Phase Two Environmental Site Assessment

2087-2093 and 2097-2103 Prospect Street, Burlington, Ontario

Prepared for

Welwyn Interests Inc. (on behalf of Children's Financial Group Inc.)

Project Reference Numbers: 6232-18, 6255-18 and 6282-18

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1.0 EXECUTIVE SUMMARY

ALTECH Environmental Consulting Ltd. (Altech) was retained to complete a Phase Two Environmental Site Assessment (ESA). Details are provided as follows:

Client:		Welwyn Interests Inc. and Children's Financial Group Inc.
Location:	Civic Address:	2087-2093 and 2097-2103 Prospect Street, Burlington, Ontario.
	Legal description:	PT LT 84, RCP PL99, AS IN 830229; BURLINGTON
Date of On Site Assessment:		August 28, 2018 August 29, 2018 October 5, 2018 October 9, 2018 December 12, 2018 December 13, 2018 March 22, 2019

The purpose of the assessment is to investigate the Areas of Potential Environmental Concern (APECs) at 2087-2093 and 2097-2103 Prospect Street, Burlington, ON (hereinafter referred to as the Phase Two ESA Property) identified in the Phase One ESA (Altech, February 2018) and Phase One ESA Update (Altech, March 2019). There are three potentially contaminating activities (PCAs), from the list of 59 activities proscribed as such by the Ministry of Environment, Conservation and Parks (MECP) in Reg.153/04 as amended, which were historically identified on the Phase Two Property, including:

- (28) Gasoline and Associated Products Storage in Fixed Tanks.
- (40) Pesticides (including Herbicides, Fungicides, and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications.
- (55) Transformer Manufacturing, Processing and Use

No further PCAs were identified on the Phase Two Property or properties within 250 m of the Phase Two Property.

Three (3) Areas of Potential Environmental Concern (APECs) were identified on the Phase Two Property, as per the Phase One ESA (Altech, February 2018) and Phase One ESA Update (Altech, March 2019):

- The Phase One Property was historically occupied by agricultural land with orchards. The PCA associated with this use is the large-scale application of pesticides, as a result there is a potential for pesticide residues to remain in topsoil and shallow soils at the Phase One Property. This leads to APEC1 on the exterior areas of the Phase One Property. Contaminants of concern (COCs) related to this APEC include organochlorine pesticides (OCPs).

- An underground storage tank, storing petroleum, was historically present on the central northern edge of the Phase One Property. Any spills or releases of petroleum from the UST, or migrating contamination related to the tank, may have potentially impacted the subsurface of the Phase One Property. This leads to APEC2 on the southeastern edge of the Phase One Property. COCs related to this APEC include petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene, xylenes (BTEX) and fractions F1 to F4.
- Two transformers exist near the southwest corner of the townhouse located at 2087-2093 Prospect Street and near the southeast corner of the building at 2095 Prospect Street. Any spills or releases of the transformer oil may have potentially impacted the soil of the Phase One Property. This leads to APEC3 on the exterior areas of the Phase One Property. Contaminants of concern (COCs) related to this APEC include polychlorinated biphenyls (PCBs).

The Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (coarse textured soils) for Residential/Parkland/ Institutional land use (MECP Table 2 Standards 2011) are considered by the Qualified Person (QP) to be the applicable Standards for the Phase Two Property.

Altech advanced a total of five (5) boreholes and installed three (3) monitoring wells to investigate potential impacts to the Phase Two Property during the Phase Two ESA investigation. An additional six (6) boreholes and one (1) monitoring well were advanced on the property for delineation purposes. Soil and groundwater samples were collected and analyzed for the following parameter groups: Petroleum Hydrocarbons (PHC) and Organochlorine Pesticides (OCPs). Two (2) surface soil samples collected by hand using a hand-held tool was also collected for Polychlorinated Biphenyls during a separate soil sampling event. Remediation work was immediately undertaken on the Phase Two Property. The remediation program involved the excavation and off-site disposal of the silty sand material contaminated with an OCP parameter. The remediated area was concentrated in the northeast corner of the Phase Two Property.

The following conclusions are provided for this Phase Two ESA at the Phase Two Property:

1) The APECs identified at the Phase Two Property, were adequately investigated in this Phase Two ESA;
2) The contaminant of concern on the Phase Two Property was identified to be an Organochlorine Pesticide parameter associated with the use of pesticides due to historical operations as an orchard on the Phase Two ESA property.
3) A remediation program was completed on the Phase Two Property that resulted in the contaminants of concern in soil being removed from the RSC Property. The soil and groundwater conditions met the Standards deemed applicable to the site. The current soil and groundwater conditions on the RSC Property are provided herein;
4) This Phase Two ESA is in support of the Record of Site Condition being submitted to the MECP for filing.

2.0 INTRODUCTION

The purpose of the assessment is to provide an objective, independent, professional investigation and assessment of the soil and groundwater conditions underlying the site. This Phase Two Environmental Site Assessment has been commissioned by Welwyn Interests Inc. (the Client) as recommended in the previously completed Phase One ESA (Altech, February 2018) and Phase One ESA Update (Altech, March 2019). Please note that Welwyn Interests Inc is a sister company of Children's Financial Group Inc (CFGI) who are the present owners of the Phase Two Property.

2.1 Site Description

The 'Phase Two Property' does not consist of the same lands as the Phase One Property, (Altech, February 2018). The municipal address of the Phase One Property is 2087-2103 Prospect Street in Burlington, ON. The Phase One property includes two townhouses (2087-2093 and 2097-2103 Prospect Street) and an apartment building (2095 Prospect Street). The Phase Two Property is 2087-2093 and 2097-2103 Prospect Street only and excludes 2095 Prospect Street.

The subject site is roughly rectangular shaped and has an area of approximately 3,650 square metres (~39,228 square feet). The Phase Two Property was first developed in 1934, for agricultural use with orchards, and re-developed in the late 1960s/early 1970s with the current residential development. The intended future use of the Phase Two Property is residential.

The purpose of this assessment is to provide an objective, independent, professional opinion of the potential environmental risks, if any, associated with the Phase Two ESA Property. The Phase Two ESA follows the format set out by the Ministry of Environment, Conservation and Parks (MECP) within O.Reg. 153/04, and amending regulations (Reg. 511/09, Reg. 245/10, Reg. 179/11).

