resulted in a two path environmental approval process, the Environmental Compliance Approval (ECA) and Environmental Activity and Sector Registry (EASR). The EASR allows businesses to register certain activities with the ministry, rather than apply for approvals. The EASR is for common systems and processes, currently for heating systems, standby power systems and automotive refinishing, to which preset rules of operation can be applied. Unless explicitly exempted, most industrial processes or modification to industrial processes and equipment require an ECA, formerly a Certificate of Approval (Air and Noise). Retroactive approval should be sought for equipment installed and unchanged between 1972 and June 29th, 1988 when the requirement for a Certificate of Approval was added to the EPA. The EPA provides a list of specific equipment and conditions, which are exempt from approval requirements (i.e. fuel burning equipment for comfort heating in a building using natural gas or number 2 fuel oil at a rate of less than 1.5 million British Thermal Units per hour [BTU/hour])

Based on the findings of this investigation, neither an ECA or EASR are expected to be required for air emissions at the Site.

5.1.12 Odour and Noise

No chemical or other significant odours were detected during the Site visit. No excessive noise was detected at the Site during the Site visit.

5.1.13 Sewage and Wastewater Disposal

The Site is not connected to a sewage or wastewater disposal system. However, these services are present along Adelaide Road.

5.1.14 Liquid Chemical Waste Generation, Storage & Disposal

No liquid chemical waste was generated on Site during the Site visit.

5.1.15 Solid Waste Generation, Storage & Disposal

No solid waste is currently being generated on Site.

5.1.16 Topographic, Geologic and Hydrogeologic Conditions

The review of the topographic maps indicated that the Site is relatively flat with a slight slope to the south towards Sydenham River, located approximately 400 metres south of the Site.

It is suspected that the local groundwater flow direction is south in the direction of Sydenham River. However, the actual groundwater flow direction can only be determined by long term groundwater elevation investigation in the area. The groundwater flow direction may also be influenced by utility trenches and other subsurface structures and may migrate in the bedding stone of nearby subsurface utility trenches.

5.1.17 Water Courses, Ditches and Site Drainage

No water courses were noted on Site or immediate surrounding area. A roadside ditch was noted to the west of the Site along Adelaide Road. No other ditches or Site drainage was observed.

5.1.18 Abandoned and Existing Wells

A metal pipe was noted on the northwest corner of the Site, just south of the driveway. According to Mr. Jim Brother (the current Site owner who provided information to EXP over the telephone) the pipe is a drilled test water well that was installed to monitor water levels when Union Gas was dewatering to install the gas pipelines on the south portion of the Site. No other abandoned or existing potable water wells were observed on the Site during the Site visit. A search of the Ministry of the Environment's Well Records conducted on December 17, 2018 revealed several irrigation wells in the surrounding area to the south and east of the Site. No records were found for the Site. The general stratigraphy as revealed in the well records from the area was sand.

5.1.19 Potable Water Sources

The Site area is serviced by the municipal water source.

5.1.20 Fill Material

The Site was generally level with the surrounding properties. It is suspected that some fill material was imported for Site grading, backfill of former structures and Site servicing. A small fill pile was noted on the southeast corner of the Site.

5.1.21 Stained Materials

No staining was observed on Site.

5.1.22 Stressed Vegetation

No stressed vegetation was observed at the time of the Site visit.

5.1.23 Roads, Parking Facilities and Right of Ways

The Site was accessible via Adelaide Road to the west of the Site.

5.1.24 Pits and Lagoons

No pits or lagoons were observed on the Site at the time of the Phase I ESA.

5.1.25 Other Issues

No other issues were identified during this Phase I ESA.

5.2 Neighbouring Properties

The condition of the adjoining and neighbouring properties was observed at the time of EXP's Site visit. The surrounding properties were developed for a mainly agricultural/residential purposes. The findings of the visual reconnaissance of the adjacent properties are as follows:

- **North** - Vacant lot, Restaurant (24584 Adelaide Road), Residential beyond;
- **South -** Residential and agricultural;
- **East -** Vacant and residential;
- **West** - Agricultural land.

In general, the adjacent and surrounding properties appeared to be relatively well kept, with no obvious issues of environmental concern noted.

6 Phase I ESA Conclusions and Recommendations

The results of the Phase I ESA portion of this investigation indicate the following conclusions in table format regarding the expected environmental conditions and potential liabilities of the Site:

Areas of Potential Environmental Concern	Media and Potential Contaminants of Concern	Comments
Site		
Suspected former bulk fuel outlet	Soil and Groundwater PHCs and VOCs	Any leaks or spills from the former bulk fuel outlet could have negatively impacted the soil and/or groundwater quality at the Site. The environmental risk with this was considered to be high.
Unknown quality of fill material on Site used for Site grading and backfilling of former structures on Site.	Soil and Groundwater Metals and PAHs	The quality of fill material on Site is unknown therefore the associated risk was considered to be somewhat moderate.
Surrounding Properties		
Former bulk fuel outlet adjacent north of the Site.	Soil and Groundwater PHCs and VOCs	Leaks or spills of the former bulk fuel outlet could have migrated toward and on the subject Site, negatively impacting the soil and/or groundwater quality. Due to the variable soil types and the upgradient position to the Site, the associated risk was considered to be somewhat high.

Based on the observations and conclusions noted above, it was determined that Phase II ESA activities would be required to adequately address the potential issues of environmental concern at the Site and on the surrounding properties.

7 Phase II ESA Methodology

As noted in section 6, the results of the Phase I ESA portion of this investigation confirmed the need for additional subsurface investigative activities to more fully assess potential issues of environmental concern on the Site and surrounding properties. The fieldwork for this investigation, including the borehole drilling and installation of a groundwater monitoring wells and purging/sampling of the groundwater monitoring wells was carried out between December 20, 2018 and January 3, 2019.

The Phase II ESA portion of this investigation was completed in general accordance to CSA Standard Z769-00, November 2001 (R 2013). Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 10 of this report.

7.1 Borehole Drilling and Soil Sampling

Prior to the commencement of borehole drilling activities, all public utility locates were carried out by contacting Ontario 1 Call and the other applicable utilities. In addition, the locations of on-Site underground utilities including telephone, natural gas and electrical lines were marked out by Deetekt Ltd., a private utility locating service that cleared the individual borehole locations.

A total of fifteen (15) boreholes were advanced on the Site by Landshark Drilling to depths ranging between 3.1 and 4.6 metres below ground surface (bgs) under the full-time supervision of EXP staff. A track-mounted Geoprobe© 7822DT drill rig equipped with continuous flight ("standard") augers with tube samplers and direct push sampling equipment was used. The general stratigraphy at the site, as revealed in the boreholes, consisted of a surficial layer topsoil or sand fill overlying native sand to termination. The approximate locations of the boreholes are shown on Figure 3 (Borehole / Monitoring Well Location Plan).

Dedicated Nitrile gloves (i.e., one pair per sample) were used during sample handling. A portion of each soil sample was placed in a sealed plastic bag and allowed to reach ambient temperature prior to field screening with a RKI Eagle II Total Combustible Vapour (TCV) meter. The Eagle was calibrated with hexane gas prior to use. The measurements were made by inserting the instrument's probe into the plastic bag while manipulating the sample to ensure volatilization of the soil gases. These readings provide a real-time indication of the relative concentration of organic vapours encountered in the subsurface during drilling and are used to aid in the assessment of the vertical and horizontal extent of contamination and the selection of soil samples for analysis. The vapour readings, in ppm, are provided on the borehole logs in Appendix F under the column headed "Combustible Vapour Reading (ppm)". These samples were subsequently delivered to EXP's laboratory for visual, textural and olfactory classification.

The remaining portion of each soil core was placed directly into pre-cleaned, laboratory-supplied glass sample jars/vials. Soil samples intended for analysis of VOC's (including BTEX) were collected by means of core samplers. The core samplers provide a soil sample with virtually no head-space thus reducing the potential for induced volatilization during storage and transport to the laboratory. Individual core samplers were used to collect a soil sample at each interval. Samples collected by

the core sampler were injected into a vile containing methanol and the vial immediately capped. By being submerged in the methanol, volatilization of VOC's within the soil ample is reduced prior to analysis. The jars were equipped with Teflon seals, and were filled so as to minimize head space and reduce the potential for induced volatilization during storage/transport prior to analysis. All soil samples (one from each borehole) were placed in clean ice-packed coolers and shipped under chain of custody procedures to AGAT Laboratories for analysis of the following: Metals; Petroleum Hydrocarbons (PHCs) - Fractions F1-F4; and Volatile Organic Compounds (VOCs), including benzene, toluene, ethylbenzene and xylene (BTEX). Soil samples were selected for laboratory analysis based on one or more of the following: TCV measurements; visual and/or olfactory evidence of impacts or stratigraphic location (i.e., at the water table). The sample locations, depths and parameters analyzed for are summarized in the following table:

Sample No.	Depth (m bgs)	Analyte Suite
BH1 SA1	0.0 – 0.8	Metals
BH1 SA5	3.1 – 3.8	VOCs (including BTEX), PHCs
BH2 SA5	3.1 – 3.8	VOCs (including BTEX), PHCs, pH
BH4 SA4	2.3 – 3.1	VOCs (including BTEX), PHCs
BH5 SA4	2.3 – 3.1	VOCs (including BTEX), PHCs
BH7 SA5	3.1 – 3.8	VOCs (including BTEX), PHCs
BH8 SA1	0.0 – 0.8	Metals, pH
BH8 SA4	2.3 – 3.1	VOCs (including BTEX), PHCs
BH9 SA5	3.1 – 3.8	VOCs (including BTEX), PHCs
BH10 SA1	0.0 – 0.8	Metals
BH10 SA5	3.1 – 3.8	VOCs (including BTEX), PHCs
BH11 SA4	2.3 – 3.1	VOCs (including BTEX), PHCs
BH12 SA4	2.3 – 3.1	VOCs (including BTEX), PHCs
BH13 SA1	0.0 – 0.8	Metals
BH13 SA4	2.3 – 3.1	VOCs (including BTEX), PHCs
BH14 SA4	2.3 – 3.1	VOCs (including BTEX), PHCs
BH15 SA4	2.3 – 3.1	VOCs (including BTEX), PHCs

7.2 Groundwater Monitoring Well Installation and Sampling

A groundwater monitoring well was installed in each of Boreholes 5, 7 and 15. The monitoring wells were installed in general accordance with the Ontario Water Resources Act - R.R.O. 1990,

Regulation 903 - Amended to O. Reg. 128/03 and were installed by a licensed well contractor ("Landshark Drilling").

The monitoring wells installed on-Site were constructed of 50 mm Schedule 40 PVC screen and riser. A 1.5-metre-long screen and an appropriate length of riser pipe were used. Details of the individual well installations are provided on the borehole logs in Appendix F. The well screens had a slot size of approximately 0.25 mm (slot 10) and were sealed at the base with a PVC end cap. The annular space around each well screen was backfilled with #3 silica sand to an average height of 0.6 m above the top of the screen. The sand pack was extended above the screen to allow for compaction of the sand pack and expansion of the overlying well seal. A granular bentonite ('Hole Plug') seal was placed in the borehole annulus from the top of the sand pack to approximately 0.1 m below ground surface. Lubricants and adhesives were not used when constructing the monitoring wells.

An elevation survey was conducted to obtain vertical control of the existing monitoring well locations. The top of casing and ground surface elevation of each monitoring well location was surveyed relative to a local temporary benchmark. The local temporary benchmark for the Site was the fire hydrant (top of spindle) located along Adelaide Road just west of the Site. The temporary benchmark was assigned an arbitrary elevation of 100.0 metres.

The monitoring wells were purged using balers and sampled using low flow sampling technology on January 3, 2019. Once the geochemical parameters were found to be stabilized (based on electronic multi-meter readings) and/or at a drawdown of greater than 10 cm, the groundwater samples were placed into laboratory supplied jars, placed in a clean ice packed cooler and submitted under chain of custody procedures to AGAT Laboratories for analysis of VOCs (including BTEX) and PHCs.

Details of the analysis performed on the selected groundwater samples are summarized in the following table:

Sample Identification	Analysis
BH5/MW	VOCs/PHCs
BH7/MW	VOCs/PHCs
BH15/MW	VOCs/PHCs

Note:
PHCs = Petroleum Hydrocarbons, VOCs = Volatile Organic Compounds

8 Findings

8.1 Subsurface Conditions

The detailed soil profiles encountered in each borehole drilled at the Site are provided on the attached borehole logs (Appendix F). Boundaries of soil indicated on the log sheets are intended to reflect transition zones for the purpose of environmental assessment and should not be interpreted as exact planes of geological change. The general stratigraphy at the site, as revealed in the boreholes, consisted of a surficial layer of asphalt or topsoil overlying sand and gravel fill and/or sand fill, overlying native sand to termination. A brief description of the soil stratigraphy at the Site, in order of depth, is summarized in the following sections.

8.1.1 Fill Materials

A thin layer of asphalt, generally 50 cm thick was encountered at the surface in Boreholes 1 and 10.

A thin layer of topsoil was encountered at the surface of Boreholes 3, 4, 6, 7, 12 and 13 ranging from 125 to 300 mm in thickness.

Sand and gravel fill was encountered beneath the asphalt or at the surface in Boreholes 1, 8, 9 and 10 to a depth ranging from 0.14 to 0.32 metres bgs. The sand and gravel fill was generally brown and moist.

Sand fill was encountered beneath the sand and gravel fill or at the surface in Boreholes 1, 2 and 5 to a depth of 1.42 to 1.85 metres bgs. The sand fill was generally fine grained, brown and moist.

A thin layer of sand and gravel fill was encountered beneath the sand fill in Borehole 5 to a depth of 2.35 metres bgs. The sand and gravel fill was greenish brown in colour, moist, and had a faint solvent like odour.

No other petroleum odours or staining were associated with the fill samples recovered from any of the Boreholes.

8.1.2 Native Materials

Native sand was encountered at the surface or beneath the fill materials or topsoil in all Boreholes to termination. The native sand deposit was fine grained, brown and moist. The sand became wet below 2.3 to 3.4 metres bgs. No petroleum odours or staining were associated with the native sand samples recovered from any of the Boreholes.

8.2 Combustible Vapour Readings

Field screening involved using an PID calibrated to isobutylene equivalent to measure the total combustible vapour (TCV) concentrations, in parts per million (ppm). The headspace readings were obtained by inserting the plastic tube of the RKI Eagle II into the soil sample bag and recording the TCV readings. The results are presented on the attached borehole logs. As indicated, vapour

concentrations in the collected soil samples ranged from 0 to 25 ppm and are generally indicative of background conditions.

8.3 Groundwater Elevations

As noted above, the groundwater levels were recorded prior to sampling on January 3, 2019. Measurements on the January 3, 2019 sampling date are provided in the following table:

Well No.	Elevation (m) (Ground Surface)	Water Table Depth (m)	Groundwater Elevation (m) (relative to temporary benchmark)
BH5 / MW	98.95	2.73	96.22
BH7 / MW	98.91	2.63	96.28
BH15 / MW	98.67	2.46	96.21

Based on the calculated groundwater elevations, the inferred groundwater flow direction in the area of the Site is assumed to be generally be west. It should be noted that only a single round of measurements were taken and the existence of equilibrium conditions (quasi-static water levels) may not have been confirmed.

9 Soil and Groundwater Quality

9.1 General

In accordance with the project-defined scope of work, chemical analyses were performed on selected soil samples recovered from the boreholes. Soil samples were selected for laboratory analysis based on one or more of the following: TCV measurements; visual and/or olfactory evidence of impacts or stratigraphic location (i.e., at the water table).

9.2 Site Assessment Criteria

The assessment criteria (Site Condition Standards (SCSs) applicable to a given site in Ontario are established under subsection 168.4(1) of the Environmental Protection Act. Tabulated generic criteria are provided in "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" ("the SGWS Standards"), Ministry of the Environment Conservation and Parks (MECP), effective July 1, 2011. These criteria are based on site sensitivity (sensitive or non-sensitive), ground water use (potable or non-potable), property use (residential, parkland, institutional, commercial, industrial, community and agricultural/other), soil type (coarse or medium/fine textured) and restoration depth (full or stratified restoration). In addition, site specific criteria may be established on the basis of the findings of a Risk Assessment carried out in accordance with Part IX and Schedule C of Ontario Regulation 153/04 (O.Reg.) 153/04), as amended.

The SGWS Standards specify SCSs for soil, groundwater and sediment that are tabulated as follows:

- Table 1 - Full Depth Background Site Condition Standards;
- Table 2 - Full Depth Generic Site Condition Standards in a Potable Groundwater Condition;
- Table 3 - Full Depth Generic Site Condition Standards in a Non-potable Groundwater Condition;
- Table 4 - Stratified Site Condition Standards in a Potable Groundwater Condition;
- Table 5 - Stratified Site Condition Standards in a Non-Potable Groundwater Condition;
- Table 6 - Generic Site Condition Standards for Shallow Soils in a Potable Groundwater Condition;
- Table 7 - Generic Site Condition Standards for Shallow Soils in a Non-Potable Groundwater Condition;
- Table 8 - Generic Site Condition Standards for use within 30 m of a Water Body in a Potable Groundwater Condition; and
- Table 9 - Generic Site Condition Standards for use within 30 m of a Water Body in a Non-Potable Groundwater Condition.

For assessment purposes, EXP selected the Table 2 SCSs for Industrial/Commercial Property Use with coarse textured soil in a potable groundwater condition.

The selection of this category is based on the following factors:

- The Site is not considered a sensitive site;
- The Site surrounding area is serviced by municipal water and potable wells;
- The Property Use of the Site was commercial;
- The predominant soil type on the Site is considered to be coarse textured (i.e., sand); and;
- There is no intention to carry out a stratified restoration at the Site.

As a result, the laboratory testing results for the soil and groundwater samples were compared to the Table 3 Site Condition Standards (SCSs) for a potable groundwater condition, Industrial/Commercial Property Use, coarse textured soil, defined in the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" ("the SGWS Standards"), Ministry of Environment (MECP), Ontario Regulation (O.Reg.) 153/04 (as amended), July 2011.

As noted in Section 7, soil samples were collected from each borehole and one surface sample and were analyzed for metals; Petroleum Hydrocarbons (PHCs) - Fractions F1-F4; and Volatile Organic Compounds (VOCs), including benzene, toluene, ethylbenzene and xylene (BTEX). Groundwater samples were collected from the monitoring wells installed in each of Boreholes 5 (BH5/MW), 7 (BH7/MW) and 15 (BH15/MW) and were analyzed for Petroleum Hydrocarbons (PHCs) - Fractions F1-F4; benzene, toluene, ethylbenzene and xylene (BTEX).

The 2011 MECP Table 2 SCSs are considered suitable for use if soil pH is in the range of 5 to 9 for surface soil (less than 1.5 m below soil surface) and 5 to 11 for subsurface soil (greater than 1.5 m below soil surface). The Certificates of Analysis include pH measurements taken on two (2) soil samples, BH8 SA1, (surface) and BH2 SA5 (subsurface). The reported pH values of 7.97 in the surface soil sample and 7.71 in the subsurface soil sample are within the acceptable range for the use of the Table 2 SCSs.

9.3 Soil/Fill Quality

Copies of the laboratory Certificates of Analysis for the tested soil samples are provided in Appendix G. For comparison purposes, the applicable 2011 MECP Table 2 SCSs are included on the Certificates of Analysis. As noted above, the samples tested for pH were within the acceptable range for surficial soils (5-9 pH units) for the use of the 2011 MECP Table 2 SCSs.

9.3.3 Petroleum Hydrocarbons (Fractions F1 – F4)

Ten (10) soil samples (BH2 SA5, BH4 SA4, BH5 SA4, BH7 SA5, BH9 SA5, BH11 SA4, BH12 SA4, BH13 SA4, BH14 SA4 and BH15 SA4) were analyzed for PHCs (Fractions F1-F4). All PHC concentrations were measured below the laboratory reportable detection limits (RDLs) and, hence, the applicable 2011 MECP Table 2 SCSs.

9.3.2 Volatile Organic Compounds including Benzene, Toluene, Ethylbenzene, and Xylene

The above-mentioned samples were also analyzed for Volatile Organic Compounds including Benzene, Toluene, Ethylbenzene, and Xylene. All parameter concentrations were measured at levels well below the laboratory RDLs and, hence, their applicable 2011 MECP Table 2 SCSs.

9.3.3 Metals

Four (4) soil samples (BH1 SA1, BH8 SA1, BH10 SA1 and BH13 SA1) were analyzed for metals. All metal parameters in the soil samples submitted for analysis were measured at concentrations well below their applicable 2011 MECP Table 2 SCSs.

9.4 Groundwater Quality

Groundwater samples were collected from the monitoring wells installed in each of Boreholes 5 (BH5/MW), 7 (BH7/MW) and 15 (BH15/MW) and were analyzed for Petroleum Hydrocarbons (PHCs) - Fractions F1-F4; benzene, toluene, ethylbenzene and xylene (BTEX). Copies of the laboratory Certificates of Analysis for the groundwater samples are provided in Appendix H. For comparison purposes, the applicable 2011 MECP Table 2 SCSs are included on the Certificates of Analysis.

There was no obvious evidence of free product (i.e., visible film or sheen) observed in the groundwater samples collected from the monitoring wells. The water samples obtained from the monitoring wells were clear, colourless and odourless with no light non-phase liquid present.

9.4.1 Petroleum Hydrocarbons (Fractions F1 – F4)

Three (3) groundwater samples from BH5/MW, BH7/MW and BH15/MW were submitted for analysis of Petroleum Hydrocarbons (PHCs) Fractions F1 – F4. All PHC parameter concentrations were measured at levels below their respective laboratory RDLs and, hence, their applicable 2011 MECP Table 2 SCSs.

9.4.2 Benzene, Toluene, Ethylbenzene and Xylene

Three (3) groundwater samples from BH5/MW, BH7/MW and BH15/MW were submitted for analysis of Benzene, Toluene, Ethylbenzene and Xylene (BTEX). All BTEX concentrations were measured at levels well below their respective laboratory RDLs and, hence, their applicable 2011 MECP Table 2 SCSs.

9.5 Quality Assurance

Details regarding quality assurance measures taken in the field, including instrument calibration, decontamination procedures, use of dedicated equipment, sample storage and Chain of Custody documentation are provided in Section 7, Methodology.

The subcontract laboratory used during this investigation, AGAT Laboratories, is accredited by the Standards Council of Canada/Canadian Association of Environmental Analytical Laboratories (Accredited Laboratory No. 665) in accordance with ISO/IEC 17025:1999 – "General Requirements for the Competence of Testing and Calibration Laboratories" for the analysis of all parameters for which SCS have been established under Ontario Regulation 153/04.

The "Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" ("the Analytical Protocol"), MECP, March 2004, establishes criteria used in assessing the performance of analytical laboratories. These include maximum hold times for the extraction (where applicable) and analysis of samples, required methods of analysis, Required Detection Limits (RDLs), fixed recovery ranges for spiked samples and surrogates (compounds added to water samples in known concentrations for calibration purposes), quantified precision required when analyzing laboratory duplicate samples ("Between Run Precision") and the analysis of method blanks.

All samples were extracted, where applicable, and analyzed within the hold times established under the Analytical Protocol. These analytical results comprise portions of the Certificates of Analysis in Appendix G and Appendix H.

10 Discussions and Conclusions

The results of the borehole drilling and soil and groundwater sampling program carried out as part of this investigation revealed analyte concentrations in the soil and groundwater samples collected from the boreholes and monitoring wells below the applicable 2011 MECP Table 2 SCSs for Industrial / Commercial / Community Property Use, Coarse Textured Soils. Given these findings, the assumed historical bulk fuel dispensing operations at the Site and adjacent northern property do not appear to have had any significant impact to the subsurface of the Site. The analytical testing results further indicate that the fill material at the Site has likewise not been impacted by former on-Site activities or from the importation of deleterious materials.

Therefore, based on the findings of this investigation, the potential issues of environmental concern at the Site should be considered as having been fully addressed. As a result, no further investigative work is considered necessary at this time.

11 Qualifications of Assessors

The records review and Site visit were conducted by Ms. Mona Ungerer, who has been trained to conduct Phase I ESAs in accordance with the CSA Standard. Miss Ungerer obtained her Diploma in Environmental Technology from Fanshawe College in 2010.

The report was reviewed by Mr. Bob Dufton, P.Geo., Senior Environmental Scientist with EXP Services Inc. Mr. Dufton obtained his Honour's Bachelor of Science degree from the University of Western Ontario, in 1991. Mr. Dufton is a highly qualified Professional Geoscientist with several years of diverse hands-on experience in environmental site assessment, environmental auditing, remediation of contaminated sites, technical specification preparation, contract documentation and administration and project management. Mr. Dufton is a member of the Association of Professional Geoscientists of Ontario. Mr Dufton has supervised and managed numerous environmental assessment and remedial / decommissioning projects. In addition, Mr. Dufton has designed and implemented various remedial technologies such as excavation, soil vapour extraction, and pump and treat to mitigate risks at contaminated sites.

EXP Services Inc. Is a full service consulting and engineering firm and provides a full range of environmental services through the Environmental Services Group. EXP's Environmental Services Group has developed a strong working relationship with clients in both the private and public sectors and has developed a positive relationship with the Ontario Ministry of the Environment. Personnel in the numerous branch offices form part of a large network of full-time dedicated environmental professionals in the EXP organization.

