Englobe
Soils Materials Environment

Real Capital Partners Inc.

PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

1454 FANSHAWE PARK ROAD EAST
LONDON, ONTARIO

September 2020

128- P-0022280-0-01-200-HG-R-0001-00

FINAL REPORT

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Executive Summary

Englobe Corp. (Englobe) was retained by Real Capital Partners Inc. (hereafter referred to as the "Client") to conduct a Phase II Environmental Site Assessment (ESA) of the property located at 1454 Fanshawe Park Road East, London, Ontario (hereinafter referred to as the "Site" or the "subject property"). The location of the Site is shown on the attached Location Plan, Drawing 1, in Appendix A.

This Phase II ESA was completed in general accordance with the Canadian Standards Association (CSA) Standard Z769-00 (R2013). Englobe understands that this Phase II ESA is required for due diligence purposes in relation to the potential purchase of the Site by the Client. It is also understood that filing a Record of Site Condition (RSC) with the Ministry of Environment, Conservation, and Parks (MECP) will not be required at this time.

The Site consists of a parcel of land encompassing a total area of approximately 10.5 hectares (25.9 acres) located in the northeast quadrant of the City of London at the northeast corner of Fanshawe Park Road East and Highbury Avenue North.

Surrounding land uses consist of Blackwell Boulevard and residential developments to the north, a community church and cemetery to the east, a restaurant with associated parking and Highbury Avenue North beyond which are vacant lands and a Toyota dealership to the west. To the south exists Fanshawe Park Road East followed by residential developments, an Esso retail fuel outlet and Mac's convenience store and a PetroCanada retail fuel outlet to the southwest.

A Phase I ESA completed by Englobe in June 2020 identified the following issues which were interpreted by Englobe to represent potential environmental impacts to the Site:

- Current and historic waste generating and fuelling activities on the abutting property to the southwest and surrounding properties to the south, west, and southwest at 1898 Highbury Avenue North, 1878 Highbury Avenue North, 1791 Highbury Avenue North, 1401 Fanshawe Park Road East, and 1350 Fanshawe Park Road East;
- Unknown quality of the imported fill materials for leveling the ground after demolition of the Site buildings, fill materials for raising the driveway and construction debris at the centre of the Site; and,
- The potential existence of a heating oil tank on-Site.

In order to establish whether the above-noted issues interpreted by Englobe to represent potential environmental contamination have impacted the environmental quality of soils and/or groundwater on the subject property, Englobe recommended that Phase II ESA work be conducted, consisting of the sampling of soils and groundwater at targeted locations on-site, their analysis for contaminants of concern, and the evaluation of the results of such analysis against provincial soil and groundwater quality criteria applicable to the subject property.

Methodology

The Phase II ESA consisted of a subsurface investigation program (the advancement of boreholes and the installation of groundwater monitoring well) and a soil and groundwater chemical analytical program to assess the current environmental quality of soils and groundwater on the subject property. A total of six (6) boreholes were advanced at the Site on August 10, 2020. The boreholes were advanced to depths ranging from approximately 3.1 to 9.1 metres below ground surface (mbgs). Upon completion of the boreholes, a monitoring well (MW) was installed at one (1) of the borehole locations.

Soil and groundwater samples were selected for analysis based on field observations and subsurface conditions encountered. Selected soil samples were analyzed for one or more of the following targeted Contaminants of Concern (COCs): Petroleum Hydrocarbon Compounds (PHCs) F1 to F4 fractions inclusive; fuel-related Volatile Organic Compounds including benzene, toluene, ethylbenzene and xylene (BTEX Compounds); Polycylic Aromatic Hydrocarbons (PAHs) and Metals.

Soil and Groundwater Quality Assessment Criteria

The soil and groundwater analytical results were compared to the Generic Full Depth Standards presented in the MECP's Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 15, 2011 (MECP Standards). The local drinking water is serviced by City of London, however several supply wells were identified in surrounding properties. The native soil encountered consisted of sand, gravel, boulder and silty sand at most borehole locations. Consequently, soil and groundwater analytical results have been compared to soils in a potable groundwater condition for Industrial, Commercial and Community property use and coarse-textured soils, as presented in Table 2 of the MECP Standards (MECP Table 2 Standards). The groundwater analytical results were compared to those applicable to coarse soils in a potable groundwater condition and all types of property use standards provided within the MECP Table 2 Standards.

Findings

In general, subsurface conditions encountered at most borehole locations consisted of alternating layers of sand and gravel and boulder and silty sand.

Groundwater levels measured in the monitoring well installed in conjunction with this Phase II ESA ranged from 8.33 mbgs to 8.51 mbgs.

Soil samples collected were screened for total organic vapours, appearance and odour indicative of impacts. Soil vapour readings (SVR) for soil samples, obtained from all of the boreholes, where sampled and screened, exhibited readings between 0 and 5.1 parts per million (ppm); these SVR readings are not considered to be indicative of impacts. Based on these observations, as well as the findings of the Phase I ESA, samples were collected and submitted to the laboratory for the following analyses:

- Three (3) soil samples were submitted for analyses of PHC F1-F4 fractions;
- Three (3) soil samples were submitted for analysis of BTEX compounds;
- Five (5) soil samples were submitted for analysis of Metals;
- One (1) soil sample was submitted for analysis of PAHs; and,
- One (1) soil sample was submitted exclusively for the analysis of lead.

Where soil/fill materials were sampled and analyzed on the subject property, PHCs, BTEX, PAHs and Metals either were not detected in soil/fill materials analyzed or were detected but at concentrations which do not exceed the applicable MECP Table 2 Standards soil criteria.

Based on these observations, as well as the findings of the Phase I ESA, one (1) groundwater sample was submitted for analysis of PHCs and BTEX compounds.

PHCs and BTEX compounds either were not detected in groundwater sampled from the subject property and submitted for analysis, or were detected but at concentrations which do not exceed the applicable MECP Table 2 Standards groundwater criteria.

Conclusions

Based on these findings:

- Englobe interprets that, where sampled and analyzed, soil/fill materials on the subject property are not impaired with PHCs, BTEX, Metals and/or PAHs, with respect to the applicable MECP Table 2 Standards soil criteria.
- Englobe interprets that, where sampled and analyzed from monitoring well location BHMW1, groundwater on the subject property is not impaired with PHCs and BTEX with respect to the applicable MECP Table 2 Standards groundwater criteria.

Based on the above-noted findings of this Phase II ESA, Englobe concludes that no further environmental site assessment work and no environmental remedial work, are warranted at this time.

Production Team

Real Capital Partners Inc.

Mr. Gar Morritt, P.Eng.

Englobe Corp.

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Revision and Publication Register		
Revision N°	**Date**	**Modification and/or Publication Details**
00	2020-09-04	Final Report Issued to Client

Property and Confidentiality

Table of Contents

Appendixes

1 Introduction

Englobe Corp. (Englobe) was retained by Real Capital Partners Inc. (hereafter referred to as the "Client") to conduct a Phase II Environmental Site Assessment (ESA) of the property located at 1454 Fanshawe Park Road East, London, Ontario (hereinafter referred to as the "Site" or the "subject property"). The location of the Site is shown on the attached Location Plan, Drawing 1, in Appendix A.

The Site consists of a parcel of land encompassing a total area of approximately 10.5 hectares (25.9 acres) located in the northeast portion of the City of London at the northeast corner of Fanshawe Park Road East and Highbury Avenue North.

2 Background Information

2.1 Past Investigation

Englobe reviewed the following previous reports for the Site:

Phase I Environmental Site Assessment, 1454 Fanshawe Park Road East, London, Ontario, dated June 2020. Prepared for Real Capital Partners Inc. by Englobe Corp.

A Phase I ESA completed by Englobe in June 2020 identified the following issues, which were interpreted by Englobe to represent potential environmental impacts to the Site:

- Current and historic waste generating and fuelling activities on the abutting property to the southwest and surrounding properties to the south, west, and southwest at 1898 Highbury Avenue North, 1878 Highbury Avenue North, 1791 Highbury Avenue North, 1401 Fanshawe Park Road East, and 1350 Fanshawe Park Road East;
- Unknown quality of the imported fill materials for leveling the ground after demolition of the Site buildings, fill materials for raising the driveway and construction debris at the centre of the Site; and,
- The potential existence of a heating oil tank on Site.

In order to establish whether the above-noted issues interpreted by Englobe to represent potential environmental contamination have impacted the environmental quality of soils and/or groundwater on the subject property, Englobe recommended that Phase II ESA work be conducted, consisting of the sampling of soils and groundwater at targeted locations on-site, their analysis for contaminants of concern, and the evaluation of the results of such analysis against provincial soil and groundwater quality criteria applicable to the subject property.

3 Scope of the Investigation

3.1 Overview of Site Investigation

This Phase II ESA was completed in general accordance with the Canadian Standards Association (CSA) Standard Z769-00 (R2013). Englobe understands that this Phase II ESA is required for due diligence purposes in relation to the potential purchase of the Site by the Client. It is also understood that filing a Record of Site Condition (RSC) with the Ministry of Environment, Conservation and Parks (MECP) will not be required at this time.

The scope of work for this Phase II ESA was developed in order to investigate the soil and groundwater quality at the Site, and consisted of the following tasks:

- clearance of public and private underground utilities;
- advancement of six (6) boreholes;
- obtaining soil samples from the boreholes;
- Installation of one (1) monitoring well;
- monitoring well development and collection of groundwater samples;
- conducting laboratory analysis of selected soil and groundwater samples;
- interpretation of the results; and,
- preparation of this report.

3.2 Media Investigated

Soil samples were collected from the advanced boreholes identified as BHMW1, BH2, BH3, BH4, BH5 and BH6. A summary of the investigated locations, collected samples, depths of the samples and associated laboratory analyses are presented on the borehole logs included as Appendix B.

The monitoring well identified as BHMW1 was sampled for the purposes of assessing the groundwater quality at the Site. Well construction details and water levels are presented in borehole logs in Appendix B.

Soil and groundwater sampling and handling procedures adopted by Englobe were consistent with those prescribed in the latest version of the Ontario MECP document entitled 'Guide for Completing Phase Two Environmental Site Assessments under Ontario Regulation 153/04' ('Phase Two Guide'), (June 2011), the document 'Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act' ('Protocol'), Ontario MECP, July 1, 2011, and Englobe's Standard Operating Procedures. Soil samples were collected and handled by Englobe using dedicated nitrile protection gloves. Samples were immediately transferred into new, clean glass sampling containers provided by the analytical laboratory, pre-charged with appropriate preservatives. Soil samples acquired for organic chemistry analysis were equipped with Teflon-lined lids. Soil samples to be analyzed for Petroleum Hydrocarbon Compounds (F1 fraction) and BTEX compounds were preserved in the field using a laboratory-supplied vial with methanol preservative.

4 Investigation Method

4.1 Drilling

Following the clearance of public and private utility locates, six (6) boreholes were advanced at the Site on August 10, 2020. The boreholes were advanced to depths ranging from approximately 3.05 to 9.14 metres below ground surface (mbgs). Upon completion of the boreholes, a monitoring well (MW) was installed at one (1) of the borehole locations. The locations of the above referenced boreholes/monitoring wells are illustrated on the attached Site Plan, Drawing 2 included in Appendix A. The borehole logs are provided in Appendix B.

Use was made of a track-mounted *Geoprobe® 7822 DT* direct push soil coring rig to advance boreholes and acquire soil samples. The firm London Soil Testing (LST) provided borehole drilling and soil sampling services. The drilling of the boreholes was monitored throughout by Englobe staff, who directed the drilling and sampling procedures; documented the soil stratigraphy; measured soil vapour readings; and, prepared the recovered soil samples for submission.

4.2 Soil Sampling

Soil cores were acquired from the boreholes by LST using the Geoprobe® MacroCore soil sampling system. The MacroCore soil sampling system, utilized by LST, consisted of a 50-millimetre diameter soil sampler of 1.5 m in length and advanced in 1.5 m intervals. Soil cores of 38-millimetre diameter were recovered from the sampler by LST. During soil sampling, for each sampling interval LST made use of a new, clean PVC Liner to contain and store the soil core until such time as it was visually assessed/sampled by Englobe. All non-expendable soil sampling equipment used by LST was decontaminated prior to use and between soil borings using an aqueous solution of Liquinox® cleaner. No drilling fluids or additives were used during the drilling process.

Samples of soil were acquired from each sampling location at regular depth intervals and were transferred directly to sampling containers provided by the laboratory. Soil samples were collected and handled by Englobe using dedicated nitrile protection gloves for each sample collected. Selected samples for analyses were immediately transferred into new, clean glass sampling containers provided by the analytical laboratory. Soil samples to be analyzed for Petroleum Hydrocarbon Compounds (F1 fraction) (PHCs) and BTEX were preserved in the field using a laboratory-supplied vial with methanol preservative. A portion of the soil samples were placed in plastic bags and allowed to equilibrate for approximately 30 minutes prior to being tested for headspace screening of total organic vapours.

4.3 Field Screening Measurements

As noted above, field screening samples were placed in sealable plastic bags and allowed to equilibrate for at least 30 minutes at room or ambient temperature. After this period of time, the headspace in the plastic bag was analyzed using a hand-held Photoionization Detector (PID) (MiniRae® 3000 Model) equipped with a 10.6 electron volt ultraviolet lamp. The PID was calibrated at regular intervals using 100 parts per million (ppm) isobutylene (DOT-39, NRC500/645) reference gas. The MiniRae 3000 detector has an accuracy of 10 to 2000 ppm ±3% at the isobutylene calibration point. The headspace soil vapour readings are presented in the borehole logs enclosed in Appendix B.