The legal description of the Phase Two Property is:

PT LT 84, RCP PL99, AS IN 830229; BURLINGTON

Please refer to Section 9.0, Figures and Tables, for illustrations of the boundaries of the Phase Two Property. Please refer to Appendix E for an official survey of the Phase Two Property.

2.2 Property Ownership

The Phase Two Property at 2087-2093 and 2097-2103 Prospect Street, is currently owned by Children's Financial Group Inc and Welwyn Interests Inc. (who are owned by the same group) The contact information is as follows:

- Children's Financial Group Inc., 3221 North Service Road, Suite 400, Burlington, Ontario, L7N 3G2. Phone: 905-634-9785. Contact Personnel: Mr. Andrew Haid. Email: andrew@welwyninterests.com

2.3 Current and Proposed Future Uses

The Phase Two Property is currently occupied by two (2), irregular shaped two-storey, townhouse blocks with four units each. The intended future use will remain residential with a re-development of a high density, residential building (total of 50 units) at the northern portion of the Phase Two Property and demolishing the existing townhouses.

2.4 Applicable Site Condition Standard

The Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (coarse textured soils) for Residential/Parkland/Institutional land use (MECP Table 2 Standards April 15, 2011 as per Reg. 153/04 and amendments) are deemed applicable for comparison of analytical results of soil and groundwater samples. The applicable Standard was determined as follows:

The MECP document *Soil, Ground Water [sic] and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (April 15, 2011) outlines three site restoration approaches:

- Full Depth Background criteria;
- Full Depth Generic criteria;
- Stratified depth criteria

Comparison of the analytical results to the Full Depth Generic Approach was selected for this site. The QP did not determine any reason or benefit to using the Background or Stratified approach. The site is not considered to be within or adjacent to an area of natural significance.

Three soil samples (BH1–SS2A, BH3-SS2B and BH4-SS2A)) were submitted for laboratory analysis for pH. The pH of the soil samples was between 5.34 to 8.02, which is within the acceptable range. No further evidence from soil observations was obtained to indicate that the pH of any of the soil underlying the site would be outside the acceptable range to allow the application of the Standards.

Two types of Generic approach are recognized in the *Standards*:

- Full depth criteria;
- Shallow Soils criteria; and,
- Criteria for use within 30 m of a Water Body.

Comparison of the analytical results to the full depth criteria was deemed by the Qualified Person to be appropriate for this site to meet the objectives of this assessment. As at least one third or more of the Phase Two Property consists of soil equal to or more than 2.0 metres in depth, it was determined that Shallow Soils criteria do not apply. There are no water bodies within 30 metres of the Phase Two Property.

Two types of soil texture are recognized in the *Standards*:

- Coarse textured soils; and,
- Medium and fine textured soils.

Comparison of the analytical results to the coarse textured soil criteria was selected for this site based on visual observation of soils in the field, and confirmation by grain size analysis (discussed further below).

Two types of groundwater condition are recognized in the *Standards*:

- Potable groundwater; and,
- Non-potable groundwater.

Comparison of the analytical results to the potable groundwater Standard was selected for this site. It should be noted that the use of Non-potable standards was not permitted by the Region of Halton

Under potable groundwater conditions, two types of site use are recognized in the *Standards*:

- Residential/parkland/institutional land use; and,
- Industrial/commercial/community land use.

Comparison of the analytical results to the residential/parkland/institutional land use was selected for this site, based on the proposed future land use.

3.0 BACKGROUND INFORMATION

3.1 Physical Setting

Topographically, the Phase Two Property and Phase Two Study Area (properties within 250 metres of the Phase Two Property) slopes down to the southeast. The surface elevation of the Phase Two Property ranges between approximately 94.62 masl on the northwestern corner of the subject site, dropping to approximately 94.36 masl on the lowest point on the property, at the southeastern corner of the site.

The hydrology of the Phase Two Property and Phase Two Study Area is generally dominated by surface water runoff generally flowing toward the south/southeast. Surface runoff travels down gradient to the south/southeast, across the paved areas of the site.

There are no bodies of water on the Phase Two Property. Within the Phase Two Study Area, one surface water body, a northwest-southeast trending, southeasterly flowing, watercourse (Rambo Creek) is present approximately 150 metres east of the subject site. The rationale for this consideration of the Phase Two Property is as follows:

1) It is not reserved or set apart as a provincial park or conservation reserve under the Provincial Parks and Conservation Reserves Act;
2) It is not identified by the Ministry of Natural Resources as an area of natural and scientific interest, or wetland, or as a habitat for threatened or endangered species;
3) It is not designated by the municipality as environmentally sensitive, of environmental concern, or as ecologically significant. The area is fully developed, and is zoned for development;
4) It is not designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan;
5) It is not designated as a natural core area or natural linkage area by the Oak Ridges Moraine Conservation Plan;
6) It is not set apart as a wilderness area under the Wilderness Areas Act.

3.2 Past Investigations

Previous work completed at the site was reported in:

- *Phase I Environmental Site Assessment, 2087-2103 Prospect Street, Burlington, Ontario.* Prepared for Welwyn Interests Inc. Prepared by Altech Environmental Consulting Ltd., Dated November 25, 2015;
- *Phase One Environmental Site Assessment, 2087-2103 Prospect Street, Burlington, Ontario.* Prepared for Welwyn Interests Inc. Prepared by Altech Environmental Consulting Ltd., Dated February 5, 2018; Project No. 6077-18.
- *Phase One Environmental Site Assessment Update, 2087-2103 Prospect Street, Burlington, Ontario.* Prepared for Welwyn Interests Inc. Prepared by Altech Environmental Consulting Ltd., Dated March 25, 2019; Project No. 6077-18.

The Phase One ESA (Altech, February 2018) identified two (2) Potentially Contaminating Activities (PCAs) that historically occurred at the Phase Two Property. The Phase One ESA was conducted as per the requirements of O.Reg. 153/04 as amended by O.Reg. 511/09.
As per the identified PCAs, two (2) Areas of Potential Environmental Concern (APECs) were identified at the Phase One Property:

- The Phase One Property was historically occupied by agricultural land with orchards. The PCA associated with this use is the large-scale application of pesticides, as a result there is a potential for pesticide residues to remain in topsoil and shallow soils at the Phase One Property. This leads to APEC1 on the exterior areas of the Phase One Property. Contaminants of concern (COCs) related to this APEC include organochlorine pesticides (OCPs).
- An underground storage tank, storing petroleum, was historically present on the central northern edge of the Phase One Property. Any spills or releases of petroleum from the UST, or migrating contamination related to the tank, may have potentially impacted the subsurface of the Phase One Property. This leads to APEC2 on the central northern edge of the Phase One Property. COCs related to this APEC include PHCs F1 to F4 and BTEX.

