Supplemental Phase II Environmental Site Assessment

1531 St. Laurent Boulevard, Ottawa, ON

Katasa Grouppe + Développement
Final Report
02105693.001

February 2022

eNGLOBe

Katasa Grouppe + Développement
02105693.001

Prepared by:

Andrew Couturier, B.Sc., C.E.T., EP
Environmental Technician
Englobe Ottawa

Approved by:

Salim Eid, P.Eng.
Team Lead
Englobe Ottawa

Executive Summary

Englobe was retained by Katasa Groupe + Développement (the "Client") to conduct a Supplemental Phase II Environmental Site Assessment (ESA) at the property located at 1531 St. Laurent Boulevard in Ottawa, Ontario (the "Site"). The purpose of this supplemental investigation was to further investigate previously confirmed hydrocarbon impacts in soils along the northern Site boundary (DST, September 2021).

The Site consists of a rectangular shaped parcel of land that covers an area of approximately 4,966 m2. It is developed with a single-storey commercial building, with one basement level, and an asphalt parking lot. The building, which has a footprint area of approximately 650 m^2, is occupied by a restaurant (Robbie's Italian Restaurant), which was vacant at the time of Englobe's assessment.

The assessment was conducted in general accordance with Canadian Standards Association (CSA) Standard Z769-00 (R2018). This report was prepared strictly for the purposes of environmental due diligence, in support of a real estate transaction, and is not intended to be utilized as supporting documentation for the filing of a Record of Site Condition (RSC) in accordance with Ontario Regulation (O. Reg.) 153/04.

The field investigation consisted of the following activities:

- The advancement of two exterior boreholes (MW22-01 and MW22-02) and one interior borehole (MW22-03) instrumented with groundwater monitoring wells at strategic locations on Site;
    - Borehole MW22-01 was advanced close to the central portion of the parking lot, located to the east of the Site building and southeast of Borehole MW1-21,previously advanced during DST's Phase II ESA at the Site in 2021;
    - MW22-02 was advanced in the northwest portion of the parking lot, to the west of the Site building and Borehole MW1-21 (DST, 2021); and
    - MW22-03 was advanced in the central area of the basement of the Site building.
- The collection of soil and groundwater samples from the advanced boreholes/ monitoring wells, for laboratory analysis of PHCs F1 – F4 and benzene, toluene, ethylbenzene, and xylene (BTEX).

Soil and groundwater analytical results were compared against applicable provincial standards as set out in the following document:

- Ontario Ministry of the Environment, Conservation and Parks (MECP) "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15, 2011. Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition. Industrial/Commercial/Community Property Use for soil (coarse textured soils) and All Types of Property Use for groundwater.

Note: As per Englobe's proposal, dated November 12, 2021, analytical results obtained during this investigation were additionally compared to the MECP Table 3 standards for residential property use, for information purposes only (as requested by the Client).

Based on the laboratory analytical results, concentrations of PHCs F1 – F4 and BTEX in all five laboratory-submitted soil samples, collected from the advanced boreholes, met the applicable MECP Table 3 standards for the Site (Industrial/Commercial/Community Property Use and coarse textured soils). Additionally, all collected groundwater samples from the newly installed monitoring wells met the applicable MECP Table 3 standards for PHCs F1 – F4 and BTEX.

Therefore, based on the results of the Supplemental Phase II ESA, it is estimated that impacted soils in relation to the current Site Condition Standards (i.e., MECP Table 3 standards for Industrial/Commercial/Community Property Use and coarse textured soils) are limited to an area along the northern Site boundary, around borehole location MW1-21 (DST, 2021), from a depth of approximately 1.0 to 3.0 m bgs.

Analytical results of the groundwater samples collected from all seven monitoring wells advanced at the Site (during both DST and Englobe investigations) met the applicable MECP Table 3 standards for the analyzed parameters.

For information purposes, it should be noted that when comparing the soil analytical results to the MECP Table 3 standards for Residential/Parkland/Institutional Property Use (for coarse textured soils), concentrations of PHC F2 in soil sample MW22-02 SS4 (180 µg/g) were elevated above the standard of 98 µg/g for PHC F2. The analytical results of all remaining laboratory-submitted soil samples meet the MECP Table 3 standards for Residential/Parkland/Institutional Property Use.

Property and Confidentiality

“This document is intended solely for the purposes stated herein. Any use of the report must take into consideration the purpose and scope of the mandate under which the report was prepared, as well as the limitations and conditions specified therein and the state of scientific knowledge at the time the report is issued. Englobe Corp. does not make any warranties or representations other than those expressly contained in the report.

This document is the work of Englobe Corp. Any reproduction, distribution, or adaptation, in whole or in part, is strictly prohibited without the prior written permission of Englobe and its Client. For greater certainty, the use of report excerpts is strictly prohibited without the written permission of Englobe and its Client, and the report should be read and considered in its entirety.

No information contained in this report may be used by any third party without the written permission of Englobe and its Client. Englobe Corp. disclaims all liability for any unauthorized reproduction, distribution, adaptation, or use of the report.

If tests have been performed, the results of these tests are valid only for the sample described in this report.

Subcontractors of Englobe who may have performed laboratory work are duly evaluated according to the purchasing procedure of our quality system. For further information or details, please contact your project manager.”

Table of Contents

APPENDICES

1 Introduction

Englobe Corp. (Englobe) was retained by Katasa Groupe + Développement (the "Client") to conduct a Supplemental Phase II Environmental Site Assessment (ESA) at the property located at 1531 St. Laurent Boulevard in Ottawa, Ontario (the "Site"). The purpose of this supplemental investigation was to further investigate previously confirmed hydrocarbon impacts in soils along the northern Site boundary. A Site Location Map is provided as Figure 1, in Appendix A.

The assessment was conducted in general accordance with Canadian Standards Association (CSA) Standard Z769-00 (R2018). This report was prepared strictly for the purposes of environmental due diligence, in support of a real estate transaction, and is not intended to be utilized as supporting documentation for the filing of a Record of Site Condition (RSC) in accordance with Ontario Regulation (O. Reg.) 153/04.

This report was prepared for the exclusive use of Katasa Groupe + Développement. Any use of this report by any third party, or any reliance on or decisions to be made based on it, are the responsibility of such parties. Englobe accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. Please refer to Section 8 for limitations inherent to the subject report.

1.1 Site Description

The Site is located at 1531 St. Laurent Boulevard in Ottawa, Ontario, and is located in an area zoned as AM – Arterial Mainstreet Zone. The Site consists of a rectangular shaped parcel of land that covers an area of approximately 4,966 m^2. It is developed with a single-storey commercial building, with one basement level, and an asphalt parking lot. The building, which has a footprint area of approximately 650 m^2, is occupied by a restaurant (Robbie's Italian Restaurant), which was vacant at the time of Englobe's assessment.

The Site is surrounded by the following:

- North: Belfast Road, followed by a MacEwen gas station, Sunlight Oil and Auto Parts Lancaster Auto Sales, and Red Lobster, followed by other commercial properties, including additional automotive repair garages;
- East: Lagan Way, followed by Nutri-Lawn Ottawa Ecology and further commercial properties, including several automotive repair garages;
- South: Ottawa Wraptors and Ottawa Auto Care, followed by the Obsession Lounge and The Nuden Adult Entertainment and further commercial properties; and
- West: St. Laurent Boulevard, followed by a commercial complex containing retail shops and an associated parking lot.

1.2 Current and Proposed Future Uses

The Site is currently used for commercial purposes only. There may be future plans for the potential redevelopment of the Site for residential land use.

1.3 Site Condition Standards

Based on Site conditions, the following Site Condition Standards (SCSs) were considered applicable to the Site:

SOIL:

- Ontario Ministry of the Environment, Conservation and Parks (MECP) "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 2011. Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition (Industrial/Commercial/Community Property Use, coarse textured soils).

GROUNDWATER:

- MECP "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 2011. Table 3: Full Depth Generic Site Condition Standards for a Non-Potable Ground Water Condition (All Types of Property Use, coarse textured soils).

The rationale for the selection of the above-referenced SCSs was as follows:

- The Site and its adjacent properties are supplied with potable water through the City of Ottawa's municipal drinking water system; thus, the potable groundwater pathway is not considered applicable;
- The current land use of the Site is commercial;
- No shallow bedrock conditions were encountered within the boreholes advanced at the Site;
- The Site is located more than 30 metres from the nearest surface water body;
- Surface soils at the Site do not have a pH value less than 5 or greater than 9 (as confirmed by DST's assessment in 2021); and
- A coarse-grained soil texture was selected for comparison of analytical data to applicable provincial standards as this represents the 'worst-case' scenario.