12 References

1. “Phase I Environmental Site Assessment”, CSA Group, Document No. *Z768-01, November 2001 (Re-affirmed 2016).*

2. “Phase II Environmental Site Assessment”, CSA Group, Document No. Z769-00, November 2001 (Re-affirmed 2013).

3. *Occupational Health and Safety Act* - Ministry of Labour (MOL).

4. "Bedrock Geology of Ontario, Southern Sheet," Ontario Geological Survey, Map 2544. Scale 1: 1,000,000 Issued 1991.

5. “Susceptibility of Groundwater to Contamination – Strathroy”, Ontario Ministry of the Environment, Map S105, Scale 1:50,000, 1986.

6. Inventory of Coal Gasification Plant Waste Sites in Ontario. Ontario Ministry of the Environment, April 1987.

7. Inventory of Industrial Sites Producing or Using Coal Tar and Related Tars in Ontario. Ontario Ministry of the Environment, November 1988.

8. Waste Disposal Site Inventory. Waste Management Branch Ontario Ministry of the Environment, June 1991.

9. Ontario Inventory of PCB Storage Sites. Ontario Ministry of the Environment, 1993- 2003- 2004.

10. Hazardous Waste Information Systems (HWIS, 1986-2005).

13 Limitations and Use of Report

BASIS OF REPORT

This report ("Report") is based on site conditions known or inferred by the investigation undertaken as of the date of the Report. Should changes occur which potentially impact the condition of the site the recommendations of EXP may require re-evaluation. Where special concerns exist, or the Client has special considerations or requirements, these should be disclosed to EXP to allow for additional or special investigations to be undertaken not otherwise within the scope of investigation conducted for the purpose of the Report.

Where applicable, recommended field services are the minimum necessary to ascertain that construction is being carried out in general conformity with building code guidelines, generally accepted practices and EXP's recommendations. Any reduction in the level of services recommended will result in EXP providing qualified opinions regarding the adequacy of the work. EXP can assist design professionals or contractors retained by the Client to review applicable plans, drawings, and specifications as they relate to the Report or to conduct field reviews during construction.

RELIANCE ON INFORMATION PROVIDED

The evaluation and conclusions contained in the Report are based on conditions in evidence at the time of site inspections and information provided to EXP by the Client and others. The Report has been prepared for the specific site, development, building, design or building assessment objectives and purpose as communicated by the Client. EXP has relied in good faith upon such representations, information and instructions and accepts no responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of any misstatements, omissions, misrepresentation or fraudulent acts of persons providing information. Unless specifically stated otherwise, the applicability and reliability of the findings, recommendations, suggestions or opinions expressed in the Report are only valid to the extent that there has been no material alteration to or variation from any of the information provided to EXP. If new information about the environmental conditions at the Site is found, the information should be provided to EXP so that it can be reviewed and revisions to the conclusions and/or recommendations can be made, if warranted.

STANDARD OF CARE

The Report has been prepared in a manner consistent with the degree of care and skill exercised by engineering consultants currently practicing under similar circumstances and locale. No other warranty, expressed or implied, is made. Unless specifically stated otherwise, the Report does not contain environmental consulting advice.

COMPLETE REPORT

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment form part of the Report. This material includes, but is not limited to, the terms of reference given to EXP by the Client, communications between EXP and the Client, other reports, proposals or documents prepared by EXP for the Client in connection with the site described in the Report. In order to properly understand the suggestions, recommendations and opinions expressed in the Report, reference must be made to the Report in its entirety. EXP is not responsible for use by any party of portions of the Report.

USE OF REPORT

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client. No other party may use or rely upon the Report in whole or in part without the written consent of EXP. Any use of the Report, or any portion of the Report, by a third party are the sole responsibility of such third party. EXP is not responsible for damages suffered by any third party resulting from unauthorised use of the Report.

REPORT FORMAT

Where EXP has submitted both electronic file and a hard copy of the Report, or any document forming part of the Report, only the signed and sealed hard copy shall be the original documents for record and working purposes. In the event of a dispute or discrepancy, the hard copy shall govern. Electronic files transmitted by EXP utilize specific software and hardware systems. EXP makes no representation about the compatibility of these files with the Client's current or future software and hardware systems. Regardless of format, the documents described herein are EXP's instruments of professional service and shall not be altered without the written consent of EXP.

14 Closure

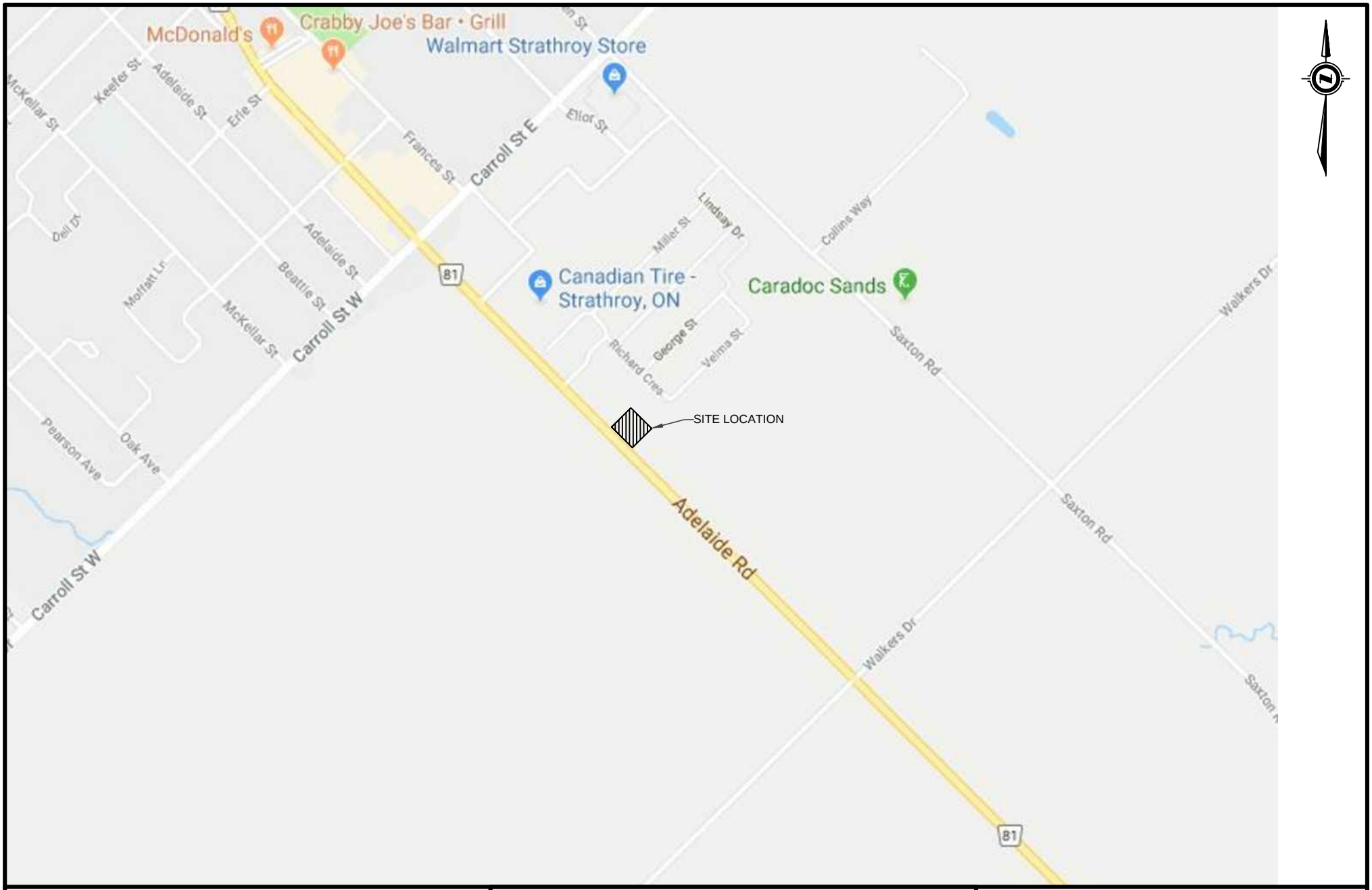
We trust this report satisfies your immediate requirements. If you have any questions regarding the information in this report, please do not hesitate to contact this office.

EXP Services Inc.

Mona Ungerer
Environmental Technician
Environmental Division

Bob Dufton H.B.Sc, P.Geo., QP_{ESA}
Senior Environmental Scientist
Environmental Division

Figures



EXP Services Inc.
15701 Robin's Hill Road
London, Ontario
N5V 0A5

CLIENT:	WOLFAJM HOLDINGS INC.
SITE:	24546 ADELAIDE ROAD, STRATHROY, ONTARIO
TITLE:	PHASE I & II ESA - SITE LOCATION PLAN
DATE:	FEBRUARY 2019
PROJECT No:	LON-00016790-EN
FIG	1

0 400 800

APPROXIMATE SCALE
(METRES)

EXP Services Inc.
15701 Robin's Hill Road
London, Ontario
N5V 0A5

CLIENT:	WOLFAJM HOLDINGS INC.
SITE:	24546 ADELAIDE ROAD, STRATHROY, ONTARIO
TITLE:	PHASE I & II ESA - SITE PLAN
DATE:	FEBRUARY 2019
PROJECT No:	LON-00016790-EN
FIG	2

0 40 80

APPROXIMATE SCALE
(METRES)

EXP Services Inc.
15701 Robin's Hill Road
London, Ontario
N5V 0A5

CLIENT: WOLFAJM HOLDINGS INC.

SITE: 24546 ADELAIDE ROAD, STRATHROY, ONTARIO

TITLE: PHASE I & II ESA - BOREHOLE LOCATION PLAN

DATE:	PROJECT No:	FIG
FEBRUARY 2019	LON-00016790-EN	3

LEGEND:

- BOREHOLE/MONITORING WELL LOCATIONS
- [96.22] GROUNDWATER ELEVATION SINGLE WELL
- INFERRED GROUNDWATER FLOW DIRECTION

Appendix A:
Site Photographs

Photograph 1: Northeast facing view of Site

Photograph 2: Southeast facing view of Site

Photograph 3: Southwest facing view of Site

Photograph 4: Suspected filler pipe on northwest corner of the Site just south of the driveway

Photograph 5: Close-up of suspected filler pipe

Photograph 6: Fill pile on southeast corner of the Site

Appendix B:
Aerial Photographs

1955 Aerial photograph
(Arrow indicates Site location)

1972 Aerial photograph

1989 Aerial Photograph

1992 Aerial photograph

1999-2001 Aerial photograph

2006 Aerial Photograph

2018 Aerial Photograph

Appendix C:
Regulatory Correspondence

Ontario Ministry of the Environment

Freedom of Information Request

This form is for requesting documents which are in the Ministry's files on environmental concerns related to properties. Please refer to the guide on completion and use of this form. Our fax no. is (416) 314-4285.

Requester Data

Name, Company Name, Mailing Address and Email Address of Requester

Email address: Mona Ungerer, exp Services Inc.
15701 Robins Hill Road
London, ON
N5V 0A5

mona.ungerer@exp.com

Telephone/Fax Nos.	Your Project/Reference No.	Signature/Print /Name of Requester
Tel. 1-519-963-3000 Fax 1-519-963-1152	LON-00016790-EN	

For Ministry Use Only

FOI Request No.	Date Request Received

Fee Paid

☐ ACCT ☐ CHQ ☐ VISA/MC ☐ CASH

☐ CNR ☐ ER ☐ NOR ☐ SWR ☐ WCR
☐ SAC ☐ IEB ☐ EAA ☐ EMR ☐ SWA

Request Parameters

Municipal Address / Lot, Concession, Geographic Township **(Municipal address essential for cities, towns or regions)**
24546 Adelaide Road, Strathroy, ON

Present Property Owner(s) and Date(s) of Ownership
990408 Ontario Limited

Previous Property Owner(s) and Date(s) of Ownership
Unknown

Present/Previous Tenant(s),(if applicable)
vacant

Search Parameters *Files older than 2 years may require $60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.*	**Specify Year(s) Requested**
Environmental concerns (General correspondence, occurrence reports, abatement)	2016 - 2018
Orders	2016 - 2018
Spills	2016 - 2018
Investigations/prosecutions ➤ Owner **AND** tenant information must be provided	2016 - 2018
Waste Generator number/classes	2016 - 2018

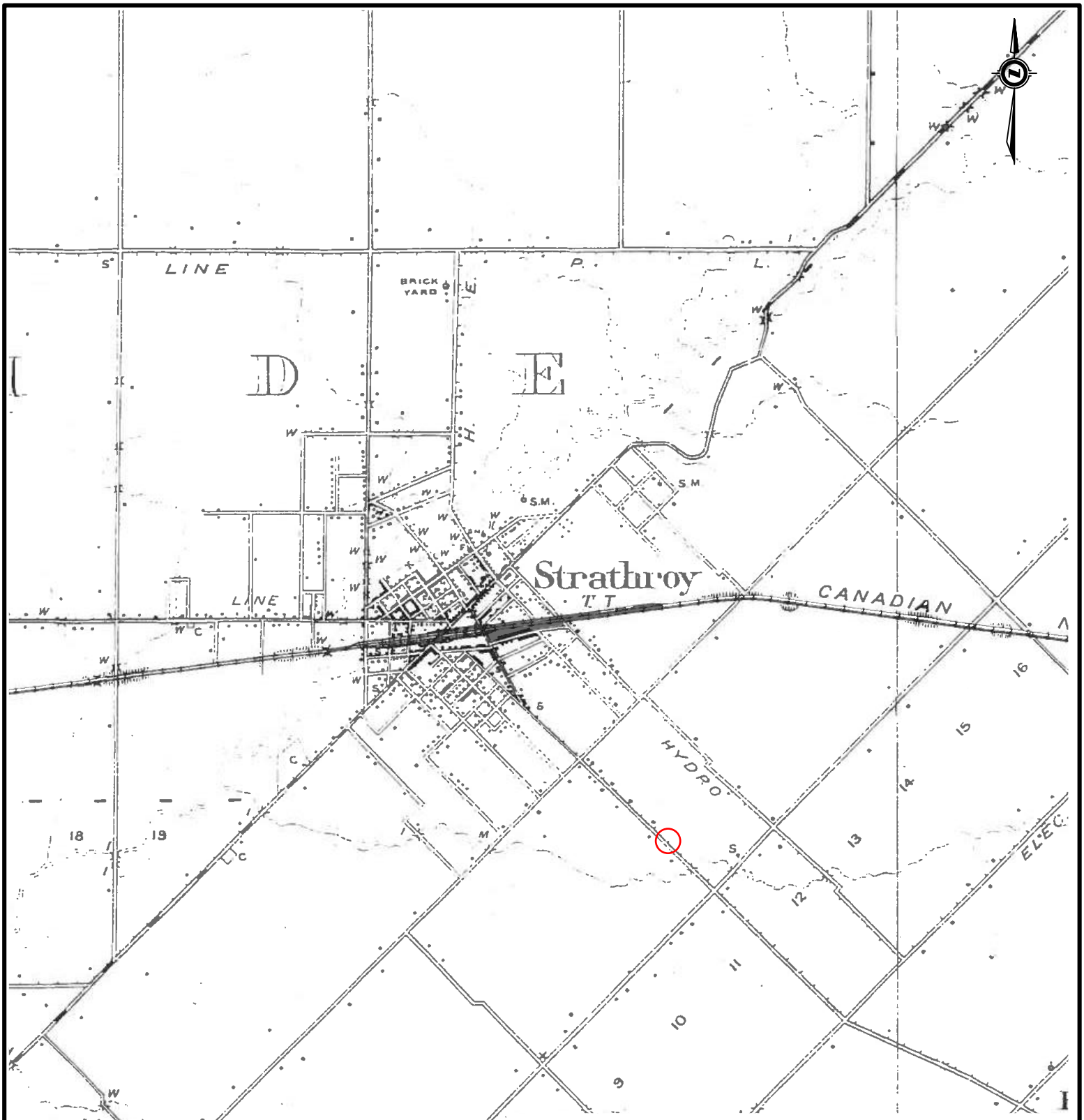
Certificates of Approval ➤ Proponent information must be provided

1985 and prior records are searched manually. **Search fees in excess of $300.00** could be incurred, depending on the types and years to be searched. Specify Certificates of Approval number(s) (if known). **If supporting documents are also required, mark SD box** and specify type e.g. maps, plans, reports, etc.

	SD	**Specify Year(s) Requested**
air - *emissions*		1986 - present
water - *mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)*		1986 - present
sewage - *sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations*		1986 - present
waste water - *industrial discharges*		1986 - present
waste sites - *disposal, landfill sites, transfer stations, processing sites, incinerator* sites		1986 - present
waste systems - *PCB destruction, mobile waste processing units, haulers: sewage, non-hazardous & hazardous waste*		1986 - present
pesticides - *licenses*		1986 - present

A $5.00 non-refundable application fee, payable to the Minister of Finance, is mandatory. The cost of locating on-site and/or preparing any record is $30.00/hour and 20 cents/page for photocopying and you will be contacted for approval for fees in excess of $30.00.

Appendix D:
Topographic Maps



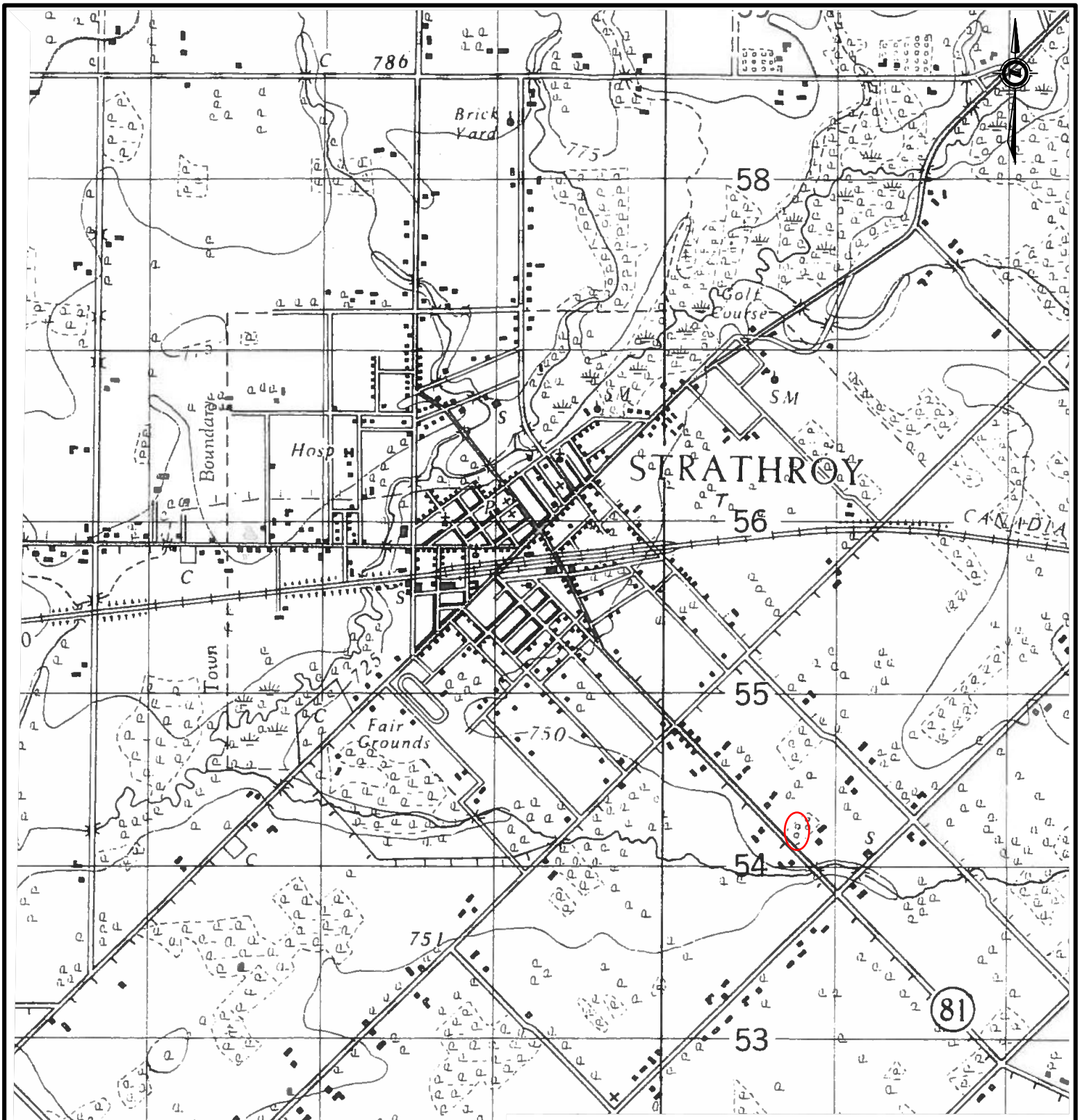
exp Services Inc.
t: +1.519.963.3000 | f: +1.519.963.1152
15701 Robin's Hill Rd,
London, ON Canada, N5V 0A5

CLIENT: WolfAJM Holdings Inc.

PROJECT: 24546 Adelaide Road, Strathroy, Ontario

TITLE: 1974 Topographic Map (Not to scale)

PROJ. NO:		
LON00016790EN	December, 2018	TOPO - 1



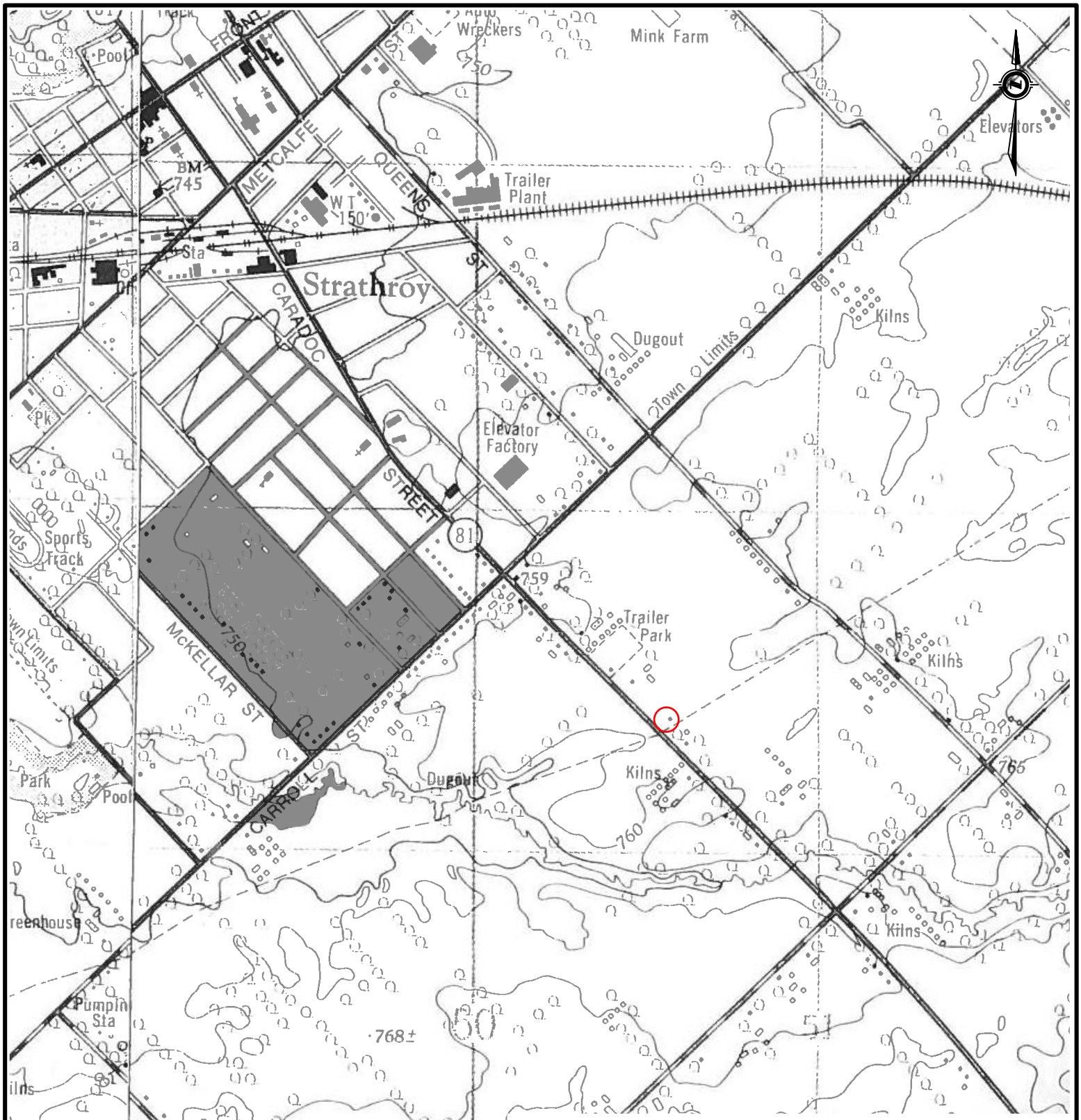
exp Services Inc.
t: +1.519.963.3000 | f: +1.519.963.1152
15701 Robin's Hill Rd,
London, ON Canada, N5V 0A5

CLIENT: WolfAJM Holdings Inc.