4.4 Groundwater: Monitoring Well Installation

Following completion of the borehole drilling, a groundwater monitoring well was installed at one (1) borehole location, being location BHMW1 as identified on Drawing 2. The groundwater monitoring well installation was completed by LST, being a Water Well Contractor licensed by the MOE and staffed by an MOE-licensed Well Technician. The installed well consisted of 50-mm diameter SCH-40 PVC riser with 4.57 metres of screen, and the construction details of the monitoring well is shown on the borehole/test well logs enclosed in Appendix B.

A bentonite seal was placed above the sand pack to prevent the infiltration of surface water. A J-plug well pipe cap was installed at the well location and the monitoring well was equipped with an above-grade protective casing.

4.5 Groundwater: Development and Sampling

Groundwater and potential non aqueous phase liquid (NAPL) thickness, if any, was measured at the monitoring well location using a *Solinst Model 122* Interface Meter. Prior to use, the interface meter was washed with a non-phosphate detergent ('Alconox/Liquinox') and then rinsed with methanol and distilled water to prevent cross-contamination. No NAPL was encountered on the surface of the water table or at the bottom of the monitoring well. After measurements were completed, new, clean, dedicated 6 mm polyethylene tubing was installed in each well.

A Pegasus Alexis™ peristaltic pump was used to obtain samples and a multi-parameter groundwater monitoring instrument was used to monitor water quality during development and prior to sampling.

Englobe completed well development for monitoring well location BHMW1 on August 17, 2020 and a groundwater sample was collected on August 18, 2020.

No noticeable odours or petroleum sheen/film was observed on groundwater produced from the monitoring well during development/purging or sampling.

The groundwater samples were collected utilizing new, clean tubing. The groundwater samples were collected using the procedures identified in the Canadian Council of Ministers of the Environment (CCME) *Guidance Manual for the Environmental Site Characterization in Support of Environment and Human Health Risk Assessment: Volume 3 – SOP #3* and Englobe's Standard Operating Procedures. The groundwater samples were collected in new, clean sampling containers provided by the laboratory, complete with appropriate preservative.

4.6 Analytical Testing

Soil and Groundwater samples selected for analysis were submitted to ALS Environmental (ALS) in London, Ontario for analysis of the parameters listed below. ALS is accredited by the Standards Council of Canada ("SCC") and the Canadian Association of Laboratory Accreditation ("CALA") to conduct such analyses, in accordance with standard methods (MOE, US-EPA, ASTM, etc.) and generally accepted industry practices.

Soil and groundwater samples were submitted for one or more of the following targeted compounds:

- Petroleum Hydrocarbon Compounds (PHC), specifically the F1 to F4 fractions (being equivalent to gasoline, diesel and heavy oil fractions);
- The fuel-related Volatile Organic Compounds including benzene, toluene, ethylbenzene and xylene (BTEX Compounds);
- The list of Metals referenced in O. Reg. 153/04; and,
- The list of PAHs referenced in O. Reg. 153/04.

The laboratory Certificates of Analysis issued by ALS may be referenced in Appendix C.

4.7 Quality Assurance and Quality Control Measures

During soil sampling for each sampling interval LST made use of a new, clean PVC Liner to contain and store the soil core. At all times during sampling use was made of an outer steel casing to avoid cross-contamination between soil coring intervals. All non-expendable soil sampling equipment was decontaminated prior to use and between soil borings using an aqueous solution of Alconox® cleaner. No drilling fluids or additives were used during the drilling process.

Soil and groundwater sampling and handling procedures adopted by Englobe were consistent with those prescribed in the latest version of the Ontario MECP document entitled 'Guide for Completing Phase Two Environmental Site Assessments under Ontario Regulation 153/04' ('Phase Two Guide'), (June 2011), the document 'Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act' ('Protocol'), Ontario MECP, July 1, 2011, and Englobe's Standard Operating Procedures. Soil samples were collected and handled by Englobe using dedicated nitrile protection gloves. Samples were immediately transferred into new, clean glass sampling containers provided by the analytical laboratory, pre-charged with appropriate preservatives. Soil samples acquired for organic chemistry analysis were equipped with Teflon-lined lids. Soil samples to be analyzed for Petroleum Hydrocarbon Compounds (F1 fraction) and BTEX compounds were preserved in the field using a laboratory-supplied vial with methanol preservative.

New sampling tubing was utilized during well purging, groundwater monitoring and sampling.

Samples were kept in the custody of Englobe from the time of collection until delivery to the laboratory. Samples were hand delivered to the laboratory in sealed coolers chilled with ice. Chain of Custody forms prepared and signed by Englobe accompanied the samples during delivery and the completed Chain of Custody forms became part of the laboratory QA/QC record and may be referenced in the Laboratory Certificates of Analysis in Appendix C.

During analysis of soil and groundwater samples submitted by Englobe, ALS is reported to have adhered to the Standard Methods (MOE, USEPA, ASTM, etc.) and the Protocol. Laboratory QA/QC procedures are reported to have included full recovery determination, blank analysis, standard reference material analysis and replicate analysis. Analytical method detection limits adopted by the laboratory are less than the applicable O. Reg. 153/04 Standards soil criteria.

5 Review and Evaluation

According to the Ontario Geology Survey, the Site is located within the physiographic region of Southern Ontario known as the Stratford Till Plain. The subsurface stratigraphy at the Site is comprised of glaciolacustrine deposits and river deposits and delta topset facies (Ontario Geological Survey, 1991).

Based on a review of the Ministry of Natural Resources on-line mapping of Natural Heritage Areas, there is no Areas of Natural Significance (ANSIs). A wetland area is located approximately 130 m to the south of the Site.

5.1 Site Conditions and Observations

In general, subsurface conditions encountered at most borehole locations consisted of alternating layers of sand and gravel and boulder and silty sand.

Groundwater levels measured in the monitoring well installed in conjunction with this Phase II ESA ranged from 8.33 mbgs to 8.51 mbgs.

5.2 Groundwater Levels

A 4.57 metre long well screen was installed at depths ranging from 4.6 mbgs to 9.1 mbgs which intersected the native silty sand, interpreted to represent the zone of permanent saturation (i.e. the local water table). Groundwater levels and NAPL thickness (if any) was measured at the monitoring well by utilizing a *Solinst Model 122* Interface Meter. No NAPL was detected on the surface of the water table or at the bottom of the monitoring well during well development or sampling events.

The groundwater levels in monitoring well BHMW1 were measured at depths of 8.33 and 8.51 metres below ground surface on August 17 and 18, 2020. Based on the ground surface and the Site area features, the local groundwater flow was expected to be in north to south direction.

In general, groundwater depth and flow direction may be locally influenced by the Site drainage conditions and underground utility structures, etc. Accordingly, groundwater depth and flow direction may be locally influenced by the drains.

5.3 Applicable Site Condition Standards

The analytical results were compared to the Full Depth Generic Site Condition Standards presented in the Ontario MECP's *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*, Ontario Regulation 153/04 (O. Reg. 153/04), as amended. The following Site-specific information was used to determine the most applicable evaluation standard:

- The local drinking water is reported to be provided by the City of London. However, supply wells were identified in surrounding properties. Consequently, Englobe utilized Standards corresponding to a potable groundwater condition for the evaluation of soil and groundwater analyses for this Site;

- The native soil encountered at most borehole locations consisted of sand, gravel, boulder and silty sand. Consequently, Englobe made use of the Standards corresponding to coarse- textured soils;
- The Site is currently vacant and is proposed for commercial development in the future. Therefore, the applicable Site land use is interpreted to be Industrial/Commercial/ Community land use;
- No Environmentally Significant Areas, Areas of Natural Significance (ANSIs), or Provincially Significant Wetlands (PSWs) are located within 250 metres of the Site;
- There are no water bodies within 30 m of the Site; and,
- Therefore, considering the geology of the Site and observation made during groundwater installations, use of O. Reg. 153/04 Soil and Groundwater Standards for 'full depth soil' would be appropriate.

Accordingly, for the purpose of this environmental investigation, the soil and groundwater analytical results have been compared to the Standards for soils and groundwater in a potable ground water condition, Industrial/Commercial/Community land use, and Coarse-textured soils, as listed in the MECP standards document (MECP Table 2 Standards soil and groundwater criteria).

5.4 Soil Quality

Soil samples collected were screened for organic vapours, appearance, odour indicative of environmental impacts. Based on these assessment factors, as well as the findings of the Phase I ESA, soil samples were collected and submitted to the laboratory for the following analyses:

- Three (3) soil samples were submitted for analyses of PHC F1-F4 fractions;
- Three (3) soil samples were submitted for analysis of BTEX compounds;
- Five (5) soil samples were submitted for analysis of Metals;
- One (1) soil sample was submitted for analysis of PAHs; and,
- One (1) soil sample was submitted exclusively for the analysis of lead.

The analytical results for the soil samples collected are presented in the laboratory Certificate of Analysis presented in Appendix C, and summarized in Tables 1 to 3 in Appendix D.

Based on the laboratory analyses, the following information is provided:

- Where soil/fill materials were sampled on the subject property and submitted for analysis, PHCs, BTEX, Metals and PAHs either were not detected in soil/fill materials analyzed, or were detected but at concentrations which do not exceed the applicable MECP Table 2 Standards soil criteria.

5.5 Groundwater Quality

Based on the findings of the Phase I ESA, one (1) groundwater sample was obtained and submitted to the laboratory for the following analyses:

- One (1) groundwater sample was submitted for analysis of PHCs; and,
- One (1) groundwater sample was submitted for analysis of BTEX compounds.

The analytical results for the submitted groundwater sample are presented in the laboratory Certificates of Analysis in Appendix C, and summarized in Table 4 in Appendix D.

Based on the laboratory analyses, the following information is provided:

- Where sampled on the subject property and submitted for analysis, PHCs and BTEX compounds either were not detected in groundwater sampled and submitted for analysis, or were detected but at concentrations which do not exceed the applicable MECP Table 2 Standards soil criteria.

5.6 Quality Assurance and Quality Control Results

All soil and groundwater sample containers (containing the appropriate preservatives) were provided in advance of the sampling by ALS Laboratories. The samples were kept cool and delivered to the laboratory within specified holding time requirements.

Generally stated, the QA/QC sampling and analytical program implemented for this Phase II ESA did not identify any results interpreted by Englobe or ALS to be beyond an acceptable range of deviation. Laboratory Certificate of Analysis reports have been received for each soil and groundwater sample that was submitted for analysis. Copies of the laboratory certificates of analysis for the soil and groundwater samples are presented in Appendix C.

Based on the above discussions, it appears that the overall objectives of the investigation were met in terms of the quality of the field and laboratory data obtained.

6 Summary and Conclusions

6.1 Summary

Based on the results of this investigation, the following is provided:

- In general, subsurface conditions encountered at most borehole locations consisted of alternating layers of sand and gravel and boulder and silty sand.
- Groundwater levels measured in the monitoring well installed in conjunction with this Phase II ESA ranged from 8.33 mbgs to 8.51 mbgs.
- Where sampled from the subject property and submitted for analysis, PHCs, BTEX compounds, Metals and PAHs either were not detected in soil/fill materials, or were detected but at concentrations which do not exceed the applicable MECP Table 2 Standards soil criteria.
- Where sampled from the subject property and submitted for analysis, PHCs and BTEX compounds either were not detected in groundwater, or were detected but at concentrations which do not exceed the applicable MECP Table 2 Standards groundwater criteria.

6.2 Conclusions

Based on these findings:

- Englobe interprets that, where sampled from the subject property and submitted for analysis, soil/fill materials are not impaired with PHCs, BTEX, Metals and/or PAHs, with respect to the applicable MECP Table 2 Site Condition Standards for soils.
- Englobe interprets that, where sampled and analyzed from monitoring well location BHMW1, groundwater on the subject property is not impaired with PHCs and BTEX with respect to the applicable MECP Table 2 Standards groundwater criteria.

Based on the above-noted findings of this Phase II ESA, Englobe concludes that no further environmental site assessment work and no environmental remedial work are warranted at this time.

7 Statement of Limitations

This report was prepared for the exclusive use of **Real Capital Partners Inc.** No section of this report can be used as a whole entity. The report must be considered in its entirety. Englobe will not accept any responsibility resulting directly or indirectly from the use of this report by any person or entity other than that to which it is subjected.

The present report represents Englobe's assessment of the conditions prevailing on the Site during the period of time covered by the mandate, or the points in time indicated in this report. The assessment of conditions also depended on the information made available in this period of time. The information presented in our report only applies to the subject site described in this report. All information contained in this report is based essentially on visual observations of the subject site, underground sampling work conducted at specific depths and specific locations, as well as analytical results for selected parameters and materials, and this within a specific period of time, all of which have been defined in the present report. Soil conditions presented in this report may vary from one sampling location to another, and as a result of seasons and field equipment. Unless otherwise specified, the conclusions of this report are not valid for prior or future conditions of the subject site, or for portions of the subject site not made available for direct investigations.

The conclusions of this report are not valid for all those chemical analytical parameters, materials or laboratory analytical methods outside the scope of this investigation. If a substance has not been analyzed, this does not exclude the possibility of its presence on the site in concentrations exceeding the background value, the analytical detection limit or the threshold dictated by a by law, policy or ruling. The substances covered in our investigation may also be found at concentrations differing from those presented in our report at other locations than those where samples were collected. The soil descriptions included in our reports are provided to offer general information on the subsoil conditions observed on the site. This information must not, under any circumstances, be used as geotechnical data for the design and/or implementation of construction work.