Note: As per Englobe's proposal, dated November 12, 2021, analytical results obtained during this investigation were additionally compared to the MECP Table 3 standards for residential property use, for information purposes only (as requested by the Client).

2 Background

Englobe completed a review of available previous environmental reports for the Site. The findings are summarized below:

A) **Phase I/II Environmental Site Assessment, DST, a division of Englobe, September 2021**

DST, a division on Englobe (DST) completed a combined Phase I/I ESA[1] at the Site in September 2021. Based on the findings of the Phase I ESA portion of DST's assessment, the following potentially contaminating activities (PCAs) were identified within the Phase I study area (i.e., within 250 m of the Site limits):

1. Existing and historical presence of a retail fuel outlet and automotive repairs at 1515 St. Laurent Boulevard (approximately 25 m north of the Site);
2. Historical presence of a gas bar and fuel oil depot at 1499 St. Laurent Boulevard (approximately 80 m north of the Site);
3. Historical presence of an oil dealer and underground oil tanks at 1560 St. Laurent Boulevard (approximately 40 m south of the Site);
4. Existing and historical presence of automotive repair garage at numerous properties to the north, east and south of the Site, within the Phase I study area;
5. Historical diesel fuel spill at the intersection of St. Laurent Boulevard and Belfast Road (approximately 25 m northwest of the Site); and
6. Existing bus depot, USTs and historical spills at 1500 St. Laurent Boulevard (approximately 60 m northwest of the Site).

The Phase II ESA portion of the assessment was conducted in order to further evaluate the above-noted PCAs and to confirm the presence or absence of potential contaminants of concern in the soil and groundwater on Site. The field program consisted of the advancement of four boreholes, instrumented with groundwater monitoring wells, at select locations on Site (refer to Figure 2, in Appendix A, for location of the boreholes/ monitoring wells advanced by DST). A total of four soil samples and four groundwater samples (one soil and one groundwater sample from each borehole/ monitoring well) collected during the investigation were submitted for laboratory analysis of petroleum hydrocarbon fractions F1 – F4 (PHCs F1 – F4) and volatile organic compounds (VOCs).

Based on the laboratory analytical soil results, the following exceedances of the applicable MECP Table 3 standards (for Industrial/Commercial/Community Property Use and coarse textured soils) were detected in the collected soil samples:

- Concentrations of ethylbenzene, total xylenes, PHC F1 and PHC F2 in the soil sample collected from MW1-21 (located north of the Site building, immediately adjacent to Belfast Road), at a depth of 2.3 – 2.9 m, exceeded their respective applicable MECP Table 3 standards.

Concentrations of all other analyzed parameters in the collected soil samples were below their respective MECP Table 3 standards.

[1] Phase I & II Environmental Site Assessment, 1531 St. Laurent Boulevard, Ottawa, ON. Prepared by DST, a division of Englobe, September 2021. DST File No.: 02105693.000

Based on the laboratory analytical groundwater results, all collected groundwater samples met the applicable MECP Table 3 standards for PHCs F1 – F4 and VOCs. However, it was noted in DST's report that a PHC odour and a minor hydrocarbon sheen was noted on the groundwater during the development of monitoring well MW1-21.

It was estimated that existing soils to the north of the Site building, up to the northern property boundary, had impacts above the applicable MECP Table 3 standards (for Industrial/Commercial/Community Property Use and coarse textured soils), from a depth of approximately 1.0 m below ground surface (bgs) to 3.0 m bgs. Further investigation was recommended to the south and east of borehole MW1-21 in order to confirm the horizontal and vertical extents of the soil impacts at this borehole location.

3 Scope of the Investigation

The scope of work for the field program of the Supplemental Phase II ESA consisted of the following activities:

- Obtaining underground utility clearances and locates;
- The advancement of two exterior boreholes (MW22-01 and MW22-02) and one interior borehole (MW22-03) instrumented with groundwater monitoring wells at strategic locations on Site;
    - Borehole MW22-01 was advanced close to the central portion of the parking lot, located to the east of the Site building and southeast of Borehole MW1-21 (DST, 2021);
    - MW22-02 was advanced in the northwest portion of the parking lot, to the west of the Site building and Borehole MW1-21 (DST, 2021); and
    - MW22-03 was advanced in the central area of the basement of the Site building.
- The collection of soil and groundwater samples from the advanced boreholes/ monitoring wells, for laboratory analysis of PHCs F1 – F4 and benzene, toluene, ethylbenzene, and xylene (BTEX).

4 Investigation Method

4.1 Borehole Drilling

The exterior drilling program took place on January 24th, 2021 and consisted of the advancement of two boreholes (MW22-01 and MW22-02). Borehole MW22-01 was advanced close to the central portion of the parking lot, located to the east of the Site building , while MW22-02 was advanced in the northwest portion of the parking lot, to the west of the Site building. Both boreholes were instrumented with groundwater monitoring wells.

The exterior boreholes were advanced by Marathon Underground (Marathon), under the supervision of Englobe field personnel, using a CME truck-mounted drill rig. The boreholes were advanced through the overburden using hollow stem augers. The drill rig was equipped with a split spoon sampling device, which allowed for continuous soil sampling in the overburden.

The interior drilling took place on January 28th, 2021 and consisted of the advancement of one borehole (MW22-03) instrumented with a groundwater monitoring well. Borehole MW22-03 was advanced in the central area of the basement of the Site building.

The interior borehole was advanced by Olhmann Geotechnical Services Inc. (OGS), under the supervision of Englobe field personnel, using a Hilti DD520 core drill and Bosch Brute jackhammer. The drill was equipped with a split spoon sampling device, which allowed for continuous soil sampling in the overburden.

Representative soil samples were recovered in 0.6 m intervals, where possible, and were then placed directly into laboratory-supplied containers.

The exterior boreholes (MW22-01 and MW22-02) were advanced to an approximate depth of 6.1 m bgs, while the interior borehole (MW22-03) was advanced to an approximate depth of 3.0 m bgs.

A Borehole/ Monitoring Well Location Plan is provided as Figure 3, in Appendix A. Borehole logs are provided in Appendix B.

4.2 Soil Sampling

Soil samples were placed directly into laboratory-supplied sample jars and vials. The sample jars were filled completely with soil to minimize the amount of headspace vapour within the jars. Samples to be submitted for laboratory analysis of PHC F2 – F4 were placed in unpreserved 120 mL clear glass jars with Teflon lids, while samples to be submitted for laboratory analysis of volatile compounds (PHC F1 and BTEX) were collected using disposable soil plug sample collectors supplied by the laboratory. The soil plugs were placed in laboratory-supplied vials charged with measured volumes of methanol for sample preservation.

Soil samples were logged in the field for texture, odour, moisture and visual appearance (staining).

4.3 Field Screening Methods

A portion of each collected soil sample from the advanced boreholes was placed in a polyethylene bag and was allowed to equilibrate in a warm environment prior to being screened for combustible vapour

concentrations (CVCs). Combustible vapour concentrations of soil samples were measured using an RKI Eagle™ portable vapour meter and a GX-6000 PID gas monitor. The RKI Eagle™ is equipped with a catalytic combustible gas detector (CCGD) with a detection limit of 5 parts per million (ppm), while The GX-6000 is equipped with a photoionization detector (PID), with a detection limit of 0.1 ppm, for the detection of hydrocarbon vapour concentrations. The vapour meter and monitor were calibrated prior to use.

Based on visual and olfactory observations, CVC measurements, and the position of the collected soil samples with respect to the inferred groundwater table, five soil samples were submitted for laboratory analysis. The CVCs of the collected soil samples, as measured by the vapour meter and gas monitor, are provided in the borehole logs in Appendix E. Soil sample locations and analysis are presented in the table below.

Table 1: Summary of Soil Samples Submitted for Laboratory Analysis

Sampling Date (d/m/y)	Sample ID/Location	Sample Depth (m bgs)	Laboratory Analysis
24/01/2022	MW22-01 SS4	2.3 – 2.9	PHCs F1 – F4, BTEX
24/01/2022	MW22-01 SS6	3.8 – 4.4	PHCs F1 – F4, BTEX
24/01/2022	MW22-02 SS4	2.3 – 2.9	PHCs F1 – F4, BTEX
24/01/2022	MW22-02 SS6	3.8 – 4.4	PHCs F1 – F4, BTEX
28/01/2022	MW22-03 SS1	1.2 – 1.8	PHCs F1 – F4, BTEX

4.4 Monitoring Well Installation

Monitoring wells were installed by Marathon and OGS, in all three of the advanced boreholes, using the same drilling equipment described in Section 4.1. The exterior wells were constructed with a 50 mm diameter polyvinyl chloride (PVC) pipe and a #10 slotted PVC well screen, approximately 3.0 m in length. A sand-pack consisting of clean silica gravel was placed within the annular space surrounding the screened section of the wells, to a depth of approximately 0.3 m above the top of the screen. Bentonite chips were added from the top of the sand layer to within 0.3 m of the surface to minimize the potential for cross-contamination between aquifers.