PROJECT: 24546 Adelaide Road, Strathroy, Ontario

TITLE: 1950 Topographic Map (Not to scale)

PROJ. NO: LON00016790EN	December, 2018	TOPO - 2



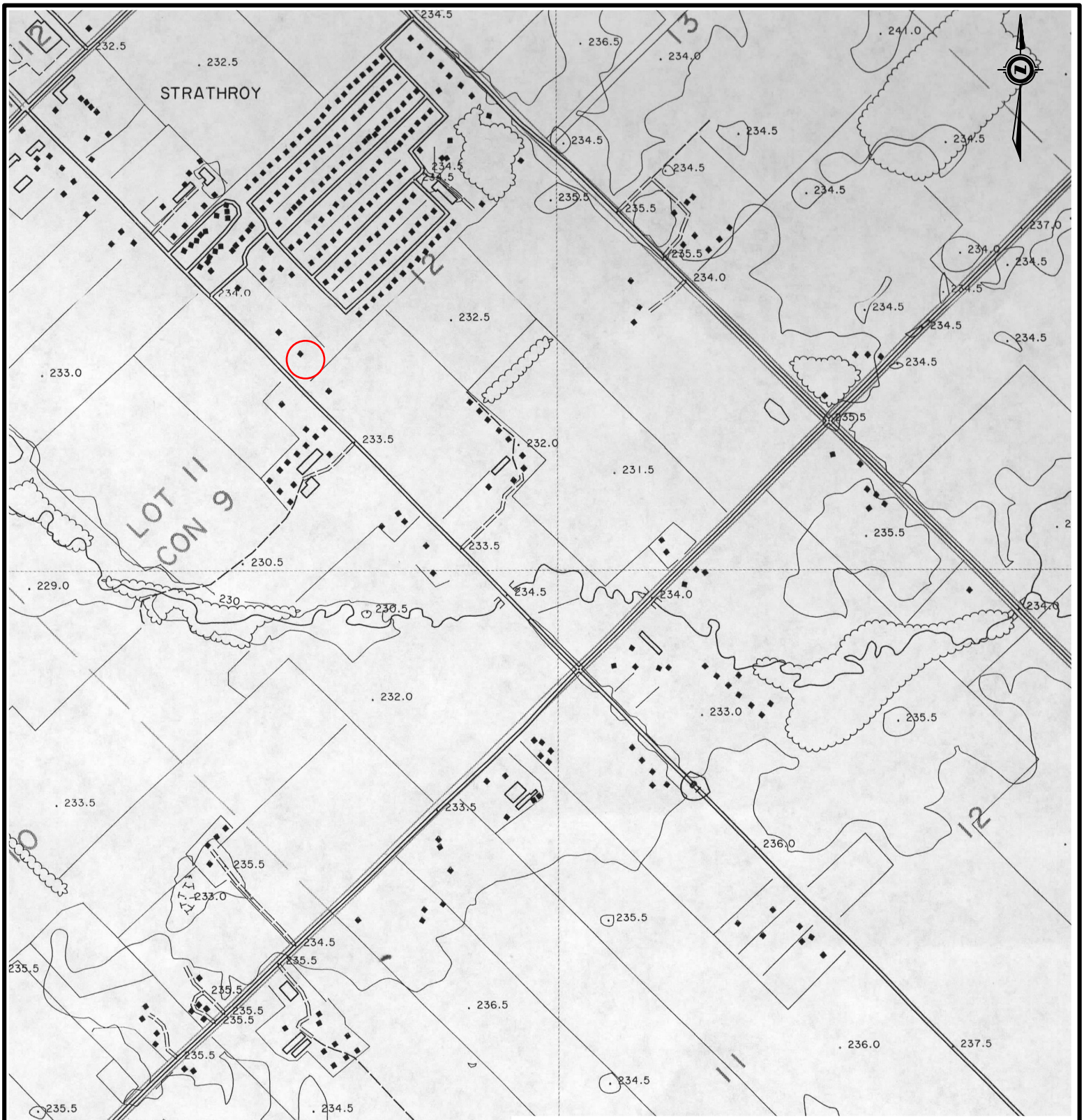
exp Services Inc.
t: +1.519.963.3000 | f: +1.519.963.1152
15701 Robin's Hill Rd,
London, ON Canada, N5V 0A5

CLIENT: WolfAJM Holdings Inc.

PROJECT: 24546 Adelaide Road, Strathroy, Ontario

TITLE: 1973 Topographic Map (Not to scale)

PROJ. NO: LON00016790EN	December, 2018	TOPO - 3



exp Services Inc.
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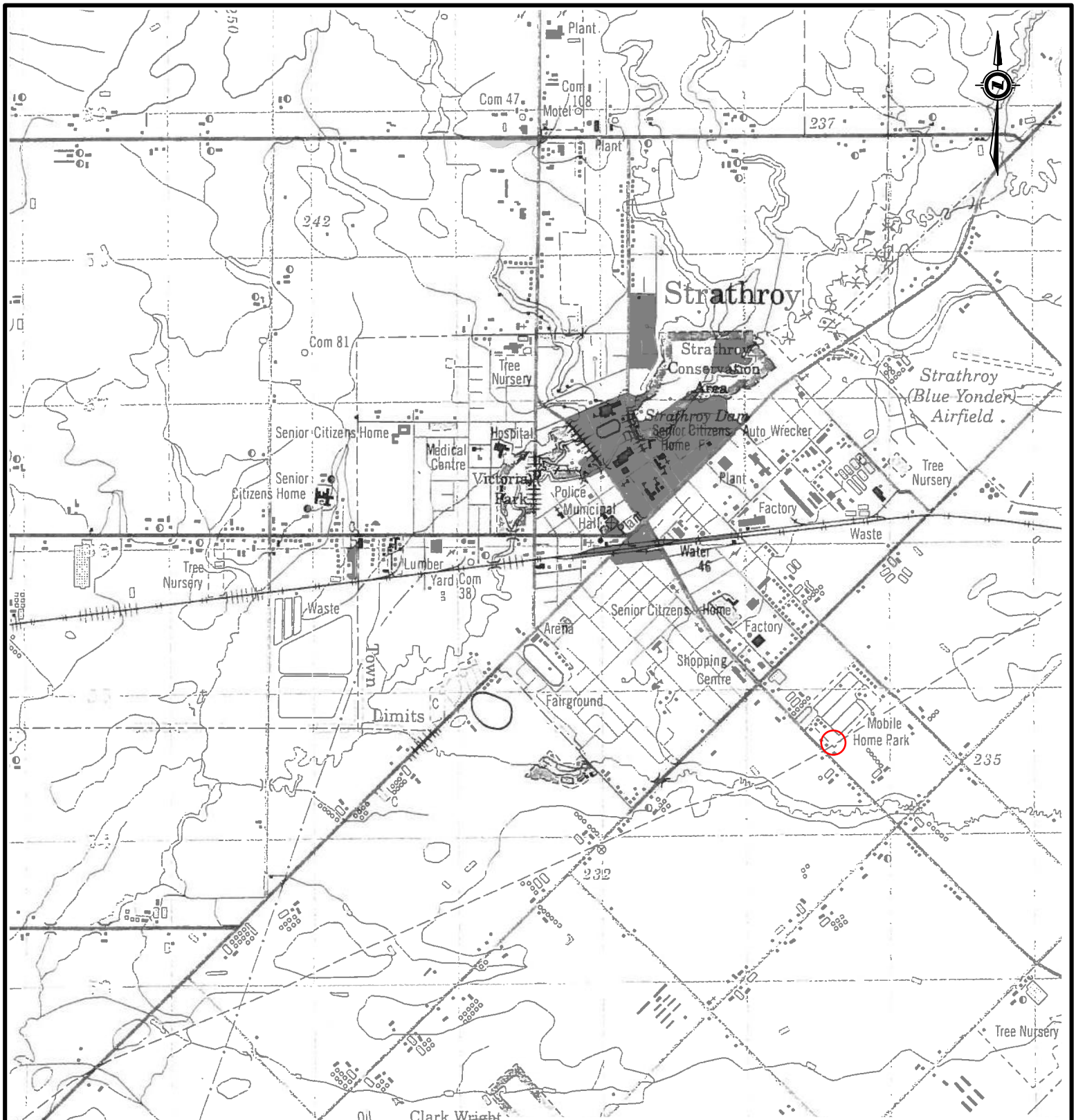
15701 Robin's Hill Rd,
London, ON Canada, N5V 0A5

CLIENT: WolfAJM Holdings Inc.

PROJECT: 24546 Adelaide Road, Strathroy, Ontario

TITLE: 1992 Topographic Map (Not to scale)

PROJ. NO: LON00016790EN	December, 2018	TOPO - 4



exp Services Inc.
t: +1.519.963.3000 | f: +1.519.963.1152
15701 Robin's Hill Rd,
London, ON Canada, N5V 0A5

CLIENT: WolfAJM Holdings Inc.

PROJECT: 24546 Adelaide Road, Strathroy, Ontario

TITLE: 2000 Topographic Map (Not to scale)

PROJ. NO:		
LON00016790EN	December, 2018	TOPO - 5

Appendix E:
ERIS EcoLog

ENVIRONMENTAL RISK INFORMATION SERVICES

DATABASE REPORT

Project Property:	*24546 Adelaide Road* *24546 Adelaide Road* *Strathroy ON N7G 3H4*
Project No:	
Report Type:	*Standard Report*
Order No:	*20181211035*
Requested by:	*exp Services Inc.*
Date Completed:	*December 14, 2018*

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

Table of Contents

Executive Summary

Property Information:

Project Property: *24546 Adelaide Road*
24546 Adelaide Road Strathroy ON N7G 3H4

Project No:

Coordinates:

Latitude:	*42.942537*
Longitude:	*-81.606096*
UTM Northing:	*4,754,611.83*
UTM Easting:	*450,552.06*
UTM Zone:	*UTM Zone 17T*

Elevation: *761 FT*
231.85 M

Order Information:

Order No: *20181211035*
Date Requested: *December 11, 2018*
Requested by: *exp Services Inc.*
Report Type: *Standard Report*

Historical/Products:

Executive Summary: Report Summary

Database	Name	Searched	Project Property	Within 0.25 km	Total
AAGR	*Abandoned Aggregate Inventory*	Y	0	0	0
AGR	*Aggregate Inventory*	Y	0	0	0
AMIS	*Abandoned Mine Information System*	Y	0	0	0
ANDR	*Anderson's Waste Disposal Sites*	Y	0	0	0
AUWR	*Automobile Wrecking & Supplies*	Y	0	0	0
BORE	*Borehole*	Y	0	0	0
CA	*Certificates of Approval*	Y	0	0	0
CFOT	*Commercial Fuel Oil Tanks*	Y	0	0	0
CHEM	*Chemical Register*	Y	0	0	0
CNG	*Compressed Natural Gas Stations*	Y	0	0	0
COAL	*Inventory of Coal Gasification Plants and Coal Tar Sites*	Y	0	0	0
CONV	*Compliance and Convictions*	Y	0	0	0
CPU	*Certificates of Property Use*	Y	0	0	0
DRL	*Drill Hole Database*	Y	0	0	0
DRYCLEANERS	*Dry Cleaning Facilities*	Y	0	0	0
EASR	*Environmental Activity and Sector Registry*	Y	0	0	0
EBR	*Environmental Registry*	Y	0	0	0
ECA	*Environmental Compliance Approval*	Y	0	0	0
EEM	*Environmental Effects Monitoring*	Y	0	0	0
EHS	*ERIS Historical Searches*	Y	0	2	2
EIIS	*Environmental Issues Inventory System*	Y	0	0	0
EMHE	*Emergency Management Historical Event*	Y	0	0	0
EXP	*List of TSSA Expired Facilities*	Y	0	0	0
FCON	*Federal Convictions*	Y	0	0	0
FCS	*Contaminated Sites on Federal Land*	Y	0	0	0
FOFT	*Fisheries & Oceans Fuel Tanks*	Y	0	0	0
FST	*Fuel Storage Tank*	Y	0	0	0
FSTH	*Fuel Storage Tank - Historic*	Y	0	0	0
GEN	*Ontario Regulation 347 Waste Generators Summary*	Y	0	10	10
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	0	0
LIMO	*Landfill Inventory Management Ontario*	Y	0	0	0
MINE	*Canadian Mine Locations*	Y	0	0	0
MISA PENALTY	*Environmental Penalty Annual Report*	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	0	0
NDFT	National Defense & Canadian Forces Fuel Tanks	Y	0	0	0
NDSP	National Defense & Canadian Forces Spills	Y	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0
NEBI	National Energy Board Pipeline Incidents	Y	0	0	0
NEBW	National Energy Board Wells	Y	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0
NPCB	National PCB Inventory	Y	0	0	0
NPRI	National Pollutant Release Inventory	Y	0	0	0
OGW	Oil and Gas Wells	Y	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	0	0
ORD	Orders	Y	0	0	0
PAP	Canadian Pulp and Paper	Y	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0
PES	Pesticide Register	Y	0	0	0
PINC	TSSA Pipeline Incidents	Y	0	1	1
PRT	Private and Retail Fuel Storage Tanks	Y	0	0	0
PTTW	Permit to Take Water	Y	0	0	0
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0
RSC	Record of Site Condition	Y	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	0	0
SCT	Scott's Manufacturing Directory	Y	0	0	0
SPL	Ontario Spills	Y	0	1	1
SRDS	Wastewater Discharger Registration Database	Y	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0
VAR	TSSA Variances for Abandonment of Underground Storage Tanks	Y	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0
WWIS	Water Well Information System	Y	0	26	26
	Total:		0	40	40

Executive Summary: Site Report Summary - Project Property

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

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

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
1	WWIS		lot 12 con 9 ON ***Well ID:*** 4104930	W/18.8	0.00	19
2	WWIS		lot 12 con 9 ON ***Well ID:*** 4112066	WSW/29.4	0.00	21
3	WWIS		lot 13 con 9 ON ***Well ID:*** 4111697	SE/47.8	0.00	24
4	WWIS		ON ***Well ID:*** 7051358	SE/49.6	0.00	27
5	EHS		24576 Adelaide Rd. Strathroy ON	NW/64.8	0.00	28
5	GEN	Imperial Oil Limited (c/o Sara Yonson)	24576 Adelaide Street Strathroy ON N7G 2P8	NW/64.8	0.00	28
5	GEN	Imperial Oil Limited	24576 Adelaide Street Strathroy ON	NW/64.8	0.00	29
5	GEN	Imperial Oil Limited	24576 Adelaide Street Strathroy ON	NW/64.8	0.00	29
5	GEN	Imperial Oil Limited	24576 Adelaide Street Strathroy ON	NW/64.8	0.00	29
5	GEN	Imperial Oil Limited	24576 Adelaide Street Strathroy ON N7G 2P8	NW/64.8	0.00	30
5	GEN	Imperial Oil	24576 Adelaide Street Strathroy ON	NW/64.8	0.00	30
5	GEN	Imperial Oil	24576 Adelaide Street Strathroy ON N7G 2P8	NW/64.8	0.00	30

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
5	GEN	Imperial Oil	24576 Adelaide Street Strathroy ON N7G 2P8	NW/64.8	0.00	31
5	GEN	Imperial Oil	24576 Adelaide Street Strathroy ON N7G 2P8	NW/64.8	0.00	31
5	GEN	Imperial Oil	24576 Adelaide Street Strathroy ON N7G 2P8	NW/64.8	0.00	31
6	WWIS		STRATHROY ON ***Well ID:*** 4116755	SE/93.3	0.00	32
7	WWIS		STRATHROY ON ***Well ID:*** 7050992	ESE/99.8	0.00	34
8	WWIS		lot 12 con 9 ON ***Well ID:*** 4112061	ENE/110.4	0.00	36
9	WWIS		lot 12 con 9 Stratford ON ***Well ID:*** 7205488	N/145.3	1.00	39
9	WWIS		lot 12 con 9 STRATHROY ON ***Well ID:*** 7205489	N/145.3	1.00	41
10	WWIS		STRATHROY ON ***Well ID:*** 7150109	N/158.4	1.00	42
11	WWIS		lot 12 con 9 ON ***Well ID:*** 4112063	NW/160.6	0.00	45
12	WWIS		ON ***Well ID:*** 4116530	NNE/165.4	1.00	47
13	WWIS		lot 12 con 9 ON ***Well ID:*** 4112062	NNW/168.7	0.82	49
14	WWIS		STRATHROY ON	NNE/169.5	1.00	52

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 7222160			
15	PINC		481 Richard Crescent, Strathroy ON	N/173.6	1.00	54
16	WWIS		STRATHROY ON ***Well ID:*** 7191644	NNW/176.7	0.68	55
17	WWIS		lot 12 con 9 ON ***Well ID:*** 4112065	N/177.6	1.00	57
18	WWIS		STRATHROY ON ***Well ID:*** 7108703	N/184.2	1.00	60
19	WWIS		STRATHROY ON ***Well ID:*** 7167584	N/185.5	1.00	62
20	EHS		24586 Adelaide Rd Strathroy ON N7G 2P8	NE/195.8	1.00	64
21	WWIS		STRATHROY ON ***Well ID:*** 7165930	NW/197.9	0.00	64
22	WWIS		STRATHROY ON ***Well ID:*** 7183856	NNE/204.1	1.00	66
23	WWIS		lot 12 con 9 ON ***Well ID:*** 4112064	NNW/210.8	0.00	68
24	WWIS		ON ***Well ID:*** 7045022	ENE/223.6	1.00	71
25	WWIS		STRATHROY ON ***Well ID:*** 7271822	NW/227.1	0.00	73
26	WWIS		STRATHROY ON ***Well ID:*** 7268262	NNW/236.3	1.00	75
27	WWIS		ON	N/243.2	1.00	77

Map Key	DB	Company/Site Name	Address	Dir/Dist (m)	Elev Diff (m)	Page Number
			Well ID: 4116192			
28	WWIS		lot 12 con 9 STRATHROY ON ***Well ID:*** 7268264	NNW/243.5	0.45	79
29	SPL	Parkbridge Lifestyle Communities Inc.	478 Richard Cresc. Strathroy-Caradoc ON	NW/247.7	0.00	82

Executive Summary: Summary By Data Source

EHS - ERIS Historical Searches

A search of the EHS database, dated 1999-Oct 31, 2018 has found that there are 2 EHS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	24576 Adelaide Rd. Strathroy ON	NW	64.81	5
	24586 Adelaide Rd Strathroy ON N7G 2P8	NE	195.77	20

GEN - Ontario Regulation 347 Waste Generators Summary

A search of the GEN database, dated 1986-June 30, 2018 has found that there are 10 GEN site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
Imperial Oil	24576 Adelaide Street Strathroy ON	NW	64.81	5
Imperial Oil Limited	24576 Adelaide Street Strathroy ON N7G 2P8	NW	64.81	5
Imperial Oil Limited	24576 Adelaide Street Strathroy ON	NW	64.81	5
Imperial Oil Limited	24576 Adelaide Street Strathroy ON	NW	64.81	5
Imperial Oil Limited (c/o Sara Yonson)	24576 Adelaide Street Strathroy ON N7G 2P8	NW	64.81	5
Imperial Oil	24576 Adelaide Street Strathroy ON N7G 2P8	NW	64.81	5

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
Imperial Oil	24576 Adelaide Street Strathroy ON N7G 2P8	NW	64.81	5
Imperial Oil Limited	24576 Adelaide Street Strathroy ON	NW	64.81	5
Imperial Oil	24576 Adelaide Street Strathroy ON N7G 2P8	NW	64.81	5
Imperial Oil	24576 Adelaide Street Strathroy ON N7G 2P8	NW	64.81	5

PINC - TSSA Pipeline Incidents

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

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	481 Richard Crescent, Strathroy ON	N	173.61	15

SPL - Ontario Spills

A search of the SPL database, dated 1988-Jul 2018 has found that there are 1 SPL site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
Parkbridge Lifestyle Communities Inc.	478 Richard Cresc. Strathroy-Caradoc ON	NW	247.75	29

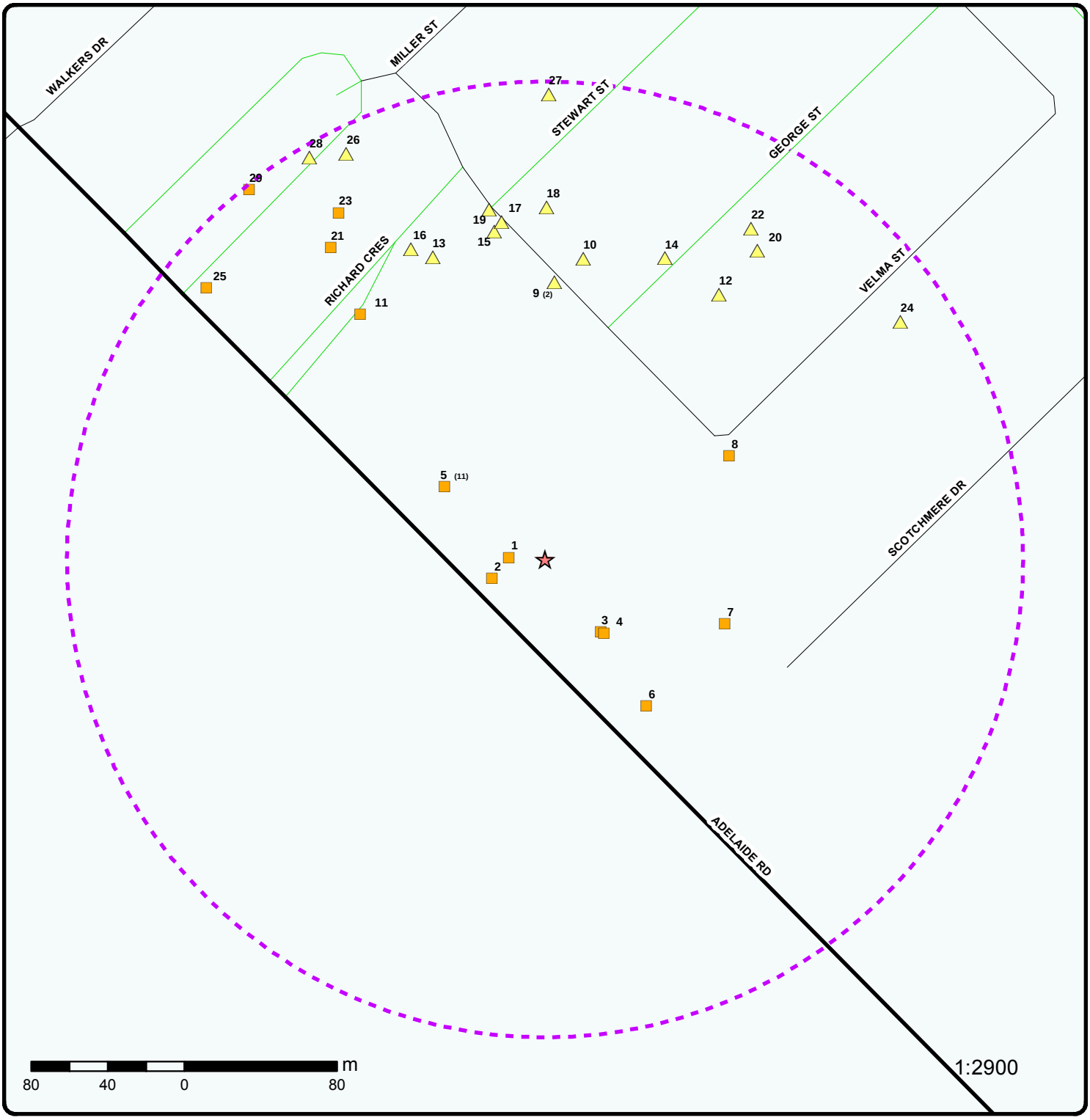
WWIS - Water Well Information System

A search of the WWIS database, dated Dec 31, 2017 has found that there are 26 WWIS site(s) within approximately 0.25 kilometers of the project property.