In the case where changes occur to the conditions prevailing on the Site, or to the set of applicable policies, regulation or criteria, or in the case where additional information was made available following the submittal of this report, the content of the latter may be revised, in the scope of an additional mandate.

When no policy, regulation or criteria was available for the interpretation of data, the comments, recommendations and conclusions expressed in this report were based on the generally recognized rules and practices.

The use of this report, as well as of its content by a third party is strictly prohibited without having obtained Englobe's and its client's prior written authorization to do so. Third parties using this report or its content take full responsibility of doing so.

Englobe provides no guarantee and disclaims any obligation towards third parties and disclaims any liability whatever it may consist of towards all losses, expenses, damages, fines, penalties and other harm that any other person may suffer by the use of this report and of its content.

It is important to note that the opinions expressed in our report are solely technical. These opinions cannot and should not be considered as legal advice.

8 References

Barnett, P.J. 1992 Quaternary Geology of Ontario; in Geology of Ontario, Special Volume 4, Part 2, p. 1009-1088.

Chapman, L.J., Putman, D.F., 1984. The Physiography of Southern Ontario, Third Edition; Ontario Geological Survey, Special Volume 2.

Englobe Corp. July 2020. Phase I Environmental Site Assessment Report, 1454 Fanshawe Park Road East, London, Ontario prepared for Real Capital Partners Inc.

MECP 'Phase Two Guide' noted in Section 4.7.

Ontario Ministry of the Environment (MOE) Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011, Ontario Ministry of the Environment, Ontario Regulation 153/04 as amended.

Appendix A Drawings

Drawing 1: Location Plan
Drawing 2: Borehole and Monitoring Well Location Plan

LEGEND:

★ SITE

NOTES:

1. References: OpenStreetMap Contributers (2019)
2. Scale: Not to scale

PHASE II ENVIRONMENTAL SITE ASSESSMENT

1454 Fanshawe Park Road East, London, Ontario

LOCATION PLAN

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Checked	R. Helwig	Date	September 2020		

M. Dept.	Project	Disc.	Dwg no.	Rev.
128	P-0022280-0-01-201-01	HG	01	00

LEGEND:

- Approximate Site Boundaries
- Approximate Borehole Locations
- Approximate Monitoring well Location

NOTES:

Scale: Not to scale
Reference: City of London Map Gallery, 2020 Aerial Photography

PHASE II ENVIRONMENTAL SITE ASSESSMENT

1454 Fanshawe Park Road East,
London, Ontario

SITE PLAN

Englobe Corp.
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Drawn	N. Sharifi	Scale	"Not to Scale"	Sequence no.	2 of 2
Checked	R. Helwig	Date	January 2020		

M. Dept.	Project	Disc.	Dwg no.	Rev
128	P-0022280-0-01-201-01	HG	02	00

Appendix B Borehole Logs

Boreholes BHMW1 to BHMW6

ENCLOSURE NO.: 1 OF 1

METRIC

RECORD OF BHMW1

REFERENCE P-0022280-201 DATUM 100 LOCATION 1454 Fanshawe Park Road East, London, Ontario ORIGINATED BY N.S.

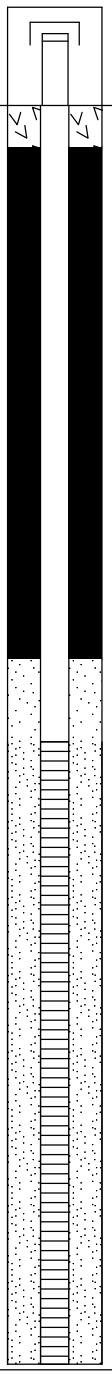
PROJECT Phase II Environmental Site Assessment BOREHOLE TYPE Environmental Borehole COMPILED BY N.S.

CLIENT Real Capital Partners Inc. DATE (Started) August 10, 2020 TIME 12:00:00 PM CHECKED BY R.H.

DATE (Completed) August 10, 2020

ELEV / DEPTH	DESCRIPTION	STRATA PLOT	BORING TYPE	SAMPLES: NUMBER	TYPE	"N" VALUES	Vapour Analysis (ppm) with Methane Elimination	PID / FID (ppm)	GROUND WATER CONDITIONS	ELEVATION SCALE
100.0										
0.0 / 99.7	Topsoil with rootlets			1	MC		n/a / n/a	0.6 / n/a		
0.3 / 99.1	Brown sand			2	MC		n/a / n/a	0 / n/a		
0.9 / 98.5	Grey fine sand and gravel			3	MC		n/a / n/a	0.1 / n/a		99
1.5 / 97.0	Grey fine to coarse sand and gravel and boulder			4	MC		n/a / n/a	0.2 / n/a		98
3.1 / 96.0	Grey coarse sand with minor gravel - damp			5	MC		n/a / n/a	0.2 / n/a		97
4.0 / 95.4	Grey coarse sand and gravel and boulder - damp			6	MC		n/a / n/a	0 / n/a		96
4.6 / 95.0	Grey coarse sand and gravel			7	MC		n/a / n/a	0.4 / n/a		
5.0 / 93.9	Brown sandy silt			8	MC		n/a / n/a	0.2 / n/a		95
6.1 / 91.8	Grey fine sand - damp			9	MC		n/a / n/a	0.3 / n/a		94
				10	MC		n/a / n/a	0.2 / n/a		93
8.2 / 90.9	Grey silty sand - saturated			11	MC		n/a / n/a	0 / n/a	▽	92
9.1	End of borehole									91

REMARKS & WELL CONSTRUCTION DETAILS



COMMENTS
- This borehole was prepared for environmental purpose. It does not necessarily contain information suitable for geotechnical assessment of the subsurface conditions. The borehole data must be interpreted within the context of the report. Its interpretation by Englobe is required before use by others.

- The groundwater level is measured from ground surface.

WATER LEVEL RECORDS

Date (dd/mm/yy)/Time	Water Depth (m)	Cave In Level (m)
8/17/20	8.33	-
8/18/20	8.51	-

MEL-ENV P-0022280-201,1454 FANSHAWE RD, LONDON, ON.GPJ MEL-ENV.GDT 8/24/20

Englobe Corp.
417 Exeter Rd, London, ON N6E 2Z3, Phone:519 680-3868, Fax: 519 680-3780

ENCLOSURE NO.: 1 OF 1

METRIC

RECORD OF BH2

REFERENCE P-0022280-201 DATUM 100 LOCATION 1454 Fanshawe Park Road East, London, Ontario ORIGINATED BY N.S.

PROJECT Phase II Environmental Site Assessment BOREHOLE TYPE Environmental Borehole COMPILED BY N.S.

CLIENT Real Capital Partners Inc. DATE (Started) August 10, 2020 TIME 12:20:00 PM CHECKED BY R.H.

DATE (Completed) August 10, 2020

SOIL PROFILE				SAMPLES					GROUND WATER CONDITIONS	ELEVATION SCALE	REMARKS & WELL CONSTRUCTION DETAILS
ELEV / DEPTH	DESCRIPTION	STRATA PLOT	BORING TYPE	NUMBER	TYPE	"N" VALUES	Vapour Analysis (ppm) with Methane Elimination	PID / FID (ppm)			
100.0											
0.0 / 99.4	Topsoil										
0.6 / 98.9	Dark brown silty sand and gravel and boulder			1	MC		n/a / n/a	0 / n/a		99	
1.1 / 97.4	Grey boulder			2	MC		n/a / n/a	0.2 / n/a			
				3	MC		n/a / n/a	0.8 / n/a		98	
2.6 / 97.0	Coarse sand - damp			4	MC		n/a / n/a	0.3 / n/a		97	
3.1	End of borehole										

COMMENTS
- This borehole was prepared for environmental purpose. It does not necessarily contain information suitable for geotechnical assessment of the subsurface conditions. The borehole data must be interpreted within the context of the report. Its interpretation by Englobe is required before use by others.

- The groundwater level is measured from ground surface.

WATER LEVEL RECORDS

Date (dd/mm/yy)/Time	Water Depth (m)	Cave In Level (m)
	-	-
	-	-

MEL-ENV P-0022280-201,1454 FANSHAWE RD, LONDON, ON.GPJ MEL-ENV.GDT 8/24/20

Englobe Corp.
417 Exeter Rd, London, ON N6E 2Z3, Phone:519 680-3868, Fax: 519 680-3780

ENCLOSURE NO.: 1 OF 1

METRIC

RECORD OF BH3

REFERENCE P-0022280-201 DATUM 100 LOCATION 1454 Fanshawe Park Road East, London, Ontario ORIGINATED BY N.S.

PROJECT Phase II Environmental Site Assessment BOREHOLE TYPE Environmental Borehole COMPILED BY N.S.

CLIENT Real Capital Partners Inc. DATE (Started) August 10, 2020 TIME 12:45:00 PM CHECKED BY R.H.

DATE (Completed) August 10, 2020

ELEV / DEPTH	DESCRIPTION	STRATA PLOT	BORING TYPE	SAMPLES: NUMBER	TYPE	"N" VALUES	Vapour Analysis (ppm) with Methane Elimination	PID / FID (ppm)	GROUND WATER CONDITIONS	ELEVATION SCALE	REMARKS & WELL CONSTRUCTION DETAILS
100.0											
100.0 / 0.0	Topsoil										
99.9 / 0.1	Fill - Grey sand and gravel			1	MC		n/a / n/a	1.9 / n/a			
99.7 / 0.3	Brown silty sand with trace coal			2	MC		n/a / n/a	1.9 / n/a			
98.9 / 1.1	Light brown silty sand			3	MC		n/a / n/a	0.3 / n/a		99	
98.5 / 1.5	Brown silty sand and gravel			4	MC		n/a / n/a	4.2 / n/a			
98.2 / 1.8	Grey sand and gravel and boulder			5	MC		n/a / n/a	1.7 / n/a		98	
97.6 / 2.4	Light brown silty sand			6	MC		n/a / n/a	0.5 / n/a			
97.3 / 2.7	light brown sand			7	MC		n/a / n/a	0.3 / n/a			
97.0 / 3.1	light grey sand and gravel			8	MC		n/a / n/a	0.8 / n/a		97	
96.2 / 3.8	Brown sand and gravel and boulder			9	MC		n/a / n/a	0.5 / n/a		96	
95.4 / 4.6	End of borehole										

COMMENTS
- This borehole was prepared for environmental purpose. It does not necessarily contain information suitable for geotechnical assessment of the subsurface conditions. The borehole data must be interpreted within the context of the report. Its interpretation by Englobe is required before use by others.

- The groundwater level is measured from ground surface.

WATER LEVEL RECORDS

Date (dd/mm/yy)/Time	Water Depth (m)	Cave In Level (m)
	-	-
	-	-

MEL-ENV P-0022280-201,1454 FANSHAWE RD, LONDON, ON.GPJ MEL-ENV.GDT 8/24/20

Englobe Corp.
417 Exeter Rd, London, ON N6E 2Z3, Phone:519 680-3868, Fax: 519 680-3780

ENCLOSURE NO.: 1 OF 1

METRIC

RECORD OF BH4

REFERENCE P-0022280-201 DATUM 100 LOCATION 1454 Fanshawe Park Road East, London, Ontario ORIGINATED BY N.S.

PROJECT Phase II Environmental Site Assessment BOREHOLE TYPE Environmental Borehole COMPILED BY N.S.

CLIENT Real Capital Partners Inc. DATE (Started) August 10, 2020 TIME 1:00:00 PM CHECKED BY R.H.

DATE (Completed) August 10, 2020

SOIL PROFILE				SAMPLES					GROUND WATER CONDITIONS	ELEVATION SCALE	REMARKS & WELL CONSTRUCTION DETAILS
ELEV / DEPTH	DESCRIPTION	STRATA PLOT	BORING TYPE	NUMBER	TYPE	"N" VALUES	Vapour Analysis (ppm) with Methane Elimination	PID / FID (ppm)			
100.0											
0.0	Dark silty sand topsoil with rootlets			1	MC		n/a / n/a	2.1 / n/a			
99.4											
0.6	Brown fine sand			2	MC		n/a / n/a	0.2 / n/a		99	
98.5											
1.5	Light grey sand and gravel and boulder			3	MC		n/a / n/a	1.7 / n/a		98	
97.0										97	
3.1	End of borehole										

COMMENTS
- This borehole was prepared for environmental purpose. It does not necessarily contain information suitable for geotechnical assessment of the subsurface conditions. The borehole data must be interpreted within the context of the report. Its interpretation by Englobe is required before use by others.

- The groundwater level is measured from ground surface.

WATER LEVEL RECORDS

Date (dd/mm/yy)/Time	Water Depth (m)	Cave In Level (m)
	-	-
	-	-

MEL-ENV P-0022280-201,1454 FANSHAWE RD, LONDON, ON.GPJ MEL-ENV.GDT 8/24/20

Englobe Corp.
417 Exeter Rd, London, ON N6E 2Z3, Phone:519 680-3868, Fax: 519 680-3780

ENCLOSURE NO.: 1 OF 1

METRIC

RECORD OF BH5

REFERENCE P-0022280-201 DATUM 100 LOCATION 1454 Fanshawe Park Road East, London, Ontario ORIGINATED BY N.S.

PROJECT Phase II Environmental Site Assessment BOREHOLE TYPE Environmental Borehole COMPILED BY N.S.

CLIENT Real Capital Partners Inc. DATE (Started) August 10, 2020 TIME 1:25:00 PM CHECKED BY R.H.