The Phase One ESA Update (Altech, March 2019) identified an additional PCA at the Phase One Property which resulted an additional two APECs:

- Two transformers exist near the southwest corner of the townhouse located at 2087-2093 Prospect Street (part of Phase Two Property) and near the southeast corner of the building at 2095 Prospect Street (part of Phase One Property). Any spills or releases of the transformer oil may have potentially impacted the soil of the Phase One Property. This leads to APEC3 and APEC 4 on the exterior areas of the Phase One Property. Contaminants of concern (COCs) related to this APEC include polychlorinated biphenyls (PCBs).

However, it should be noted that note that APEC4 is excluded in this Phase Two ESA as 2095 Prospect Street is not part of the Phase Two Property.

4.0 SCOPE OF THE INVESTIGATION

4.1 Overview of Site Investigation

Altech reviewed the previously completed Phase One ESA and designed this Phase Two ESA investigation to adequately examine all APECs and COCs identified therein.

The sampling plan included advancement of five (5) boreholes, three (3) of which were to be completed with monitoring wells. Monitoring wells were to be installed in any boreholes that showed significant signs of impact; if no signs of impact were observed, then the monitoring wells were to be installed in suitable locations to determine groundwater flow direction.

The location of boreholes/monitoring wells advanced, and the rationale for these locations, is as follows:

- BH1, completed as MW1, was advanced on the south-central portion of the Phase Two Property. This borehole was situated to investigate impacts from the historic orchard on the property (APEC1);
- BH2, completed as MW2, was advanced on the south-eastern portion of the Phase Two Property. This borehole was situated to investigate impacts from the historic orchard on the property as well as a former UST from the southern adjacent property (APEC1 and APEC2);
- BH3, completed as MW3, was advanced on the central portion of the Phase Two Property. This borehole was situated to investigate impacts from the historic orchard on the property (APEC1);
- BH4 was advanced on the north-eastern portion of the Phase Two Property. This borehole was situated to investigate impacts from the historical orchard on the property (APEC1);
- BH5, was advanced on the north-western portion of the Phase Two Property. This borehole was situated to investigate impacts from the historic orchard on the property (APEC1).

The assessment included the advancement of boreholes and installation of monitoring wells, collection and field screening of soil samples, elevation measurements of geologic and hydro-geologic units, and analysis of soil and groundwater samples for several chemical parameter groups.

A delineation investigation was also undertaken on the property in October 2018. The program included advancement of five (5) boreholes (BH4A, BH6, BH7, BH8, BH9 and BH10) and one (1) monitoring well (MW4 in borehole BH4A) in the vicinity of the northeast portion of the Phase Two Property. The rationale for this was to delineate the soil contamination discovered during the Phase Two ESA investigation in the northeastern portion of the Phase Two ESA property. Please see Section 6.4 for a detailed discussion of the location and extent of the soil contamination.

A separate soil sampling event was also undertaken in March 2019 when an additional PCA, an on-site transformer, was identified on the Phase Two Property (which resulted the Phase One ESA to be updated) and two hand-dug samples were collected near the on-site transformer to confirm or deny PCB contamination in its vicinity. As no staining was observed on or near the transformer, no monitoring wells were installed to collect groundwater samples.

4.2 Media Investigated

The media investigated in this assessment included soil and groundwater, but not sediment. The following rationale is provided for each media:

Soil

The PCAs that could have potentially impacted the subsurface of the Phase Two Property included the historical UST, a historical orchard, and an on-site transformer that were identified within the Phase Two Study Area.

The storage of oil (as part of the historical UST occupying the north-eastern portion of the southern adjacent property) is an activity that involves liquid contaminants which if released into the subsurface would contact the soil nearest to the point of release first, that is, soil in the unsaturated overburden closest to the surface at these neighbouring properties. The liquid contaminants would then migrate downward through the subsurface, impacting soil at a greater depth and possibly the groundwater table. Soil at all depths in all boreholes was inspected for visual and olfactory evidence of hydrocarbon contamination.

Similarly, the risk of contamination from the historical orchard on the Phase Two Property and within the Phase Two Study Area arises from the use of liquid contaminants. If released into the subsurface, these contaminants would contact the topsoil and shallow soils. However, the contaminants would be confined to the shallow soils and unlikely migrate to the deeper depths of the subsurface and/or the groundwater table. It was therefore deemed necessary to investigate the shallow soil for potential impacts.

The risk of contamination of the on-site transformer is an activity that involves liquid contaminants which if released into the subsurface would contact the soil nearest to the point of release first, that is, soil in the unsaturated overburden closest to the surface at these neighbouring properties. The liquid contaminants would then migrate downward through the subsurface, impacting soil at a greater depth and possibly the groundwater table.

Soil at all depths in all boreholes (and hand dug soil sampled areas) was visually and olfactory inspected for obvious signs of contamination. Soil at all intervals was field screened using an *RKI Instruments Eagle 2* meter, used to detect combustible vapors arising from hydrocarbon contamination, or odourless VOC vapours that would otherwise go undetected.

Groundwater

Groundwater contamination may be or may have been present at properties within the Phase Two Study Area. The presence of such contamination could have impacted the Phase Two Property if dissolved phase contaminants migrated with groundwater flow towards the Phase Two Property.

Sediment

Since there are no water bodies present on the property, an investigation of potential contamination of sediment was deemed not applicable by the QP.

4.3 Phase One Conceptual Site Model

In the Phase One ESA Update report, Altech prepared three drawings for the Conceptual Site Model (CSM): Figure 1 – Site Plan, Figure 2 – PCA Locations and Figure 3 – APEC Locations. Information summarized in these figures includes:

1) The boundaries of the Phase One Study Area, subject site, and RSC property are clearly illustrated;
2) The subject site is not within, or adjacent to, an area of natural significance or water body as defined in O.Reg. 153/04, as amended;
3) There is no water well on the Phase One Property.