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	lot 12 con 9 ON ***Well ID:*** 4104930	W	18.80	1
	lot 12 con 9 ON ***Well ID:*** 4112066	WSW	29.45	2
	lot 13 con 9 ON ***Well ID:*** 4111697	SE	47.81	3
	ON ***Well ID:*** 7051358	SE	49.65	4
	STRATHROY ON ***Well ID:*** 4116755	SE	93.30	6
	STRATHROY ON ***Well ID:*** 7050992	ESE	99.85	7
	lot 12 con 9 ON ***Well ID:*** 4112061	ENE	110.44	8
	lot 12 con 9 STRATHROY ON ***Well ID:*** 7205489	N	145.25	9
	lot 12 con 9 Stratford ON ***Well ID:*** 7205488	N	145.25	9
	STRATHROY ON ***Well ID:*** 7150109	N	158.43	10
	lot 12 con 9 ON ***Well ID:*** 4112063	NW	160.59	11
	ON	NNE	165.41	12

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	Well ID: 4116530			
	lot 12 con 9 ON ***Well ID:*** 4112062	NNW	168.73	13
	STRATHROY ON ***Well ID:*** 7222160	NNE	169.48	14
	STRATHROY ON ***Well ID:*** 7191644	NNW	176.66	16
	lot 12 con 9 ON ***Well ID:*** 4112065	N	177.63	17
	STRATHROY ON ***Well ID:*** 7108703	N	184.17	18
	STRATHROY ON ***Well ID:*** 7167584	N	185.46	19
	STRATHROY ON ***Well ID:*** 7165930	NW	197.94	21
	STRATHROY ON ***Well ID:*** 7183856	NNE	204.06	22
	lot 12 con 9 ON ***Well ID:*** 4112064	NNW	210.80	23
	ON ***Well ID:*** 7045022	ENE	223.59	24
	STRATHROY ON ***Well ID:*** 7271822	NW	227.07	25

Equal/Higher Elevation	Address	Direction	Distance (m)	Map Key
	STRATHROY ON ***Well ID:*** 7268262	NNW	236.32	**26**
	ON ***Well ID:*** 4116192	N	243.18	**27**
	lot 12 con 9 STRATHROY ON ***Well ID:*** 7268264	NNW	243.55	**28**



Map : 0.25 Kilometer Radius

Order No: 20181211035

Address: 24546 Adelaide Road, Strathroy, ON, N7G 3H4

ENVIRONMENTAL RISK INFORMATION SERVICES

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

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

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

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

Source: © 2015 DMTI Spatial Inc.

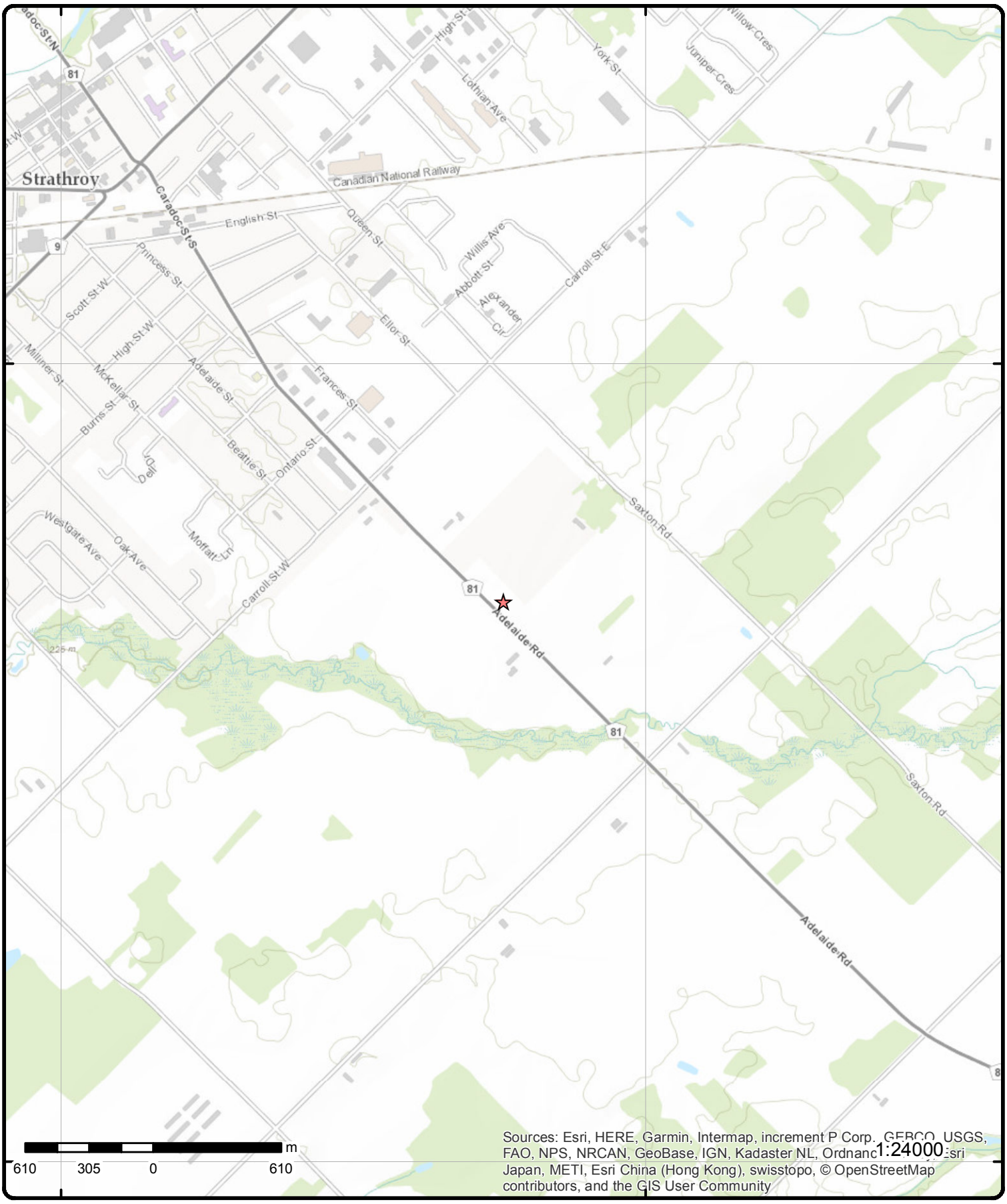
Aerial (2012)

Address: 24546 Adelaide Road, Strathroy, ON, N7G 3H4

Source: ESRI World Imagery

Order No: 20181211035

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



Topographic Map

Address: 24546 Adelaide Road, Strathroy, ON, N7G 3H4

Source: ESRI World Topographic Map

Order No: 20181211035

ERIS ENVIRONMENTAL RISK INFORMATION SERVICES

Detail Report

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
1	1 of 1	W/18.8	231.9 / 0.00	lot 12 con 9 ON	WWIS

Well ID:	4104930	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Commerical	**Date Received:**	3/3/1970
Sec. Water Use:	Industrial	**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	4741
Casing Material:		**Form Version:**	1
Audit No:		**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	012
Well Depth:		**Concession:**	09
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10247921	**Elevation:**	232.42
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	o	**East83:**	450533.3
Code OB Desc:	Overburden	**Org CS:**	
Open Hole:		**North83:**	4754613
Cluster Kind:		**UTMRC:**	4
Date Completed:	06-DEC-69	**UTMRC Desc:**	margin of error : 30 m - 100 m
Remarks:		**Location Method:**	p4
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931778868
Layer:	1
Color:	
General Color:	
Mat1:	01
Most Common Material:	FILL
Mat2:	
Other Materials:	
Mat3:	

Other Materials:
Formation Top Depth: 0
Formation End Depth: 4
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931778870
Layer: 3
Color: 2
General Color: GREY
Mat1: 09
Most Common Material: MEDIUM SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 18
Formation End Depth: 32
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931778869
Layer: 2
Color: 6
General Color: BROWN
Mat1: 09
Most Common Material: MEDIUM SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 4
Formation End Depth: 18
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 964104930
Method Construction Code: 1
Method Construction: Cable Tool
Other Method Construction:

Pipe Information

Pipe ID: 10796491
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930418008
Layer: 1
Material: 1
Open Hole or Material: STEEL
Depth From:
Depth To: 28

Casing Diameter:	1
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	933343500
Layer:	1
Slot:	010
Screen Top Depth:	28
Screen End Depth:	32
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.25

Results of Well Yield Testing

Pump Test ID:	994104930
Pump Set At:	
Static Level:	12
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	20
Flowing Rate:	
Recommended Pump Rate:	20
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:	0
Flowing:	N

Water Details

Water ID:	933715653
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	28
Water Found Depth UOM:	ft

2	1 of 1	WSW/29.4	231.9 / 0.00	lot 12 con 9 ON	WWIS

Well ID:	4112066	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Not Used	**Date Received:**	6/15/1990
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	3366
Casing Material:		**Form Version:**	1
Audit No:	67932	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	012
Well Depth:		**Concession:**	09
Overburden/Bedrock:		**Concession Name:**	CON

Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	10254936	***Elevation:***	232.91
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	450524.3
Code OB Desc:	Overburden	***Org CS:***	
Open Hole:		***North83:***	4754602
Cluster Kind:		***UTMRC:***	3
Date Completed:	31-MAY-90	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	gps
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931810316
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	1
Formation End Depth:	8
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931810315
Layer:	1
Color:	
General Color:	
Mat1:	11
Most Common Material:	GRAVEL
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	1
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931810317

Layer:	3
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	8
Formation End Depth:	10
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931810318
Layer:	4
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	10
Formation End Depth:	38
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	964112066
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	

Pipe Information

Pipe ID:	10803506
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930427139
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	
Depth To:	32
Casing Diameter:	3
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	933346158
Layer:	1
Slot:	15

Screen Top Depth:	32
Screen End Depth:	36
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	4

Results of Well Yield Testing

Pump Test ID:	994112066
Pump Set At:	
Static Level:	11
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	35
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	N

Water Details

Water ID:	933722719
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	15
Water Found Depth UOM:	ft

---

3 | ***1 of 1*** | ***SE/47.8*** | ***231.9 / 0.00*** | ***lot 13 con 9 ON*** | ***WWIS***

Well ID:	4111697	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Not Used	**Date Received:**	7/21/1989
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	3366
Casing Material:		**Form Version:**	1
Audit No:	22350	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	013
Well Depth:		**Concession:**	09
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10254592	**Elevation:**	232.58

DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	o	**East83:**	450581.3
Code OB Desc:	Overburden	**Org CS:**	
Open Hole:		**North83:**	4754574
Cluster Kind:		**UTMRC:**	3
Date Completed:	10-JUL-89	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	gps
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931808631
Layer:	3
Color:	2
General Color:	GREY
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	10
Formation End Depth:	31
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931808630
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	1
Formation End Depth:	10
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931808629
Layer:	1
Color:	
General Color:	
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

Method of Construction & Well Use

Method Construction ID: 964111697
Method Construction Code: 8
Method Construction: Jetting
Other Method Construction:

Pipe Information

Pipe ID: 10803162
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930426708
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From:
Depth To: 27
Casing Diameter: 1
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933345963
Layer: 1
Slot: 10
Screen Top Depth: 27
Screen End Depth: 30
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 1.25

Results of Well Yield Testing

Pump Test ID: 994111697
Pump Set At:
Static Level: 9
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate: 25
Flowing Rate:
Recommended Pump Rate: 25
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing: N

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

Water Details

Water ID:	933722381
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	10
Water Found Depth UOM:	ft

---

4 ***1 of 1*** ***SE/49.6*** ***231.9 / 0.00*** ***ON*** ***WWIS***

Well ID:	7051358	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	10/25/2007
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Abandoned-Other	***Abandonment Rec:***	Yes
Water Type:		***Contractor:***	6909
Casing Material:		***Form Version:***	3
Audit No:	Z71441	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	MIDDLESEX
Elevation (m):		***Municipality:***	STRATHROY TOWN
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:	23051358	***Elevation:***	232.57
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	450583
Code OB Desc:		***Org CS:***	UTM83
Open Hole:		***North83:***	4754573
Cluster Kind:		***UTMRC:***	3
Date Completed:	29-SEP-07	***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:	44006915
Layer:	1
Plug From:	0
Plug To:	11
Plug Depth UOM:	m

Pipe Information

Pipe ID: 29051358
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 42151358
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From: 0
Depth To: 10
Casing Diameter: 3.5
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 43151358
Layer: 1
Slot: 10
Screen Top Depth: 10
Screen End Depth: 11
Screen Material: 2
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 5

Hole Diameter

Hole ID: 46005371
Diameter: 5
Depth From: 0
Depth To: 11
Hole Depth UOM: m
Hole Diameter UOM: cm

---

5 | ***1 of 11*** | ***NW/64.8*** | ***231.9 / 0.00*** | ***24576 Adelaide Rd. Strathroy ON*** | ***EHS***

Order No: 20021023011
Status: C
Report Type: Complete Report
Report Date: 10/31/02
Date Received: 10/23/02
Previous Site Name:
Lot/Building Size:
Additional Info Ordered: Fire Insur. Maps and/or Site Plans and/or Inspection Reports; Title Search; Aerials Photos and/or Topographical Maps

Nearest Intersection: see map
Municipality:
Client Prov/State: ON
Search Radius (km): 0.40
X: -81.607168
Y: 42.943128

---

5 | ***2 of 11*** | ***NW/64.8*** | ***231.9 / 0.00*** | ***Imperial Oil Limited (c/o Sara Yonson) 24576 Adelaide Street Strathroy ON N7G 2P8*** | ***GEN***

Generator No.: ON9655297
Status:
Approval Years: 07,08
Contam. Facility:
MHSW Facility:
SIC Code: 447190

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

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

SIC Description: Other Gasoline Stations

--Details--
Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

---

5 ***3 of 11*** ***NW/64.8*** ***231.9 / 0.00*** ***Imperial Oil Limited***
24576 Adelaide Street
Strathroy ON
GEN

Generator No.: ON9655297
Status:
Approval Years: 2009
Contam. Facility:
MHSW Facility:
SIC Code: 447190
SIC Description: Other Gasoline Stations

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

--Details--
Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

---

5 ***4 of 11*** ***NW/64.8*** ***231.9 / 0.00*** ***Imperial Oil Limited***
24576 Adelaide Street
Strathroy ON
GEN

Generator No.: ON9655297
Status:
Approval Years: 2010
Contam. Facility:
MHSW Facility:
SIC Code: 447190
SIC Description: Other Gasoline Stations

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

--Details--
Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

---

5 ***5 of 11*** ***NW/64.8*** ***231.9 / 0.00*** ***Imperial Oil Limited***
24576 Adelaide Street
Strathroy ON
GEN

Generator No.: ON9655297
Status:
Approval Years: 2011
Contam. Facility:
MHSW Facility:
SIC Code: 447190
SIC Description: Other Gasoline Stations

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

--Details--
Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
5	6 of 11	NW/64.8	231.9 / 0.00	Imperial Oil Limited 24576 Adelaide Street Strathroy ON N7G 2P8	GEN

Generator No.: ON9655297
Status:
Approval Years: 2012
Contam. Facility:
MHSW Facility:
SIC Code: 447190
SIC Description: Other Gasoline Stations

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

--Details--
Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
5	7 of 11	NW/64.8	231.9 / 0.00	Imperial Oil 24576 Adelaide Street Strathroy ON	GEN

Generator No.: ON9655297
Status:
Approval Years: 2013
Contam. Facility:
MHSW Facility:
SIC Code: 447190
SIC Description:

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

--Details--
Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
5	8 of 11	NW/64.8	231.9 / 0.00	Imperial Oil 24576 Adelaide Street Strathroy ON N7G 2P8	GEN

Generator No.: ON9655297
Status:
Approval Years: 2015
Contam. Facility: No
MHSW Facility: No
SIC Code: 447190
SIC Description: 447190

PO Box No.:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: Grant Pettypiece
Phone No. Admin: 905-695-3217 Ext.3633

--Details--
Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
5	9 of 11	NW/64.8	231.9 / 0.00	Imperial Oil 24576 Adelaide Street Strathroy ON N7G 2P8	GEN

Generator No.: ON9655297
Status:
Approval Years: 2016
Contam. Facility: No
MHSW Facility: No
SIC Code: 447190
SIC Description: 447190

PO Box No.:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: Grant Pettypiece
Phone No. Admin: 905-695-3217 Ext.3633

--Details--
Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
5	10 of 11	NW/64.8	231.9 / 0.00	Imperial Oil 24576 Adelaide Street Strathroy ON N7G 2P8	GEN

Generator No.: ON9655297
Status:
Approval Years: 2014
Contam. Facility: No
MHSW Facility: No
SIC Code: 447190
SIC Description: 447190

PO Box No.:
Country: Canada
Choice of Contact: CO_ADMIN
Co Admin: Grant Pettypiece
Phone No. Admin: 905-695-3217 Ext.3633

--Details--
Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Waste Code: 252
Waste Description: WASTE OILS & LUBRICANTS

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
5	11 of 11	NW/64.8	231.9 / 0.00	Imperial Oil 24576 Adelaide Street Strathroy ON N7G 2P8	GEN

Generator No.: ON9655297
Status: Registered
Approval Years: As of Jun 2018
Contam. Facility:
MHSW Facility:
SIC Code:
SIC Description:

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

--Details--
Waste Code: 221 L

Waste Description: Light fuels

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

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

Waste Code: 221 I
Waste Description: Light fuels

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6 | **1 of 1** | **SE/93.3** | **231.9 / 0.00** | **STRATHROY ON** | **WWIS**

Well ID:	4116755	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Irrigation	**Date Received:**	12/18/2006
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	3366
Casing Material:		**Form Version:**	3
Audit No:	Z48918	**Owner:**	
Tag:	A046914	**Street Name:**	24528 ADELAIDE ROAD
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
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:	11693650	**Elevation:**	232.83
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	o	**East83:**	450605
Code OB Desc:	Overburden	**Org CS:**	UTM83
Open Hole:		**North83:**	4754535
Cluster Kind:		**UTMRC:**	3
Date Completed:	27-NOV-06	**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:	933076135
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND

Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 20.5
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 964116755
Method Construction Code: 8
Method Construction: Jetting
Other Method Construction:

Pipe Information

Pipe ID: 11698516
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930889244
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From: 0
Depth To: 17
Casing Diameter: 1.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933420988
Layer: 1
Slot: 10
Screen Top Depth: 17
Screen End Depth: 20.5
Screen Material: 1
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 1.25

Results of Well Yield Testing

Pump Test ID: 11702624
Pump Set At:
Static Level: 9
Final Level After Pumping:
Recommended Pump Depth: 10
Pumping Rate: 10
Flowing Rate:
Recommended Pump Rate:
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1

Pumping Duration HR: 1
Pumping Duration MIN:
Flowing:

Water Details

Water ID: 934080452
Layer: 1
Kind Code:
Kind:
Water Found Depth: 9
Water Found Depth UOM: ft

---

7 | **1 of 1** | **ESE/99.8** | **231.9 / 0.00** | **STRATHROY ON** | **WWIS**

Well ID: 7050992
Construction Date:
Primary Water Use: Irrigation
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:
Audit No: Z67342
Tag: A060618
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: 10/22/2007
Selected Flag: Yes
Abandonment Rec:
Contractor: 3366
Form Version: 4
Owner:
Street Name: 24528 ADEAIDE RD.
County: MIDDLESEX
Municipality: STRATHROY TOWN
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 23050992
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 19-SEP-07
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 232.04
Elevrc:
Zone: 17
East83: 450646
Org CS: UTM83
North83: 4754578
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1000018697
Layer: 1
Color:
General Color:

Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 26.5
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1000018704
Method Construction Code: 8
Method Construction: Jetting
Other Method Construction:

Pipe Information

Pipe ID: 1000018695
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1000018701
Layer:
Material: 2
Open Hole or Material: GALVANIZED
Depth From:
Depth To: 23
Casing Diameter: 1.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1000018702
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material: 1
Screen Depth UOM:
Screen Diameter UOM:
Screen Diameter:

Results of Well Yield Testing

Pump Test ID: 1000018696
Pump Set At:
Static Level: 10
Final Level After Pumping:
Recommended Pump Depth:
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:	

Water Details

Water ID:	1000018700
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	10
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1000018698
Diameter:	1.25
Depth From:	
Depth To:	26.5
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

---

8 | ***1 of 1*** | ***ENE/110.4*** | ***231.9 / 0.00*** | ***lot 12 con 9 ON*** | ***WWIS***

Well ID:	4112061	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Not Used	**Date Received:**	6/15/1990
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	3366
Casing Material:		**Form Version:**	1
Audit No:	67937	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	012
Well Depth:		**Concession:**	09
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10254931	**Elevation:**	233.43
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	o	**East83:**	450648.3
Code OB Desc:	Overburden	**Org CS:**	
Open Hole:		**North83:**	4754666
Cluster Kind:		**UTMRC:**	3
Date Completed:	31-MAY-90	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	gps
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			

Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Overburden and Bedrock Materials Interval

Formation ID: 931810299
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: 6
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931810300
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 6
Formation End Depth: 8
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931810301
Layer: 3
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 8
Formation End Depth: 38
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 964112061
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID:	10803501
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930427134
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	
Depth To:	32
Casing Diameter:	3
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	933346153
Layer:	1
Slot:	15
Screen Top Depth:	32
Screen End Depth:	36
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	4

Results of Well Yield Testing

Pump Test ID:	994112061
Pump Set At:	
Static Level:	12
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	35
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	N

Water Details

Water ID:	933722714
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	15
Water Found Depth UOM:	ft

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	1 of 2	N/145.3	232.9 / 1.00	lot 12 con 9 Stratford ON	WWIS

Well ID: 7205488
Construction Date:
Primary Water Use: Dewatering
Sec. Water Use:
Final Well Status: Dewatering
Water Type:
Casing Material:
Audit No: Z155866
Tag: A083469
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: 7/26/2013
Selected Flag: Yes
Abandonment Rec:
Contractor: 6909
Form Version: 7
Owner:
Street Name: 24386 ADELAIDE ROAD
County: MIDDLESEX
Municipality: CARADOC TOWNSHIP
Site Info:
Lot: 012
Concession: 09
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1004466672
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 12-JUL-13
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 232.89
Elevrc:
Zone: 17
East83: 450557
Org CS: UTM83
North83: 4754757
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1004887618
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: 6
Formation End Depth UOM: m

Annular Space/Abandonment Sealing Record

Plug ID: 1004887625

Layer: 1
Plug From: 0
Plug To: 6
Plug Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 1004887624
Method Construction Code: 8
Method Construction: Jetting
Other Method Construction:

Pipe Information

Pipe ID: 1004887617
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004887621
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 0
Depth To: 3
Casing Diameter: 3.5
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 1004887622
Layer: 1
Slot: 20
Screen Top Depth: 5
Screen End Depth: 6
Screen Material: 5
Screen Depth UOM: m
Screen Diameter UOM: cm
Screen Diameter: 5

Water Details

Water ID: 1004887620
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: m

Hole Diameter

Hole ID: 1004887619
Diameter:
Depth From:
Depth To:
Hole Depth UOM: m
Hole Diameter UOM: cm

Map Key	Number of Records	Direction/ Distance (m)	Elev/Diff (m)	Site	DB
9	2 of 2	N/145.3	232.9 / 1.00	lot 12 con 9 STRATHROY ON	WWIS

Well ID: 7205489
Construction Date:
Primary Water Use: Dewatering
Sec. Water Use:
Final Well Status: Abandoned-Other
Water Type:
Casing Material:
Audit No: Z155867
Tag: A083469
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: 7/26/2013
Selected Flag: Yes
Abandonment Rec: Yes
Contractor: 6909
Form Version: 7
Owner:
Street Name: 24386 ADELAIDE ROAD
County: MIDDLESEX
Municipality: CARADOC TOWNSHIP
Site Info:
Lot: 012
Concession: 09
Concession Name: CON
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1004466703
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 22-JUL-13
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:

Elevation: 232.89
Elevrc:
Zone: 17
East83: 450557
Org CS: UTM83
North83: 4754757
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Annular Space/Abandonment Sealing Record

Plug ID: 1004887634
Layer: 1
Plug From: 0
Plug To: 6
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1004887635
Layer: 2
Plug From:
Plug To:
Plug Depth UOM: ft

Method of Construction & Well

Use

Method Construction ID: 1004887633
Method Construction Code:
Method Construction:
Other Method Construction:

Pipe Information

Pipe ID: 1004887626
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004887630
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: 1004887631
Layer:
Slot:
Screen Top Depth:
Screen End Depth:
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter:

Water Details

Water ID: 1004887629
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1004887628
Diameter:
Depth From:
Depth To:
Hole Depth UOM: ft
Hole Diameter UOM: inch

---

10 ***1 of 1*** ***N/158.4*** ***232.9 / 1.00*** ***STRATHROY ON*** ***WWIS***

Well ID: 7150109 ***Data Entry Status:***
Construction Date: ***Data Src:***

Primary Water Use:	Irrigation	***Date Received:***	8/20/2010
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	3366
Casing Material:		***Form Version:***	7
Audit No:	Z113642	***Owner:***	
Tag:	A086005	***Street Name:***	1 GEORGE ST.
Construction Method:		***County:***	MIDDLESEX
Elevation (m):		***Municipality:***	STRATHROY TOWN
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:	1003295965	***Elevation:***	232.54
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	450572
Code OB Desc:		***Org CS:***	UTM83
Open Hole:		***North83:***	4754769
Cluster Kind:		***UTMRC:***	4
Date Completed:	19-JUL-10	***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:	1003314454
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	23.5
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1003314461
Method Construction Code:	8
Method Construction:	Jetting
Other Method Construction:	

Pipe Information

Pipe ID:	1003314452
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003314458
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	0
Depth To:	20
Casing Diameter:	1.25
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1003314459
Layer:	1
Slot:	8
Screen Top Depth:	20
Screen End Depth:	23.5
Screen Material:	1
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.25

Results of Well Yield Testing

Pump Test ID:	1003314453
Pump Set At:	
Static Level:	12
Final Level After Pumping:	12
Recommended Pump Depth:	
Pumping Rate:	30
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:	0
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	

Water Details

Water ID:	1003314457
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	12
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1003314455

Diameter:	1.25
Depth From:	
Depth To:	
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

11 | **1 of 1** | **NW/160.6** | **231.9 / 0.00** | **lot 12 con 9 ON** | **WWIS**