DATE (Completed) August 10, 2020

SOIL PROFILE				SAMPLES					GROUND WATER CONDITIONS	ELEVATION SCALE	REMARKS & WELL CONSTRUCTION DETAILS
ELEV / DEPTH	DESCRIPTION	STRATA PLOT	BORING TYPE	NUMBER	TYPE	"N" VALUES	Vapour Analysis (ppm) with Methane Elimination	PID / FID (ppm)			
100.0											
99.9 / 0.0	Topsol - Dark brown silty			1	MC		n/a / n/a	5.1 / n/a			
0.2	Light brown sand			2	MC		n/a / n/a	0.4 / n/a			
99.1											
0.9	Brown silty sand			3	MC		n/a / n/a	0.4 / n/a		99	
98.2				4	MC		n/a / n/a	0.9 / n/a			
1.8	Grey sand and gravel and boulder			5	MC		n/a / n/a	0.6 / n/a		98	
97.0										97	
3.1	End of borehole										

COMMENTS
- This borehole was prepared for environmental purpose. It does not necessarily contain information suitable for geotechnical assessment of the subsurface conditions. The borehole data must be interpreted within the context of the report. Its interpretation by Englobe is required before use by others.

- The groundwater level is measured from ground surface.

WATER LEVEL RECORDS

Date (dd/mm/yy)/Time	Water Depth (m)	Cave In Level (m)
	-	-
	-	-

MEL-ENV P-0022280-201,1454 FANSHAWE RD, LONDON, ON.GPJ MEL-ENV.GDT 8/24/20

Englobe Corp.
417 Exeter Rd, London, ON N6E 2Z3, Phone:519 680-3868, Fax: 519 680-3780

ENCLOSURE NO.: 1 OF 1

METRIC

RECORD OF BH6

REFERENCE P-0022280-201 DATUM 100 LOCATION 1454 Fanshawe Park Road East, London, Ontario ORIGINATED BY N.S.

PROJECT Phase II Environmental Site Assessment BOREHOLE TYPE Environmental Borehole COMPILED BY N.S.

CLIENT Real Capital Partners Inc. DATE (Started) August 10, 2020 TIME 1:45:00 PM CHECKED BY R.H.

DATE (Completed) August 10, 2020

SOIL PROFILE				SAMPLES					GROUND WATER CONDITIONS	ELEVATION SCALE	REMARKS & WELL CONSTRUCTION DETAILS
ELEV / DEPTH	DESCRIPTION	STRATA PLOT	BORING TYPE	NUMBER	TYPE	"N" VALUES	Vapour Analysis (ppm) with Methane Elimination	PID / FID (ppm)			
100.0											
100.0 / 0.0	Topsoil										
99.9 / 0.1	Brown silty sand			1	MC		n/a / n/a	0 / n/a			
99.5 / 0.5	Light brown sand and gravel			2	MC		n/a / n/a	0.3 / n/a		99	
				3	MC		n/a / n/a	2 / n/a		98	
97.0										97	
3.1	End of borehole										

COMMENTS
- This borehole was prepared for environmental purpose. It does not necessarily contain information suitable for geotechnical assessment of the subsurface conditions. The borehole data must be interpreted within the context of the report. Its interpretation by Englobe is required before use by others.

- The groundwater level is measured from ground surface.

WATER LEVEL RECORDS

Date (dd/mm/yy)/Time	Water Depth (m)	Cave In Level (m)
	-	-
	-	-

MEL-ENV P-0022280-201,1454 FANSHAWE RD, LONDON, ON.GPJ MEL-ENV.GDT 8/24/20

Englobe Corp.
417 Exeter Rd, London, ON N6E 2Z3, Phone:519 680-3868, Fax: 519 680-3780

Appendix C Laboratory Certificates of Analysis

EnGlobe Corp. (London)
ATTN: Naghmeh Sharifi
417 Exeter Road
LONDON ON N6E 2Z3

Date Received: 10-AUG-20
Report Date: 18-AUG-20 09:29 (MT)
Version: FINAL

Client Phone: 519-680-3868

Certificate of Analysis

Lab Work Order #: L2486365

Project P.O. #: A3114
Job Reference: P0022280-201
C of C Numbers: 17-685021
Legal Site Desc:

Gayle Braun
Senior Account Manager

Summary of Guideline Exceedances

ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Guideline						
Ontario Regulation 153/04 - April 15, 2011 Standards - T2-Soil-Ind/Com/Commu Property Use (Coarse)						
(No parameter exceedances)						

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Physical Tests - SOIL

		Guide Limits					
Lab ID				L2486365-1	L2486365-3	L2486365-4	L2486365-6
Sample Date				10-AUG-20	10-AUG-20	10-AUG-20	10-AUG-20
Sample ID				BHMW01-S11	BH03-S2	BH03-S4	BH05-S1
Analyte	**Unit**	**#1**	**#2**				
% Moisture	%	-	-	15.9	9.74	6.91	13.7

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Coarse)

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Metals - SOIL

		Guide Limits		Lab ID	L2486365-1	L2486365-2	L2486365-3	L2486365-5	L2486365-6	L2486365-7
				Sample Date	10-AUG-20	10-AUG-20	10-AUG-20	10-AUG-20	10-AUG-20	10-AUG-20
				Sample ID	BHMW01-S11	BH02-S1	BH03-S2	BH04-S1	BH05-S1	BH06-S1
Analyte	**Unit**	**#1**	**#2**							
Antimony (Sb)	ug/g	40	-		<1.0	<1.0	<1.0	<1.0	<1.0	
Arsenic (As)	ug/g	18	-		2.9	4.5	6.7	3.0	3.1	
Barium (Ba)	ug/g	670	-		40.8	61.0	89.4	49.4	24.4	
Beryllium (Be)	ug/g	8	-		<0.50	<0.50	<0.50	<0.50	<0.50	
Boron (B)	ug/g	120	-		<5.0	<5.0	6.3	5.8	<5.0	
Cadmium (Cd)	ug/g	1.9	-		<0.50	<0.50	0.54	<0.50	<0.50	
Chromium (Cr)	ug/g	160	-		12.6	14.7	15.7	13.4	12.1	
Cobalt (Co)	ug/g	80	-		4.6	5.5	4.9	4.7	4.3	
Copper (Cu)	ug/g	230	-		7.8	10.3	24.7	10.0	6.0	
Lead (Pb)	ug/g	120	-	3.5	7.2	13.9	80.4	36.1	12.0	
Molybdenum (Mo)	ug/g	40	-		<1.0	<1.0	<1.0	<1.0	<1.0	
Nickel (Ni)	ug/g	270	-		8.6	11.1	10.6	9.1	8.4	
Selenium (Se)	ug/g	5.5	-		<1.0	<1.0	<1.0	<1.0	<1.0	
Silver (Ag)	ug/g	40	-		<0.20	<0.20	<0.20	<0.20	<0.20	
Thallium (Tl)	ug/g	3.3	-		<0.50	<0.50	<0.50	<0.50	<0.50	
Uranium (U)	ug/g	33	-		<1.0	<1.0	<1.0	<1.0	<1.0	
Vanadium (V)	ug/g	86	-		24.9	27.9	26.2	21.9	23.3	
Zinc (Zn)	ug/g	340	-		32.6	44.9	175	105	28.4	

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Coarse)

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Volatile Organic Compounds - SOIL

		Guide Limits				
Analyte	**Unit**	**#1**	**#2**			
Lab ID				L2486365-1	L2486365-4	L2486365-6
Sample Date				10-AUG-20	10-AUG-20	10-AUG-20
Sample ID				BHMW01-S11	BH03-S4	BH05-S1
Benzene	ug/g	0.32	-	<0.0068	<0.0068	<0.0068
Ethylbenzene	ug/g	1.1	-	<0.018	<0.018	<0.018
Toluene	ug/g	6.4	-	<0.080	<0.080	<0.080
o-Xylene	ug/g	-	-	<0.020	<0.020	<0.020
m+p-Xylenes	ug/g	-	-	<0.030	<0.030	<0.030
Xylenes (Total)	ug/g	26	-	<0.050	<0.050	<0.050
Surrogate: 4-Bromofluorobenzene	%	-	-	114.5	123.4	127.2
Surrogate: 1,4-Difluorobenzene	%	-	-	110.6	126.1	142.6 SURR-ND

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Coarse)

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Hydrocarbons - SOIL

		Guide Limits				
Lab ID				L2486365-1	L2486365-4	L2486365-6
Sample Date				10-AUG-20	10-AUG-20	10-AUG-20
Sample ID				BHMW01-S11	BH03-S4	BH05-S1
Analyte	**Unit**	**#1**	**#2**			
F1 (C6-C10)	ug/g	55	-	<5.0	<5.0	<5.0
F1-BTEX	ug/g	55	-	<5.0	<5.0	<5.0
F2 (C10-C16)	ug/g	230	-	<10	<10	<10
F3 (C16-C34)	ug/g	1700	-	<50	<50	<50
F4 (C34-C50)	ug/g	3300	-	<50	<50	<50
Total Hydrocarbons (C6-C50)	ug/g	-	-	<72	<72	<72
Chrom. to baseline at nC50		-	-	YES	YES	YES
Surrogate: 2-Bromobenzotrifluoride	%	-	-	76.4	79.1	86.1
Surrogate: 3,4-Dichlorotoluene	%	-	-	79.5	89.8	92.6

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Coarse)

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Polycyclic Aromatic Hydrocarbons - SOIL

			Lab ID	L2486365-3
			Sample Date	10-AUG-20
			Sample ID	BH03-S2
		Guide Limits		
Analyte	**Unit**	**#1**	**#2**	
Acenaphthene	ug/g	21	-	<0.050
Acenaphthylene	ug/g	0.15	-	<0.050
Anthracene	ug/g	0.67	-	<0.050
Benzo(a)anthracene	ug/g	0.96	-	<0.050
Benzo(a)pyrene	ug/g	0.3	-	<0.050
Benzo(b)fluoranthene	ug/g	0.96	-	<0.050
Benzo(g,h,i)perylene	ug/g	9.6	-	<0.050
Benzo(k)fluoranthene	ug/g	0.96	-	<0.050
Chrysene	ug/g	9.6	-	<0.050
Dibenzo(ah)anthracene	ug/g	0.1	-	<0.050
Fluoranthene	ug/g	9.6	-	<0.050
Fluorene	ug/g	62	-	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.76	-	<0.050
1+2-Methylnaphthalenes	ug/g	30	-	<0.042
1-Methylnaphthalene	ug/g	30	-	<0.030
2-Methylnaphthalene	ug/g	30	-	<0.030
Naphthalene	ug/g	9.6	-	<0.013
Phenanthrene	ug/g	12	-	<0.046
Pyrene	ug/g	96	-	<0.050
Surrogate: 2-Fluorobiphenyl	%	-	-	96.0
Surrogate: p-Terphenyl d14	%	-	-	98.1

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Coarse)

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

Reference Information

Qualifiers for Sample Submission Listed:

Qualifier	Description
CINT	Cooling initiated. Samples were received packed with ice or ice packs and were sampled the same day as received.

Qualifiers for Individual Parameters Listed:

Qualifier	Description
SURR-ND	Surrogate recovery marginally exceeded ALS DQO. Reported non-detect results for associated samples were deemed to be unaffected.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
BTX-511-HS-WT	Soil	BTEX-O.Reg 153/04 (July 2011)	SW846 8260

BTX is determined by extracting a soil or sediment sample as received with methanol, then analyzing by headspace-GC/MS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

F1-F4-511-CALC-WT	Soil	F1-F4 Hydrocarbon Calculated Parameters	CCME CWS-PHC, Pub #1310, Dec 2001-S

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F1-HS-511-WT	Soil	F1-O.Reg 153/04 (July 2011)	E3398/CCME TIER 1-HS

Fraction F1 is determined by extracting a soil or sediment sample as received with methanol, then analyzing by headspace-GC/FID.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

F2-F4-511-WT	Soil	F2-F4-O.Reg 153/04 (July 2011)	CCME Tier 1

Petroleum Hydrocarbons (F2-F4 fractions) are extracted from soil with 1:1 hexane:acetone using a rotary extractor. Extracts are treated with silica gel to remove polar organic interferences. F2, F3, & F4 are analyzed by GC-FID. F4G-sg is analyzed gravimetrically.

Notes:

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**

1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.
4. F4G: Gravimetric Heavy Hydrocarbons
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.
6. Where both F4 (C34-C50) and F4G-sg are reported for a sample, the larger of the two values is used for comparison against the relevant CCME guideline for F4.
7. F4G-sg cannot be added to the C6 to C50 hydrocarbon results to obtain an estimate of total extractable hydrocarbons.
8. This method is validated for use.
9. Data from analysis of validation and quality control samples is available upon request.
10. Reported results are expressed as milligrams per dry kilogram, unless otherwise indicated.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

MET-200.2-CCMS-WT	Soil	Metals in Soil by CRC ICPMS	EPA 200.2/6020B (mod)

Soil/sediment is dried, disaggregated, and sieved (2 mm). For tests intended to support Ontario regulations, the <2mm fraction is ground to pass through a 0.355 mm sieve. Strong Acid Leachable Metals in the <2mm fraction are solubilized by heated digestion with nitric and hydrochloric acids. Instrumental analysis is by Collision / Reaction Cell ICPMS.