The interior well was constructed with a 31 mm diameter polyvinyl chloride (PVC) pipe and a #10 slotted PVC well screen, approximately 2.8 m in length. A sand-pack consisting of clean silica gravel was placed within the annular space surrounding the screened section of the well, to a depth of approximately 0.1 m above the top of the screen. Due to the shallow nature of the well, sand was placed level to the top of screen. Bentonite chips were added from the top of the sand layer to surface to minimize the potential for cross-contamination between aquifers.

A well cap was placed at the top of each well pipe and a protective flush-mount steel casing was cemented at surface to protect the well. The monitoring wells were installed in accordance with Ontario Regulation (O. Reg.) 903 - Wells (as amended), made under the Ontario Water Resources Act.

The monitoring wells were developed using polyethylene tubing equipped with inertial lift foot valves to remove any groundwater impacted by drilling activities and to reduce the amount of sediment within the wells.

4.5 Groundwater Level Measurements

Prior to sampling, groundwater levels and the presence/absence of light and dense non-aqueous phase liquids (LNAPLs and DNAPLs) were measured using a Heron Instruments™ oil/water interface probe that was thoroughly decontaminated between monitoring wells using reagent-free detergent and water, followed by a distilled water rinse. New powder-free nitrile gloves were worn during the sampling process and discarded between samples to prevent cross-contamination.

4.6 Groundwater Sampling

In order to remove any stagnant groundwater prior to sampling and reduce the amount of sediment within the wells, the exterior monitoring wells (MW22-01 and MW22-02) were developed on January 25th, 2022, and the interior monitoring well (MW22-03) was developed on January 28th and January 31st, 2022. Monitoring wells MW22-01 and MW22-02 were each purged of approximately three well volumes of groundwater, while monitoring well MW22-03 was purged dry a total of 12 times, for a total of approximately 148 L of groundwater. The wells were developed using dedicated polyethylene tubing equipped with inertial lift foot valves.

Groundwater sampling was completed using low flow techniques, utilizing a peristaltic pump operating at a low flow rate (<1 L/minute). Groundwater samples were collected directly into laboratory-supplied containers. All groundwater sample containers were labelled with the Englobe project number and site name, monitoring well identification, and sampling date. The samples were then placed in clean laboratory-supplied coolers containing ice made from potable water, to store and maintain the samples at a temperature below 10°C. Monitoring wells MW22-01 and MW22-02 were sampled on January 26th, 2022, while monitoring well MW22-03 was sampled on January 31st, 2022.

Prior to well development, purging, and the collection of each groundwater sample, the peristaltic pump and other sampling equipment were decontaminated with reagent-free detergent and distilled water with a distilled water rinse. New powder-free nitrile gloves were donned by the Englobe technician prior to the handling of each sample, to eliminate cross-contamination.

Groundwater sample locations and analyses are presented below.

Table 2: Summary of Groundwater Samples Submitted for Laboratory Analysis

Sampling Date (d/m/y)	Sample ID/Location	Laboratory Analysis
26/01/2022	MW22-01	PHCs F1 – F4, BTEX
26/01/2022	MW22-02	PHCs F1 – F4, BTEX
31/01/2022	MW22-03	PHCs F1 – F4, BTEX

4.7 Analytical Testing

Soil and groundwater samples were submitted to Bureau Veritas Laboratories (BV Labs) of Ottawa, Ontario, for chemical analysis. BV labs is a Canadian Association for Laboratory Accreditation Inc. (CALA) accredited laboratory.

4.8 Residue Maintenance

All soil cuttings resulting from drilling activities, purge water resulting from well development and purging activities, and fluids resulting from equipment decontamination were appropriately contained and secured on Site. Proper disposal shall be coordinated by Englobe.

4.9 Quality Assurance / Quality Control

Englobe maintains a standard Quality Assurance/ Quality Control (QA/QC) program for environmental investigations. All project documentation was maintained and controlled by the appointed field supervisor. All borehole advancement and soil and groundwater sampling were completed in accordance with industry standards, and applicable provincial standards/guidelines.

Collected soil and groundwater samples during the investigation were placed in ice-packed coolers prior to being delivered, under a Chain of Custody protocol, to BV Labs for chemical analysis.

The potential for cross-contamination between samples was minimized by, where applicable, washing sampling tools with reagent-free detergent and water, followed by rinsing with distilled water, and by wearing new disposable nitrile gloves prior to the handling of each sample. All field screening instruments (i.e., RKI Eagle™ and GX-6000 gas meter) were calibrated prior to arriving on Site.

5 Results and Evaluation

5.1 Stratigraphy

Based on the soil data collected during the investigation, the general soil stratigraphy within the advanced exterior boreholes (MW22-01 and MW22-02) is characterized by a surficial asphalt layer underlain by a layer of fill material, mainly consisting of silty sand and gravel, which, in turn, is underlain by silty clay/ clay.

Based on the soil data collected during the advancement of the interior borehole (MW22-03), soils underneath the Site building generally consist of a granular fill layer, underlain by a sandy clay layer, followed by crushed stone, to an approximate depth of 3.0 m below the basement floor slab (the depth at which bedrock is inferred to be present).

Detailed descriptions and soil stratigraphy for each borehole are provided in the borehole logs in Appendix B.

5.2 Groundwater Field Measurements

As previously noted, Englobe field personnel collected groundwater level measurements from the installed monitoring wells prior to groundwater sampling activities. The measured groundwater levels are presented in the table below.

Table 3: Groundwater Levels

Monitoring Well ID	Groundwater Depth (m bgs)	Date of Measurement (d/m/y)
MW22-01	2.26	26/01/2022
MW22-02	1.85	26/01/2022
MW22-03	0.24	31/01/2022

It should be noted that the local groundwater flow across the Site is inferred to be in an easterly/ north-easterly direction (DST, 2021).

5.3 Field Observations

There was no visual or olfactory evidence of petroleum or other impacts observed in any of the soil or groundwater samples collected from boreholes/ monitoring wells advanced at the Site during this Supplemental Phase II ESA.

5.4 Soil Quality

Analytical results of the soil samples submitted for laboratory analysis were compared against the applicable MECP Table 3 standards for Industrial/Commercial/Community Property Use and coarse textured soils.

Based on the laboratory analytical results, concentrations of PHCs F1 – F4 and BTEX in all five laboratory-submitted soil samples met the applicable MECP Table 3 standards for the Site.

For information purposes, it should be noted that when comparing the soil analytical results to the MECP Table 3 standards for Residential/Parkland/Institutional Property Use (for coarse textured soils), concentrations of PHC F2 in soil sample MW22-02 SS4 (180 µg/g) were elevated above the standard of 98 µg/g for PHC F2. The analytical results of all remaining laboratory-submitted soil samples meet the MECP Table 3 standards for Residential/Parkland/Institutional Property Use.

Refer to Table C-1, in Appendix C, for the soil analytical results. The laboratory certificates of analysis are provided in Appendix D.

5.5 Groundwater Quality

Analytical results of the groundwater samples submitted for laboratory analysis were compared against the applicable MECP Table 3 standards for All Types of Property Use and coarse textured soils.

Based on the laboratory analytical results, all collected groundwater samples met the applicable MECP Table 3 standards for PHCs F1 – F4 and BTEX.

Refer to Tables C-2, in Appendix C, for the groundwater analytical results. The laboratory certificates of analysis are provided in Appendix D.

6 Conclusions

Englobe conducted a Supplemental Phase II ESA at the property located at 1531 St. Laurent Boulevard in Ottawa, Ontario, to further investigate previously confirmed hydrocarbon impacts in soils along the northern Site boundary (at borehole location MW1-21).

The field program consisted of the advancement of two exterior boreholes and one interior borehole, all instrumented with groundwater monitoring wells. A total of five soil samples collected during the investigation were submitted for laboratory analysis of PHCs F1 – F4, and BTEX. Three groundwater samples, collected from the newly installed monitoring wells, were submitted for laboratory analysis of PHCs F1 – F4 and BTEX.