Well ID:	4112063	**Data Entry Status:**	
Construction Date:		**Data Src:**	1
Primary Water Use:	Not Used	**Date Received:**	6/15/1990
Sec. Water Use:	0	**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	3366
Casing Material:		**Form Version:**	1
Audit No:	67933	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	012
Well Depth:		**Concession:**	09
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10254933	**Elevation:**	233.62
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	o	**East83:**	450455.3
Code OB Desc:	Overburden	**Org CS:**	
Open Hole:		**North83:**	4754740
Cluster Kind:		**UTMRC:**	3
Date Completed:	31-MAY-90	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	gps
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931810307
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	8
Formation End Depth:	12

Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931810306
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: 8
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931810308
Layer: 3
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 12
Formation End Depth: 38
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 964112063
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 10803503
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930427136
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From:
Depth To: 32
Casing Diameter: 3
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID:	933346155
Layer:	1
Slot:	15
Screen Top Depth:	32
Screen End Depth:	36
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	4

Results of Well Yield Testing

Pump Test ID:	994112063
Pump Set At:	
Static Level:	12
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	35
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	1
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	N

Water Details

Water ID:	933722716
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	16
Water Found Depth UOM:	ft

---

12 ***1 of 1*** ***NNE/165.4*** ***232.9 / 1.00*** ***ON*** ***WWIS***

Well ID:	4116530	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:	Irrigation	***Date Received:***	6/12/2006
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	3366
Casing Material:		***Form Version:***	3
Audit No:	Z34554	***Owner:***	
Tag:	A030635	***Street Name:***	
Construction Method:		***County:***	MIDDLESEX
Elevation (m):		***Municipality:***	CARADOC TOWNSHIP
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:	11554035	***Elevation:***	232.9
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	450643
Code OB Desc:	Overburden	***Org CS:***	UTM83
Open Hole:		***North83:***	4754750
Cluster Kind:		***UTMRC:***	3
Date Completed:	05-MAY-06	***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:	933050192
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	21.5
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	964116530
Method Construction Code:	8
Method Construction:	Jetting
Other Method Construction:	

Pipe Information

Pipe ID:	11563642
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930878258
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	0
Depth To:	18
Casing Diameter:	1.25

Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933418022
Layer: 1
Slot: 8
Screen Top Depth: 18
Screen End Depth: 21.5
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 1.25

Results of Well Yield Testing

Pump Test ID: 11571767
Pump Set At:
Static Level: 10
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate: 10
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing:

Water Details

Water ID: 934076158
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 10
Water Found Depth UOM: ft

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13 | ***1 of 1*** | ***NNW/168.7*** | ***232.7 / 0.82*** | ***lot 12 con 9 ON*** | ***WWIS***

Well ID: 4112062
Construction Date:
Primary Water Use: Not Used
Sec. Water Use: 0
Final Well Status: Observation Wells
Water Type:
Casing Material:
Audit No: 67936
Tag:
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:

Data Entry Status:
Data Src: 1
Date Received: 6/15/1990
Selected Flag: Yes
Abandonment Rec:
Contractor: 3366
Form Version: 1
Owner:
Street Name:
County: MIDDLESEX
Municipality: CARADOC TOWNSHIP
Site Info:
Lot: 012
Concession: 09
Concession Name: CON
Easting NAD83:

Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	10254932	***Elevation:***	233.33
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	450493.3
Code OB Desc:	Overburden	***Org CS:***	
Open Hole:		***North83:***	4754770
Cluster Kind:		***UTMRC:***	3
Date Completed:	31-MAY-90	***UTMRC Desc:***	margin of error : 10 - 30 m
Remarks:		***Location Method:***	gps
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931810305
Layer:	4
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	9
Formation End Depth:	38
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931810303
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	1
Formation End Depth:	7
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931810302
Layer:	1

Color:
General Color:
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

Overburden and Bedrock Materials Interval

Formation ID: 931810304
Layer: 3
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 7
Formation End Depth: 9
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 964112062
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 10803502
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930427135
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From:
Depth To: 32
Casing Diameter: 3
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933346154
Layer: 1
Slot: 15
Screen Top Depth: 32

Screen End Depth:	36
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	4

Results of Well Yield Testing

Pump Test ID:	994112062
Pump Set At:	
Static Level:	12
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	35
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	1
Pumping Duration HR:	1
Pumping Duration MIN:	0
Flowing:	N

Water Details

Water ID:	933722715
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	15
Water Found Depth UOM:	ft

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14 ***1 of 1*** ***NNE/169.5*** ***232.9 / 1.00*** ***STRATHROY ON*** ***WWIS***

Well ID:	7222160	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	6/19/2014
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	0	**Abandonment Rec:**	
Water Type:		**Contractor:**	3366
Casing Material:		**Form Version:**	7
Audit No:	Z176738	**Owner:**	
Tag:	A141327	**Street Name:**	17 GEORGE ST.
Construction Method:		**County:**	
Elevation (m):		**Municipality:**	
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:	1004851023	**Elevation:**	
DP2BR:		**Elevrc:**	

Spatial Status:		**Zone:**	
Code OB:		**East83:**	
Code OB Desc:		**Org CS:**	UTM83
Open Hole:		**North83:**	
Cluster Kind:		**UTMRC:**	9
Date Completed:	28-APR-14	**UTMRC Desc:**	unknown UTM
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:	1005224499
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	24
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1005224504
Method Construction Code:	
Method Construction:	
Other Method Construction:	

Pipe Information

Pipe ID:	1005224497
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1005224502
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	0
Depth To:	21
Casing Diameter:	1.25
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1005224503
Layer:	1

Slot:	8
Screen Top Depth:	21
Screen End Depth:	24
Screen Material:	1
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.25

Results of Well Yield Testing

Pump Test ID:	1005224498
Pump Set At:	
Static Level:	13
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	10
Levels UOM:	ft
Rate UOM:	GPM
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:	1005224501
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1005224500
Diameter:	
Depth From:	
Depth To:	
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

15	***1 of 1***	***N/173.6***	***232.9 / 1.00***	***481 Richard Crescent, Strathroy ON***	***PINC***

Incident ID:	2754608	**Health Impact:**	No
Incident No:	598012	**Environment Impact:**	No
Type:	FS-Pipeline Incident	**Property Damage:**	Yes
Status Code:	Pipeline Damage Reason Est	**Service Interupt:**	Yes
Fuel Occurrence Tp:	Pipeline Strike	**Enforce Policy:**	Yes
Fuel Type:	Natural Gas	**Public Relation:**	No
Tank Status:	RC Established	**Pipeline System:**	
Task No:	3358366	**Depth:**	
Spills Action Centre:		**Pipe Material:**	Plastic
Method Details:	E-mail	**PSIG:**	50
Fuel Category:	Natural Gas	**Attribute Category:**	FS-Perform P-line Inc Invest
Date of Occurrence:	5/17/2011 0:00	**Regualtor Location:**	Outside
Occurrence Start Date:	2011/06/13		

Operation Type:	Construction Site (pipeline strike)
Pipeline Type:	Service / Riser Distribution Pipeline
Regulator Type:	
Summary:	481 Richard Crescent, Strathroy - 1/2" Pipeline Hit
Reported By:	Calford, Nickey - Union Gas
Affiliation:	Industry Stakeholder (Licensee/Registration/Certificate Holder, Facility Owner, etc.)
Occurrence Desc:	Excavation equipment damaged plastic NG pipeline
Damage Reason:	Excavation practices not sufficient
Notes:	Pipeline installed after locate provided.

16 **1 of 1** **NNW/176.7** **232.5 / 0.68** **STRATHROY ON** **WWIS**

Well ID:	7191644	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Monitoring	**Date Received:**	11/16/2012
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	7190
Casing Material:		**Form Version:**	7
Audit No:	Z146887	**Owner:**	
Tag:	A132134	**Street Name:**	24590 ADELAIDE RD
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
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:	1004205385	**Elevation:**	233.73
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	450482
Code OB Desc:		**Org CS:**	UTM83
Open Hole:		**North83:**	4754774
Cluster Kind:		**UTMRC:**	4
Date Completed:	11-SEP-12	**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:	1004532661
Layer:	1
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	

Other Materials:
Mat3: 80
Other Materials: POROUS
Formation Top Depth: 0
Formation End Depth: 20
Formation End Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1004532670
Layer: 3
Plug From: 1
Plug To: 0
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1004532669
Layer: 2
Plug From: 8
Plug To: 1
Plug Depth UOM: ft

Annular Space/Abandonment Sealing Record

Plug ID: 1004532668
Layer: 1
Plug From: 20
Plug To: 8
Plug Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1004532667
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 1004532660
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004532664
Layer: 1
Material: 5
Open Hole or Material: PLASTIC
Depth From: 10
Depth To: -2.5
Casing Diameter: 2
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID:	1004532665
Layer:	1
Slot:	010
Screen Top Depth:	20
Screen End Depth:	15
Screen Material:	5
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	2

Water Details

Water ID:	1004532663
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1004532662
Diameter:	4.5
Depth From:	0
Depth To:	20
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

---

17 ***1 of 1*** ***N/177.6*** ***232.9 / 1.00*** ***lot 12 con 9 ON*** ***WWIS***

Well ID:	4112065	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Not Used	***Date Received:***	6/15/1990
Sec. Water Use:	0	***Selected Flag:***	Yes
Final Well Status:	Observation Wells	***Abandonment Rec:***	
Water Type:		***Contractor:***	3366
Casing Material:		***Form Version:***	1
Audit No:	67935	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	MIDDLESEX
Elevation (m):		***Municipality:***	CARADOC TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	012
Well Depth:		***Concession:***	09
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10254935	***Elevation:***	233.53
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	450529.3
Code OB Desc:	Overburden	***Org CS:***	
Open Hole:		***North83:***	4754788

Cluster Kind:
Date Completed: 31-MAY-90
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
UTMRC: 3
UTMRC Desc: margin of error : 10 - 30 m
Location Method: gps

Overburden and Bedrock Materials Interval

Formation ID: 931810313
Layer: 2
Color: 6
General Color: BROWN
Mat1: 05
Most Common Material: CLAY
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 1
Formation End Depth: 8
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931810312
Layer: 1
Color:
General Color:
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

Overburden and Bedrock Materials Interval

Formation ID: 931810314
Layer: 3
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 8
Formation End Depth: 38
Formation End Depth UOM: ft

Method of Construction & Well

Use

Method Construction ID:	964112065
Method Construction Code:	2
Method Construction:	Rotary (Convent.)
Other Method Construction:	

Pipe Information

Pipe ID:	10803505
Casing No:	1
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	930427138
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	
Depth To:	32
Casing Diameter:	3
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	933346157
Layer:	1
Slot:	15
Screen Top Depth:	32
Screen End Depth:	36
Screen Material:	
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	4

Results of Well Yield Testing

Pump Test ID:	994112065
Pump Set At:	
Static Level:	9
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	35
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	1
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	N

Water Details

Water ID:	933722718
Layer:	1
Kind Code:	1

Kind:	FRESH
Water Found Depth:	12
Water Found Depth UOM:	ft

18 | **1 of 1** | **N/184.2** | **232.9 / 1.00** | **STRATHROY ON** | **WWIS**

Well ID:	7108703	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:	Irrigation	**Date Received:**	7/24/2008
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	3366
Casing Material:		**Form Version:**	7
Audit No:	Z92629	**Owner:**	
Tag:	A063218	**Street Name:**	2 STEWART ST.
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	STRATHROY TOWN
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:	1001689167	**Elevation:**	233.46
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	450553
Code OB Desc:		**Org CS:**	UTM83
Open Hole:		**North83:**	4754796
Cluster Kind:		**UTMRC:**	3
Date Completed:	10-JUN-08	**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:	1001850169
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	20.5
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1001850176
Method Construction Code:	8
Method Construction:	Jetting
Other Method Construction:	

Pipe Information

Pipe ID:	1001850167
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1001850173
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	0
Depth To:	17
Casing Diameter:	1.25
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1001850174
Layer:	1
Slot:	8
Screen Top Depth:	17
Screen End Depth:	20.5
Screen Material:	1
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.25

Results of Well Yield Testing

Pump Test ID:	1001850168
Pump Set At:	
Static Level:	10
Final Level After Pumping:	10
Recommended Pump Depth:	
Pumping Rate:	30
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:	0
Pumping Duration HR:	1
Pumping Duration MIN:	
Flowing:	N

Water Details

Water ID:	1001850172

Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	10
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1001850170
Diameter:	1.25
Depth From:	
Depth To:	
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

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19 ***1 of 1*** ***N/185.5*** ***232.9 / 1.00*** ***STRATHROY ON*** ***WWIS***

Well ID:	7167584	**Data Entry Status:**	
Construction Date:		**Data Src:**	
Primary Water Use:		**Date Received:**	8/22/2011
Sec. Water Use:		**Selected Flag:**	Yes
Final Well Status:	Water Supply	**Abandonment Rec:**	
Water Type:		**Contractor:**	3366
Casing Material:		**Form Version:**	7
Audit No:	Z135537	**Owner:**	
Tag:	A099144	**Street Name:**	483 RICHARD CRESC
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
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:	1003552979	**Elevation:**	233.75
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:		**East83:**	450523
Code OB Desc:		**Org CS:**	UTM83
Open Hole:		**North83:**	4754795
Cluster Kind:		**UTMRC:**	5
Date Completed:	08-JUL-11	**UTMRC Desc:**	margin of error : 100 m - 300 m
Remarks:		**Location Method:**	gcode
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1003952487
Layer:	1

Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1003952492
Method Construction Code:	8
Method Construction:	Jetting
Other Method Construction:	

Pipe Information

Pipe ID:	1003952485
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003952490
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	0
Depth To:	38
Casing Diameter:	1.25
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1003952491
Layer:	1
Slot:	8
Screen Top Depth:	38
Screen End Depth:	41
Screen Material:	1
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.25

Results of Well Yield Testing

Pump Test ID:	1003952486
Pump Set At:	
Static Level:	16
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	10
Levels UOM:	ft

Rate UOM: GPM
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: 1003952489
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1003952488
Diameter:
Depth From:
Depth To:
Hole Depth UOM: ft
Hole Diameter UOM: inch

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20 | ***1 of 1*** | ***NE/195.8*** | ***232.9 / 1.00*** | ***24586 Adelaide Rd Strathroy ON N7G 2P8*** | ***EHS***

Order No: 20100830005
Status: C
Report Type: Custom Report
Report Date: 9/8/2010
Date Received: 8/30/2010
Previous Site Name:
Lot/Building Size:
Additional Info Ordered: Fire Insur. Maps and/or Site Plans; Title Searches

Nearest Intersection:
Municipality:
Client Prov/State: ON
Search Radius (km): 0.25
X: -81.604749
Y: 42.943996

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21 | ***1 of 1*** | ***NW/197.9*** | ***231.9 / 0.00*** | ***STRATHROY ON*** | ***WWIS***

Well ID: 7165930
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: 0
Water Type:
Casing Material:
Audit No: Z135510
Tag: A099140
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: 7/22/2011
Selected Flag: Yes
Abandonment Rec:
Contractor: 3366
Form Version: 7
Owner:
Street Name: 481 RICHARD CRESC
County: MIDDLESEX
Municipality: CARADOC TOWNSHIP
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID:	1003537886	***Elevation:***	233.45
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	450440
Code OB Desc:		***Org CS:***	UTM83
Open Hole:		***North83:***	4754775
Cluster Kind:		***UTMRC:***	4
Date Completed:	28-JUN-11	***UTMRC Desc:***	margin of error : 30 m - 100 m
Remarks:		***Location Method:***	digit
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	1003959645
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	39
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1003959650
Method Construction Code:	8
Method Construction:	Jetting
Other Method Construction:	

Pipe Information

Pipe ID:	1003959643
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1003959648
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	0
Depth To:	36
Casing Diameter:	1.25
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1003959649
Layer:	1
Slot:	8
Screen Top Depth:	36
Screen End Depth:	39
Screen Material:	1
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.25

Results of Well Yield Testing

Pump Test ID:	1003959644
Pump Set At:	
Static Level:	14
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	17
Levels UOM:	ft
Rate UOM:	GPM
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:	1003959647
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1003959646
Diameter:	
Depth From:	
Depth To:	
Hole Depth UOM:	ft
Hole Diameter UOM:	inch

---

22 ***1 of 1*** ***NNE/204.1*** ***232.9 / 1.00*** ***STRATHROY ON*** ***WWIS***

Well ID:	7183856	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:		***Date Received:***	7/10/2012
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	0	***Abandonment Rec:***	
Water Type:		***Contractor:***	3366
Casing Material:		***Form Version:***	7
Audit No:	Z152444	***Owner:***	
Tag:	A119762	***Street Name:***	10 GEORGE ST
Construction Method:		***County:***	MIDDLESEX

Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):
Flow Rate:
Clear/Cloudy:
Municipality: CARADOC TOWNSHIP
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1003971099
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:
Cluster Kind:
Date Completed: 04-JUN-12
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
Elevation: 232.79
Elevrc:
Zone: 17
East83: 450660
Org CS: UTM83
North83: 4754785
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Method of Construction & Well Use

Method Construction ID: 1004352349
Method Construction Code:
Method Construction:
Other Method Construction:

Pipe Information

Pipe ID: 1004352341
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1004352346
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From: 0
Depth To: 21
Casing Diameter: 1.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Casing

Casing ID: 1004352347
Layer: 2
Material:
Open Hole or Material:

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

Construction Record - Screen

Screen ID: 1004352348
Layer: 1
Slot: 8
Screen Top Depth: 21
Screen End Depth: 24
Screen Material: 1
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 1.25

Results of Well Yield Testing

Pump Test ID: 1004352342
Pump Set At:
Static Level: 10.5
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 0
Water State After Test:
Pumping Test Method: 0
Pumping Duration HR:
Pumping Duration MIN:
Flowing: N

Water Details

Water ID: 1004352345
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1004352344
Diameter:
Depth From:
Depth To:
Hole Depth UOM: ft
Hole Diameter UOM: inch

23	1 of 1	NNW/210.8	231.9 / 0.00	lot 12 con 9 ON	WWIS

Well ID: 4112064
Construction Date:
Primary Water Use: Not Used
Sec. Water Use: 0
Data Entry Status:
Data Src: 1
Date Received: 6/15/1990
Selected Flag: Yes

Final Well Status:	Observation Wells	**Abandonment Rec:**	
Water Type:		**Contractor:**	3366
Casing Material:		**Form Version:**	1
Audit No:	67934	**Owner:**	
Tag:		**Street Name:**	
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
Elevation Reliability:		**Site Info:**	
Depth to Bedrock:		**Lot:**	012
Well Depth:		**Concession:**	09
Overburden/Bedrock:		**Concession Name:**	CON
Pump Rate:		**Easting NAD83:**	
Static Water Level:		**Northing NAD83:**	
Flowing (Y/N):		**Zone:**	
Flow Rate:		**UTM Reliability:**	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	10254934	**Elevation:**	233.83
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	o	**East83:**	450444.3
Code OB Desc:	Overburden	**Org CS:**	
Open Hole:		**North83:**	4754793
Cluster Kind:		**UTMRC:**	3
Date Completed:	31-MAY-90	**UTMRC Desc:**	margin of error : 10 - 30 m
Remarks:		**Location Method:**	gps
Elevrc Desc:			
Location Source Date:			
Improvement Location Source:			
Improvement Location Method:			
Source Revision Comment:			
Supplier Comment:			

Overburden and Bedrock Materials Interval

Formation ID:	931810311
Layer:	3
Color:	6
General Color:	BROWN
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	12
Formation End Depth:	38
Formation End Depth UOM:	ft

Overburden and Bedrock Materials Interval

Formation ID:	931810310
Layer:	2
Color:	6
General Color:	BROWN
Mat1:	05
Most Common Material:	CLAY
Mat2:	
Other Materials:	

Mat3:
Other Materials:
Formation Top Depth: 8
Formation End Depth: 12
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931810309
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: 8
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 964112064
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 10803504
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930427137
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From:
Depth To: 32
Casing Diameter: 3
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933346156
Layer: 1
Slot: 15
Screen Top Depth: 32
Screen End Depth: 36
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 4

Results of Well Yield Testing

Pump Test ID:	994112064
Pump Set At:	
Static Level:	15
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	35
Flowing Rate:	
Recommended Pump Rate:	
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	
Water State After Test:	
Pumping Test Method:	1
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	N

Water Details

Water ID:	933722717
Layer:	1
Kind Code:	1
Kind:	FRESH
Water Found Depth:	16
Water Found Depth UOM:	ft

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24 ***1 of 1*** ***ENE/223.6*** ***232.9 / 1.00*** ***ON*** ***WWIS***

Well ID:	7045022	***Data Entry Status:***	
Construction Date:		***Data Src:***	
Primary Water Use:	Irrigation	***Date Received:***	6/14/2007
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Water Supply	***Abandonment Rec:***	
Water Type:		***Contractor:***	3366
Casing Material:		***Form Version:***	3
Audit No:	Z52785	***Owner:***	
Tag:	A046936	***Street Name:***	
Construction Method:		***County:***	MIDDLESEX
Elevation (m):		***Municipality:***	CARADOC TOWNSHIP
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:	11767656	***Elevation:***	233.25
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	450738
Code OB Desc:	Overburden	***Org CS:***	UTM83
Open Hole:		***North83:***	4754736
Cluster Kind:		***UTMRC:***	3
Date Completed:	14-MAY-07	***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: 933104760
Layer: 1
Color:
General Color:
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 18.5
Formation End Depth UOM: m

Method of Construction & Well Use

Method Construction ID: 967045022
Method Construction Code: 8
Method Construction: Jetting
Other Method Construction:

Pipe Information

Pipe ID: 11775346
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930901002
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From: 0
Depth To: 15
Casing Diameter: 1.25
Casing Diameter UOM: cm
Casing Depth UOM: m

Construction Record - Screen

Screen ID: 933425008
Layer: 1
Slot: 80
Screen Top Depth: 15
Screen End Depth: 18.5
Screen Material: 2
Screen Depth UOM: m
Screen Diameter UOM: cm

Screen Diameter: 1.25

Results of Well Yield Testing

Pump Test ID: 11779396
Pump Set At:
Static Level: 9
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate: 10
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: m
Rate UOM: LPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing:

Water Details

Water ID: 934087041
Layer: 1
Kind Code:
Kind:
Water Found Depth: 9
Water Found Depth UOM: m

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25 **1 of 1** **NW/227.1** **231.9 / 0.00** **STRATHROY ON** **WWIS**

Well ID: 7271822
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: 0
Water Type:
Casing Material:
Audit No: Z216174
Tag: A214009
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: 9/20/2016
Selected Flag: Yes
Abandonment Rec:
Contractor: 3366
Form Version: 7
Owner:
Street Name: 451 RICHARD CRESCENT
County: MIDDLESEX
Municipality: CARADOC TOWNSHIP
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:
UTM Reliability:

Bore Hole Information

Bore Hole ID: 1006249107
DP2BR:
Spatial Status:
Code OB:
Code OB Desc:
Open Hole:

Elevation: 234.38
Elevrc:
Zone: 17
East83: 450375
Org CS: UTM83
North83: 4754754

Cluster Kind:
Date Completed: 23-AUG-16
Remarks:
Elevrc Desc:
Location Source Date:
Improvement Location Source:
Improvement Location Method:
Source Revision Comment:
Supplier Comment:
UTMRC: 4
UTMRC Desc: margin of error : 30 m - 100 m
Location Method: wwr

Overburden and Bedrock Materials Interval

Formation ID: 1006333453
Layer: 1
Color:
General Color:
Mat1: 28
Most Common Material: SAND
Mat2:
Other Materials:
Mat3:
Other Materials:
Formation Top Depth: 0
Formation End Depth: 36
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 1006333458
Method Construction Code:
Method Construction:
Other Method Construction:

Pipe Information

Pipe ID: 1006333451
Casing No: 0
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 1006333456
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From: 0
Depth To: 33
Casing Diameter: 1.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1006333457
Layer: 1
Slot: 8
Screen Top Depth: 33
Screen End Depth: 36
Screen Material: 1

Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 1.25

Results of Well Yield Testing

Pump Test ID: 1006333452
Pump Set At:
Static Level: 17
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
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: 1006333455
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1006333454
Diameter:
Depth From:
Depth To:
Hole Depth UOM: ft
Hole Diameter UOM: inch

---

26 **1 of 1** **NNW/236.3** **232.9 / 1.00** **STRATHROY ON** **WWIS**

Well ID: 7268262
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: 0
Water Type:
Casing Material:
Audit No: Z216154
Tag: A189405
Construction Method:
Elevation (m):
Elevation Reliability:
Depth to Bedrock:
Well Depth:
Overburden/Bedrock:
Pump Rate:
Static Water Level:
Flowing (Y/N):

Data Entry Status:
Data Src:
Date Received: 8/5/2016
Selected Flag: Yes
Abandonment Rec:
Contractor: 3366
Form Version: 7
Owner:
Street Name: 461 RICHARD CRES.
County: MIDDLESEX
Municipality: CARADOC TOWNSHIP
Site Info:
Lot:
Concession:
Concession Name:
Easting NAD83:
Northing NAD83:
Zone:

Flow Rate: ***UTM Reliability:***
Clear/Cloudy:

Bore Hole Information

Bore Hole ID:	1006188237	***Elevation:***	234.24
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	450448
Code OB Desc:		***Org CS:***	UTM83
Open Hole:		***North83:***	4754824
Cluster Kind:		***UTMRC:***	4
Date Completed:	11-JUL-16	***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:	1006195854
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	23
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1006195859
Method Construction Code:	
Method Construction:	
Other Method Construction:	

Pipe Information

Pipe ID:	1006195852
Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1006195857
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	0
Depth To:	21
Casing Diameter:	1.25

Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 1006195858
Layer: 1
Slot: 10
Screen Top Depth: 21
Screen End Depth: 23
Screen Material: 8
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 1.25

Results of Well Yield Testing

Pump Test ID: 1006195853
Pump Set At:
Static Level: 15
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate:
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 0
Water State After Test:
Pumping Test Method: 0
Pumping Duration HR:
Pumping Duration MIN:
Flowing: N

Water Details

Water ID: 1006195856
Layer:
Kind Code:
Kind:
Water Found Depth:
Water Found Depth UOM: ft

Hole Diameter

Hole ID: 1006195855
Diameter:
Depth From:
Depth To:
Hole Depth UOM: ft
Hole Diameter UOM: inch

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27 | ***1 of 1*** | ***N/243.2*** | ***232.9 / 1.00*** | ***ON*** | ***WWIS***

Well ID: 4116192
Construction Date:
Primary Water Use: Irrigation
Sec. Water Use:
Final Well Status: Water Supply
Water Type:
Casing Material:

Data Entry Status:
Data Src:
Date Received: 8/18/2005
Selected Flag: Yes
Abandonment Rec:
Contractor: 3366
Form Version: 3

Audit No:	Z32952	**Owner:**	
Tag:	A030603	**Street Name:**	
Construction Method:		**County:**	MIDDLESEX
Elevation (m):		**Municipality:**	CARADOC TOWNSHIP
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:	11321705	**Elevation:**	232.86
DP2BR:		**Elevrc:**	
Spatial Status:		**Zone:**	17
Code OB:	o	**East83:**	450554
Code OB Desc:	Overburden	**Org CS:**	UTM83
Open Hole:		**North83:**	4754855
Cluster Kind:		**UTMRC:**	4
Date Completed:	19-JUL-05	**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:	933015573
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	23.5
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	964116192
Method Construction Code:	8
Method Construction:	Jetting
Other Method Construction:	

Pipe Information

Pipe ID:	11336560
Casing No:	1
Comment:	

Alt Name:

Construction Record - Casing

Casing ID: 930863946
Layer: 1
Material: 2
Open Hole or Material: GALVANIZED
Depth From: 0
Depth To: 20
Casing Diameter: 1.25
Casing Diameter UOM: inch
Casing Depth UOM: ft

Construction Record - Screen

Screen ID: 933414242
Layer: 1
Slot: 60
Screen Top Depth: 20
Screen End Depth: 23.5
Screen Material: 2
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 1.25

Results of Well Yield Testing

Pump Test ID: 11349251
Pump Set At:
Static Level: 12
Final Level After Pumping:
Recommended Pump Depth:
Pumping Rate: 10
Flowing Rate:
Recommended Pump Rate: 10
Levels UOM: ft
Rate UOM: GPM
Water State After Test Code: 1
Water State After Test: CLEAR
Pumping Test Method: 1
Pumping Duration HR: 1
Pumping Duration MIN: 0
Flowing:

Water Details

Water ID: 934063680
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 12
Water Found Depth UOM: ft

28	1 of 1	NNW/243.5	232.3 / 0.45	lot 12 con 9 STRATHROY ON	WWIS

Well ID: 7268264
Construction Date:
Primary Water Use:
Sec. Water Use:
Final Well Status: 0
Data Entry Status:
Data Src:
Date Received: 8/5/2016
Selected Flag: Yes
Abandonment Rec:

Water Type:		***Contractor:***	3366
Casing Material:		***Form Version:***	7
Audit No:	Z216156	***Owner:***	
Tag:	A189406	***Street Name:***	459 RICHARD CRESC.
Construction Method:		***County:***	MIDDLESEX
Elevation (m):		***Municipality:***	CARADOC TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	012
Well Depth:		***Concession:***	09
Overburden/Bedrock:		***Concession Name:***	CON
Pump Rate:		***Easting NAD83:***	
Static Water Level:		***Northing NAD83:***	
Flowing (Y/N):		***Zone:***	
Flow Rate:		***UTM Reliability:***	
Clear/Cloudy:			

Bore Hole Information

Bore Hole ID:	1006188251	***Elevation:***	234.5
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:		***East83:***	450429
Code OB Desc:		***Org CS:***	UTM83
Open Hole:		***North83:***	4754822
Cluster Kind:		***UTMRC:***	4
Date Completed:	29-JUN-16	***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:	1006195870
Layer:	1
Color:	
General Color:	
Mat1:	28
Most Common Material:	SAND
Mat2:	
Other Materials:	
Mat3:	
Other Materials:	
Formation Top Depth:	0
Formation End Depth:	27
Formation End Depth UOM:	ft

Method of Construction & Well Use

Method Construction ID:	1006195875
Method Construction Code:	
Method Construction:	
Other Method Construction:	

Pipe Information

Pipe ID:	1006195868

Casing No:	0
Comment:	
Alt Name:	

Construction Record - Casing

Casing ID:	1006195873
Layer:	1
Material:	2
Open Hole or Material:	GALVANIZED
Depth From:	0
Depth To:	24
Casing Diameter:	1.25
Casing Diameter UOM:	inch
Casing Depth UOM:	ft

Construction Record - Screen

Screen ID:	1006195874
Layer:	1
Slot:	10
Screen Top Depth:	24
Screen End Depth:	27
Screen Material:	8
Screen Depth UOM:	ft
Screen Diameter UOM:	inch
Screen Diameter:	1.25

Results of Well Yield Testing

Pump Test ID:	1006195869
Pump Set At:	
Static Level:	17
Final Level After Pumping:	
Recommended Pump Depth:	
Pumping Rate:	
Flowing Rate:	
Recommended Pump Rate:	10
Levels UOM:	ft
Rate UOM:	GPM
Water State After Test Code:	0
Water State After Test:	
Pumping Test Method:	0
Pumping Duration HR:	
Pumping Duration MIN:	
Flowing:	N

Water Details

Water ID:	1006195872
Layer:	
Kind Code:	
Kind:	
Water Found Depth:	
Water Found Depth UOM:	ft

Hole Diameter

Hole ID:	1006195871
Diameter:	
Depth From:	
Depth To:	

Hole Depth UOM: ft
Hole Diameter UOM: inch

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29 | **1 of 1** | **NW/247.7** | **231.9 / 0.00** | **Parkbridge Lifestyle Communities Inc.** | **SPL**
478 Richard Cresc.
Strathroy-Caradoc ON

Ref No:	2681-99ESPS	**Discharger Report:**	
Site No:		**Material Group:**	
Incident Dt:	2013/07/06	**Client Type:**	
Year:		**Sector Type:**	Sewer (Private or Municipal)
Incident Cause:	Leak/Break	**Source Type:**	
Incident Event:		**Nearest Watercourse:**	
Contaminant Code:	44	**Site Name:**	Residential<UNOFFICIAL>
Contaminant Name:	SEWAGE,RAW UNCHLORINATED	**Site Address:**	478 Richard Cresc.
Contaminant Limit 1:		**Site District Office:**	
Contam Limit Freq 1:		**Site County/District:**	
Contaminant UN No 1:		**Site Postal Code:**	
Contaminant Qty:	0 other - see incident description	**Site Region:**	
Environment Impact:	Confirmed	**Site Municipality:**	Strathroy-Caradoc
Nature of Impact:	Soil Contamination	**Site Lot:**	
Receiving Medium:		**Site Conc:**	
Receiving Env:		**Northing:**	
Health/Env Conseq:		**Easting:**	
MOE Response:	No Field Response	**Site Geo Ref Accu:**	
Dt MOE Arvl on Scn:		**Site Geo Ref Meth:**	
MOE Reported Dt:	2013/07/08	**Site Map Datum:**	
Dt Document Closed:			
Agency Involved:			

SAC Action Class: Land Spills
Incident Reason: Operator/Human Error
Incident Summary: Parkbridge Lifestyle Communities: sewage in excavation, cntd

Unplottable Summary

Total: 24 Unplottable sites

DB	Company Name/Site Name	Address	City	Postal
CA	GORD JONES BRUCE MCALLUM	HIGHWAY 81 S. SIDE	CARADOC TWP. ON	
EXP	IMPERIAL OIL LIMITED C/O AUDREY STURGE	HWY 81 SOUTH	STRATHROY ON	NULL
EXP	IMPERIAL OIL LIMITED C/O AUDREY STURGE	HWY 81 SOUTH	STRATHROY ON	
EXP	ROWE FUELS DIV OF 399966 ONTARIO LTD	LOT 12 (N PRT) CON 9	CORADOC TWP ON	P0T 2E0
EXP	IMPERIAL OIL LIMITED C/O AUDREY STURGE	HWY 81 SOUTH	STRATHROY ON	
EXP	IMPERIAL OIL LIMITED C/O AUDREY STURGE	HWY 81 SOUTH	STRATHROY ON	
FSTH	PETRO CANADA REFINNING & SUPPLY PRODUCTS DISTRUBUTION DEPARTMENT - CHRIS VANDERZ	HWY 81 N RR 6	STRATHROY ON	
FSTH	PETROCANADA REFINNING & SUPPLY PRODUCTS DISTRUBUTION DEPARTMENT	HWY 81 N RR 6	STRATHROY ON	
FSTH	ENERGY TRANSPORTATION INC	HWY 81 N OF HWY 22 RR 6	STRATHROY ON	
GEN	ESSO PETROLEUM CANADA 49-004	N.SIDE OF HWY81,S.OF STRATHROY BETWEEN CONC.9&10,CARADOC TWP,C/O 1210SHEPPARD	NORTH YORK ON	M2K 2S8
GEN	PETRO-CANADA PRODUCTS 30-265	HWY 81, CON 9 N. PT. LOT 12 CARADOC TWP C/O 477 MT. PLEASANT RR. TOR M4S 2M1	STRATHROY ON	
GEN	ESSO PETROLEUM CANADA	HIGHWAY 81	STRATHROY ON	N7G 3H9
GEN	FRANKLIN ELECTRIC OF CDA LTD	HIGHWAY 81 NORTH	STRATHROY ON	N7G 3J3
GEN	ESSO PETROLEUM CANADA	HWY 81	STRATHROY ON	N7G 3H9
GEN	PETRO-CANADA PRODUCTS	HWY 81, CON 9 N. PT. LOT 12 CARADOC TWP C/O 477 MT. PLEASANT RR. TOR M4S 2M1	STRATHROY ON	
GEN	PETRO-CANADA PRODUCTS	HWY 81, CON 9 N. PT. LOT 12 CARADOC TWP	STRATHROY ON	

PES	STRATHROY HOME HARDWARE	R. R. #5, HWY. 81 NORTH	STRATHROY ON	N7G 3H6
PRT	PETRO CANADA PRODUCTS DISTRIBUTION DEPARTMENT - HA	HWY 81 N	STRATHROY ON	
PRT	IMPERIAL OIL LIMITED LINDA BOWES	HWY 81 SOUTH	STRATHROY ON	
PRT	UCO PETROLEUM INC C/O SHIRLEY WONNELL	HWY 81 CON 9 CARADOC TWP	STRATHROY ON	
PTTW	F & S Toth	Lot 12, Concession 9 CARADOC	ON	
PTTW	Caradoc Golf Course	Lot 12, Concession 9 Township of Strathroy-Caradoc Ontario Strathroy	ON	
SPL	RESTAURANT	HWY 81 (N.O.S.)	STRATHROY TOWN ON	
WWIS		lot 11	ON	

Unplottable Report

Site: ***GORD JONES BRUCE MCALLUM***
HIGHWAY 81 S. SIDE CARADOC TWP. ON

Database: ***CA***

Certificate #:	7-1392-87-
Application Year:	87
Issue Date:	11/30/1989
Approval Type:	Municipal water
Status:	Cancelled
Application Type:	
Client Name:	
Client Address:	
Client City:	
Client Postal Code:	
Project Description:	
Contaminants:	
Emission Control:	

Site: ***IMPERIAL OIL LIMITED C/O AUDREY STURGE***
HWY 81 SOUTH STRATHROY ON NULL

Database: ***EXP***

Instance No:	11130889
Instance ID:	
Instance Type:	FS Liquid Fuel Tank
Description:	FS Gasoline Station - Card/Keylock
Status:	EXPIRED
TSSA Program Area:	
Maximum Hazard Rank:	
Facility Type:	FS Liquid Fuel Tank
Expired Date:	2/10/1993

Site: ***IMPERIAL OIL LIMITED C/O AUDREY STURGE***
HWY 81 SOUTH STRATHROY ON

Database: ***EXP***

Instance No:	11157727
Instance ID:	71855
Instance Type:	FS Piping
Description:	FS Piping
Status:	EXPIRED
TSSA Program Area:	
Maximum Hazard Rank:	
Facility Type:	
Expired Date:	

Site: ***ROWE FUELS DIV OF 399966 ONTARIO LTD***
LOT 12 (N PRT) CON 9 CORADOC TWP ON P0T 2E0

Database: ***EXP***

Instance No:	9601391
Instance ID:	
Instance Type:	FS Facility
Description:	
Status:	EXPIRED
TSSA Program Area:	
Maximum Hazard Rank:	
Facility Type:	
Expired Date:	9/1/1990

Site: ***IMPERIAL OIL LIMITED C/O AUDREY STURGE***
HWY 81 SOUTH STRATHROY ON

Database: ***EXP***

Instance No: 9987132
Instance ID: 399446
Instance Type: FS Facility
Description: FS Gasoline Station - Card/Keylock
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date:

Site: ***IMPERIAL OIL LIMITED C/O AUDREY STURGE***
HWY 81 SOUTH STRATHROY ON

Database: ***EXP***

Instance No: 11130889
Instance ID:
Instance Type: FS Liquid Fuel Tank
Description:
Status: EXPIRED
TSSA Program Area:
Maximum Hazard Rank:
Facility Type:
Expired Date: 2/10/1993

Site: ***PETRO CANADA REFINNING & SUPPLY PRODUCTS DISTRUBUTION DEPARTMENT - CHRIS VANDERZ***
HWY 81 N RR 6 STRATHROY ON

Database: ***FSTH***

License Issue Date: 6/1/1993
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 1977
Corrosion Protection:
Capacity: 13600
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Status: Active
Year of Installation: 1977
Corrosion Protection:
Capacity: 22700
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Status: Active
Year of Installation: 1977
Corrosion Protection:
Capacity: 22700
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Site: ***PETROCANADA REFINNING & SUPPLY PRODUCTS DISTRUBUTION DEPARTMENT***
HWY 81 N RR 6 STRATHROY ON

Database: ***FSTH***

License Issue Date: 6/1/1993
Tank Status: Licensed
Tank Status As Of: August 2007
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 1977
Corrosion Protection:
Capacity: 13600
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Status: Active
Year of Installation: 1977
Corrosion Protection:
Capacity: 22700
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Status: Active
Year of Installation: 1977
Corrosion Protection:
Capacity: 22700
Tank Fuel Type: Liquid Fuel Single Wall UST - Gasoline

Site: ***ENERGY TRANSPORTATION INC***
HWY 81 N OF HWY 22 RR 6 STRATHROY ON

Database: ***FSTH***

License Issue Date: 11/8/1990
Tank Status: Licensed
Tank Status As Of: December 2008
Operation Type: Private Fuel Outlet
Facility Type: Gasoline Station - Self Serve

--Details--
Status: Active
Year of Installation: 1990
Corrosion Protection:
Capacity: 22730
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Status: Active
Year of Installation: 1990
Corrosion Protection:
Capacity: 22730
Tank Fuel Type: Liquid Fuel Single Wall UST - Diesel

Site: ***ESSO PETROLEUM CANADA 49-004***
N.SIDE OF HWY81,S.OF STRATHROY BETWEEN CONC.9&10,CARADOC TWP,C/O 1210SHEPPARD NORTH YORK ON M2K 2S8

Database: ***GEN***

Generator No.: ON1315741
Status:
Approval Years: 94,95,96
Contam. Facility:
MHSW Facility:
SIC Code: 5111
SIC Description: PETROLEUM PROD., WH.

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

--Details--
Waste Code: 146
Waste Description: OTHER SPECIFIED INORGANICS

Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Site: ***PETRO-CANADA PRODUCTS 30-265***
HWY 81, CON 9 N. PT. LOT 12 CARADOC TWP C/O 477 MT. PLEASANT RR. TOR M4S 2M1 STRATHROY ON

Database: ***GEN***

Generator No.: ON0031084
Status:
Approval Years: 92,93,94,95,96,97
Contam. Facility:
MHSW Facility:
SIC Code: 5111
SIC Description: PETROLEUM PROD., WH.

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

--Details--
Waste Code: 221
Waste Description: LIGHT FUELS

Site: ***ESSO PETROLEUM CANADA***
HIGHWAY 81 STRATHROY ON N7G 3H9

Database: ***GEN***

Generator No.: ON1315741
Status:
Approval Years: 99,00,01
Contam. Facility:
MHSW Facility:
SIC Code: 5111
SIC Description: PETROLEUM PROD., WH.

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

--Details--
Waste Code: 146
Waste Description: OTHER SPECIFIED INORGANICS

Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Site: ***FRANKLIN ELECTRIC OF CDA LTD***
HIGHWAY 81 NORTH STRATHROY ON N7G 3J3

Database: ***GEN***

Generator No.: ON0082400
Status:
Approval Years: 86,87
Contam. Facility:
MHSW Facility:
SIC Code: 3379
SIC Description: OTHER ELECT. EQUIP.

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

--Details--
Waste Code: 253
Waste Description: EMULSIFIED OILS

Site: ***ESSO PETROLEUM CANADA***
HWY 81 STRATHROY ON N7G 3H9

Database: ***GEN***

Generator No.: ON1315741
Status:
Approval Years: 92,93,97,98
Contam. Facility:
MHSW Facility:
SIC Code: 5111
SIC Description: PETROLEUM PROD., WH.

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

--Details--
Waste Code: 146
Waste Description: OTHER SPECIFIED INORGANICS

Waste Code: 221
Waste Description: LIGHT FUELS

Waste Code: 251
Waste Description: OIL SKIMMINGS & SLUDGES

Site: ***PETRO-CANADA PRODUCTS***
HWY 81, CON 9 N. PT. LOT 12 CARADOC TWP C/O 477 MT. PLEASANT RR. TOR M4S 2M1 STRATHROY ON

Database: ***GEN***

Generator No.: ON0031084
Status:
Approval Years: 86,87,88,89,90
Contam. Facility:
MHSW Facility:
SIC Code: 0000
SIC Description: *** NOT DEFINED ***

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

Site: ***PETRO-CANADA PRODUCTS***
HWY 81, CON 9 N. PT. LOT 12 CARADOC TWP STRATHROY ON

Database: ***GEN***

Generator No.: ON0031084
Status:
Approval Years: 98
Contam. Facility:
MHSW Facility:
SIC Code: 5111
SIC Description: PETROLEUM PROD., WH.

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

--Details--
Waste Code: 221
Waste Description: LIGHT FUELS

Site: ***STRATHROY HOME HARDWARE***
R. R. #5, HWY. 81 NORTH STRATHROY ON N7G 3H6

Database: ***PES***

Licence No: 07168
Detail Licence No: 23-01-07168-0
Licence Type Code: 23
Licence Type: Limited Vendor
Licence Class: 01
Licence Control: 0
Trade Name:
Post Office Box:
Lot:
Concession:
Region: 1
District: 1
County: 41

Operator Box:
Operator Class:
Operator No:
Operator Type:
Operator Lot:
Oper Concession:
Operator Region: 1
Operator District: 1
Operator County: 41
Oper Phone Area Cd:
Ext:
Oper Phone No:
Proponent Ext:

Site: ***PETRO CANADA PRODUCTS DISTRIBUTION DEPARTMENT - HA***
HWY 81 N STRATHROY ON

Database: ***PRT***

Location ID: 14261
Type: private
Expiry Date:
Capacity (L): 59000.00
Licence #: 0001044603

Site: ***IMPERIAL OIL LIMITED LINDA BOWES***
HWY 81 SOUTH STRATHROY ON

Database: ***PRT***

Location ID: 20678
Type: retail
Expiry Date: 1996-04-30
Capacity (L): 45460
Licence #: 0076382803

Site: ***UCO PETROLEUM INC C/O SHIRLEY WONNELL***
HWY 81 CON 9 CARADOC TWP STRATHROY ON

Database: ***PRT***

Location ID: 14259
Type: retail
Expiry Date: 1996-02-28
Capacity (L): 0
Licence #: 0013091001

Site: ***F & S Toth***
Lot 12, Concession 9 CARADOC ON

Database: ***PTTW***

EBR Registry No.: IA00E1266
Ministry Ref. No.: 00P1300
Notice Type: Instrument Decision
Company Name: F & S Toth
Proponent Name:
Proposal Address: Caradoc Golf Course, R.R. #2, Strathroy Ontario, N7G 3H4
Instrument Type: (OWRA s. 34) - Permit to Take Water
Location Other:
URL:
Proposal Date: July 31, 2000
Notice Date: August 09, 2001
Year: 2000

Location:

Lot 12, Concession 9 CARADOC

Site: ***Caradoc Golf Course***
Lot 12, Concession 9 Township of Strathroy-Caradoc Ontario Strathroy ON

Database: ***PTTW***

EBR Registry No.: IA01E1495
Ministry Ref. No.: 00-P-1300
Notice Type: Instrument Decision
Company Name: Caradoc Golf Course
Proponent Name:
Proposal Address: 24530 Saxton Road, Strathroy Ontario, N7G 3H4
Instrument Type: (OWRA s. 34) - Permit to Take Water
Location Other:
URL:
Proposal Date: October 23, 2001
Notice Date: November 28, 2001
Year: 2001

Location:

Lot 12, Concession 9 Township of Strathroy-Caradoc Ontario Strathroy

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Site: ***RESTAURANT***
HWY 81 (N.O.S.) STRATHROY TOWN ON

Database: ***SPL***

Ref No: 70221
Site No:
Incident Dt: //
Year:
Incident Cause: UNKNOWN
Discharger Report:
Material Group:
Client Type:
Sector Type:
Source Type:

Incident Event:		***Nearest Watercourse:***	
Contaminant Code:		***Site Name:***	
Contaminant Name:		***Site Address:***	
Contaminant Limit 1:		***Site District Office:***	
Contam Limit Freq 1:		***Site County/District:***	
Contaminant UN No 1:		***Site Postal Code:***	
Contaminant Qty:		***Site Region:***	
Environment Impact:	POSSIBLE	***Site Municipality:***	59402
Nature of Impact:	Surface Water Pollution	***Site Lot:***	
Receiving Medium:	LAND / WATER	***Site Conc:***	
Receiving Env:		***Northing:***	
Health/Env Conseq:		***Easting:***	WORKS DEPT
MOE Response:		***Site Geo Ref Accu:***	
Dt MOE Arvl on Scn:		***Site Geo Ref Meth:***	
MOE Reported Dt:	5/6/1992	***Site Map Datum:***	
Dt Document Closed:			
Agency Involved:			
SAC Action Class:			
Incident Reason:	UNKNOWN		
Incident Summary:	MACDONALDS: GREASE IN ANDAROUND STORM SEWER FROM UNKNOWN SOURCE.		