Limitations: This method is intended to liberate environmentally available metals. Silicate minerals are not solubilized. Some metals may be only partially recovered (matrix dependent), including Al, Ba, Be, Cr, S, Sr, Ti, Tl, V, W, and Zr. Elemental Sulfur may be poorly recovered by this method. Volatile forms of sulfur (e.g. sulfide, H2S) may be excluded if lost during sampling, storage, or digestion.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

METHYLNAPS-CALC-WT	Soil	ABN-Calculated Parameters	SW846 8270
MOISTURE-WT	Soil	% Moisture	CCME PHC in Soil - Tier 1 (mod)
PAH-511-WT	Soil	PAH-O.Reg 153/04 (July 2011)	SW846 3510/8270

A representative sub-sample of soil is fortified with deuterium-labelled surrogates and a mechanical shaking techniqueis used to extract the sample with a mixture of methanol and toluene. The extracts are concentrated and analyzed by GC/MS. Results for benzo(b) fluoranthene may include contributions from benzo(j)fluoranthene, if also present in the sample.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

XYLENES-SUM-CALC-WT	Soil	Sum of Xylene Isomer Concentrations	CALCULATION

Total xylenes represents the sum of o-xylene and m&p-xylene.

**ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody Numbers:

17-685021

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.

Quality Control Report

Workorder: L2486365 Report Date: 18-AUG-20

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-511-HS-WT	**Soil**							
Batch R5181819								
WG3380367-4 DUP		**WG3380367-3**						
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	12-AUG-20
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	12-AUG-20
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	12-AUG-20
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	12-AUG-20
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	12-AUG-20
WG3380367-2 LCS								
Benzene			124.5		%		70-130	12-AUG-20
Ethylbenzene			104.1		%		70-130	12-AUG-20
m+p-Xylenes			115.9		%		70-130	12-AUG-20
o-Xylene			115.3		%		70-130	12-AUG-20
Toluene			107.0		%		70-130	12-AUG-20
WG3380367-1 MB								
Benzene			<0.0068		ug/g		0.0068	12-AUG-20
Ethylbenzene			<0.018		ug/g		0.018	12-AUG-20
m+p-Xylenes			<0.030		ug/g		0.03	12-AUG-20
o-Xylene			<0.020		ug/g		0.02	12-AUG-20
Toluene			<0.080		ug/g		0.08	12-AUG-20
Surrogate: 1,4-Difluorobenzene			129.2		%		50-140	12-AUG-20
Surrogate: 4-Bromofluorobenzene			117.3		%		50-140	12-AUG-20
WG3380367-5 MS		**WG3380367-3**						
Benzene			136.8		%		60-140	12-AUG-20
Ethylbenzene			110.3		%		60-140	12-AUG-20
m+p-Xylenes			122.9		%		60-140	12-AUG-20
o-Xylene			122.1		%		60-140	12-AUG-20
Toluene			113.9		%		60-140	12-AUG-20
Batch R5189664								
WG3380329-4 DUP		**WG3380329-3**						
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	15-AUG-20
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	15-AUG-20
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	15-AUG-20
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-AUG-20
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	15-AUG-20
WG3380329-2 LCS								
Benzene			104.4		%		70-130	15-AUG-20

Quality Control Report

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417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-511-HS-WT	**Soil**							
Batch R5189664								
WG3380329-2 LCS								
Ethylbenzene			106.0		%		70-130	15-AUG-20
m+p-Xylenes			104.4		%		70-130	15-AUG-20
o-Xylene			105.2		%		70-130	15-AUG-20
Toluene			105.7		%		70-130	15-AUG-20
WG3380329-1 MB								
Benzene			<0.0068		ug/g		0.0068	15-AUG-20
Ethylbenzene			<0.018		ug/g		0.018	15-AUG-20
m+p-Xylenes			<0.030		ug/g		0.03	15-AUG-20
o-Xylene			<0.020		ug/g		0.02	15-AUG-20
Toluene			<0.080		ug/g		0.08	15-AUG-20
Surrogate: 1,4-Difluorobenzene			131.1		%		50-140	15-AUG-20
Surrogate: 4-Bromofluorobenzene			126.6		%		50-140	15-AUG-20
WG3380329-5 MS		**WG3380329-3**						
Benzene			109.5		%		60-140	15-AUG-20
Ethylbenzene			109.5		%		60-140	15-AUG-20
m+p-Xylenes			107.8		%		60-140	15-AUG-20
o-Xylene			108.1		%		60-140	15-AUG-20
Toluene			110.0		%		60-140	15-AUG-20
F1-HS-511-WT	**Soil**							
Batch R5181819								
WG3380367-4 DUP		**WG3380367-3**						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	12-AUG-20
WG3380367-2 LCS								
F1 (C6-C10)			104.1		%		80-120	12-AUG-20
WG3380367-1 MB								
F1 (C6-C10)			<5.0		ug/g		5	12-AUG-20
Surrogate: 3,4-Dichlorotoluene			99.5		%		60-140	12-AUG-20
WG3380367-6 MS		**L2486364-3**						
F1 (C6-C10)			105.3		%		60-140	12-AUG-20
Batch R5189664								
WG3380329-4 DUP		**WG3380329-3**						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	15-AUG-20
WG3380329-2 LCS								
F1 (C6-C10)			98.8		%		80-120	15-AUG-20
WG3380329-1 MB								

Quality Control Report

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT	**Soil**							
Batch R5189664								
WG3380329-1 MB								
F1 (C6-C10)			<5.0		ug/g		5	15-AUG-20
Surrogate: 3,4-Dichlorotoluene			97.3		%		60-140	15-AUG-20
WG3380329-6 MS		**L2486337-8**						
F1 (C6-C10)			91.6		%		60-140	15-AUG-20
F2-F4-511-WT	**Soil**							
Batch R5190129								
WG3383105-3 DUP		**WG3383105-5**						
F2 (C10-C16)		<10	<10	RPD-NA	ug/g	N/A	30	17-AUG-20
F3 (C16-C34)		<50	<50	RPD-NA	ug/g	N/A	30	17-AUG-20
F4 (C34-C50)		<50	<50	RPD-NA	ug/g	N/A	30	17-AUG-20
WG3383105-2 LCS								
F2 (C10-C16)			102.2		%		80-120	17-AUG-20
F3 (C16-C34)			101.4		%		80-120	17-AUG-20
F4 (C34-C50)			103.6		%		80-120	17-AUG-20
WG3383105-1 MB								
F2 (C10-C16)			<10		ug/g		10	17-AUG-20
F3 (C16-C34)			<50		ug/g		50	17-AUG-20
F4 (C34-C50)			<50		ug/g		50	17-AUG-20
Surrogate: 2-Bromobenzotrifluoride			74.2		%		60-140	17-AUG-20
WG3383105-4 MS		**WG3383105-5**						
F2 (C10-C16)			98.8		%		60-140	17-AUG-20
F3 (C16-C34)			97.6		%		60-140	17-AUG-20
F4 (C34-C50)			96.4		%		60-140	17-AUG-20
MET-200.2-CCMS-WT	**Soil**							
Batch R5190614								
WG3384557-2 CRM		**WT-SS-2**						
Antimony (Sb)			98.9		%		70-130	17-AUG-20
Arsenic (As)			101.9		%		70-130	17-AUG-20
Barium (Ba)			90.0		%		70-130	17-AUG-20
Beryllium (Be)			104.3		%		70-130	17-AUG-20
Boron (B)			9.5		mg/kg		3.5-13.5	17-AUG-20
Cadmium (Cd)			96.2		%		70-130	17-AUG-20
Chromium (Cr)			106.1		%		70-130	17-AUG-20
Cobalt (Co)			98.9		%		70-130	17-AUG-20
Copper (Cu)			99.9				70-130	

Quality Control Report

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5190614								
WG3384557-2 CRM		**WT-SS-2**						
Copper (Cu)			99.9		%		70-130	17-AUG-20
Lead (Pb)			93.7		%		70-130	17-AUG-20
Molybdenum (Mo)			93.4		%		70-130	17-AUG-20
Nickel (Ni)			101.4		%		70-130	17-AUG-20
Selenium (Se)			0.14		mg/kg		0-0.34	17-AUG-20
Silver (Ag)			76.6		%		70-130	17-AUG-20
Thallium (Tl)			0.073		mg/kg		0.029-0.129	17-AUG-20
Uranium (U)			105.0		%		70-130	17-AUG-20
Vanadium (V)			106.0		%		70-130	17-AUG-20
Zinc (Zn)			91.5		%		70-130	17-AUG-20
WG3384557-4 DUP		**L2486365-1**						
Antimony (Sb)		<0.10	<0.10	RPD-NA	ug/g	N/A	30	17-AUG-20
Arsenic (As)		1.31	1.40		ug/g	6.5	30	17-AUG-20
Barium (Ba)		13.9	14.2		ug/g	1.7	40	17-AUG-20
Beryllium (Be)		0.16	0.16		ug/g	1.0	30	17-AUG-20
Boron (B)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	17-AUG-20
Cadmium (Cd)		0.046	0.047		ug/g	3.7	30	17-AUG-20
Chromium (Cr)		6.14	6.19		ug/g	0.8	30	17-AUG-20
Cobalt (Co)		2.30	2.32		ug/g	0.5	30	17-AUG-20
Copper (Cu)		6.98	6.90		ug/g	1.2	30	17-AUG-20
Lead (Pb)		3.5	3.4		ug/g	1.2	40	17-AUG-20
Molybdenum (Mo)		0.15	0.14		ug/g	6.8	40	17-AUG-20
Nickel (Ni)		4.69	4.81		ug/g	2.5	30	17-AUG-20
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	17-AUG-20
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	17-AUG-20
Thallium (Tl)		<0.050	<0.050	RPD-NA	ug/g	N/A	30	17-AUG-20
Uranium (U)		0.376	0.392		ug/g	4.2	30	17-AUG-20
Vanadium (V)		12.4	12.3		ug/g	0.8	30	17-AUG-20
Zinc (Zn)		17.9	18.0		ug/g	0.6	30	17-AUG-20
WG3384557-3 LCS								
Antimony (Sb)			93.1		%		80-120	17-AUG-20
Arsenic (As)			99.5		%		80-120	17-AUG-20
Barium (Ba)			95.2		%		80-120	17-AUG-20

Quality Control Report

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5190614								
WG3384557-3 LCS								
Beryllium (Be)			96.6		%		80-120	17-AUG-20
Boron (B)			91.2		%		80-120	17-AUG-20
Cadmium (Cd)			96.0		%		80-120	17-AUG-20
Chromium (Cr)			96.9		%		80-120	17-AUG-20
Cobalt (Co)			94.7		%		80-120	17-AUG-20
Copper (Cu)			93.8		%		80-120	17-AUG-20
Lead (Pb)			93.8		%		80-120	17-AUG-20
Molybdenum (Mo)			94.9		%		80-120	17-AUG-20
Nickel (Ni)			95.4		%		80-120	17-AUG-20
Selenium (Se)			95.3		%		80-120	17-AUG-20
Silver (Ag)			92.3		%		80-120	17-AUG-20
Thallium (Tl)			87.9		%		80-120	17-AUG-20
Uranium (U)			98.1		%		80-120	17-AUG-20
Vanadium (V)			100.0		%		80-120	17-AUG-20
Zinc (Zn)			91.4		%		80-120	17-AUG-20
WG3384557-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	17-AUG-20
Arsenic (As)			<0.10		mg/kg		0.1	17-AUG-20
Barium (Ba)			<0.50		mg/kg		0.5	17-AUG-20
Beryllium (Be)			<0.10		mg/kg		0.1	17-AUG-20
Boron (B)			<5.0		mg/kg		5	17-AUG-20
Cadmium (Cd)			<0.020		mg/kg		0.02	17-AUG-20
Chromium (Cr)			<0.50		mg/kg		0.5	17-AUG-20
Cobalt (Co)			<0.10		mg/kg		0.1	17-AUG-20
Copper (Cu)			<0.50		mg/kg		0.5	17-AUG-20
Lead (Pb)			<0.50		mg/kg		0.5	17-AUG-20
Molybdenum (Mo)			<0.10		mg/kg		0.1	17-AUG-20
Nickel (Ni)			<0.50		mg/kg		0.5	17-AUG-20
Selenium (Se)			<0.20		mg/kg		0.2	17-AUG-20
Silver (Ag)			<0.10		mg/kg		0.1	17-AUG-20
Thallium (Tl)			<0.050		mg/kg		0.05	17-AUG-20
Uranium (U)			<0.050		mg/kg		0.05	17-AUG-20
Vanadium (V)			<0.20		mg/kg		0.2	17-AUG-20
Zinc (Zn)			<2.0		mg/kg		2	17-AUG-20

Quality Control Report

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-WT	**Soil**							
Batch R5184327								
WG3382295-3 DUP		**L2487827-5**						
% Moisture		3.42	3.42		%	0.1	20	14-AUG-20
WG3382295-2 LCS								
% Moisture			101.9		%		90-110	14-AUG-20
WG3382295-1 MB								
% Moisture			<0.25		%		0.25	14-AUG-20
Batch R5187180								
WG3381580-3 DUP		**L2485783-1**						
% Moisture		22.4	23.1		%	3.1	20	13-AUG-20
WG3381580-2 LCS								
% Moisture			98.2		%		90-110	13-AUG-20
WG3381580-1 MB								
% Moisture			<0.25		%		0.25	13-AUG-20
PAH-511-WT	**Soil**							
Batch R5190617								
WG3384777-3 DUP		**WG3384777-5**						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	18-AUG-20
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	18-AUG-20
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Benzo(a)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Benzo(a)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Benzo(b)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Benzo(g,h,i)perylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Benzo(k)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Chrysene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Dibenzo(ah)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Fluoranthene		<0.050	0.068	RPD-NA	ug/g	N/A	40	18-AUG-20
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Indeno(1,2,3-cd)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	18-AUG-20
Naphthalene		<0.013	<0.013	RPD-NA	ug/g	N/A	40	18-AUG-20
Phenanthrene		<0.046	<0.046	RPD-NA	ug/g	N/A	40	18-AUG-20
Pyrene		<0.050	0.060	RPD-NA	ug/g	N/A	40	18-AUG-20
WG3384777-2 LCS								