Although, the Phase Two Property and Phase One Property are not the same defined in the Phase One ESA and Phase One ESA Update, the above figures and statements remain relevant to this Phase Two ESA. The following is a detailed overview of the Phase One Conceptual Site Model:

The Phase One Property is irregularly shaped and has an area of approximately 9,500 square metres. The Phase One Property was first developed in 1934, for agricultural use with orchards, and re-developed in the late 1960s/early 1970s with the current residential development. The intended future use of the Phase One Property is residential.

The Phase One Property is currently occupied by three residential buildings. An eight-storey apartment block, with sixty five units and a basement is located on the southeastern portion of the site. Two, two-storey, townhouse blocks with four units each, are also present on the northwestern portion of the site.

The Phase One Study Area generally slopes down to the southeast. There are no bodies of water on the Phase One Property. Within the Phase One Study Area, one surface water body, a northwest-southeast trending, south-easterly flowing, watercourse (Rambo Creek) is present approximately 150 metres east of the subject site.

Based on surface topography, local ground water flow is expected to be southeasterly towards Rambo Creek and Lake Ontario.

There is currently no manufacturing of any commercial products taking place at the Phase One Property; the Phase One Property is occupied by a residential development. The Phase One Property has not been used as a bulk fuel-dispensing outlet, or the operation of dry cleaning equipment.

Three PCAs were identified on the Phase One Property, no PCAs were identified within the Phase One Study Area. PCAs currently take place on the Phase One Property (one near the southwest corner of 2087-2093 Prospect Street townhouse and one near the southwest corner of the building at 2095 Prospect Street).

Based on the findings of this Phase One ESA (and Phase One ESA Update), it is the opinion of the QP that there are APECs on the Phase One Property.

Four APECs were identified on the Phase One Property as a result of Potentially Contaminating Activities (PCAs) taking place historically on the subject site, as per the Phase One ESA Update:

- The Phase One Property was historically occupied by agricultural land with orchards. The PCA associated with this use is the large-scale application of pesticides, as a result there is a potential for pesticide residues to remain in topsoil and shallow soils at the Phase One Property. This leads to APEC1 on the exterior areas of the Phase One Property. Contaminants of concern (COCs) related to this APEC include organochlorine pesticides (OCPs) and metals.
- An underground storage tank, storing petroleum, was historically present on the central northern edge of the Phase One Property. Any spills or releases of petroleum from the UST, or migrating contamination related to the tank, may have potentially impacted the subsurface of the Phase One Property. This leads to APEC2 on the central northern edge of the Phase One Property. COCs related to this APEC include PHCs, BTEX and lead.
- Two transformers exist near the southwest corner of the townhouse located at 2087-2093 Prospect Street and near the southeast corner of the building at 2095 Prospect Street. Any spills or releases of the transformer oil may have potentially impacted the soil of the Phase One Property. This leads to APEC3 and APEC 4 on the exterior areas of the Phase One Property. Contaminants of concern (COCs) related to this APEC include polychlorinated biphenyls (PCBs).

4.4 Deviations from Sampling and Analysis Plan

The sampling and analysis plan is provided in Appendix A.

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

4.5 Impediments

There were no notable ‘denial of access’ issues in the completion of the onsite component of the Phase Two ESA work.

5.0 INVESTIGATION METHOD

5.1 General

The investigation was performed in accordance with prevailing practices used in the environmental assessment industry, and generally accepted standards for environmental investigations.

As mentioned, the purpose and intent of this Phase Two ESA was to investigate the potential for subsurface contamination associated with the environmental concerns identified by the Phase One ESA and Phase One ESA Update.

5.2 Drilling and Excavating

Prior to any subsurface work, utilities were located on both public and private property. Ontario One Call was contacted for locates on public property. The following local utilities were contacted prior to the start of drilling:

1. Local Water and Sewer utilities.
2. Local Telephone Company.
3. Local Natural Gas Company.
4. Local Cable Company.
5. Provincial and Municipal Hydro.

A private locator was contracted to scan each work area and provide physical plant locates within the boundaries of the private property.

A total of five boreholes for the Phase Two ESA were advanced to a maximum depth of 6.1 metres below ground surface (mbgs). All boreholes were advanced into the overburden at the site utilizing a rubber-track mounted Geoprobe 7822DT drilling rig operated by Direct Environmental Drilling Inc. (Direct).

The Geoprobe 7822DT drilling rig employs direct push technology whereby a continuous soil sample was collected, over 1.5 metres intervals, by pushing with a hydraulic hammer a 2-inch diameter plastic liner through the soil over the entire depth of each borehole. Notes were made regarding soil classification, evidence of impacts through visual and olfactory observations, and combustible vapour measurements. At least two soil samples were collected for each 1.5 metre soil interval examined. The collection of soil samples depended on recovery from the soil column, and the stratigraphy of soils encountered.

A total of three monitoring wells (MW1, MW2, and MW3) were installed into three of the boreholes. All three monitoring wells (MW1 to MW3) were installed to a maximum depth of 6.1 mbgs utilizing a Geoprobe 7822DT drilling rig operated by Direct.

A total of six (6) boreholes for the delineation investigation were advanced to a maximum depth of 2.89 metres below ground surface (mbgs). All boreholes were advanced into the overburden at the site utilizing a rubber-track mounted CME 75 Track mount auger drilling rig operated by Pontil Drilling (Pontil).

The CME 75 Track Mount auger drilling rig employs by drilling with an auger whereby a continuous soil sample was collected, over 0.60 metres intervals, by pushing with a hydraulic hammer a 2-inch diameter plastic liner through the soil over the entire depth of each borehole. Notes were made regarding soil classification, evidence of impacts through visual and olfactory observations, and combustible vapour measurements. At least two soil samples were collected for each 0.6 metre soil interval examined. The collection of soil samples depended on recovery from the soil column, and the stratigraphy of soils encountered.

One (1) monitoring well (MW4) was installed into borehole BH4A. The monitoring well was installed to a maximum depth of 6.1 mbgs utilizing a CME 75 Track Mount auger drilling rig operated by Pontil.

Cross-contamination was minimized by using separate plastic liners for each soil interval inspected. Field personnel wore clean plastic gloves to handle all samples. Gloves were changed for each soil interval inspected, at a minimum. Soil samples were organized on a plastic table provided by Direct, and as such, soil samples never made contact with the ground surface.