Site:
lot 11 ON

Database:
WWIS

Well ID:	4113131	***Data Entry Status:***	
Construction Date:		***Data Src:***	1
Primary Water Use:	Not Used	***Date Received:***	9/12/1994
Sec. Water Use:		***Selected Flag:***	Yes
Final Well Status:	Observation Wells	***Abandonment Rec:***	
Water Type:		***Contractor:***	1839
Casing Material:		***Form Version:***	1
Audit No:	122965	***Owner:***	
Tag:		***Street Name:***	
Construction Method:		***County:***	MIDDLESEX
Elevation (m):		***Municipality:***	CARADOC TOWNSHIP
Elevation Reliability:		***Site Info:***	
Depth to Bedrock:		***Lot:***	011
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:	10255783	***Elevation:***	
DP2BR:		***Elevrc:***	
Spatial Status:		***Zone:***	17
Code OB:	o	***East83:***	
Code OB Desc:	Overburden	***Org CS:***	
Open Hole:		***North83:***	
Cluster Kind:		***UTMRC:***	9
Date Completed:	31-JAN-93	***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:	931814745

Layer: 3
Color: 2
General Color: GREY
Mat1: 05
Most Common Material: CLAY
Mat2: 84
Other Materials: SILTY
Mat3: 28
Other Materials: SAND
Formation Top Depth: 20
Formation End Depth: 25
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931814744
Layer: 2
Color: 6
General Color: BROWN
Mat1: 28
Most Common Material: SAND
Mat2: 11
Other Materials: GRAVEL
Mat3: 06
Other Materials: SILT
Formation Top Depth: 15
Formation End Depth: 20
Formation End Depth UOM: ft

Overburden and Bedrock Materials Interval

Formation ID: 931814743
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: 15
Formation End Depth UOM: ft

Method of Construction & Well Use

Method Construction ID: 964113131
Method Construction Code: 2
Method Construction: Rotary (Convent.)
Other Method Construction:

Pipe Information

Pipe ID: 10804353
Casing No: 1
Comment:
Alt Name:

Construction Record - Casing

Casing ID: 930428262
Layer: 1

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: 933346640
Layer: 1
Slot: 010
Screen Top Depth: 10
Screen End Depth: 15
Screen Material:
Screen Depth UOM: ft
Screen Diameter UOM: inch
Screen Diameter: 2

Water Details

Water ID: 933723629
Layer: 1
Kind Code: 1
Kind: FRESH
Water Found Depth: 7
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-Nov 2016

Anderson's Waste Disposal Sites: Private ANDR

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the Ontario MOE Waste Disposal Site Inventory, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. Please note that the data is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1860s-Present

Automobile Wrecking & Supplies: Private AUWR

This database provides an inventory of known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Government Publication Date: 1999-Jul 31, 2018

Borehole: Provincial BORE

A borehole is the generalized term for any narrow shaft drilled in the ground, either vertically or horizontally. The information here includes geotechnical investigations or environmental site assessments, mineral exploration, or as a pilot hole for installing piers or underground utilities. Information is from many sources such as the Ministry of Transportation (MTO) boreholes from engineering reports and projects from the 1950 to 1990's in Southern Ontario. Boreholes from the Ontario Geological Survey (OGS) including The Urban Geology Analysis Information System (UGAIS) and the York Peel Durham Toronto (YPDT) database of the Conservation Authority Moraine Coalition. This database will include fields such as location, stratigraphy, depth, elevation, year drilled, etc. For all water well data or oil and gas well data for Ontario please refer to WWIS and OOGW.

Government Publication Date: 1875-Jul 2014

Certificates of Approval: Provincial CA

This database contains the following types of approvals: Air & Noise, Industrial Sewage, Municipal & Private Sewage, Waste Management Systems and Renewable Energy Approvals. The MOE in Ontario states that any facility that releases emissions to the atmosphere, discharges contaminants to ground or surface water, provides potable water supplies, or stores, transports or disposes of waste, must have a Certificate of Approval before it can operate lawfully. Fields include approval number, business name, address, approval date, approval type and status. This database will no longer be updated, as CofA's have been replaced by either Environmental Activity and Sector Registry (EASR) or Environmental Compliance Approval (ECA). Please refer to those individual databases for any information after Oct.31, 2011.

Government Publication Date: 1985-Oct 30, 2011*

Commercial Fuel Oil Tanks: Provincial CFOT

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-Jul 31, 2018

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 - Jul 2018

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-Sep 2018

Certificates of Property Use: Provincial CPU

This is a subset taken from Ontario's Environmental Registry (EBR) database. It will include all CPU's on the registry such as (EPA s. 168.6) - Certificate of Property Use.

Government Publication Date: 1994-Oct 31, 2018

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-Nov 30, 2017

Dry Cleaning Facilities: Federal DRYCLEANERS

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 2016

Environmental Activity and Sector Registry: Provincial EASR

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. The EASR allows businesses to register certain activities with the ministry, rather than apply for an approval. The registry is available for common systems and processes, to which preset rules of operation can be applied. The EASR is currently available for: heating systems, standby power systems and automotive refinishing. Businesses whose activities aren't subject to the EASR may apply for an ECA (Environmental Compliance Approval), Please see our ECA database.

Government Publication Date: Oct 2011-Oct 31, 2018

Environmental Registry: Provincial EBR

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, thirteen provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, license, or certificate of approval to release substances into the air or water; these are notified on the registry. Data includes: Approval for discharge into the natural environment other than water (i.e. Air) - EPA s. 9, Approval for sewage works - OWRA s. 53(1), and EPA s. 27 - Approval for a waste disposal site. For information regarding Permit to Take Water (PTTW), Certificate of Property Use (CPU) and (ORD) Orders please refer to those individual databases.

Government Publication Date: 1994-Oct 31, 2018

Environmental Compliance Approval: Provincial ECA

On October 31, 2011, a smarter, faster environmental approvals system came into effect in Ontario. In the past, a business had to apply for multiple approvals (known as certificates of approval) for individual processes and pieces of equipment. Today, a business either registers itself, or applies for a single approval, depending on the types of activities it conducts. Businesses whose activities aren't subject to the EASR may apply for an ECA. A single ECA addresses all of a business's emissions, discharges and wastes. Separate approvals for air, noise and waste are no longer required. This database will also include Renewable Energy Approvals. For certificates of approval prior to Nov 1st, 2011, please refer to the CA database. For all Waste Disposal Sites please refer to the WDS database.

Government Publication Date: Oct 2011-Oct 31, 2018

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-Oct 31, 2018

Environmental Issues Inventory System: Federal EIIS

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Government Publication Date: 1992-2001*

Emergency Management Historical Event: Provincial EMHE

List of locations of historical occurrences of emergency events, including those assigned to the Ministry of Natural Resources by Order-In-Council (OIC) under the Emergency Management and Civil Protection Act, as well as events where MNR provided requested emergency response assistance. Many of these events will have involved community evacuations, significant structural loss, and/or involvement of MNR emergency response staff. These events fall into one of ten (10) type categories: Dam Failure; Drought / Low Water; Erosion; Flood; Forest Fire; Soil and Bedrock Instability; Petroleum Resource Center Event, EMO Requested Assistance, Continuity of Operations Event, Other Requested Assistance. EMHE record details are reproduced by ERIS under License with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2017.

Government Publication Date: Dec 31, 2016

List of TSSA Expired Facilities: Provincial EXP

List of facilities 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-Aug 2018

Fisheries & Oceans Fuel Tanks: Federal FOFT

Fisheries & Oceans Canada maintains an inventory of aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Government Publication Date: 1964-Sep 2017

Fuel Storage Tank: Provincial FST

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-June 30, 2018

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 2016

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: Sep 30, 2017

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*

Environmental Penalty Annual Report: Provincial MISA PENALTY

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, 2017

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 2018

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, 2016

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-Jun 30, 2018

National Energy Board Wells: Federal NEBW

The NEBW database contains information on onshore & offshore oil and gas wells that are outside provincial jurisdiction(s) and are thereby regulated by the National Energy Board. Data is provided regarding the operator, well name, well ID No./UWI, status, classification, well depth, spud and release date.

Government Publication Date: 1920-Feb 2003*

National Environmental Emergencies System (NEES): Federal NEES

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for previous Environment Canada spill datasets. NEES is composed of the historic datasets ' or Trends ' which dates from approximately 1974 to present. NEES Trends is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

Government Publication Date: 1974-2003*

National PCB Inventory: Federal NPCB

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. Federal out-of-service PCB containing equipment and PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites. Some addresses provided may be Head Office addresses and are not necessarily the location of where the waste is being used or stored.

Government Publication Date: 1988-2008*

National Pollutant Release Inventory: Federal NPRI

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers for recycling for more than 300 listed substances.

Government Publication Date: 1993-May 2017

Oil and Gas Wells: Private OGW

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickle's database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Government Publication Date: 1988-August 31, 2018

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-Oct 31, 2018

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 2018

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-Oct 31, 2018

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-Sep 2018

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-Jul 31, 2018

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-Jul 2018

Wastewater Discharger Registration Database: Provincial SRDS

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Government Publication Date: 1990-Dec 31, 2016

Anderson's Storage Tanks: Private TANK

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.

Government Publication Date: 1915-1953*

Transport Canada Fuel Storage Tanks: Federal TCFT

List of fuel storage tanks currently or previously owned or operated by Transport Canada. This inventory also includes tanks on The Pickering Lands, which refers to 7,530 hectares (18,600 acres) of land in Pickering, Markham, and Uxbridge owned by the Government of Canada since 1972; properties on this land has been leased by the government since 1975, and falls under the Site Management Policy of Transport Canada, but is administered by Public Works and Government Services Canada. This inventory provides information on the site name, location, tank age, capacity and fuel type.

Government Publication Date: 1970-Aug 2017

TSSA Variances for Abandonment of Underground Storage Tanks: Provincial VAR

List of variances granted for abandoned tanks. Under the Technical Standards and Safety Authority (TSSA) Liquid Fuels Handling Code and Fuel Oil Code, all underground storage tanks must be removed within two years of disuse. If removal of a tank is not feasible, an application may be sought for a variance from this code requirement.
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-Oct 31, 2018

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: Dec 31, 2017

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

Appendix F:
Borehole/Monitoring Well Logs

BH01
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	99.12							
	99.1	**ASPHALT: 50mm**						
		FILL - Sand and Gravel: 300mm						
	98.8	**FILL - Sand:** fine grained, brown, moist, no odour			DP	SA1	0	Soil - Metals
1					DP	SA2	0	
	97.7	**SAND:** fine grained, brown, moist, compact, no odour						
2					DP	SA3	0	
					DP	SA4	0	
3		- thin black sand and gravel seam near 3.1 metres bgs						
		-becoming wet below 3.35 metres bgs			DP	SA5	0	
4					DP	SA6	0	
	94.5							
5		End of Borehole at 4.6 metres bgs						

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH02
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	99.23	**FILL - Sand:** fine grained, brown, moist, no odour			DP	SA1	0	
1					DP	SA2	0	
	97.7	**SAND:** fine grained, brown, moist, compact, no odour			DP	SA3	0	
2					DP	SA4	0	
3		-becoming wet below 3.35 metres bgs			DP	SA5	25	Soil - VOCs, PHCs
4					DP	SA6	0	
	94.7	End of Borehole at 4.6 metres bgs						
5								

NOTES

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2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH03
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.80							
	98.6	**TOPSOIL: 175mm**						
		SAND: fine grained, brown, moist, compact, no odour			DP	SA1	0	
1					DP	SA2	0	
2					DP	SA3	0	
					DP	SA4	0	
3	95.8							
		End of Borehole at 3.1 metres bgs						
4								
5								

NOTES

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2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH04
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.94	**TOPSOIL: 280mm**						
	98.7	**SAND:** fine grained, brown, moist, compact, no odour			DP	SA1	0	
1					DP	SA2	0	
2					DP	SA3	0	
		- becoming wet below 2.7 metres bgs			DP	SA4	0	Soil - VOCs, PHCs
3	95.9	End of Borehole at 3.1 metres bgs						
4								
5								

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH05/MW
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.95	**FILL - Sand:** some gravel, brown, moist, no odour			DP	SA1	0	
1					DP	SA2	0	
	97.1							
2		**SAND and GRAVEL:** greenish brown, moist, compact, some odour			DP	SA3	0	
	96.6							
		SAND: fine grained, brown, moist, compact, no odour			DP	SA4	10	Soil - VOCs, PHCs
3		-becoming wet below 3.1 metres bgs			DP	SA5	0	Groundwater - VOCs, PHCs
4					DP	SA6	0	
	94.4							
5		End of Borehole at 4.6 metres bgs						

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): 0 - 2.1 m
Monitoring Well Screened From (m): 2.4 m
Monitoring Well Screened To (m): 4.0 m
Water Level in Well (m): 2.73 m bgs (Elev 96.215)
Date of Measurement: Jan 3, 2019
Site Supervisor: M. Ungerer

BH06
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.66							
	98.5	**TOPSOIL: 150mm**						
		SAND: fine grained, brown, moist, compact, no odour			DP	SA1	0	
1					DP	SA2	0	
2					DP	SA3	0	
		- becoming wet below 2.3 metres bgs			DP	SA4	0	
3	95.6							
		End of Borehole below 3.1 metres bgs						
4								
5								

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH07/MW
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.91							
	98.8	**TOPSOIL: 150mm**						
		SAND: fine grained, brown, moist, compact, no odour			DP	SA1	0	
1					DP	SA2	0	
2					DP	SA3	0	
					DP	SA4	0	Groundwater - VOCs, PHCs
3		- becoming wet below 3.1 metres bgs			DP	SA5	10	Soil - VOCs, PHCs
4					DP	SA6	0	
	94.3							
5		End of Borehole 4.6 metres bgs						

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): 0 - 2.1 m
Monitoring Well Screened From (m): 2.4 m
Monitoring Well Screened To (m): 4.0 m
Water Level in Well (m): 2.63 m bgs (Elev 96.278)
Date of Measurement: Jan 3, 2019
Site Supervisor: M. Ungerer

BH08
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.84							
	98.7	**FILL - Sand and Gravel:** brown, moist, no odour						
		SAND: fine grained, brown, moist, compact, no odour			DP	SA1	0	Soil - Metals, pH
1					DP	SA2	0	
2					DP	SA3	0	
					DP	SA4	0	Soil - pH
3	95.8	- becoming wet below 2.8 metres bgs						
		End of Borehole 3.1 metres bgs						
4								
5								

NOTES

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2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH09
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	99.06							
	98.9	**FILL - Sand and Gravel:** brown, moist, no odour						
		SAND: fine grained, brown, moist, compact, no odour			DP	SA1	0	
1					DP	SA2	0	
2					DP	SA3	0	
					DP	SA4	0	
3		- becoming wet below 3.4 metres bgs			DP	SA5	0	Soil - VOCs, PHCs
4					DP	SA6	0	
	94.5							
5		End of Borehole 4.6 metres bgs						

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH10
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	99.11							
	99.0	**ASPHALT: 75mm**						
	98.9	**FILL - Sand and Gravel: 100mm**						
		SAND: fine grained, brown, moist, compact, no odour			DP	SA1	0	Soil - Metals
1					DP	SA2	0	
2					DP	SA3	0	
					DP	SA4	0	
3		-becoming wet below 3.1 metres bgs			DP	SA5	0	
4					DP	SA6	0	
	94.5							
5		End of Borehole at 4.6 metres bgs						

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH11
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.81	**SAND:** fine grained, brown, moist, compact, no odour			DP	SA1	5	
1					DP	SA2	10	
2					DP	SA3	5	
3	95.8	- becoming wet below 2.85 metres bgs			DP	SA4	15	Soil - VOCs, PHCs
		End of Borehole 3.1 metres bgs						
4								
5								

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH12
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.48							
	98.4	**TOPSOIL: 125mm**						
		SAND: fine grained, brown, moist, compact, no odour			DP	SA1	5	
1					DP	SA2	15	
					DP	SA3	10	
2								
					DP	SA4	15	Soil - VOC, PHC
3	95.4	-becoming wet below 2.9 metres bgs						
		End of Borehole 3.1 metres bgs						
4								
5								

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH13
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.50	**TOPSOIL: 300mm**						
	98.2	**SAND:** fine grained, brown, moist, compact, no odour			DP	SA1	15	Soil - Metals
1					DP	SA2	10	
					DP	SA3	10	
2					DP	SA4	10	Soil - VOC, PHCs
3	95.5	End of Borehole at 3.1 metres bgs						
4								
5								

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH14
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.57	**SAND:** fine grained, brown, moist, compact, no odour			DP	SA1	10	
1					DP	SA2	10	
2					DP	SA3	20	
3	95.5	- becoming wet below 2.8 metres bgs			DP	SA4	15	Soil - VOCs, PHCs
		End of Borehole 3.1 metres bgs						
4								
5								

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): N/A
Monitoring Well Screened From (m): N/A
Monitoring Well Screened To (m): N/A
Water Level in Well (m): N/A
Date of Measurement: N/A
Site Supervisor: M. Ungerer

BH15/MW
Sheet 1 of 1

BOREHOLE LOG

Client WolfAJM Holdings Inc. **Project No.** LON00016790EN
Project Name Phase II Environmental Site Assessment **Datum** N/A
Site Location 24546 Adelaide Road, Strathroy, Ontario **Boring Date** December 20, 2018

DEPTH (m bgs)	ELEVATION (m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES TYPE	SAMPLES NUMBER	TCV (ppm)	Lab Analysis
0	98.67	**SAND:** fine grained, brown, moist, compact, no odour			DP	SA1	10	
1					DP	SA2	5	
2					DP	SA3	20	
		-becoming wet below 2.8 metres bgs			DP	SA4	15	Soil - VOCs, PHCs
3	95.6	End of Borehole at 3.1 metres bgs						
4								
5								

NOTES

1) Borehole interpretation requires assistance by exp before use by others. Borehole Logs must be read in conjunction with exp Phase II Environmental Site Assessment report LON00016790EN.
2) bgs denotes: below ground surface
3) TCV=total combustible vapour level (soil sample headspace)
4) DP = Direct Push
5) VOCs= Volatile Organic Compounds, PHCs= Petroleum Hydrocarbons

Bentonite Seal From (m): 0 - 2.1 m
Monitoring Well Screened From (m): 2.4 m
Monitoring Well Screened To (m): 4.0 m
Water Level in Well (m): 2.46 m bgs (Elev 96.21)
Date of Measurement: Jan 3, 2019
Site Supervisor: M. Ungerer

Appendix G:
Laboratory Certificate of Analysis Sheets - Soil

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: EXP. SERVICES INC.
15701 Robin's Hill Road #2
LONDON, ON N5V0A5
(519) 963-3000

ATTENTION TO: Bob Dufton

PROJECT: 24546 Adelaide Rd. - Strathroy

AGAT WORK ORDER: 18L423281

SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Supervisor

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Jan 03, 2019

PAGES (INCLUDING COVER): 17

VERSION*: 2

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES
VERSION 2:Revised report issued January 03, 2019.

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

AGAT Laboratories

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FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

CLIENT NAME: EXP. SERVICES INC.

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - All Metals (Soil)

DATE RECEIVED: 2018-12-21

DATE REPORTED: 2019-01-03

		SAMPLE DESCRIPTION:		BH1 SA1	BH8 SA1	BH10 SA1	BH13-SA1
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		DATE SAMPLED:		2018-12-20	2018-12-20	2018-12-20	2018-12-20
Parameter	Unit	G / S	RDL	9808654	9808660	9808663	9808667
Antimony	µg/g	40	0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	1	2	1	2
Barium	µg/g	670	2	13	16	20	22
Beryllium	µg/g	8	0.5	<0.5	<0.5	<0.5	<0.5
Boron	µg/g	120	5	<5	<5	<5	<5
Boron (Hot Water Soluble)	µg/g	2	0.10	<0.10	<0.10	0.12	0.13
Cadmium	µg/g	1.9	0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	160	2	5	6	6	8
Cobalt	µg/g	80	0.5	1.9	2.4	2.3	2.2
Copper	µg/g	230	1	6	7	4	5
Lead	µg/g	120	1	7	15	5	7
Molybdenum	µg/g	40	0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	270	1	4	5	4	4
Selenium	µg/g	5.5	0.4	<0.4	0.6	<0.4	0.5
Silver	µg/g	40	0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	3.3	0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	33	0.5	<0.5	<0.5	<0.5	<0.5
Vanadium	µg/g	86	1	9	12	11	16
Zinc	µg/g	340	5	25	34	28	31
Chromium VI	µg/g	8	0.2	<0.2	<0.2	<0.2	<0.2
Mercury	µg/g	3.9	0.10	<0.10	<0.10	<0.10	<0.10

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Industrial/Commercial/Community Property Use - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

CLIENT NAME: EXP. SERVICES INC.

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

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

DATE RECEIVED: 2018-12-21

DATE REPORTED: 2019-01-03

		SAMPLE DESCRIPTION:		BH2 SA5	BH8 SA1
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2018-12-20	2018-12-20
Parameter	Unit	G / S	RDL	9808656	9808660
pH, 2:1 CaCl2 Extraction	pH Units		NA	7.97	7.71

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Industrial/Commercial/Community Property Use - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

9808656-9808660 pH was determined on the 0.01M CaCl2 extract obtained from 2:1 leaching procedure (2 parts extraction fluid:1 part wet soil).

Analysis performed at AGAT Toronto (unless marked by *)

Certified By:

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

CLIENT NAME: EXP. SERVICES INC.

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2018-12-21

DATE REPORTED: 2019-01-03

		SAMPLE DESCRIPTION:		BH2 SA5	BH4 SA4	BH5 SA4	BH7 SA5	BH9 SA5	BH11-SA4	BH12-SA4	BH13-SA4
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20
Parameter	**Unit**	**G / S**	**RDL**	**9808656**	**9808657**	**9808658**	**9808659**	**9808662**	**9808665**	**9808666**	**9808668**
F1 (C6 to C10)	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	230	10	<10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	1700	50	<50	<50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	3300	50	<50	<50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	3300	50	NA	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%		0.1	13.5	14.7	16.8	12.5	14.1	18.4	18.2	16.8
Surrogate	**Unit**	**Acceptable Limits**									
Terphenyl	%	60-140		72	97	96	83	81	88	82	86

		SAMPLE DESCRIPTION:		BH14-SA4	BH15-SA4
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2018-12-20	2018-12-20
Parameter	**Unit**	**G / S**	**RDL**	**9808669**	**9808670**
F1 (C6 to C10)	µg/g	55	5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	55	5	<5	<5
F2 (C10 to C16)	µg/g	230	10	<10	<10
F3 (C16 to C34)	µg/g	1700	50	<50	<50
F4 (C34 to C50)	µg/g	3300	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	3300	50	NA	NA
Moisture Content	%		0.1	17.8	15.9
Surrogate	**Unit**	**Acceptable Limits**			
Terphenyl	%	60-140		79	82

Certified By: NPopowich

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

CLIENT NAME: EXP. SERVICES INC.

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2018-12-21

DATE REPORTED: 2019-01-03

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Industrial/Commercial/Community Property Use - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

9808656-9808670 Results are based on sample dry weight.
The C6-C10 fraction is calculated using toluene response factor.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6 - C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 + nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: N Popowkolof

AGAT Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

CLIENT NAME: EXP. SERVICES INC.

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

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

DATE RECEIVED: 2018-12-21

DATE REPORTED: 2019-01-03

		SAMPLE DESCRIPTION:		BH2 SA5	BH4 SA4	BH5 SA4	BH7 SA5	BH9 SA5	BH11-SA4	BH12-SA4	BH13-SA4
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20
Parameter	Unit	G / S	RDL	9808656	9808657	9808658	9808659	9808662	9808665	9808666	9808668
Dichlorodifluoromethane	µg/g	16	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.032	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g	16	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.064	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	1.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	1.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	1.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.47	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	70	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	1.9	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.47	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	6.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.21	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.32	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.16	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.55	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	1.5	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	31	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Toluene	ug/g	6.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	2.3	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	1.9	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.087	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	2.4	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	1.1	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Certified By: N Popowich

AGAT Laboratories

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http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

CLIENT NAME: EXP. SERVICES INC.

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

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

DATE RECEIVED: 2018-12-21

DATE REPORTED: 2019-01-03

		SAMPLE DESCRIPTION:		BH2 SA5	BH4 SA4	BH5 SA4	BH7 SA5	BH9 SA5	BH11-SA4	BH12-SA4	BH13-SA4
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		DATE SAMPLED:		2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20	2018-12-20
Parameter	**Unit**	**G / S**	**RDL**	**9808656**	**9808657**	**9808658**	**9808659**	**9808662**	**9808665**	**9808666**	**9808668**
Bromoform	ug/g	0.61	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Styrene	ug/g	34	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	9.6	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	1.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture	ug/g	26	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.059	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
n-Hexane	µg/g	46	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Surrogate	**Unit**	**Acceptable Limits**									
Toluene-d8	% Recovery	50-140		95	94	94	97	99	94	97	97
4-Bromofluorobenzene	% Recovery	50-140		90	89	90	94	95	94	92	93

Certified By: N Popnikolof

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Certificate of Analysis

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

CLIENT NAME: EXP. SERVICES INC.

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

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

DATE RECEIVED: 2018-12-21

DATE REPORTED: 2019-01-03

		SAMPLE DESCRIPTION:		BH14-SA4	BH15-SA4
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2018-12-20	2018-12-20
Parameter	Unit	G / S	RDL	9808669	9808670
Dichlorodifluoromethane	µg/g	16	0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.032	0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	4	0.05	<0.05	<0.05
Acetone	ug/g	16	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.064	0.05	<0.05	<0.05
Methylene Chloride	ug/g	1.6	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	1.3	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	1.6	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.47	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	70	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	1.9	0.02	<0.02	<0.02
Chloroform	ug/g	0.47	0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	6.1	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.21	0.05	<0.05	<0.05
Benzene	ug/g	0.32	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.16	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.55	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	1.5	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	31	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	6.4	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	2.3	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	1.9	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.087	0.04	<0.04	<0.04
Chlorobenzene	ug/g	2.4	0.05	<0.05	<0.05
Ethylbenzene	ug/g	1.1	0.05	<0.05	<0.05
m & p-Xylene	ug/g		0.05	<0.05	<0.05

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Certificate of Analysis

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

CLIENT NAME: EXP. SERVICES INC.