Quality Control Report

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417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Soil**							
Batch R5190617								
WG3384777-2 LCS								
1-Methylnaphthalene			84.7		%		50-140	18-AUG-20
2-Methylnaphthalene			81.8		%		50-140	18-AUG-20
Acenaphthene			84.8		%		50-140	18-AUG-20
Acenaphthylene			81.8		%		50-140	18-AUG-20
Anthracene			78.2		%		50-140	18-AUG-20
Benzo(a)anthracene			80.7		%		50-140	18-AUG-20
Benzo(a)pyrene			82.4		%		50-140	18-AUG-20
Benzo(b)fluoranthene			81.3		%		50-140	18-AUG-20
Benzo(g,h,i)perylene			80.3		%		50-140	18-AUG-20
Benzo(k)fluoranthene			75.2		%		50-140	18-AUG-20
Chrysene			87.5		%		50-140	18-AUG-20
Dibenzo(ah)anthracene			83.3		%		50-140	18-AUG-20
Fluoranthene			78.2		%		50-140	18-AUG-20
Fluorene			79.8		%		50-140	18-AUG-20
Indeno(1,2,3-cd)pyrene			89.6		%		50-140	18-AUG-20
Naphthalene			82.0		%		50-140	18-AUG-20
Phenanthrene			79.2		%		50-140	18-AUG-20
Pyrene			78.8		%		50-140	18-AUG-20
WG3384777-1 MB								
1-Methylnaphthalene			<0.030		ug/g		0.03	18-AUG-20
2-Methylnaphthalene			<0.030		ug/g		0.03	18-AUG-20
Acenaphthene			<0.050		ug/g		0.05	18-AUG-20
Acenaphthylene			<0.050		ug/g		0.05	18-AUG-20
Anthracene			<0.050		ug/g		0.05	18-AUG-20
Benzo(a)anthracene			<0.050		ug/g		0.05	18-AUG-20
Benzo(a)pyrene			<0.050		ug/g		0.05	18-AUG-20
Benzo(b)fluoranthene			<0.050		ug/g		0.05	18-AUG-20
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	18-AUG-20
Benzo(k)fluoranthene			<0.050		ug/g		0.05	18-AUG-20
Chrysene			<0.050		ug/g		0.05	18-AUG-20
Dibenzo(ah)anthracene			<0.050		ug/g		0.05	18-AUG-20
Fluoranthene			<0.050		ug/g		0.05	18-AUG-20
Fluorene			<0.050		ug/g		0.05	18-AUG-20
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	18-AUG-20

Quality Control Report

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Soil**							
Batch R5190617								
WG3384777-1 MB								
Naphthalene			<0.013		ug/g		0.013	18-AUG-20
Phenanthrene			<0.046		ug/g		0.046	18-AUG-20
Pyrene			<0.050		ug/g		0.05	18-AUG-20
Surrogate: 2-Fluorobiphenyl			90.9		%		50-140	18-AUG-20
Surrogate: p-Terphenyl d14			96.2		%		50-140	18-AUG-20
WG3384777-4 MS		**WG3384777-5**						
1-Methylnaphthalene			79.4		%		50-140	18-AUG-20
2-Methylnaphthalene			76.4		%		50-140	18-AUG-20
Acenaphthene			79.5		%		50-140	18-AUG-20
Acenaphthylene			76.7		%		50-140	18-AUG-20
Anthracene			75.2		%		50-140	18-AUG-20
Benzo(a)anthracene			78.1		%		50-140	18-AUG-20
Benzo(a)pyrene			79.7		%		50-140	18-AUG-20
Benzo(b)fluoranthene			79.0		%		50-140	18-AUG-20
Benzo(g,h,i)perylene			75.2		%		50-140	18-AUG-20
Benzo(k)fluoranthene			74.6		%		50-140	18-AUG-20
Chrysene			83.8		%		50-140	18-AUG-20
Dibenzo(ah)anthracene			77.7		%		50-140	18-AUG-20
Fluoranthene			74.3		%		50-140	18-AUG-20
Fluorene			74.8		%		50-140	18-AUG-20
Indeno(1,2,3-cd)pyrene			84.7		%		50-140	18-AUG-20
Naphthalene			77.0		%		50-140	18-AUG-20
Phenanthrene			74.8		%		50-140	18-AUG-20
Pyrene			75.5		%		50-140	18-AUG-20

Quality Control Report

Workorder: L2486365 Report Date: 18-AUG-20

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

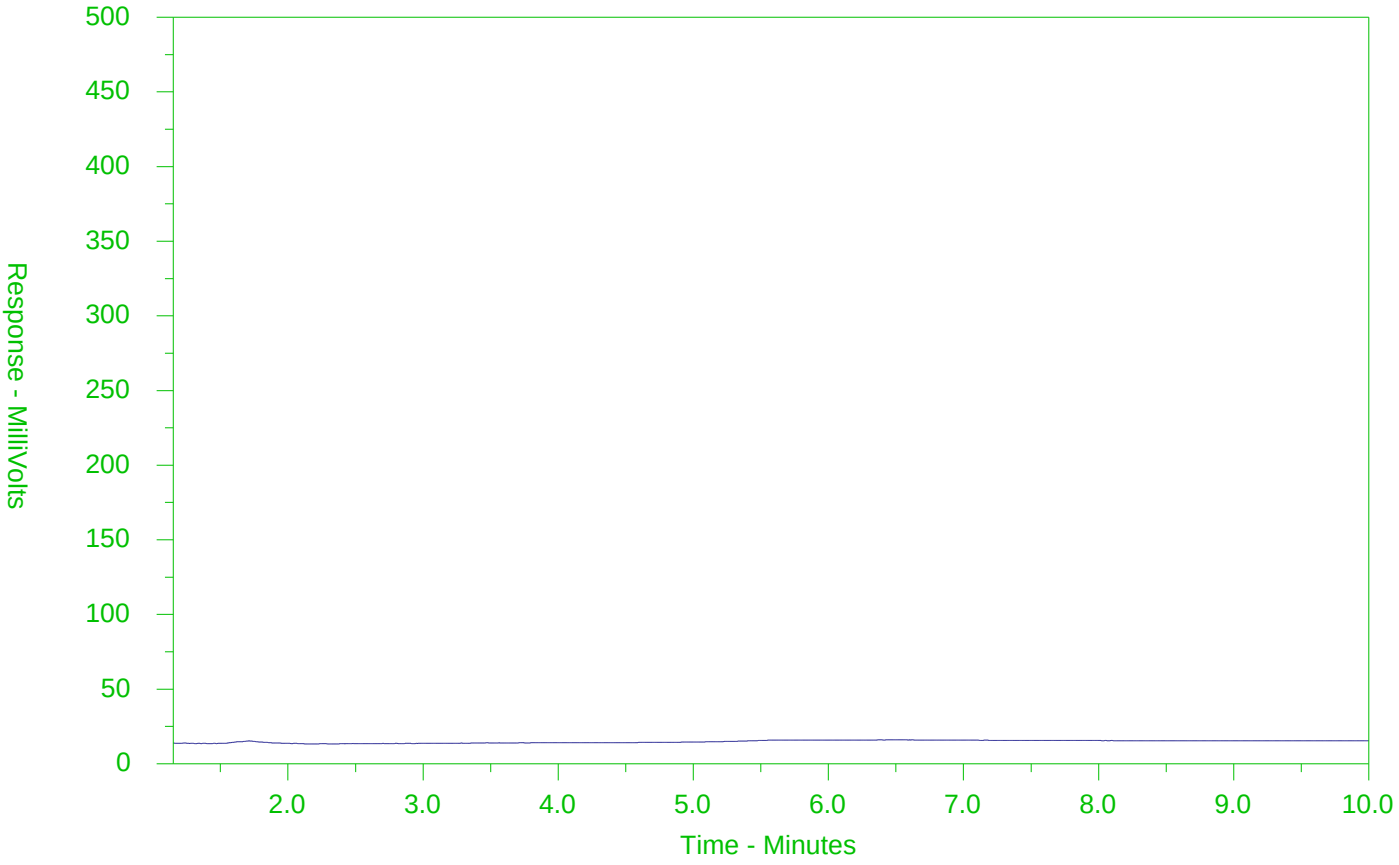
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2486365-1
Client Sample ID: BHMW01-S11



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

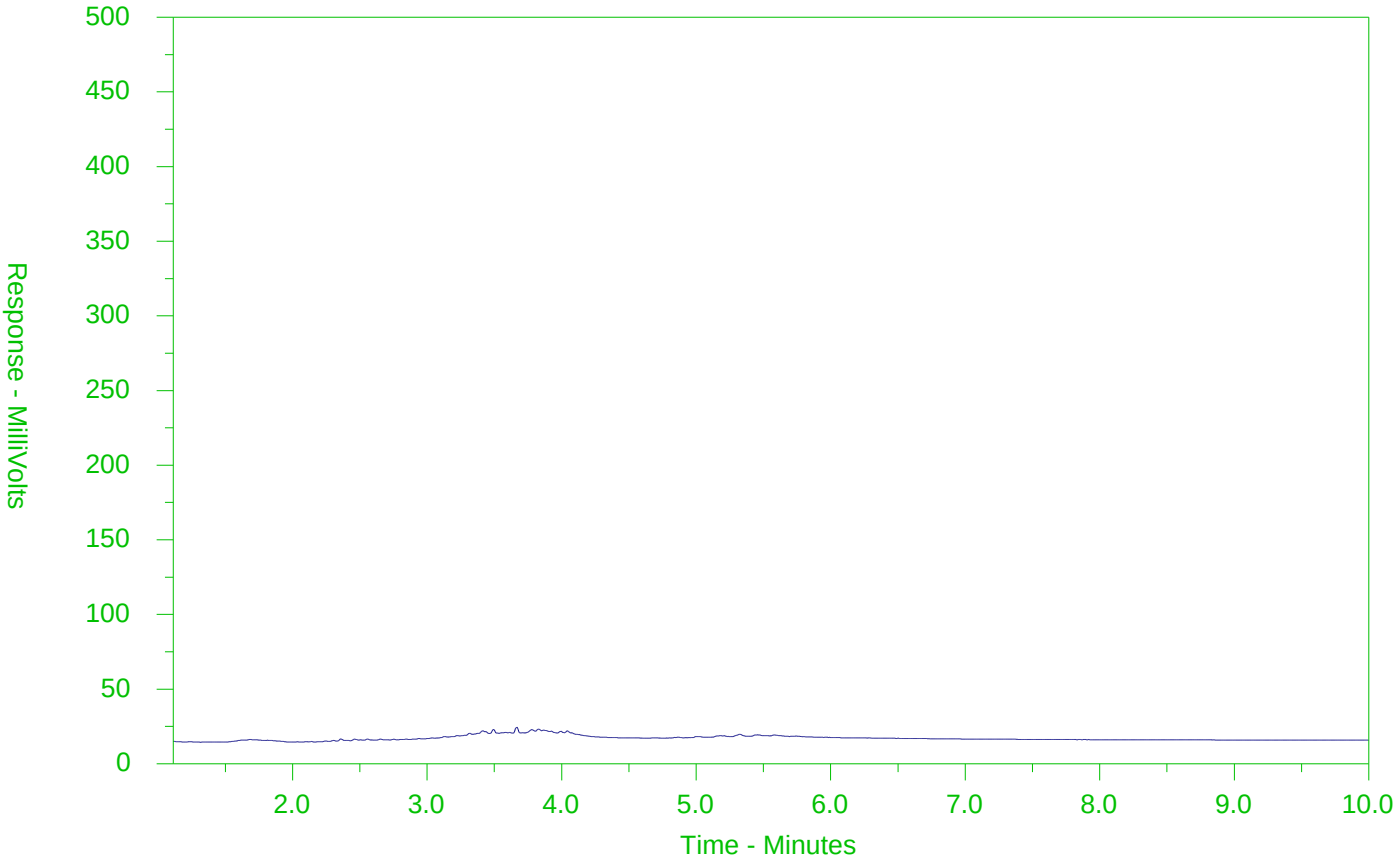
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2486365-4
Client Sample ID: BH03-S4