5.3 Soil Sampling

Soil samples were retrieved from various depth intervals in each borehole. Soil from each depth interval was placed into a clean, sealed, 18 x 19 centimetre heavy polyethylene bags so that approximately one quarter of the bag was full, with some headspace in the bag. Any lumps of soil within the bag were gently massaged and broken up by hand. The sample was then monitored for soil vapours accumulated in the headspace. Samples were selected for laboratory analysis on the basis of the results of field screening (discussed in section 5.4 below) for combustible vapours, and any visual and olfactory evidence of impact.

The soil samples selected for laboratory analysis were collected and field preserved in accordance with the instructions provided by the laboratory, ALS Environmental Laboratory Group (ALS) of Burlington, Ontario Soil selected for PHC, OCPs and PCBs, analysis was placed into a new, clean, 120 or 250 ml glass jar with a Teflon lined lid, and soil selected for BTEX analysis was transferred directly from the soil core using a new, clean, Terracore sampler into two (2) new, clean, 40 ml clear glass vials with Teflon-lined lids. Each vial contained 10 ml of methanol, as prepared by the laboratory.

The selected samples were field preserved and stored in a cooler with ice at less than 10˚C, before submission to ALS.

The samples were labelled with the following information:

- A site reference number (6232-18 and 6255-18);
- A borehole (BH#) reference number, for placement of the sample at the site; and,
- A sample sleeve number (SS#) and depth reference from which the sample was retrieved.

Site Geology

The generalized site geology encountered at the site was consistent in each borehole and is described as follows:

- BH1 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 1.8 mbgs. Underneath this layer, brown sand was encountered to a depth of approximately 3.0mbgs. Underneath this layer, grey sandy silt with some gravel was encountered to a depth of approximately 4.5mbgs. Underneath this layer, grey silty clay layer was encountered to the end of the borehole at approximately 6.1 mbgs. There was no staining or odour observed in the borehole.
- BH2 was surfaced with asphalt to a depth of approximately 0.15 mbgs. Beneath the asphalt, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 2.1 mbgs. Underneath this layer, brown sand with some cobbles was encountered to a depth of approximately 2.7 mbgs. Underneath this layer, grey sandy silt with some gravel was encountered to a depth of approximately 4.5mbgs. Underneath this layer, grey silty clay layer was encountered to the end of the borehole at approximately 6.1 mbgs. There was no staining or odour observed in the borehole.
- BH3 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 1.8 mbgs. Underneath this layer, brown sand was encountered to a depth of approximately 3.0mbgs. Underneath this layer, grey sandy silt with trace gravel was encountered to a depth of approximately 4.3 mbgs. Underneath this layer, grey silty clay layer was encountered to the end of the borehole at approximately 6.1 mbgs. There was no staining or odour observed in the borehole.
- BH4 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 2.1 mbgs. Underneath this layer, brown sand with some cobbles was encountered to a depth of approximately 2.7 mbgs. Underneath this layer, grey sandy silt with some gravel was encountered to a depth of approximately 4.3 mbgs. Underneath this layer, grey silty clay layer was encountered to the end of the borehole at approximately 6.1 mbgs. There was no staining or odour observed in the borehole.
- BH5 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 2.1 mbgs. Underneath this layer, brown sand with some cobbles was encountered to a depth of approximately 2.7 mbgs. Underneath this layer, grey sandy silt with some gravel was encountered to a depth of approximately 4.3 mbgs. Underneath this layer, grey silty clay layer was encountered to the end of the borehole at approximately 6.1 mbgs. There was no staining or odour observed in the borehole.
- BH4A was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of

approximately 2.1 mbgs. Underneath this layer, brown sand with trace gravel was encountered to the end of the borehole approximately 2.89 mbgs. There was no staining or odour observed in the borehole.

- BH6 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 1.82 mbgs. Underneath this layer, brown sand with trace gravel was encountered to the end of the borehole approximately 2.89 mbgs. There was no staining or odour observed in the borehole.
- BH7 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 1.82 mbgs. Underneath this layer, brown sand with trace gravel was encountered to the end of the borehole approximately 2.89 mbgs. There was no staining or odour observed in the borehole.
- BH8 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 1.82 mbgs. Underneath this layer, brown sand with trace gravel was encountered to the end of the borehole approximately 2.89 mbgs. There was no staining or odour observed in the borehole.
- BH9 was surfaced with asphalt to a depth of approximately 0.15 mbgs. Beneath the asphalt, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 1.82 mbgs. Underneath this layer, brown sand with trace gravel was encountered to the end of the borehole approximately 2.89 mbgs. There was no staining or odour observed in the borehole.
- BH10 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 1.82 mbgs. Underneath this layer, brown sand with trace gravel was encountered to the end of the borehole approximately 2.89 mbgs. There was no staining or odour observed in the borehole.
- TP1 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 0.30 mbgs. There was no staining or odour observed in the hand dug sample.
- TP2 was surfaced with topsoil to a depth of approximately 0.15 mbgs. Beneath the topsoil, a reddish-brown silty sand with trace gravel was encountered to a depth of approximately 0.30 mbgs. There was no staining or odour observed in the hand dug sample.

A detailed description of the geology underlying the Phase Two Property is provided in Section 6.1. Field logs of the stratigraphy in each borehole and hand dug sample are provided in Appendix B.

5.4 Field Screening Measurements

All soil samples were field screened shortly after sampling. For each sample, the polyethylene bag was selected and any lumps of soil within the bag were gently massaged and broken up by hand without opening the bag. The sample was then allowed to come to the ambient air temperature before monitoring soil vapours accumulated in the headspace.

Field testing of soil vapours was made by inserting the probe of a RKI Eagle 2 organic vapour meter (calibrated to 400 parts per million [ppm] and 40% lower explosive limit [LEL] hexane) into the headspace within the bag, and recording the peak value registered by the meter during the first 15 seconds of measurement. The instrument is capable of detecting the gaseous concentration of any volatile, flammable chemical in air over two ranges: 0 to 500 parts per million (ppm) and 0 to 100% LEL or 0 to 11,000 ppm. The instrument was calibrated prior to use by Altech personnel, using known concentrations of hexane gas.

Notes were also recorded of any visual evidence of chemical impact, soil type (grain size and texture), geological features (e.g. fracturing, colouration) and approximate moisture content. Olfactory evidence of any chemical impacts or other sample characteristics was also recorded.

Soil samples were selected for laboratory analysis on the basis of the results of field screening for combustible vapours, and any visual and olfactory evidence of impact. Any foreign debris observed in soil columns also affected the selection of soil samples for laboratory analysis.