Based on the laboratory analytical results, concentrations of PHCs F1 – F4 and BTEX in all five laboratory-submitted soil samples, collected from the advanced boreholes, met the applicable MECP Table 3 standards for the Site (Industrial/Commercial/Community Property Use and coarse textured soils). Additionally, all collected groundwater samples from the newly installed monitoring wells met the applicable MECP Table 3 standards for PHCs F1 – F4 and BTEX.

Therefore, based on the results of the Supplemental Phase II ESA, it is estimated that impacted soils in relation to the current Site Condition Standards (i.e., MECP Table 3 standards for Industrial/Commercial/Community Property Use and coarse textured soils) are limited to an area along the northern Site boundary, around borehole location MW1-21, from a depth of approximately 1.0 to 3.0 m bgs.

Analytical results of the groundwater samples collected from all seven monitoring wells advanced at the Site (during both DST and Englobe investigations) met the applicable MECP Table 3 standards for the analyzed parameters.

For information purposes, it should be noted that when comparing the soil analytical results to the MECP Table 3 standards for Residential/Parkland/Institutional Property Use (for coarse textured soils), concentrations of PHC F2 in soil sample MW22-02 SS4 (180 µg/g) were elevated above the standard of 98 µg/g for PHC F2. The analytical results of all remaining laboratory-submitted soil samples meet the MECP Table 3 standards for Residential/Parkland/Institutional Property Use.

For information and estimate purposes only, the volume of soils at the Site exhibiting impacts above MECP Table 3 standards for Residential/Parkland/Institutional Property Use (for coarse textured soils) is estimated as approximately 1,700 cubic metres. The actual volume of PHC-impacted soils at the Site will vary from this estimate as full delineation of soil impacts at the Site has not been achieved.

7 Closure

This report was prepared for the exclusive use of Katasa Groupe + Développement. Any use of this report by any third party, or any reliance on or decisions to be made based on it, are the responsibility of such parties. Englobe accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

We trust the information herein meets your present requirements. Should you have any questions, please do not hesitate to contact us.

8 Statement of Limitations

This report (hereinafter, the “Report”) was prepared by Englobe Corporation (herein the “Company”) and is provided for the sole exclusive use and benefit of Katasa Groupe + Développement (the “Client”). Ownership in and copyright for the contents of the Report belong to the Company.

No other person is authorized to rely on, use, copy, duplicate, reproduce, or disseminate this Report, in whole or in part and for any reason whatsoever, without the express prior written consent of the Company. Any person using this Report, other than the person(s) to whom it is directly addressed, does so entirely at its own risk. The Company assumes no responsibility or liability in connection with decisions made or actions taken based on the Report, or the observations and/or comments contained within the Report. Others with interest in the site and/or subject matter of this Report should undertake their own investigations and studies to determine how or if they or their plans could be affected.

This Report should be considered in its entirety; selecting specific portions of the Report may result in the misinterpretation of the content.

The work performed by the Company was carried out in accordance with the terms and conditions specified in the Professional Services Agreement between the Company and the Client, in accordance with currently accepted engineering standards and practices and in a manner consistent with the level of skill, care and competence ordinarily exercised by members of the same profession currently practicing under similar conditions and like circumstances in the same jurisdiction in which the services were provided. Standards, guidelines, and practices may change over time; those which were applied to produce this Report may be obsolete or unacceptable at a later date.

The findings, recommendations, suggestions, or opinions expressed in this Report reflect the Company’s best professional judgement based on observations and/or information reasonably available at the time the work was performed, as appropriate for the scope, work schedule and budgetary constraints established by the Client. No other warranty or representation, expressed or implied, is included in this Report including, but not limited to, that the Report deals with all issues potentially applicable to the site and/or that the Report deals with any and all of the important features of the Site, except as expressly provided in the scope of work.

This report has been prepared for the specific site, development, building, design or building assessment objectives and/or purposes that were described to the Company by the Client. The applicability and reliability of the content of this Report, subject to the limitations provided herein, are only valid to the extent that there has been no material alteration or variation thereto, and the Company expressly disclaims any obligation to update the Report. However, the Company reserves the right to amend or supplement this Report based on additional information, documentation or evidence made available to it.

The Company makes no representation concerning the legal significance of its findings, nor as to the present or future value of the property, or its fitness for a particular purpose and hereby disclaims any responsibility or liability for consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

Since the passage of time, natural occurrences, and direct or indirect human intervention may affect the views, conclusions, and recommendations (if any) provided in the Report, it is intended for immediate use. The assessment should not be considered a comprehensive audit that covers and eliminates all present, past and future risks. The information presented in this Report is based on data collected during the completion of the monitoring conducted. The overall site conditions were extrapolated based on information collected at specific sampling locations. Professional judgement was exercised in gathering and analyzing data; however, no monitoring method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Consequently, the actual site conditions between the sampling points may vary. In addition, analysis has been carried out only for the chemical and physical parameters identified, and it should not be inferred that other chemical species or physical conditions are not present.

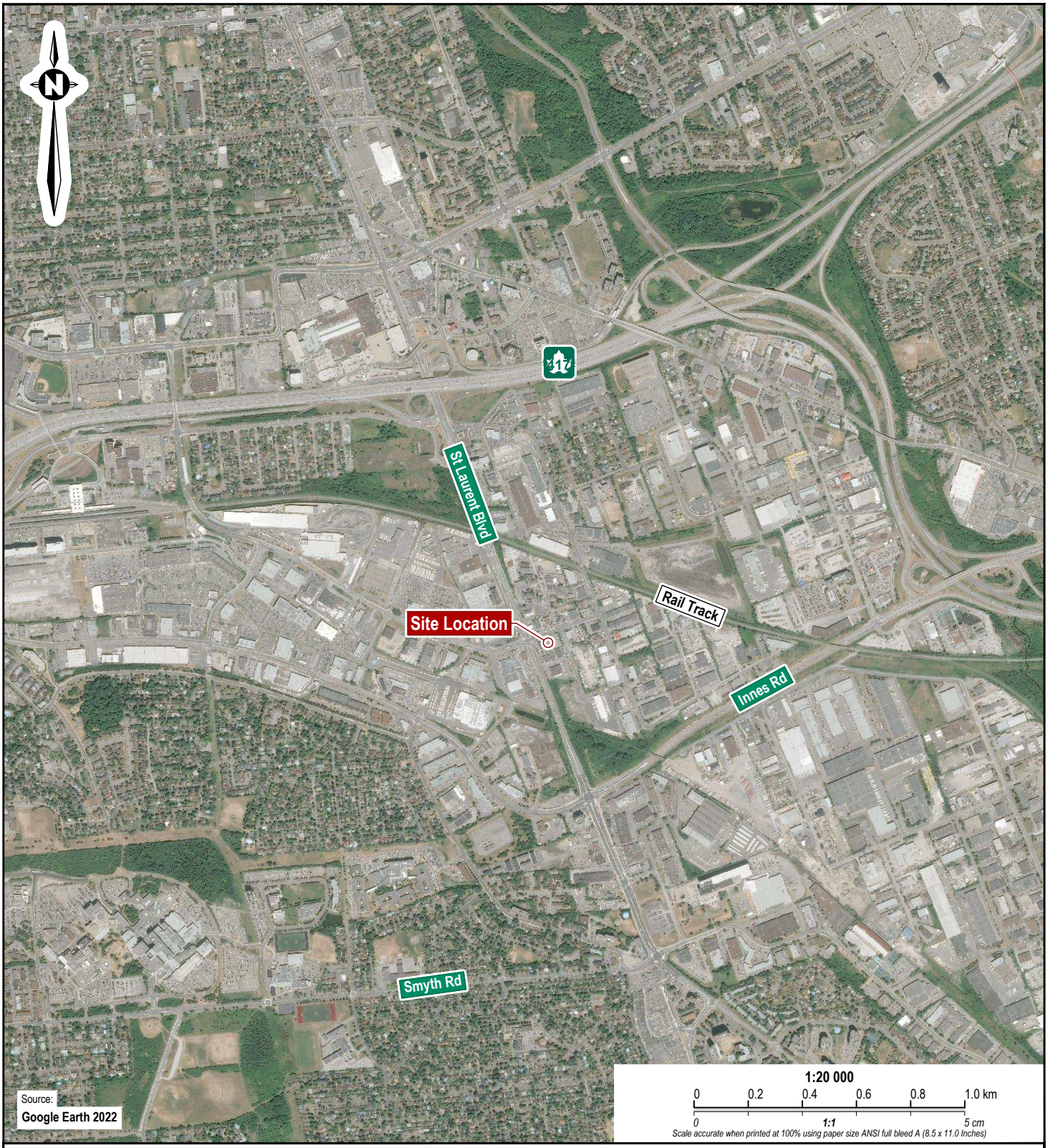
Any description of the site and its physical setting documented in this Report is presented for informational purposes only, to provide the reader a better understanding of the site and scope of work. Any topographic benchmarks and elevations are primarily to establish relative elevation differences between sampling locations and should not be used for other purposes such as grading, excavation, planning, development, or similar purposes.