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

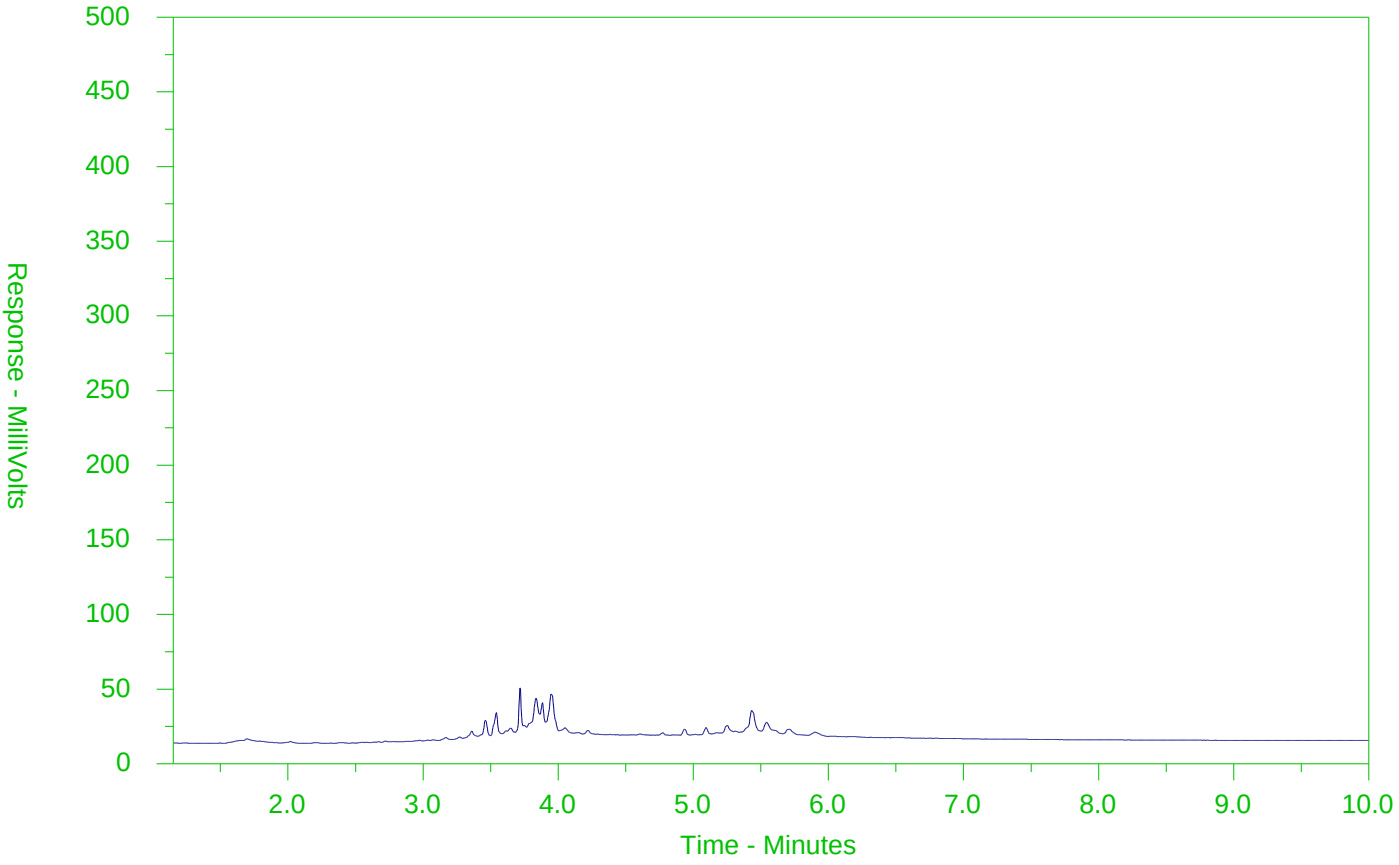
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2486365-6
Client Sample ID: BH05-S1



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2486365-COFC

COC Number: 17 - 685021

Page of

Report To	Contact and company name below will appear on the final report
Company:	Englobe
Contact:	Nashmeh Sharifi
Phone:	
	Company address below will appear on the final report
Street:	417 Exeter Rd
City/Province:	London ON
Postal Code:	

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Nashmeh.Sharifi@Englobecorp.com
Email 2	Robert.helwig@Englobecorp.com
Email 3	

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)	
Regular [R]	☑ Standard TAT if received by 3 pm - business days - no surcharges apply
PRIORITY (Business Days) 4 day [P4-20%]	☐
3 day [P3-25%]	☐
2 day [P2-50%]	☐
EMERGENCY 1 Business day [E-100%]	☐
Same Day, Weekend or Statutory holiday [E2-200% (Laboratory opening fees may apply)]	☐
Date and Time Required for all E&P TATs:	
For tests that can not be performed according to the service level selected, you will be contacted.	

Invoice To		
	Same as Report To	☐ YES ☐ NO
	Copy of Invoice with Report	☐ YES ☐ NO
Company:		
Contact:		

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Nashmeh.Sharifi@Englobecorp.com
Email 2	Jehana.Kerr@Englobecorp.com

Project Information	
ALS Account # / Quote #:	
Job #:	P0022280-201
PO / AFE:	A3114
LSD:	
ALS Lab Work Order # (lab use only):	L2486365

For ALS Use Only (Required Fields (Client use))		
AFE/Cost Center:	PO#	
Major/Minor Code:	Routing Code:	
Requisitioner:		
Location:		
ALS Contact:	Sampler:	

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	PHCs+BTEX	Metals + O Reg 153	Lead	PAHs	SAMPLES ON HOLD	Sample is hazardous (please provide further details	NUMBER OF CONTAINERS
	BHMW01-S11	10-Aug-20	11:30	S	✓		✓				
	BH02-S1	"	12:15	S		✓					
	BH03-S2	"	12:45	S		✓		✓			
	BH03-S4	"	12:55	S	✓						
	BH04-S1	"	13:05	S		✓					
	BH05-S1	"	13:20	S	✓	✓					
	BH06-S1	"	13:40	S		✓					

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	T2 ~~Commercial~~ Commercial - Coarse grain
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)					
Frozen	☐	SIF Observations	Yes ☐	No	☐
Ice Packs ☐ Ice Cubes ☐		Custody seal intact	Yes ☐	No	☐
Cooling Initiated	☒				

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				8.5			13.1

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: N. Sharifi	Date: Aug 10, 2020	Time:	Received by:	Date:	Time:	Received by: DHS	Date: 10 Aug 2020	Time: 16:30

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

JULY 2017 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

8/10/20 1900

EnGlobe Corp. (London)
ATTN: Naghmeh Sharifi
417 Exeter Road
LONDON ON N6E 2Z3

Date Received: 18-AUG-20
Report Date: 21-AUG-20 15:37 (MT)
Version: FINAL

Client Phone: 519-680-3868

Certificate of Analysis

Lab Work Order #: L2490486

Project P.O. #: A3114
Job Reference: P0022280-201
C of C Numbers: 17-685020
Legal Site Desc:

Gayle Braun
Senior Account Manager

ANALYTICAL REPORT

Summary of Guideline Exceedances

Guideline ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Ontario Regulation 153/04 - April 15, 2011 Standards - T2-Ground Water (Coarse Soil)-All Types of Property Use						
(No parameter exceedances)						

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Volatile Organic Compounds - WATER

			Lab ID	L2490486-1
			Sample Date	18-AUG-20
			Sample ID	BHMW1
Analyte	**Unit**	**Guide Limits #1**	**#2**	
Benzene	ug/L	5	-	<0.50 OWP
Ethylbenzene	ug/L	2.4	-	<0.50 OWP
Toluene	ug/L	24	-	0.54 OWP
o-Xylene	ug/L	-	-	<0.30 OWP
m+p-Xylenes	ug/L	-	-	0.40 OWP
Xylenes (Total)	ug/L	300	-	<0.50
Surrogate: 4-Bromofluorobenzene	%	-	-	98.5
Surrogate: 1,4-Difluorobenzene	%	-	-	100.6

Guide Limit #1: T2-Ground Water (Coarse Soil)-All Types of Property Use

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

ANALYTICAL REPORT

Hydrocarbons - WATER

			Lab ID	L2490486-1
			Sample Date	18-AUG-20
			Sample ID	BHMW1
Analyte	**Unit**	**Guide Limits #1**	**#2**	
F1 (C6-C10)	ug/L	750	-	<25 OWP
F1-BTEX	ug/L	750	-	<25
F2 (C10-C16)	ug/L	150	-	<100
F3 (C16-C34)	ug/L	500	-	<250
F4 (C34-C50)	ug/L	500	-	<250
Total Hydrocarbons (C6-C50)	ug/L	-	-	<370
Chrom. to baseline at nC50		-	-	YES
Surrogate: 2-Bromobenzotrifluoride	%	-	-	94.4
Surrogate: 3,4-Dichlorotoluene	%	-	-	82.6

Guide Limit #1: T2-Ground Water (Coarse Soil)-All Types of Property Use

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

Reference Information

Qualifiers for Individual Parameters Listed:

Qualifier	Description
OWP	Organic water sample contained visible sediment (must be included as part of analysis). Measured concentrations of organic substances in water can be biased high due to presence of

Reference Information

sediment.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
BTX-511-HS-WT	Water	BTEX by Headspace	SW846 8260 (511)

BTX is determined by analyzing by headspace-GC/MS.

F1-F4-511-CALC-WT	Water	F1-F4 Hydrocarbon Calculated Parameters	CCME CWS-PHC, Pub #1310, Dec 2001-L

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F1-HS-511-WT	Water	F1-O.Reg 153/04 (July 2011)	E3398/CCME TIER 1-HS

Fraction F1 is determined by analyzing by headspace-GC/FID.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

F2-F4-511-WT	Water	F2-F4-O.Reg 153/04 (July 2011)	EPA 3511/CCME Tier 1

Petroleum Hydrocarbons (F2-F4 fractions) are extracted from water using a hexane micro-extraction technique. Instrumental analysis is by GC-FID, as per the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Tier 1 Method, CCME, 2001.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

XYLENES-SUM-CALC-WT	Water	Sum of Xylene Isomer Concentrations	CALCULATION

Total xylenes represents the sum of o-xylene and m&p-xylene.

**ALS test methods may incorporate modifications from specified reference methods to improve performance.

Reference Information

Chain of Custody Numbers:

17-685020

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.

Quality Control Report

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-511-HS-WT	**Water**							
Batch R5194977								
WG3387489-4 DUP		**WG3387489-3**						
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-AUG-20
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-AUG-20
m+p-Xylenes		0.40	0.41		ug/L	2.5	30	21-AUG-20
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	21-AUG-20
Toluene		0.54	0.54		ug/L	0.0	30	21-AUG-20
WG3387489-1 LCS								
Benzene			107.4		%		70-130	21-AUG-20
Ethylbenzene			105.2		%		70-130	21-AUG-20
m+p-Xylenes			101.9		%		70-130	21-AUG-20
o-Xylene			103.2		%		70-130	21-AUG-20
Toluene			104.7		%		70-130	21-AUG-20
WG3387489-2 MB								
Benzene			<0.50		ug/L		0.5	21-AUG-20
Ethylbenzene			<0.50		ug/L		0.5	21-AUG-20
m+p-Xylenes			<0.40		ug/L		0.4	21-AUG-20
o-Xylene			<0.30		ug/L		0.3	21-AUG-20
Toluene			<0.50		ug/L		0.5	21-AUG-20
Surrogate: 1,4-Difluorobenzene			101.3		%		70-130	21-AUG-20
Surrogate: 4-Bromofluorobenzene			97.5		%		70-130	21-AUG-20
WG3387489-5 MS		**WG3387489-3**						
Benzene			107.9		%		50-140	21-AUG-20
Ethylbenzene			102.4		%		50-140	21-AUG-20
m+p-Xylenes			98.9		%		50-140	21-AUG-20
o-Xylene			101.4		%		50-140	21-AUG-20
Toluene			102.9		%		50-140	21-AUG-20
F1-HS-511-WT	**Water**							
Batch R5194977								
WG3387489-4 DUP		**WG3387489-3**						
F1 (C6-C10)		<25	<25	RPD-NA	ug/L	N/A	30	21-AUG-20
WG3387489-1 LCS								
F1 (C6-C10)			101.6		%		80-120	21-AUG-20
WG3387489-2 MB								
F1 (C6-C10)			<25		ug/L		25	21-AUG-20
Surrogate: 3,4-Dichlorotoluene			101.4		%		60-140	21-AUG-20
WG3387489-5 MS		**WG3387489-3**						

Quality Control Report

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT	**Water**							
Batch R5194977								
WG3387489-5 MS		**WG3387489-3**						
F1 (C6-C10)			78.8		%		60-140	21-AUG-20
F2-F4-511-WT	**Water**							
Batch R5193604								
WG3387183-2 LCS								
F2 (C10-C16)			91.7		%		70-130	20-AUG-20
F3 (C16-C34)			96.0		%		70-130	20-AUG-20
F4 (C34-C50)			116.8		%		70-130	20-AUG-20
WG3387183-1 MB								
F2 (C10-C16)			<100		ug/L		100	20-AUG-20
F3 (C16-C34)			<250		ug/L		250	20-AUG-20
F4 (C34-C50)			<250		ug/L		250	20-AUG-20
Surrogate: 2-Bromobenzotrifluoride			97.7		%		60-140	20-AUG-20

Quality Control Report

Workorder: L2490486 Report Date: 21-AUG-20

Client: EnGlobe Corp. (London)
417 Exeter Road
LONDON ON N6E 2Z3
Contact: Naghmeh Sharifi