No deviations to the normal field screening measurements or procedures took place during the Phase Two ESA and delineation investigation.

5.5 Groundwater Monitoring Well Installation

Monitoring wells (MW1, MW2 and MW3) for groundwater sampling were installed into three of the boreholes (BH1, BH2 and BH3, respectively) advanced at the site. The monitoring wells were intended to intercept the shallow groundwater table. Direct completed the installation of the monitoring wells using a Geoprobe 7822DT to a maximum depth of 6.1 mbgs.

An additional monitoring well (MW4) was installed during the delineation investigation. Pontil completed the installation using a CME 75 Track Mount to a maximum depth of 6.1 mbgs.

The wells were constructed using new, clean, 2-inch diameter schedule 40 polyvinyl chloride (PVC) piping with 1.5 metres (MW1) and 3.0 metres (MW2, MW3, MW4) of 40-micrometre slotted well screening at the bottom of the well. Clean graded sand was placed around the well screen up to approximately 0.50 metres above the top of the screen. A bentonite seal was then placed above the sand pack and the remaining annulus was filled with sand. A flush mount metal protective casing was installed at surface with a concrete seal to protect the well pipe while providing an access point for sampling. An expandable gripper cap (J-plug) was installed to cap the monitoring well.

Monitoring well completion details are also included with the borehole logs, in Appendix B and in Table 1.

5.6 Groundwater Field Measurements of Water Quality Parameters

During the Phase Two ESA, no measurements of groundwater quality parameters were made in the field, as this was deemed unnecessary by the Qualified Person.

5.7 Groundwater Sampling

Groundwater sampling was completed from the monitoring wells at the site. After installation, the monitoring wells were allowed to reach static water equilibrium. The depth to water in each well was measured with a Solinst Model 122 oil/water interface probe. Both the probe and the measuring tape that come into contact with liquids within the monitor were cleaned with Alconox detergent, and then rinsed with distilled water and methanol and allowed to air dry after each measurement.

The volume of water in each well was then calculated and each well was purged using a new, clean, bottom loading disposable bailer. The development of each well involved purging of more than three well volumes of water or to dry as outlined in the Ontario Ministry of the Environment's document *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*. After development, each well was allowed to recharge to static equilibrium over a period of at least 24 hours, and the water level was measured and reported.

The sample was then transferred from the bailer to clean analytical vessels, provided by an independent analytical laboratory, ALS. The samples were immediately field preserved in accordance with the instructions provided by the laboratory.

The groundwater samples were labelled with the following information:

- A site project reference number (6232-18 and 6255-18); and,
- A monitoring well location reference (MW#) for placement of the sample at the site.

5.8 Sediment and Bedrock Sampling

No sediment and bedrock sampling was completed as part of this Phase Two Environmental Site Assessment. There are no surface water bodies, permanent or seasonal, on the Phase Two Property.

5.9 Analytical Testing

All soil and groundwater samples collected for analysis during the Phase Two ESA and delineation investigation were submitted to and analyzed by ALS, of Burlington and Richmond Hill, Ontario.

5.10 Residue Management Procedures

Residues from the drilling work were limited to excess sampled soil from the borehole and monitoring well advancement, and purged groundwater from well development.

Soil residues from the Phase Two ESA and delineation investigations were collected and stored in a dedicated location on-site.

5.11 Elevation Surveying

An elevation survey was completed at the Phase Two Property using a traditional transit level. The recoverable benchmark used was a city plate southwest corner, on the southside of Central Public School facing Baldwin Street (elevation= 90.583 metres).

Altech completed a survey of the elevations of all monitoring wells and other significant points of reference using this technique on October 9, 2018.

A topographic map of the Phase Two Property and immediately surrounding area was reviewed. The topographic map indicates that the site and surrounding generally slope down to the southeast. The surface elevation at the Phase Two Property ranges between approximately 94.62 masl on the northwestern corner of the subject site, dropping to approximately 94.36 masl on the lowest point on the property, at the southeastern corner of the site.

A detailed description of the land elevations is provided in Section 6.1.

5.12 Quality Assurance and Quality Control Measures

The sampling containers used at the time of the onsite sampling for the Phase Two ESA, delineation investigation, and a separate soil sampling event for each target parameter of analysis are described as follows:

Soil

PHC Fractions F2 to F4, PCBs OCPs & pH:	120 millilitre (mL) amber glass jars, no preservative;
PHC Fraction F1:	40 millilitre clear glass vial, methanol preservative

Groundwater

PHC: Fractions F2 to F4:	2 x 60 millilitre amber glass bottle, Sodium Bisulfate preservative
PHC Fraction F1:	3 x 40 millilitre amber glass vial, Sodium Bisulfate preservative
OCPs:	120 millilitre plastic bottle, Nitric Acid preservative

Each jar, vial and bottle was labeled. All samples submitted for analysis were documented on completed Chain of Custody forms provided by ALS.

All soil samples were collected either by hand using new disposable latex or nitrile gloves or using a new disposable terra-core sampler. Groundwater samples were collected using new, disposable bailers. No other sampling equipment was used to collect or handle the samples.

The quality assurance and quality control measures related to the analyses included field duplicate analyses of soil samples and groundwater samples at a ratio of 1 duplicate for every 10 samples and laboratory blank analyses, for selected samples and parameters. Field duplicates of soil and groundwater samples are included in the Tables of laboratory analyses.

6.0 REVIEW AND EVALUATION

6.1 Geology

The majority of the surface of the Phase Two Property is covered by the townhouses and asphalt with some areas of grass.

Topographically, the site and surrounding generally slope down to the southeast. The elevation of the surface of the Phase Two Property ranges between approximately 94.62 masl on the northwestern corner of the subject site, dropping to approximately 94.36 masl on the lowest point on the property, at the southeastern corner of the site.

The general geology underlying the subject site consists of a silty sand layer, to a depth of 1.8 to 2.1 mbgs, underlain by a sand layer, to a depth of approximately 2.7 to 3.0 mbgs. Underneath the sand layer is a sandy silt layer, to a depth of approximately 4.2 to 4.5 mbgs, underlain by a silty clay layer to a maximum depth of 6.1 mbgs.

Cross-sectional diagrams of the Phase Two Property have been prepared by Altech to illustrate the geology underlying the site. The figures are included in Section 9.0.