The comments made in this report on potential remediation and/construction issues and possible methods are intended only for the guidance of the owner and design engineer. The scope of work may not be sufficient to determine all the factors that may affect methods, costs, equipment and scheduling. Any contractors or others bidding on, or undertaking contractual work to be performed as part of the project who may come into possession of or learn of this Report or its content are to rely on their own interpretations of the data contained in this Report, in addition to their own investigations and conclusions as to how their work may be affected.

This Statement of Limitations forms an integral part of the Report.

Appendix A
Figures

ENGLOBE



Note

1. This drawing shall be read in conjunction with the associated technical report.

0	2022/02/04	Original	SE
Revision	Date	Issue	Approval

Client: Katasa Groupe + Développement	Site: 1531 St. Laurent Blvd, Ottawa, ON

ENGLOBE

Report Title: Supplemental Phase II Environmental Site Assessment		Designed By: AC	Date: February 2022
		Drawn By: JM	Project No.: 02105693.001
Drawing Title: Site Location Map		Approved By: SE	Figure No.: 1
		Scale: As shown	

2150 Thurston Drive, Suite 203, Ottawa, Ontario K1G 5T9 Tel: (613) 748-1415 Fax: (613) 748-1356 Website: www.englobecorp.com/canada

MW1-21 Soil Sample Exceedances				
Parameter	Analytical Result (µg/g)	Applicable MECP Table 3 Standard (µg/g)	Sample Depth (m)	Sample Date
Ethylbenzene	70	9.5	2.3 - 2.9	May 5, 2021
Total Xylenes	38.4	26		
PHC F1	1,730	55		
PHC F2	373.	230		

ENGLOBE

Note

1. This drawing shall be read in conjunction with the associated technical report.

Legend

- Approximate site limits
- Borehole / MW (DST, 2021) Meets Applicable MECP Table 3 Standards (Commercial / Industrial Property Use)
- Borehole / MW (DST, 2021) Exceeds Applicable MECP Table 3 Standards (Commercial / Industrial Property Use)
- Borehole / MW (Englobe, 2022) Meets Applicable MECP Table 3 Standards (Commercial / Industrial Property Use)

1:500

0 5 10 15 20 25 m

0 1:1 5 cm

Scale accurate when printed at 100% using paper size ANSI full bleed B (11.0 x 17.0 Inches)

0	2022/02/04	Original	SE
Revision	Date	Issue	Approval

Client
Katasa Groupe + Développement

Site
1531 St. Laurent Blvd, Ottawa, ON

Report Title
Supplemental Phase II Environmental Site Assessment

Drawing Title
Borehole Location Plan and Soil Exceedances

Designed By	Scale
AC	As shown
Drawn By	**Date**
JM	February 2022
Approved By	**Project No.**
SE	02105693.001

Figure No.
2

Drawing: 2 BH Locations.dwg Folder: C:\Users\jmendoza\OneDrive - EnGlobe Corp\Documents\Work From Home 03.24.2020\02105693 St Laurent\Phase II ESA\DWGs Wednesday, February 02, 2022 @ 08:33 by Joven Mendoza

2150 Thurston Drive, Suite 203, Ottawa, Ontario K1G 5T9 Tel: (613) 748-1415 Fax: (613) 748-1356 Website: www.englobecorp.com/canada

Appendix B
Borehole Logs

ENGLOBE

BHMW22-01

DST Project No.	02105693.001	Date	January 24, 2022
Client	Katasa Groupe + Développement	Method	Hollow Stem Auger
Project	Supplemental Phase II ESA	Diameter	200 mm
Address	1531 St. Laurent Blvd., Ottawa, ON		

Depth (m)	Elevation (m)	Water level	Well construction	Depth (m) Elevation (m)	Symbol	Material Description	Sample #	Sample Type	% Sample Recov.	CHVC / PID: CCGD	CHVC / PID: PID	Analysis (Submitted for laboratory analysis): PAHs	PHC/BTEX	Metals	VOCs	Others	Remarks
				0		ASPHALT											
0.5				0.15		FILL - SILTY SAND, grey, damp, loose	SS1										Monitoring well protected with flushmount casing
1.0				0.75		SILTY CLAY - grey, damp, compact	SS2			0 ppm	0 ppm						
1.5				1.5		- grey/blue, dense	SS3			0 ppm	0 ppm						
2.0		▼															
2.5							SS4			0 ppm	0 ppm		✓				Groundwater level at 2.26 mbgs on January 26, 2022.
3.0				2.85		CLAY - grey, damp, compact	SS5			0 ppm	0 ppm						
3.5				3.75		- with gravel, black, loose	SS6			0 ppm	0 ppm		✓				
4.0				4.4		- with rock (shale), grey/blue, dense	SS7			0 ppm	0 ppm						
4.5				5.2		POSSIBLE ROCK - (Augered) highly weathered and fracrtured											
5.0						End of Borehole at 6.1 m.											
5.5																	
6.0																	

BHMW22-02

DST Project No.	02105693.001	Date	January 24, 2022
Client	Katasa Groupe + Développement	Method	Hollow Stem Auger
Project	Supplemental Phase II ESA	Diameter	200 mm
Address	1531 St. Laurent Blvd., Ottawa, ON		

Depth (m)	Elevation (m)	Water level	Well construction	Depth (m) Elevation (m)	Symbol	Material Description	Sample #	Sample Type	% Sample Recov.	CHVC / PID: CCGD	CHVC / PID: PID	Analysis (Submitted for laboratory analysis): PAHs	PHC/BTEX	Metals	VOCs	Others	Remarks
				0		ASPHALT											
				0.15		FILL - SAND & GRAVEL, trace silt, grey	SS1			0 ppm	0 ppm						Monitoring well protected with flushmount casing
0.5				0.6		- GRAVEL, loose											
1.0							SS2			0 ppm	1 ppm						
				1.35		SILTY SAND - some gravel, compact, moist											
1.5							SS3			0 ppm	0 ppm						
2.0		▼		2.1		CLAY - grey/green, moist, compact											Groundwater level at 1.85 mbgs on January 26, 2022.
2.5							SS4			0 ppm	0 ppm		✓				
3.0				2.85		- grey, wet											
							SS5			0 ppm	0 ppm						
3.5				3.6		- some gravel											
4.0							SS6			0 ppm	0 ppm		✓				
4.5				4.4		- light grey											
							SS7			0 ppm	0 ppm						
5.0				5.2		- dark grey											
5.5							SS8			0 ppm	0 ppm						
6.0																	
						End of Borehole at 6.1 m.											

BHMW22-03

DST Project No.	02105693.001	Date	January 28, 2022
Client	Katasa Groupe + Développement	Method	Portable Drilling Equipment
Project	Supplemental Phase II ESA	Diameter	125 mm
Address	1531 St. Laurent Blvd., Ottawa, ON		

Depth (m)	Material Description	Sample #	Sample Type	% Sample Recov.	CHVC / PID: CCGD	CHVC / PID: PID	Analysis: PAHs	Analysis: PHC/BTEX	Analysis: Metals	Analysis: VOCs	Analysis: Others	Remarks
0	CONCRETE											Monitoring well protected with flushmount casing
0.15	FILL - granular											Groundwater level at 0.24 mbgs on January 31, 2022.
1.2	SANDY CLAY - grey, moist, loose	SS1				0 ppm		✓				
1.8	CRUSHED STONE											
3	End of Borehole at 3.0 m. Inferred Bedrock											

Appendix C
Laboratory Analytical Results

ENGLOBE

TABLE C-1: SOIL ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS (PHCs) and BTEX

Parameters	Standards		Analytical Results (Sample ID / Depth / Sampling Date d/m/y)				
	MECP Table 3 Industrial/Commercial/ Community	MECP Table 3 Residential/Parkland /Institutional*	MW22-01 SS4 2.3 - 2.9 m bgs 24/01/2022	MW22-01 SS6 3.8 - 4.4 m bgs 24/01/2022	MW22-02 SS4 2.3 - 2.9 m bgs 24/01/2022	MW22-02 SS6 3.8 - 4.4 m bgs 24/01/2022	MW22-03 SS1 1.2 - 1.8 m bgs 28/01/2022
PHC F1 (C6-C10)	55	55	ND (10)	30	ND (10)	ND (10)	10
PHC F2 (C10-C16)	230	98	ND (10)	73	**180**	18	31
PHC F3 (C16-C34)	1,700	300	ND (50)	110	190	57	ND (50)
PHC F4 (C34-C50)	3,300	2,800	ND (50)	ND (50)	ND (50)	54	ND (50)
Benzene	0.32	0.21	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
Toluene	68	2	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
Ethylbenzene	10	2	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)	ND (0.020)
Xylenes (total)	26	3	ND (0.040)	0.19	ND (0.040)	ND (0.040)	0.042

Notes:

- All units are expressed in micrograms per gram (µg/g).