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

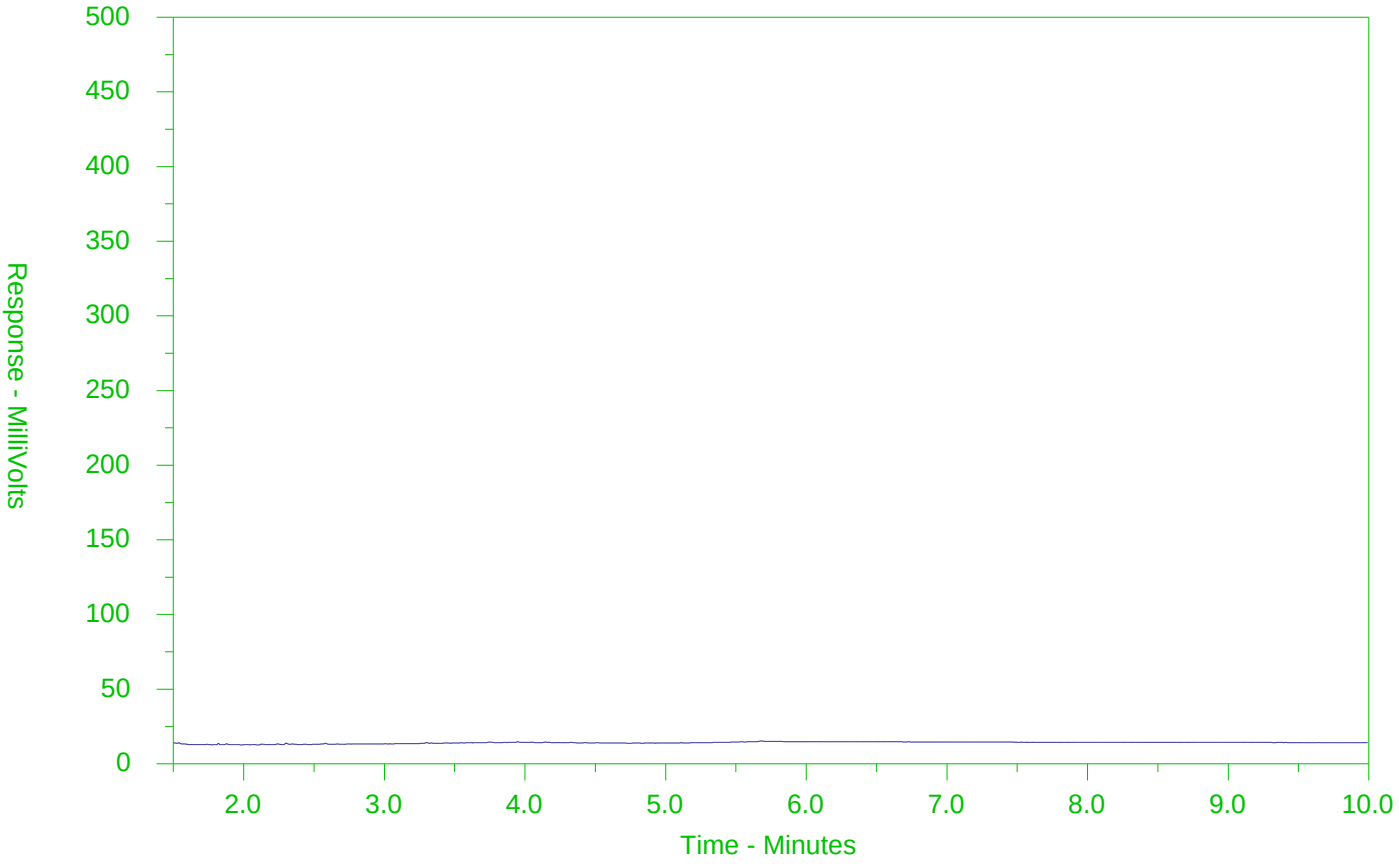
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2490486-1
Client Sample ID: BHMW1



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2490486-COFC

COC Number: 17 - 685020

Page of

Report To	Contact and company name below will appear on the final report
Company:	Englobe
Contact:	Nashmeh Sharifi
Phone:	
	Company address below will appear on the final report
Street:	417 Exeter Rd
City/Province:	London
Postal Code:	
Invoice To	Same as Report To [ ] YES [ ] NO
	Copy of Invoice with Report [ ] YES [ ] NO
Company:	
Contact:	

Report Format / Distribution

Select Report Format: [x] PDF [x] EXCEL [ ] EDD (DIGITAL)
Quality Control (QC) Report with Report [ ] YES [ ] NO
[x] Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: [x] EMAIL [ ] MAIL [ ] FAX
Email 1 or Fax nashmeh.sharifi@englobecorp.com
Email 2 Robert.Helwig@englobecorp.com
Email 3

Invoice Distribution

Select Invoice Distribution: [x] EMAIL [ ] MAIL [ ] FAX
Email 1 or Fax nashmeh.sharifi@englobecorp.com
Email 2 Johanna.kerr@englobecorp.com

Project Information

ALS Account # / Quote #:
Job #: P00 22280-201
PO / AFE: A3114
LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#
Major/Minor Code: Routing Code:
Requisitioner:
Location:

ALS Lab Work Order # (lab use only):

ALS Contact: **Sampler:**

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] [x] Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] [ ] | 3 day [P3-25%] [ ] | 2 day [P2-50%] [ ]

EMERGENCY: 1 Business day [E-100%] [ ] | Same Day, Weekend or Statutory holiday [E2-200% (Laboratory opening fees may apply)] [ ]

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	PHC + BTEX	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	BH MW 1	18-Aug-20	11:00	W	J			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?
[ ] YES [x] NO

Are samples for human consumption/ use?
[ ] YES [x] NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

T2 Coarse
Comercial

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen [ ] SIF Observations Yes [ ] No [ ]
Ice Packs [ ] Ice Cubes [ ] Custody seal intact Yes [ ] No [ ]
Cooling Initiated [ ]

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C			9.9°C

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
N. Sharifi	Aug 18, 20	

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
QHS	18 Aug 20	11:59

Aug 18/20 1800 12.2

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

JULY 2017 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Appendix D Tables

Soil Analytical Results - Tables 1 to 3
Groundwater Analytical Results - Table 4

Table [1]

Analytical Results for [PHCs and BTEX] in Soils
[1454 Fanshawe Park Road East, London, ON]

Sample ID Laboratory ID Sampling Date Units Sample Depth (m bgs)	Table 2: Soil in Potable Groundwater, ICC, Coarse Texture *ug/g*	Detection Limit *ug/g*	BHMW01-S11 L2486365-1 10/08/2020 *ug/g* 8.2 - 9.1^	BH03-S4 L2486365-4 10/08/2020 *ug/g* 1.5 - 1.8^	BH05-S1 L2486365-6 10/08/2020 *ug/g* 0 - 0.15^
Benzene	0.32	0.0068	<0.0068	<0.0068	<0.0068
Ethylbenzene	1.1	0.018	<0.018	<0.018	<0.018
Toluene	6.4	0.080	<0.080	<0.080	<0.080
o-Xylene		0.020	<0.020	<0.020	<0.020
m+p-Xylenes		0.030	<0.030	<0.030	<0.030
Xylenes (Total)	26	0.05	<0.050	<0.050	<0.050
F1 (C6-C10)	55	5.0	<5.0	<5.0	<5.0
F1-BTEX	55	5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	230	10	<10	<10	<10
F3 (C16-C34)	1700	50	<50	<50	<50
F4 (C34-C50)	3300	50	<50	<50	<50
Total Hydrocarbons (C6-C50)		72	<72	<72	<72

NOTES:

*	[Table 2] Soil in Potable Groundwater, Industrial/Commercial/Community Property Use, Coarse Texture - Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011)
^	Approximate sample depth range in metres below ground surface;
L2486365-1	Laboratory identification number (ID);
14	Reported concentration exceeds o. Reg. 153/04 Table 9
ug/g	Microgram of compound per gram dry weight of sample, which is equivalent to parts per million ("ppm");
BOLD	Non-detected but RDL>Guideline criteria due to dilution
NV	No value reported;
<	Denotes 'less than'.

Table [2]

Analytical Results for [Metals] in Soils
[1454 Fanshawe Park Road East, London, ON]

Sample ID Laboratory ID Sampling Date Units Sample Depth (m bgs)	Table 2: Soil in Potable Groundwater, ICC, Coarse Texture *ug/g*	Detection Limit *ug/g*	BHMW01-S11 L2486365-1 10/08/2020 *ug/g* 8.2 - 9.1^	BH02-S1 L2486365-2 10/08/2020 *ug/g* 0.6 - 1.1^	BH03-S2 L2486365-3 10/08/2020 *ug/g* 0.3 - 1.1^	BH04-S1 L2486365-5 10/08/2020 *ug/g* 0 - 0.6^	BH05-S1 L2486365-6 10/08/2020 *ug/g* 0 - 0.15^	BH06-S1 L2486365-7 10/08/2020 *ug/g* 0.05 - 0.4^
Antimony (Sb)	40	1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	18	1.0	-	2.9	4.5	6.7	3.0	3.1
Barium (Ba)	670	1.0	-	40.8	61.0	89.4	49.4	24.4
Beryllium (Be)	8	0.50	-	<0.50	<0.50	<0.50	<0.50	<0.50
Boron (B)	120	5.0	-	<5.0	<5.0	6.3	5.8	<5.0
Cadmium (Cd)	1.9	0.50	-	<0.50	<0.50	0.54	<0.50	<0.50
Chromium (Cr)	160	1.0	-	12.6	14.7	15.7	13.4	12.1
Cobalt (Co)	80	1.0	-	4.6	5.5	4.9	4.7	4.3
Copper (Cu)	230	1.0	-	7.8	10.3	24.7	10.0	6.0
Lead (Pb)	120	1.0	3.5	7.2	13.9	80.4	36.1	12.0
Molybdenum (Mo)	40	1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0
Nickel (Ni)	270	1.0	-	8.6	11.1	10.6	9.1	8.4
Selenium (Se)	5.5	1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	40	0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium (Tl)	3.3	0.50	-	<0.50	<0.50	<0.50	<0.50	<0.50
Uranium (U)	33	1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium (V)	86	1.0	-	24.9	27.9	26.2	21.9	23.3
Zinc (Zn)	340	5.0	-	32.6	44.9	175	105	28.4

NOTES:

*	[Table 2] Soil in Potable Groundwater, Industrial/Commercial/Community Property Use, Coarse Texture - Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011)
^	Approximate sample depth range in metres below ground surface;
L2486365-1	Laboratory identification number (ID);
14	Reported concentration exceeds o. Reg. 153/04 Table 9
ug/g	Microgram of compound per gram dry weight of sample, which is equivalent to parts per million ("ppm");
BOLD	Non-detected but RDL>Guideline criteria due to dilution
NV	No value reported;
<	Denotes 'less than'.

Table [3]

Analytical Results for [PAHs] in Soils
[1454 Fanshawe Park Road East, London, ON]

Sample ID Laboratory ID Sampling Date Units Sample Depth (m bgs)	Table 2: Soil in Potable Groundwater, ICC, Coarse Texture *ug/g*	Detection Limit *ug/g*	BH03-S2 L2486365-3 10/08/2020 *ug/g* 0.3 - 1.1^
Acenaphthene	21	0.050	<0.050
Acenaphthylene	0.15	0.050	<0.050
Anthracene	0.67	0.050	<0.050
Benzo(a)anthracene	0.96	0.050	<0.050
Benzo(a)pyrene	0.3	0.050	<0.050
Benzo(b)fluoranthene	0.96	0.050	<0.050
Benzo(g,h,i)perylene	9.6	0.050	<0.050
Benzo(k)fluoranthene	0.96	0.050	<0.050
Chrysene	9.6	0.050	<0.050
Dibenzo(ah)anthracene	0.1	0.050	<0.050
Fluoranthene	9.6	0.050	<0.050
Fluorene	62	0.050	<0.050
Indeno(1,2,3-cd)pyrene	0.76	0.050	<0.050
1+2-Methylnaphthalenes	30	0.042	<0.042
1-Methylnaphthalene	30	0.030	<0.030
2-Methylnaphthalene	30	0.030	<0.030
Naphthalene	9.6	0.013	<0.013
Phenanthrene	12	0.046	<0.046
Pyrene	96	0.050	<0.050

NOTES:

*****	[Table 2] Soil in Potable Groundwater, Industrial/Commercial/Community Property Use, Coarse Texture - Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011)
^	Approximate sample depth range in metres below ground surface;
L2486365-3	Laboratory identification number (ID);
14	Reported concentration exceeds o. Reg. 153/04 Table 9
ug/g	Microgram of compound per gram dry weight of sample, which is equivalent to parts per million ("ppm");
BOLD	Non-detected but RDL>Guideline criteria due to dilution
NV	No value reported;
<	Denotes 'less than'.

Table [4]

Analytical Results for [PHCs and BTEX] in Shallow Groundwater
[1454 Fanshawe Park Road East, London, ON]

Laboratory ID Sample ID Units Sampling Date	Table 2: Potbale Shallow Groundwater, All Type of Property Use, Coarse-Textures *ug/L*	Detection Limit *ug/L*	BHMW1 L2490486-1 *ug/L* 18/08/2020
Benzene	5	0.50	<0.50
Ethylbenzene	2.4	0.50	<0.50
Toluene	24	0.50	0.54
o-Xylene		0.30	<0.30
m+p-Xylenes		0.40	0.40
Xylenes (Total)	300	0.50	<0.50
F1 (C6-C10)	750	25	<25
F1-BTEX	750	25	<25
F2 (C10-C16)	150	100	<100
F3 (C16-C34)	500	250	<250
F4 (C34-C50)	500	250	<250
Total Hydrocarbons (C6-C50)		370	<370

NOTES:

*	Table 2: Potbale Shallow Groundwater, All Type of Property Use, Coarse Textures, Generic Site Condition Standards for Use Under Part XV.1 of the Environmental Protection Act (April 15, 2011)
L2490486-1	Laboratory identification number (ID);
14	Reported concentration exceeds [Criteria]
ug/L	Microgram of compound per litre of water which is equivalent to parts per million ("ppm");
NV	No value reported;
<	Denotes 'less than'.