6.2 Groundwater Characterization, Elevation and Flow Direction

Groundwater elevations within the installed monitoring wells were measured on October 9, 2018 to be as follows:

MW1: 91.90 masl (2.52 mbgs);
MW2: 91.78 masl (2.32 mbgs);
MW3: 92.21 masl (2.37 mbgs);
MW4: 91.99 masl (2.35 mbgs);

The groundwater elevations are summarized in Table 2.

Based on the groundwater elevation measurements taken in the Phase Two ESA, the groundwater flow direction is calculated to be towards the east.

6.3 Coarse Soil Texture

Coarse soil texture is used in determining the applicable site condition Standards. This is based on sieve testing on a soil sample collected from BH1 during the borehole advancement.

The soil sample BH1-SS1:0.5-2.5 FT was a sample of soil from the silty sand unit between 0.04 and 1.82 mbgs at that location. It was sieved with a 75 micron sieve and found to have 57.8% of particles in the sample larger than 75 micron; qualifying it as coarse soil texture. This soil is typical of the soil found underlying the site. The soil underlying the site was found to be consistent in type and texture, and as such the QP determined that one grain size analysis was sufficient to confirm the soil texture categorization.

6.4 Soil Field Screening

The field screening methodology used during the Phase Two ESA, delineation investigation and other on-site work is described in Section 5.4 above. The details of all VOC measurements of soil samples are included with the borehole logs in Appendix B. The following table summarizes the results of the field screening on soil samples.

Borehole number	Highest VOC measurement(s) and corresponding depth below ground surface	Notes on visual and olfactory evidence of impact	Sample(s) submitted for lab analysis
BH1	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH1-SS2: 0.5-2.5 FT (OCPs, PHC)
BH2	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH2-SS4: 8-10 FT (OCPs, PHC)
BH3	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH3-SS1: 0.5-2.5 FT (OCPs, PHC)
BH4	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH4-SS1: 0.5-2.5 FT (OCPs, PHC)
BH4A	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH4A-SS: 5-7 FT (OCPs)
BH5	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH5-SS1: 0.5-2.5 FT (OCPs, PHC)
BH6	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH6-SS1: 0-2 FT (OCPs)
BH7	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH7-SS1: 0-2 FT (OCPs)
BH8	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH8-SS1: 0-2 FT (OCPs)
BH9	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH9-SS1: 0-2 FT (OCPs)
BH10	<5 ppm throughout borehole	No visual or olfactory evidence of impact	BH10-SS1: 0-2 FT (OCPs)
TP1	<5 ppm	No visual or olfactory evidence of impact	TP1-SS1: 0-1 FT (PCBs)
TP2	<5 ppm	No visual or olfactory evidence of impact	TP2-SS1: 0-1 FT (PCBs)

6.5 Soil Quality

Five (5) soil samples (plus one duplicate sample), from depths ranging from 0.15 to 3.0 mbgs, were collected from BH1 to BH5 during the Phase Two ESA investigation and six (6) soil samples (plus one duplicate sample) from BH4A and BH6 to BH10 , from depths ranging from 0.15 to 2.1 mbgs were collected during the delineation investigation. An additional two (2) surface soil samples were collected from approximately 0 to 0.3 mbgs during a separate soil sampling event. Soil samples were submitted to ALS for analysis of the potential COCs including PHC fractions F1 to F4, Organochlorine Pesticides (OCPs) and Polychlorinated Biphenyls.

The soil samples collected from BH1, BH2, BH3, BH5, TP1 and TP2 were within the MECP Table 2 Standards for all of the parameters analyzed. The soil sample for BH4 exceeded the MECP Table 2 Standards for one Organochlorine Pesticide parameter (Chlordane).

The following table summarizes the soil samples submitted for analysis, parameters analyzed and the laboratory results for the Phase Two ESA:

Sample ID	Depth below surface grade (mbgs)	Soil unit	Parameters analyzed	Assessment of exceedances
BH1	0 to 0.76	Silty Sand	OCPs	No exceedances of 2011 MECP Table 2 Standards
BH2	2.4 to 3.0	Sand, Sandy Silt	PHCs, OCPs	No exceedances of 2011 MECP Table 2 Standards
DUPS1 (BH2)	2.4 to 3.0	Sand, Sandy Silt	PHCs, OCPs	No exceedances of 2011 MECP Table 2 Standards
BH3	0 to 0.76	Silty Sand	OCPs	No exceedances of 2011 MECP Table 2 Standards
BH4	0 to 0.76	Silty Sand	OCPs	Exceedances of 2011 MECP Table 2 Standards
BH5	0 to 0.76	Silty Sand	OCPs	No exceedances of 2011 MECP Table 2 Standards

The following table summarizes the soil samples submitted for analysis, parameters analyzed and the laboratory results for the delineation investigation:

Sample ID	Depth below surface grade (mbgs)	Soil unit	Parameters analyzed	Assessment of exceedances
BH4A	1.5 to 2.1	Silty Sand	OCPs	No exceedances of 2011 MECP Table 2 Standards
BH6	0 to 0.60	Silty Sand	OCPs	No exceedances of 2011 MECP Table 2 Standards
DUPS2 (BH6)	0 to 0.60	Silty Sand	OCPs	No exceedances of 2011 MECP Table 2 Standards
BH7	0 to 0.60	Silty Sand	OCPs	Exceedances of 2011 MECP Table 2 Standards
BH8	0 to 0.60	Silty Sand	OCPs	No exceedances of 2011 MECP Table 2 Standards
BH9	0 to 0.60	Silty Sand	OCPs	No exceedances of 2011 MECP Table 2 Standards
BH10	0 to 0.60	Silty Sand	OCPs	No exceedances of 2011 MECP Table 2 Standards

The following table summarizes the soil samples submitted for analysis, parameters analyzed and the laboratory results for a separate soil sampling event:

Sample ID	Depth below surface grade (mbgs)	Soil unit	Parameters analyzed	Assessment of exceedances

TP1	0 to 0.30	Silty Sand	PCBs	No exceedances of 2011 MECP Table 2 Standards
TP2	0 to 0.30	Silty Sand	PCBs	No exceedances of 2011 MECP Table 2 Standards

The detailed analytical results for soil are tabulated in Tables 3, 4 and 12 in Section 9.0. For a visual representation of borehole locations, please refer to Figure 2: Site Sketch.

Contaminants of Concern

Based on a comparison of the analytical results to the applicable standards (2011 MECP Table 2 Standards), one contaminants of concern, Chlordane, was identified in soil sample BH4.