MECP Table 3 - Ontario Ministry of the Environment, Conservation and Parks (MECP), "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", April Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition (Industrial/ Commercial/ Community Property Use, coarse textured soils).

* - Soil analytical results additionally compared to the MECP Table 3 standards for Residential/Parkland/Institutional Property Use for information purposes only (as requested by the Client).

m bgs - Metres below ground surface

ND - Less than laboratory reportable detection limit (value indicated)

NG - No guideline/standard available

Value - Sample result exceeds applicable MECP Table 3 Industrial/Commercial/Community standard.

Value - Sample result exceeds applicable MECP Table 3 Residential/Parkland/Institutional standard.

TABLE C-2: GROUNDWATER ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS (PHCs)

Parameters	Standards	Analytical Results (Sample ID / Sampling Date d/m/y)		
	MECP Table 3	MW22-01 26/01/2022	MW22-02 26/01/2022	MW22-03 31/01/2022
PHC F1 (C6-C10)	750	29	ND (25)	ND (25)
PHC F2 (C10-C16)	150	ND (100)	ND (100)	ND (100)
PHC F3 (C16-C34)	500	ND (200)	ND (200)	ND (200)
PHC F4 (C34-C50)	500	ND (200)	ND (100)	ND (100)
Benzene	44	ND (0.20	0.37	ND (0.20
Toluene	18,000	0.36	0.79	ND (0.20)
Ethylbenzene	2,300	ND (0.20)	ND (0.20)	ND (0.20)
Xylenes (total)	4,200	ND (0.40)	ND (0.40)	ND (0.40)

Notes:

- All units are expressed in micrograms per litre (µg/L).

MECP Table 3 - Ontario Ministry of the Environment, Conservation and Parks (MECP), "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", April Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition (All Type of Property Use, coarse textured soils).

NG - No guideline/standard available

ND - Less than laboratory reportable dection limit (value indicated)

Value - Sample result exceeds applicable MECP Table 3 standard.

Appendix D
Laboratory Certificates of Analysis

ENGLOBE

Your Project #: 2105693
Your C.O.C. #: na

Attention: Andrew Couturier

Englobe Corp.
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2022/01/31
Report #: R6983907
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C222037
Received: 2022/01/26, 08:30

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 2)	4	N/A	2022/01/28	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 3)	4	2022/01/28	2022/01/29	CAM SOP-00316	CCME CWS m
Moisture (1)	4	N/A	2022/01/27	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Your Project #: 2105693
Your C.O.C. #: na

Attention: Andrew Couturier

Englobe Corp.
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2022/01/31
Report #: R6983907
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C222037
Received: 2022/01/26, 08:30

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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

Bureau Veritas ID		RSE995	RSE996	RSE997	RSE998		
Sampling Date		2022/01/24 12:00	2022/01/24 12:00	2022/01/24 14:00	2022/01/24 14:00		
COC Number		na	na	na	na		
	UNITS	MW22-01 SS4	MW22-01 SS6	MW22-02 SS4	MW22-02 SS6	RDL	QC Batch
Inorganics							
Moisture	%	22	9.4	27	9.6	1.0	7804136
BTEX & F1 Hydrocarbons							
Benzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	7806182
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	7806182
Ethylbenzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	7806182
o-Xylene	ug/g	<0.020	0.061	<0.020	<0.020	0.020	7806182
p+m-Xylene	ug/g	<0.040	0.13	<0.040	<0.040	0.040	7806182
Total Xylenes	ug/g	<0.040	0.19	<0.040	<0.040	0.040	7806182
F1 (C6-C10)	ug/g	<10	30	<10	<10	10	7806182
F1 (C6-C10) - BTEX	ug/g	<10	30	<10	<10	10	7806182
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	<10	73	180	18	10	7805082
F3 (C16-C34 Hydrocarbons)	ug/g	<50	110	190	57	50	7805082
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	54	50	7805082
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes		7805082
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	99	97	98	98		7806182
4-Bromofluorobenzene	%	102	113	107	107		7806182
D10-o-Xylene	%	98	100	103	99		7806182
D4-1,2-Dichloroethane	%	94	94	94	95		7806182
o-Terphenyl	%	95	98	98	93		7805082

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

TEST SUMMARY

Bureau Veritas ID: RSE995 **Collected:** 2022/01/24
Sample ID: MW22-01 SS4 **Shipped:**
Matrix: Soil **Received:** 2022/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7806182	N/A	2022/01/28	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7805082	2022/01/28	2022/01/29	Jeevaraj Jeevaratrnam
Moisture	BAL	7804136	N/A	2022/01/27	Prgya Panchal

Bureau Veritas ID: RSE996 **Collected:** 2022/01/24
Sample ID: MW22-01 SS6 **Shipped:**
Matrix: Soil **Received:** 2022/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7806182	N/A	2022/01/28	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7805082	2022/01/28	2022/01/29	Jeevaraj Jeevaratrnam
Moisture	BAL	7804136	N/A	2022/01/27	Prgya Panchal

Bureau Veritas ID: RSE997 **Collected:** 2022/01/24
Sample ID: MW22-02 SS4 **Shipped:**
Matrix: Soil **Received:** 2022/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7806182	N/A	2022/01/28	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7805082	2022/01/28	2022/01/29	Jeevaraj Jeevaratrnam
Moisture	BAL	7804136	N/A	2022/01/27	Prgya Panchal

Bureau Veritas ID: RSE998 **Collected:** 2022/01/24
Sample ID: MW22-02 SS6 **Shipped:**
Matrix: Soil **Received:** 2022/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7806182	N/A	2022/01/28	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7805082	2022/01/28	2022/01/29	Jeevaraj Jeevaratrnam
Moisture	BAL	7804136	N/A	2022/01/27	Prgya Panchal

GENERAL COMMENTS

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

Package 1	1.3°C

F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7805082	o-Terphenyl	2022/01/28	92	60 - 130	89	60 - 130	96	%		
7806182	1,4-Difluorobenzene	2022/01/28	93	60 - 140	92	60 - 140	97	%		
7806182	4-Bromofluorobenzene	2022/01/28	113	60 - 140	113	60 - 140	102	%		
7806182	D10-o-Xylene	2022/01/28	95	60 - 140	100	60 - 140	103	%		
7806182	D4-1,2-Dichloroethane	2022/01/28	93	60 - 140	86	60 - 140	97	%		
7804136	Moisture	2022/01/27							4.8	20
7805082	F2 (C10-C16 Hydrocarbons)	2022/01/28	100	60 - 130	102	80 - 120	<10	ug/g	NC	30
7805082	F3 (C16-C34 Hydrocarbons)	2022/01/28	98	60 - 130	101	80 - 120	<50	ug/g	5.1	30
7805082	F4 (C34-C50 Hydrocarbons)	2022/01/28	100	60 - 130	103	80 - 120	<50	ug/g	13	30
7806182	Benzene	2022/01/28	97	50 - 140	101	50 - 140	<0.020	ug/g	NC	50
7806182	Ethylbenzene	2022/01/28	105	50 - 140	109	50 - 140	<0.020	ug/g	NC	50
7806182	F1 (C6-C10) - BTEX	2022/01/28					<10	ug/g	NC	30
7806182	F1 (C6-C10)	2022/01/28	95	60 - 140	92	80 - 120	<10	ug/g	NC	30
7806182	o-Xylene	2022/01/28	103	50 - 140	108	50 - 140	<0.020	ug/g	NC	50
7806182	p+m-Xylene	2022/01/28	102	50 - 140	107	50 - 140	<0.040	ug/g	NC	50
7806182	Toluene	2022/01/28	91	50 - 140	95	50 - 140	<0.020	ug/g	NC	50
7806182	Total Xylenes	2022/01/28					<0.040	ug/g	NC	50