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

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

DATE RECEIVED: 2018-12-21

DATE REPORTED: 2019-01-03

		SAMPLE DESCRIPTION:		BH14-SA4	BH15-SA4
		SAMPLE TYPE:		Soil	Soil
		DATE SAMPLED:		2018-12-20	2018-12-20
Parameter	**Unit**	**G / S**	**RDL**	**9808669**	**9808670**
Bromoform	ug/g	0.61	0.05	<0.05	<0.05
Styrene	ug/g	34	0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	9.6	0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.2	0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	1.2	0.05	<0.05	<0.05
Xylene Mixture	ug/g	26	0.05	<0.05	<0.05
1,3-Dichloropropene	µg/g	0.059	0.04	<0.04	<0.04
n-Hexane	µg/g	46	0.05	<0.05	<0.05
Surrogate	**Unit**	**Acceptable Limits**			
Toluene-d8	% Recovery	50-140		98	99
4-Bromofluorobenzene	% Recovery	50-140		92	95

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Soil - Industrial/Commercial/Community Property Use - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

9808656-9808670 The sample was analysed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
1,3-Dichloropropene total is a calculated parameter. The calculated value is the sum of Cis-1,3-Dichloropropene and Trans-1,3-Dichloropropene.

Analysis performed at AGAT Toronto (unless marked by *)

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Quality Assurance

CLIENT NAME: EXP. SERVICES INC.
AGAT WORK ORDER: 18L423281
PROJECT: 24546 Adelaide Rd. - Strathroy
ATTENTION TO: Bob Dufton
SAMPLING SITE:
SAMPLED BY:

Soil Analysis

RPT Date: Jan 03, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - All Metals (Soil)															
Antimony	9808654	9808654	<0.8	<0.8	NA	< 0.8	81%	70%	130%	89%	80%	120%	73%	70%	130%
Arsenic	9808654	9808654	1	1	NA	< 1	115%	70%	130%	103%	80%	120%	105%	70%	130%
Barium	9808654	9808654	13	12	8.0%	< 2	101%	70%	130%	103%	80%	120%	101%	70%	130%
Beryllium	9808654	9808654	<0.5	<0.5	NA	< 0.5	103%	70%	130%	103%	80%	120%	101%	70%	130%
Boron	9808654	9808654	<5	<5	NA	< 5	82%	70%	130%	100%	80%	120%	99%	70%	130%
Boron (Hot Water Soluble)	9808654	9808654	<0.10	<0.10	NA	< 0.10	110%	60%	140%	100%	70%	130%	93%	60%	140%
Cadmium	9808654	9808654	<0.5	<0.5	NA	< 0.5	109%	70%	130%	101%	80%	120%	103%	70%	130%
Chromium	9808654	9808654	5	4	NA	< 2	99%	70%	130%	108%	80%	120%	101%	70%	130%
Cobalt	9808654	9808654	1.9	1.8	NA	< 0.5	104%	70%	130%	102%	80%	120%	99%	70%	130%
Copper	9808654	9808654	6	6	0.0%	< 1	100%	70%	130%	110%	80%	120%	96%	70%	130%
Lead	9808654	9808654	7	6	15.4%	< 1	106%	70%	130%	106%	80%	120%	96%	70%	130%
Molybdenum	9808654	9808654	<0.5	<0.5	NA	< 0.5	102%	70%	130%	103%	80%	120%	108%	70%	130%
Nickel	9808654	9808654	4	4	NA	< 1	104%	70%	130%	104%	80%	120%	95%	70%	130%
Selenium	9808654	9808654	<0.4	<0.4	NA	< 0.4	97%	70%	130%	99%	80%	120%	99%	70%	130%
Silver	9808654	9808654	<0.2	<0.2	NA	< 0.2	102%	70%	130%	101%	80%	120%	97%	70%	130%
Thallium	9808654	9808654	<0.4	<0.4	NA	< 0.4	99%	70%	130%	102%	80%	120%	97%	70%	130%
Uranium	9808654	9808654	<0.5	<0.5	NA	< 0.5	104%	70%	130%	104%	80%	120%	100%	70%	130%
Vanadium	9808654	9808654	9	9	0.0%	< 1	97%	70%	130%	101%	80%	120%	96%	70%	130%
Zinc	9808654	9808654	25	23	NA	< 5	104%	70%	130%	107%	80%	120%	107%	70%	130%
Chromium VI	9808654	9808654	<0.2	<0.2	NA	< 0.2	110%	70%	130%	110%	80%	120%	113%	70%	130%
Mercury	9808654	9808654	<0.10	<0.10	NA	< 0.10	107%	70%	130%	102%	80%	120%	102%	70%	130%
O. Reg. 153(511) - ORPs (Soil)															
pH, 2:1 CaCl2 Extraction	9808890		7.65	7.70	0.7%	NA	101%	90%	110%	NA			NA		

Comments: NA signifies Not Applicable.
Duplicate Qualifier: As the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL

O. Reg. 153(511) - ORPs (Soil)															
pH, 2:1 CaCl2 Extraction	9811055		7.57	7.63	0.8%	NA	101%	90%	110%	NA			NA		

Comments: NA signifies Not Applicable.

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Quality Assurance

CLIENT NAME: EXP. SERVICES INC.

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis

RPT Date: Jan 03, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - VOCs (Soil)															
Dichlorodifluoromethane	9805740		< 0.05	< 0.05	NA	< 0.05	79%	50%	140%	78%	50%	140%	81%	50%	140%
Vinyl Chloride	9805740		< 0.02	< 0.02	NA	< 0.02	107%	50%	140%	80%	50%	140%	80%	50%	140%
Bromomethane	9805740		< 0.05	< 0.05	NA	< 0.05	105%	50%	140%	92%	50%	140%	80%	50%	140%
Trichlorofluoromethane	9805740		< 0.05	< 0.05	NA	< 0.05	114%	50%	140%	112%	50%	140%	98%	50%	140%
Acetone	9805740		< 0.50	< 0.50	NA	< 0.50	102%	50%	140%	94%	50%	140%	108%	50%	140%
1,1-Dichloroethylene	9805740		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	90%	60%	130%	109%	50%	140%
Methylene Chloride	9805740		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	84%	60%	130%	95%	50%	140%
Trans- 1,2-Dichloroethylene	9805740		< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	95%	60%	130%	96%	50%	140%
Methyl tert-butyl Ether	9805740		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	75%	60%	130%	76%	50%	140%
1,1-Dichloroethane	9805740		< 0.02	< 0.02	NA	< 0.02	118%	50%	140%	112%	60%	130%	99%	50%	140%
Methyl Ethyl Ketone	9805740		< 0.50	< 0.50	NA	< 0.50	95%	50%	140%	95%	50%	140%	100%	50%	140%
Cis- 1,2-Dichloroethylene	9805740		< 0.02	< 0.02	NA	< 0.02	113%	50%	140%	105%	60%	130%	100%	50%	140%
Chloroform	9805740		< 0.04	< 0.04	NA	< 0.04	98%	50%	140%	118%	60%	130%	110%	50%	140%
1,2-Dichloroethane	9805740		< 0.03	< 0.03	NA	< 0.03	106%	50%	140%	93%	60%	130%	98%	50%	140%
1,1,1-Trichloroethane	9805740		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	79%	60%	130%	103%	50%	140%
Carbon Tetrachloride	9805740		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	83%	60%	130%	75%	50%	140%
Benzene	9805740		< 0.02	< 0.02	NA	< 0.02	101%	50%	140%	98%	60%	130%	98%	50%	140%
1,2-Dichloropropane	9805740		< 0.03	< 0.03	NA	< 0.03	82%	50%	140%	90%	60%	130%	82%	50%	140%
Trichloroethylene	9805740		< 0.03	< 0.03	NA	< 0.03	80%	50%	140%	78%	60%	130%	84%	50%	140%
Bromodichloromethane	9805740		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	87%	60%	130%	77%	50%	140%
Methyl Isobutyl Ketone	9805740		< 0.50	< 0.50	NA	< 0.50	95%	50%	140%	91%	50%	140%	89%	50%	140%
1,1,2-Trichloroethane	9805740		< 0.04	< 0.04	NA	< 0.04	100%	50%	140%	102%	60%	130%	94%	50%	140%
Toluene	9805740		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	118%	60%	130%	100%	50%	140%
Dibromochloromethane	9805740		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	78%	60%	130%	78%	50%	140%
Ethylene Dibromide	9805740		< 0.04	< 0.04	NA	< 0.04	95%	50%	140%	94%	60%	130%	88%	50%	140%
Tetrachloroethylene	9805740		< 0.05	< 0.05	NA	< 0.05	103%	50%	140%	118%	60%	130%	101%	50%	140%
1,1,1,2-Tetrachloroethane	9805740		< 0.04	< 0.04	NA	< 0.04	98%	50%	140%	95%	60%	130%	79%	50%	140%
Chlorobenzene	9805740		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	110%	60%	130%	99%	50%	140%
Ethylbenzene	9805740		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	118%	60%	130%	101%	50%	140%
m & p-Xylene	9805740		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	119%	60%	130%	108%	50%	140%
Bromoform	9805740		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	78%	60%	130%	80%	50%	140%
Styrene	9805740		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	104%	60%	130%	92%	50%	140%
1,1,2,2-Tetrachloroethane	9805740		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	100%	60%	130%	96%	50%	140%
o-Xylene	9805740		< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	106%	60%	130%	108%	50%	140%
1,3-Dichlorobenzene	9805740		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	99%	60%	130%	92%	50%	140%
1,4-Dichlorobenzene	9805740		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	108%	60%	130%	99%	50%	140%
1,2-Dichlorobenzene	9805740		< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	103%	60%	130%	95%	50%	140%
1,3-Dichloropropene	9805740		< 0.04	< 0.04	NA	< 0.04	80%	50%	140%	84%	60%	130%	90%	50%	140%
n-Hexane	9805740		< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	102%	60%	130%	96%	50%	140%

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Quality Assurance

CLIENT NAME: EXP. SERVICES INC.

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

Trace Organics Analysis (Continued)

RPT Date: Jan 03, 2019			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)															
F1 (C6 to C10)	9805379		< 5	< 5	NA	< 5	79%	60%	130%	89%	85%	115%	80%	70%	130%
F2 (C10 to C16)	9808670	9808670	< 10	< 10	NA	< 10	95%	60%	130%	91%	80%	120%	73%	70%	130%
F3 (C16 to C34)	9808670	9808670	< 50	< 50	NA	< 50	100%	60%	130%	109%	80%	120%	87%	70%	130%
F4 (C34 to C50)	9808670	9808670	< 50	< 50	NA	< 50	101%	60%	130%	97%	80%	120%	82%	70%	130%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

AGAT Laboratories

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Method Summary

CLIENT NAME: EXP. SERVICES INC.

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Soil Analysis			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
pH, 2:1 CaCl2 Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	pH METER

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: EXP. SERVICES INC.

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P &T GC / FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P & T GC / FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC / FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC / FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	Balance
Moisture Content	VOL-91-5009	CCME Tier 1 Method, SW846 5035,8015	BALANCE
Terphenyl	VOL-91-5009	CCME Tier 1 Method	GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: EXP. SERVICES INC.

AGAT WORK ORDER: 18L423281

PROJECT: 24546 Adelaide Rd. - Strathroy

ATTENTION TO: Bob Dufton

SAMPLING SITE:

SAMPLED BY:

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS

AGAT Laboratories

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 18L423281

Cooler Quantity: 1 large

Arrival Temperatures: 8.1 | 9.0 | 5.0
LT: 1.9 | 2.4 | 1.7

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: ICE PACKS

Report Information:

Company: Exp
Contact: B. DUFTON
Address: LONDON

Phone: Fax:

Reports to be sent to:
1. Email: bob.dufton@exp.com
2. Email:

Regulatory Requirements: ☐ No Regulatory Requirement
(Please check all applicable boxes)

☒ Regulation 153/04
Table 2 *(Indicate One)*
☒ Ind/Com
☐ Res/Park
☐ Agriculture

Soil Texture *(Check One)*
☒ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ___ *(Indicate One)*
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
(Indicate One)

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: 24546 Adelaide Rd. - Strathroy
Site Location:
Sampled By: M-U
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Is this submission for a Record of Site Condition?
☐ Yes ☒ No

Report Guideline on Certificate of Analysis
☒ Yes ☐ No

Invoice Information: Bill To Same: Yes ☒ No ☐

Company: SAA
Contact:
Address:
Email:

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	O. Reg 153: Metals and Inorganics	☒ All Metals ☐ 153 Metals (excl. Hydrides)	☐ Hydride Metals ☐ 153 Metals (incl. Hydrides)	ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr6+ ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH3 ☐ TKN ☐ NO3 ☐ NO2 ☐ NO3+NO2	Volatiles: ☒ VOC ☐ BTEX ☐ THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	pH
BH1 SA1	Dec 20/18	a.m.	1	Soil				✓														
BH1 SA5	↓	↓	3	↓										✓	✓							
BH2 SA5	↓	↓	3	↓										✓	✓							
BH4 SA4	↓	↓	3	↓										✓	✓							
BH5 SA4	↓	↓	3	↓										✓	✓							
BH7 SA5	↓	↓	3	↓										✓	✓							
BH8 SA1	↓	↓	1	↓				✓														✓
BH8 SA4	↓	↓	3	↓										✓	✓							✓
BH9 SA5	↓	↓	3	↓										✓	✓							
BH10 SA1	↓	↓	1	↓				✓														
BH10 SA5	↓	↓	3	↓										✓	✓							

Samples Relinquished By (Print Name and Sign)	Date	Time	Samples Received By (Print Name and Sign)	Date	Time
Bob Dufton / Bob Dufton	Dec 21/18	1:30	J. Smith	12/21/18	1:30
J. Smith	12/21/18	4:00	Jay Patel	24/12/18	8:30 a.m.

Page 1 of 2

Nº: T 077574

AGAT Laboratories

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Laboratory Use Only

Work Order #: 18L423281

Cooler Quantity: 1 large

Arrival Temperatures: 8.1 | 9.0 | 5.0
LT: 1.9 | 2.4 | 1.7

Custody Seal Intact: ☐ Yes ☐ No ☐ N/A

Notes: ICE PACKS

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water intended for human consumption)

Report Information:

Company: EXP
Contact: B. DUFTON
Address: LONDON

Phone: Fax:
Reports to be sent to:
1. Email: bob.dufton@exp.com
2. Email:

Regulatory Requirements: ☐ No Regulatory Requirement
(Please check all applicable boxes)

☒ Regulation 153/04
Table 2 *(Indicate One)*
☒ Ind/Com
☐ Res/Park
☐ Agriculture
Soil Texture *(Check One)*
☒ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ______ *Indicate One*

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other
______ *Indicate One*

Is this submission for a **Record of Site Condition?** ☐ Yes ☒ No

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

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply)

☐ 3 Business Days ☐ 2 Business Days ☐ 1 Business Day

OR Date Required (Rush Surcharges May Apply): ______

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

Project Information:

Project: 24546 Adelaide Rd., Strathroy
Site Location:
Sampled By: M-U.
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Invoice Information: Bill To Same: Yes ☐ No ☐

Company: SAA
Contact:
Address:
Email:

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Please Circle) Y / N	Metals and Inorganics	Metal Scan	Hydride Forming Metals	Client Custom Metals	ORPs: ☐ B-HWS ☐ Cl ☐ CN ☐ Cr6+ ☐ EC ☐ FOC ☐ NO_2/NO_2 ☐ Total N ☐ Hg ☐ pH ☐ SAR	Nutrients: ☐ TP ☐ NH_3 ☐ TKN ☐ NO_3 ☐ NO_2 ☐ NO_3/NO_2	Volatiles: ☒ VOC ☐ BTEX ☐ THM	CCME Fractions 1 to 4	ABNs	PAHs	Chlorophenols	PCBs	Organochlorine Pesticides	TCLP Metals/Inorganics	Sewer Use
BH 11 - SA 4	Dec 20/18	a.m.	3	soil									✓	✓							
BH 12 - SA 4	↓	↓	3	↓									✓	✓							
BH 13 - SA 1	↓	↓	1	↓				✓													
BH 13 - SA 4	↓	↓	3	↓									✓	✓							
BH 14 - SA 4	↓	↓	3	↓									✓	✓							
BH 15 - SA 4	↓	↓	3	↓									✓	✓							

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Bob Dufton / Bob Dufton [signature]	Dec 21/18	1:30	J. Smith [signature]	12/21/18	1:30
J. Smith [signature]	12/21/18	4:00	Jay Patel [signature]	24/12/18	8:30am

Page 2 of 2

Nº: T 036912

Appendix H:
Laboratory Certificate of Analysis Sheets – Groundwater

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

CLIENT NAME: EXP. SERVICES INC.
15701 Robin's Hill Road #2
LONDON, ON N5V0A5
(519) 963-3000

ATTENTION TO: Bob Dufton

PROJECT: LON-16790

AGAT WORK ORDER: 19L424988

TRACE ORGANICS REVIEWED BY: Neli Popnikolova, Senior Chemist

DATE REPORTED: Jan 09, 2019

PAGES (INCLUDING COVER): 5

VERSION*: 1

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

*NOTES

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 19L424988

PROJECT: LON-16790

CLIENT NAME: EXP. SERVICES INC.

ATTENTION TO: Bob Dufton

SAMPLING SITE:Strathroy

SAMPLED BY:Natasha Ungerer

O. Reg. 153(511) - PHCs F1 - F4 (Water)

DATE RECEIVED: 2019-01-03

DATE REPORTED: 2019-01-09

		SAMPLE DESCRIPTION:		BH5/MW	BH7/MW	BH15/MW
		SAMPLE TYPE:		Water	Water	Water
		DATE SAMPLED:		2019-01-03	2019-01-03	2019-01-03
Parameter	Unit	G / S	RDL	9816061	9816067	9816068
Benzene	µg/L	5.0	0.20	<0.20	<0.20	<0.20
Toluene	µg/L	24	0.20	<0.20	<0.20	<0.20
Ethylbenzene	µg/L	2.4	0.10	<0.10	<0.10	<0.10
Xylene Mixture	µg/L	300	0.20	<0.20	<0.20	<0.20
F1 (C6 - C10)	µg/L	750	25	<25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	750	25	<25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA	NA	NA
Surrogate	Unit	Acceptable Limits				
Terphenyl	%	60-140		89	71	98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition - Potable Ground Water - All Types of Property Uses - Coarse Textured Soils
Guideline values are for general reference only. The guidelines provided may or may not be relevant for the intended use. Refer directly to the applicable standard for regulatory interpretation.

9816061-9816068 The C6-C10 fraction is calculated using Toluene response factor.
Xylenes total is a calculated parameter. The calculated value is the sum of m&p-Xylene + o-Xylene.
C6–C10 (F1 minus BTEX) is a calculated parameter. The calculated value is F1 minus BTEX.
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.
Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.
The chromatogram has returned to baseline by the retention time of nC50.
Total C6-C50 results are corrected for BTEX contribution.
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.
nC6 and nC10 response factors are within 30% of Toluene response factor.
nC10, nC16 and nC34 response factors are within 10% of their average.
C50 response factor is within 70% of nC10 + nC16 nC34 average.
Linearity is within 15%.
Extraction and holding times were met for this sample.
Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153/04, results are considered valid without determining the PAH contribution if not requested by the client.
NA = Not Applicable

Analysis performed at AGAT Toronto (unless marked by *)

Certified By: NPopowkolof

AGAT Laboratories

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Quality Assurance

CLIENT NAME: EXP. SERVICES INC.

AGAT WORK ORDER: 19L424988

PROJECT: LON-16790

ATTENTION TO: Bob Dufton

SAMPLING SITE:Strathroy

SAMPLED BY:Natasha Ungerer

Trace Organics Analysis

RPT Date: Jan 09, 2019			DUPLICATE				REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
O. Reg. 153(511) - PHCs F1 - F4 (Water)															
Benzene	9799462		< 0.20	< 0.20	NA	< 0.20	92%	50%	140%	86%	60%	130%	85%	50%	140%
Toluene	9799462		< 0.20	< 0.20	NA	< 0.20	90%	50%	140%	83%	60%	130%	81%	50%	140%
Ethylbenzene	9799462		< 0.10	< 0.10	NA	< 0.10	84%	50%	140%	82%	60%	130%	80%	50%	140%
Xylene Mixture	9799462		< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	85%	60%	130%	85%	50%	140%
F1 (C6 - C10)	9799462		< 25	< 25	NA	< 25	85%	60%	140%	87%	60%	140%	79%	60%	140%
F2 (C10 to C16)		TW	< 100	< 100	NA	< 100	99%	60%	140%	87%	60%	140%	92%	60%	140%
F3 (C16 to C34)		TW	< 100	< 100	NA	< 100	103%	60%	140%	104%	60%	140%	85%	60%	140%
F4 (C34 to C50)		TW	< 100	< 100	NA	< 100	88%	60%	140%	99%	60%	140%	90%	60%	140%

Comments: Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume.
When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By: N Popnikolof

5835 COOPERS AVENUE
MISSISSAUGA, ONTARIO
CANADA L4Z 1Y2
TEL (905)712-5100
FAX (905)712-5122
http://www.agatlabs.com

Method Summary

CLIENT NAME: EXP. SERVICES INC.

AGAT WORK ORDER: 19L424988

PROJECT: LON-16790

ATTENTION TO: Bob Dufton

SAMPLING SITE:Strathroy

SAMPLED BY:Natasha Ungerer

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trace Organics Analysis			
Benzene	VOL-91-5010	MOE PHC-E3421	(P&T)GC/FID
Toluene	VOL-91-5010	MOE PHC-E3421	(P&T)GC/FID
Ethylbenzene	VOL-91-5010	MOE PHC-E3421	(P&T)GC/FID
Xylene Mixture	VOL-91-5010	MOE PHC-E3421	(P&T)GC/FID
F1 (C6 - C10)	VOL-91- 5010	MOE PHC-E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC-E3421	(P&T)GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC-E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC-E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC-E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC-E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID

AGAT Laboratories

5835 Coopers Avenue
Mississauga, Ontario L4Z 1Y2
Ph: 905.712.5100 Fax: 905.712.5122
webearth.agatlabs.com

Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

Laboratory Use Only

Work Order #: 19L424988

Cooler Quantity: 1 med

Arrival Temperatures: 4.3 | 6.2 | 6.1 / 6.7 | 6.3 | 4.7

Custody Seal Intact: ☐Yes ☐No ☐N/A

Notes: ON ICE

Report Information:

Company: EXP Services
Contact: Bob Dufton
Address: 15701 Robins Hill Rd
London
Phone: 519-963-3000 Fax:
Reports to be sent to:
1. Email: bob.dufton@exp.com
2. Email: mona.ungero@exp.com

Regulatory Requirements: ☐ No Regulatory Requirement
(Please check all applicable boxes)

☒ Regulation 153/04
Table 3 *(Indicate One)*
☒ Ind/Com
☐ Res/Park
☐ Agriculture

Soil Texture *(Check One)*
☒ Coarse
☐ Fine

☐ Sewer Use
☐ Sanitary
☐ Storm
Region ______ *(Indicate One)*
☐ MISA

☐ Regulation 558
☐ CCME
☐ Prov. Water Quality Objectives (PWQO)
☐ Other ______ *(Indicate One)*

Turnaround Time (TAT) Required:

Regular TAT ☒ 5 to 7 Business Days

Rush TAT (Rush Surcharges Apply) 4days

☐ 3 Business Days ☐ 2 Business Days ☐ Next Business Day

OR Date Required (Rush Surcharges May Apply):

Please provide prior notification for rush TAT
**TAT is exclusive of weekends and statutory holidays*

For 'Same Day' analysis, please contact your AGAT CPM

Project Information:

Project: LON-16790
Site Location: Strathroy
Sampled By:
AGAT Quote #: PO:
Please note: If quotation number is not provided, client will be billed full price for analysis.

Is this submission for a **Record of Site Condition?** ☐ Yes ☒ No

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

Invoice Information: Bill To Same: Yes ☒ No ☐

Company:
Contact:
Address:
Email:

Sample Matrix Legend

B	Biota
GW	Ground Water
O	Oil
P	Paint
S	Soil
SD	Sediment
SW	Surface Water

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Field Filtered - Metals, Hg, CrVI (Y/N)	Metals and Inorganics	O. Reg 153: ☐ All Metals ☐ 153 Metals (excl. Hydrides) ☐ Hydride Metals ☐ 153 Metals (Incl. Hydrides)	ORPs: ☐ B-HWS ☐ Cl⁻ ☐ CN ☐ Cr⁶⁺ ☐ EC ☐ FOC ☐ Hg ☐ pH ☐ SAR	Full Metals Scan	Regulation/Custom Metals	Nutrients: ☐ TP ☐ NH₃ ☐ TKN ☐ NO₃ ☐ NO₂ ☐ NO₃+NO₂	Volatiles: ☐ VOC ☐ BTEX ☐ THM	PHCs F1 - F4	ABNs	PAHs	PCBs: ☐ Total ☐ Aroclors	Organochlorine Pesticides	TCLP: ☐ M&I ☐ VOCs ☐ ABNs ☐ B(a)P ☐ PCBs	Sewer Use	BTEX					
BH5 / MW	2019/01/03	10:00	7	GW										X							X					
BH7 / MW	↓	10:30	7	↓										X							X					
BH15 / MW	↓	11:00	7	↓										X							X					

Samples Relinquished By (Print Name and Sign):	Date	Time	Samples Received By (Print Name and Sign):	Date	Time
Natascha Ungers	2019/01/03	11:45	Laura Robinson	Jan 3, 19	11:45am
J Smith	1/3/19	4:00	MANOS JOHN	JAN 4, 19	8:45AM

Page 1 of 1

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