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

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

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

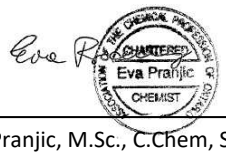
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

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

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

VALIDATION SIGNATURE PAGE

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



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 00105693
Your C.O.C. #: 863710-01-01

Attention: Andrew Couturier

Englobe Corp.
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2022/02/01
Report #: R6985927
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C225896
Received: 2022/01/31, 14:00

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 2)	1	N/A	2022/02/01	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 3)	1	2022/02/01	2022/02/01	CAM SOP-00316	CCME CWS m
Moisture (1)	1	N/A	2022/02/01	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Your Project #: 00105693
Your C.O.C. #: 863710-01-01

Attention: Andrew Couturier

Englobe Corp.
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2022/02/01
Report #: R6985927
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C225896
Received: 2022/01/31, 14:00

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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

Bureau Veritas ID		RTB021			RTB021		
Sampling Date		2022/01/28 11:30			2022/01/28 11:30		
COC Number		863710-01-01			863710-01-01		
	UNITS	MW22-03 SS-1	RDL	QC Batch	MW22-03 SS-1 Lab-Dup	RDL	QC Batch
Inorganics							
Moisture	%	11	1.0	7810085			
BTEX & F1 Hydrocarbons							
Benzene	ug/g	<0.020	0.020	7810372	<0.020	0.020	7810372
Toluene	ug/g	<0.020	0.020	7810372	<0.020	0.020	7810372
Ethylbenzene	ug/g	<0.020	0.020	7810372	<0.020	0.020	7810372
o-Xylene	ug/g	<0.020	0.020	7810372	<0.020	0.020	7810372
p+m-Xylene	ug/g	0.042	0.040	7810372	<0.040	0.040	7810372
Total Xylenes	ug/g	0.042	0.040	7810372	<0.040	0.040	7810372
F1 (C6-C10)	ug/g	10	10	7810372	<10	10	7810372
F1 (C6-C10) - BTEX	ug/g	10	10	7810372	<10	10	7810372
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	31	10	7810324	30	10	7810324
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	7810324	<50	50	7810324
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	7810324	<50	50	7810324
Reached Baseline at C50	ug/g	Yes		7810324	Yes		7810324
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	97		7810372	96		7810372
4-Bromofluorobenzene	%	109		7810372	111		7810372
D10-o-Xylene	%	109		7810372	102		7810372
D4-1,2-Dichloroethane	%	94		7810372	98		7810372
o-Terphenyl	%	86		7810324	85		7810324

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

TEST SUMMARY

Bureau Veritas ID: RTB021
Sample ID: MW22-03 SS-1
Matrix: Soil

Collected: 2022/01/28
Shipped:
Received: 2022/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7810372	N/A	2022/02/01	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7810324	2022/02/01	2022/02/01	Ksenia Trofimova
Moisture	BAL	7810085	N/A	2022/02/01	Kruti Jitesh Patel

Bureau Veritas ID: RTB021 Dup
Sample ID: MW22-03 SS-1
Matrix: Soil

Collected: 2022/01/28
Shipped:
Received: 2022/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7810372	N/A	2022/02/01	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7810324	2022/02/01	2022/02/01	Ksenia Trofimova

GENERAL COMMENTS

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

Package 1	2.7°C

Sample RTB021 [MW22-03 SS-1] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7810324	o-Terphenyl	2022/02/01	77	60 - 130	79	60 - 130	83	%		
7810372	1,4-Difluorobenzene	2022/02/01	93	60 - 140	93	60 - 140	97	%		
7810372	4-Bromofluorobenzene	2022/02/01	113	60 - 140	112	60 - 140	97	%		
7810372	D10-o-Xylene	2022/02/01	100	60 - 140	97	60 - 140	101	%		
7810372	D4-1,2-Dichloroethane	2022/02/01	92	60 - 140	92	60 - 140	98	%		
7810085	Moisture	2022/02/01							2.9	20
7810324	F2 (C10-C16 Hydrocarbons)	2022/02/01	87	60 - 130	89	80 - 120	<10	ug/g	3.7	30
7810324	F3 (C16-C34 Hydrocarbons)	2022/02/01	85	60 - 130	87	80 - 120	<50	ug/g	NC	30
7810324	F4 (C34-C50 Hydrocarbons)	2022/02/01	85	60 - 130	86	80 - 120	<50	ug/g	NC	30
7810372	Benzene	2022/02/01	98	50 - 140	103	50 - 140	<0.020	ug/g	NC	50
7810372	Ethylbenzene	2022/02/01	112	50 - 140	111	50 - 140	<0.020	ug/g	NC	50
7810372	F1 (C6-C10) - BTEX	2022/02/01					<10	ug/g	3.4	30
7810372	F1 (C6-C10)	2022/02/01	88	60 - 140	93	80 - 120	<10	ug/g	3.8	30
7810372	o-Xylene	2022/02/01	110	50 - 140	109	50 - 140	<0.020	ug/g	NC	50
7810372	p+m-Xylene	2022/02/01	107	50 - 140	107	50 - 140	<0.040	ug/g	5.0	50
7810372	Toluene	2022/02/01	94	50 - 140	96	50 - 140	<0.020	ug/g	NC	50
7810372	Total Xylenes	2022/02/01					<0.040	ug/g	5.0	50

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

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

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

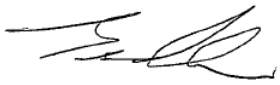
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

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

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

VALIDATION SIGNATURE PAGE

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



Brad Newman, B.Sc., C.Chem., Scientific Service Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 2105693
Site Location: 1531 ST. LAURENT BLVD.
Your C.O.C. #: na

Attention: Andrew Couturier

Englobe Corp.
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2022/02/01
Report #: R6985468
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C221894
Received: 2022/01/26, 13:53

Sample Matrix: Ground Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Water (1)	2	N/A	2022/01/31	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	2	2022/01/31	2022/01/31	CAM SOP-00316	CCME PHC-CWS m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Your Project #: 2105693
Site Location: 1531 ST. LAURENT BLVD.
Your C.O.C. #: na

Attention: Andrew Couturier

Englobe Corp.
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2022/02/01
Report #: R6985468
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C221894
Received: 2022/01/26, 13:53

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Job #: C221894
Report Date: 2022/02/01

Englobe Corp.
Client Project #: 2105693
Site Location: 1531 ST. LAURENT BLVD.
Sampler Initials: AC

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

Bureau Veritas ID		RSE266	RSE267			RSE267		
Sampling Date		2022/01/26 08:50	2022/01/26 09:16			2022/01/26 09:16		
COC Number		na	na			na		
	UNITS	MW22-01	MW22-02	RDL	QC Batch	MW22-02 Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons								
Benzene	ug/L	<0.20	0.37	0.20	7807752			
Toluene	ug/L	0.36	0.79	0.20	7807752			
Ethylbenzene	ug/L	<0.20	<0.20	0.20	7807752			
o-Xylene	ug/L	<0.20	<0.20	0.20	7807752			
p+m-Xylene	ug/L	<0.40	<0.40	0.40	7807752			
Total Xylenes	ug/L	<0.40	<0.40	0.40	7807752			
F1 (C6-C10)	ug/L	29	<25	25	7807752			
F1 (C6-C10) - BTEX	ug/L	28	<25	25	7807752			
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	7808011	<100	100	7808011
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	7808011	<200	200	7808011
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	7808011	<200	200	7808011
Reached Baseline at C50	ug/L	Yes	Yes		7808011	Yes		7808011
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	93	100		7807752			
4-Bromofluorobenzene	%	85	100		7807752			
D10-o-Xylene	%	99	106		7807752			
D4-1,2-Dichloroethane	%	99	103		7807752			
o-Terphenyl	%	104	105		7808011	104		7808011

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

Bureau Veritas Job #: C221894
Report Date: 2022/02/01

Englobe Corp.
Client Project #: 2105693
Site Location: 1531 ST. LAURENT BLVD.
Sampler Initials: AC

TEST SUMMARY

Bureau Veritas ID: RSE266 **Collected:** 2022/01/26
Sample ID: MW22-01 **Shipped:**
Matrix: Ground Water **Received:** 2022/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	7807752	N/A	2022/01/31	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7808011	2022/01/31	2022/01/31	Dennis Ngondu

Bureau Veritas ID: RSE267 **Collected:** 2022/01/26
Sample ID: MW22-02 **Shipped:**
Matrix: Ground Water **Received:** 2022/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	7807752	N/A	2022/01/31	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7808011	2022/01/31	2022/01/31	Dennis Ngondu

Bureau Veritas ID: RSE267 Dup **Collected:** 2022/01/26
Sample ID: MW22-02 **Shipped:**
Matrix: Ground Water **Received:** 2022/01/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7808011	2022/01/31	2022/01/31	Dennis Ngondu

GENERAL COMMENTS

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

Package 1	4.0°C

Results relate only to the items tested.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C221894
Report Date: 2022/02/01

QUALITY ASSURANCE REPORT

Englobe Corp.
Client Project #: 2105693
Site Location: 1531 ST. LAURENT BLVD.
Sampler Initials: AC

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7807752	1,4-Difluorobenzene	2022/01/31	95	70 - 130	95	70 - 130	101	%		
7807752	4-Bromofluorobenzene	2022/01/31	111	70 - 130	111	70 - 130	98	%		
7807752	D10-o-Xylene	2022/01/31	100	70 - 130	109	70 - 130	107	%		
7807752	D4-1,2-Dichloroethane	2022/01/31	98	70 - 130	90	70 - 130	102	%		
7808011	o-Terphenyl	2022/01/31	102	60 - 130	104	60 - 130	101	%		
7807752	Benzene	2022/01/31	104	50 - 140	110	50 - 140	<0.20	ug/L		
7807752	Ethylbenzene	2022/01/31	111	50 - 140	118	50 - 140	<0.20	ug/L		
7807752	F1 (C6-C10) - BTEX	2022/01/31					<25	ug/L	NC	30
7807752	F1 (C6-C10)	2022/01/31	92	60 - 140	96	60 - 140	<25	ug/L	NC	30
7807752	o-Xylene	2022/01/31	109	50 - 140	113	50 - 140	<0.20	ug/L		
7807752	p+m-Xylene	2022/01/31	106	50 - 140	111	50 - 140	<0.40	ug/L		
7807752	Toluene	2022/01/31	96	50 - 140	100	50 - 140	<0.20	ug/L		
7807752	Total Xylenes	2022/01/31					<0.40	ug/L		
7808011	F2 (C10-C16 Hydrocarbons)	2022/01/31	89	60 - 130	102	60 - 130	<100	ug/L	NC	30
7808011	F3 (C16-C34 Hydrocarbons)	2022/01/31	96	60 - 130	112	60 - 130	<200	ug/L	NC	30
7808011	F4 (C34-C50 Hydrocarbons)	2022/01/31	95	60 - 130	109	60 - 130	<200	ug/L	NC	30

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

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

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

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

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

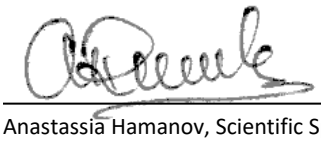
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Job #: C221894
Report Date: 2022/02/01

Englobe Corp.
Client Project #: 2105693
Site Location: 1531 ST. LAURENT BLVD.
Sampler Initials: AC

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Your Project #: 02105693001
Site Location: ROBBY'S
Your C.O.C. #: na

Attention: Salim Eid

Englobe Corp.
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2022/02/01
Report #: R6986120
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C225904
Received: 2022/01/31, 14:00

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Water (1)	1	N/A	2022/02/01	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	1	2022/02/01	2022/02/01	CAM SOP-00316	CCME PHC-CWS m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Your Project #: 02105693001
Site Location: ROBBY'S
Your C.O.C. #: na

Attention: Salim Eid

Englobe Corp.
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
CANADA K1G 5T9

Report Date: 2022/02/01
Report #: R6986120
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C225904
Received: 2022/01/31, 14:00

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Job #: C225904
Report Date: 2022/02/01

Englobe Corp.
Client Project #: 02105693001
Site Location: ROBBY'S
Sampler Initials: J.B

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

Bureau Veritas ID		RTB041			RTB041		
Sampling Date		2022/01/31 13:00			2022/01/31 13:00		
COC Number		na			na		
	UNITS	MW22-03	RDL	QC Batch	MW22-03 Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons							
Benzene	ug/L	<0.20	0.20	7810137	<0.20	0.20	7810137
Toluene	ug/L	<0.20	0.20	7810137	<0.20	0.20	7810137
Ethylbenzene	ug/L	<0.20	0.20	7810137	<0.20	0.20	7810137
o-Xylene	ug/L	<0.20	0.20	7810137	<0.20	0.20	7810137
p+m-Xylene	ug/L	<0.40	0.40	7810137	<0.40	0.40	7810137
Total Xylenes	ug/L	<0.40	0.40	7810137	<0.40	0.40	7810137
F1 (C6-C10)	ug/L	<25	25	7810137	<25	25	7810137
F1 (C6-C10) - BTEX	ug/L	<25	25	7810137	<25	25	7810137
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	7810201			
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	7810201			
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	7810201			
Reached Baseline at C50	ug/L	Yes		7810201			
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	92		7810137	93		7810137
4-Bromofluorobenzene	%	107		7810137	91		7810137
D10-o-Xylene	%	96		7810137	95		7810137
D4-1,2-Dichloroethane	%	103		7810137	107		7810137
o-Terphenyl	%	96		7810201			

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

Bureau Veritas Job #: C225904
Report Date: 2022/02/01

Englobe Corp.
Client Project #: 02105693001
Site Location: ROBBY'S
Sampler Initials: J.B

TEST SUMMARY

Bureau Veritas ID: RTB041
Sample ID: MW22-03
Matrix: Water

Collected: 2022/01/31
Shipped:
Received: 2022/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	7810137	N/A	2022/02/01	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	7810201	2022/02/01	2022/02/01	Ksenia Trofimova

Bureau Veritas ID: RTB041 Dup
Sample ID: MW22-03
Matrix: Water

Collected: 2022/01/31
Shipped:
Received: 2022/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	7810137	N/A	2022/02/01	Joe Paino

GENERAL COMMENTS

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

Package 1	7.7°C

Results relate only to the items tested.

Bureau Veritas Laboratories 100 – 36 Antares Dr. Nepean, ON, K2E 7W5 Phone: 613-274-0573 Website: www.bvna.com

Bureau Veritas Job #: C225904
Report Date: 2022/02/01

QUALITY ASSURANCE REPORT

Englobe Corp.
Client Project #: 02105693001
Site Location: ROBBY'S
Sampler Initials: J.B

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7810137	1,4-Difluorobenzene	2022/02/01	97	70 - 130	96	70 - 130	101	%		
7810137	4-Bromofluorobenzene	2022/02/01	106	70 - 130	109	70 - 130	93	%		
7810137	D10-o-Xylene	2022/02/01	93	70 - 130	92	70 - 130	105	%		
7810137	D4-1,2-Dichloroethane	2022/02/01	107	70 - 130	104	70 - 130	111	%		
7810201	o-Terphenyl	2022/02/01			95	60 - 130	90	%		
7810137	Benzene	2022/02/01	101	50 - 140	98	50 - 140	<0.20	ug/L	NC	30
7810137	Ethylbenzene	2022/02/01	107	50 - 140	106	50 - 140	<0.20	ug/L	NC	30
7810137	F1 (C6-C10) - BTEX	2022/02/01					<25	ug/L	NC	30
7810137	F1 (C6-C10)	2022/02/01	91	60 - 140	89	60 - 140	<25	ug/L	NC	30
7810137	o-Xylene	2022/02/01	107	50 - 140	106	50 - 140	<0.20	ug/L	NC	30
7810137	p+m-Xylene	2022/02/01	107	50 - 140	106	50 - 140	<0.40	ug/L	NC	30
7810137	Toluene	2022/02/01	95	50 - 140	94	50 - 140	<0.20	ug/L	NC	30
7810137	Total Xylenes	2022/02/01					<0.40	ug/L	NC	30
7810201	F2 (C10-C16 Hydrocarbons)	2022/02/01			101	60 - 130	<100	ug/L	0.78	30
7810201	F3 (C16-C34 Hydrocarbons)	2022/02/01			100	60 - 130	<200	ug/L	0.23	30
7810201	F4 (C34-C50 Hydrocarbons)	2022/02/01			98	60 - 130	<200	ug/L	1.9	30

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

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

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

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

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

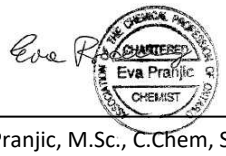
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Job #: C225904
Report Date: 2022/02/01

Englobe Corp.
Client Project #: 02105693001
Site Location: ROBBY'S
Sampler Initials: J.B

VALIDATION SIGNATURE PAGE

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



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.