During the Phase Two ESA, delineation investigation and other onsite work, there was no evidence of any light or dense non-aqueous phase liquids (LNAPL or DNAPL), in any of the soil encountered.

Final Confirmatory Soil Samples after Remediation

After the initial Phase Two ESA and delineation investigation were completed, an extensive Remediation Work was completed on the Phase Two Property between November and December 2018. The outcome of the remediation work is that all confirmatory soil samples representing the final extent or condition of (sidewalls and floor of the excavations on) the Phase Two Property were below the 2011 MECP Table 2 Standards. This work is discussed chronologically and in detail in Appendix E.

6.6 Groundwater Quality

Groundwater samples were collected from the three monitoring wells (MW1, MW2 and MW3) and submitted for laboratory analysis during the Phase Two ESA. Analytical results were compared to the 2011 Table 2 MECP Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (coarse textured soils) for residential/parkland/institutional landuse.

The groundwater samples collected from MW1, MW2 and MW3 were within the MECP Table 2 Standards for all of the parameters analyzed.

The following table summarizes the groundwater quality:

Monitoring Well ID	Depth of screen	Aquifer intercepted by screen	Parameters analyzed	Assessment of exceedances
MW1	3.0 – 6.1	Shallow groundwater aquifer in the overburden soil layer	OCPs	No exceedances of 2011 MECP Table 2 Standards
MW2	3.0 – 6.1	Shallow groundwater aquifer in the overburden soil layer	PHCs, OCPs	No exceedances of 2011 MECP Table 2 Standards
MW3	3.0 – 6.1	Shallow groundwater aquifer in	OCPs	No exceedances of 2011

		the overburden soil layer		MECP Table 2 Standards

The groundwater sample collected from MW4 during the delineation investigation was submitted for laboratory analysis. Analytical results were compared to the 2011 Table 2 MECP Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (coarse textured soils) for residential/parkland/institutional land use.

The groundwater sample collected from MW4 was within the MECP Table 2 Standards for all of the parameters analyzed.

The following table summarizes the groundwater quality:

Monitoring Well ID	Depth of screen	Aquifer intercepted by screen	Parameters analyzed	Assessment of exceedances
MW4	3.0 – 6.1	Shallow groundwater aquifer in the overburden soil layer	OCPs	No exceedances of 2011 MECP Table 2 Standards

The detailed analytical results for groundwater are tabulated in Tables 5 and 6 in Section 9.0.

Contaminants of Concern

Based on a comparison of the analytical results to the applicable standards (2011 MECP Table 2 Standards), no contaminants of concern in groundwater were identified.

There was no evidence noted, during the Phase Two ESA, of any light or dense non-aqueous phase liquids (LNAPL or DNAPL) in any of the groundwater encountered.

6.7 Sediment Quality

Sediment quality is not applicable to this Phase Two Environmental Site Assessment.

6.8 Quality Assurance and Quality Control

All laboratory analyses were completed by ALS Environmental Laboratory Group (ALS), an accredited laboratory located in Burlington and Richmond Hill, Ontario. ALS performed the work following formal written methods and procedures. These methods include all the minimum requirements as specified in the document entitled *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act* (March 9, 2004, amended as of July 1, 2011). All samples were handled in accordance with the Protocol.

Data quality objectives for the parameters of concern were set to meet acceptable Reporting Detection Limits (RDLs) to achieve the goal of defining areas where such parameters are present at levels in excess of applicable generic Standards, as defined in O.Reg. 153/04, under the Environmental Protection Act. This included providing written instruction to the participating analytical laboratory describing the required analyses on the Chain of Custody prepared and

delivered with the samples. All analytical RDLs were below the O.Reg. 153/04 Table 2 Standards.

All samples submitted for analysis were documented on Chain of Custody records. All laboratory analytical results were reported to Altech on finalized, authorized Certificates of Analysis by the laboratory.

For the Phase Two ESA, one field duplicate sample was collected for soil (DUPS1) and analyzed for the same parameters as the original sample (BH2). One field duplicate groundwater sample (DUPG1) was collected and analyzed for the same parameters as the original sample (MW1). A VOC trip blank and field blank were also transported to the site and submitted to the laboratory with the groundwater samples.

For the delineation investigation, one field duplicate sample was collected for soil (DUPS2) and analyzed for the same parameters as the original sample (BH6). One field duplicate groundwater sample (DUPG2) was collected and analyzed for the same parameters as the original sample (MW4). A VOC trip blank and field blank were also transported to the site and submitted to the laboratory with the groundwater samples.

Altech collected field duplicates of soil and groundwater. The following table summarizes the duplicate quality assurance testing program.

Media	**Parameter Group Analyzed for**	**Sample ID duplicated**	**Sample ID given to duplicate sample**
Soil	PHCs, OCPs	BH2	DUPS1
Soil	OCPs	BH6	DUPS2
Groundwater	OCPs	MW1	DUPG1
Groundwater	OCPs	MW4	DUPG2

The precision of the analytical results can be expressed by the relative percent difference (RPD) between the original sample and the duplicate sample. The equation used to determine the RPD is provided below.

$$RPD = 2 \times (|(S-D)|/(S+D)) \times 100$$

Where, S = concentration of the original sample
D = concentration of the duplicate sample

RPDs can only be calculated if the concentration of both the duplicate sample and the original sample are above the analytical reporting detection limit (RDL).

As the concentration of both the duplicate sample and the original sample were below the analytical RDL, RPDs could not be meaningfully calculated. No exceedances of the applicable standards were found in the field duplicates. The results associated with the field duplicate samples are included in Tables 3 and 4, as organized by sample media and parameter group.

A review of all blank analyses performed indicates that all of the results were below detection limits. The laboratory reported that all of the QA/QC results passed their quality control evaluation. Please refer to the laboratory certificates of analysis included in Appendix A-3 for details.

6.9 Phase Two Conceptual Site Model

As explained above, three APECs were identified on the Phase Two Property as a result of PCAs taking place historically at the property, as follows per the Phase One ESA (Altech, February 2018) and Phase One ESA Update (Altech, March 2019):

- The Phase One Property was historically occupied by agricultural land with orchards. The PCA associated with this use is the large-scale application of pesticides, as a result there is a potential for pesticide residues to remain in topsoil and shallow soils at the Phase One Property. This leads to APEC1 on the exterior areas of the Phase One Property. Contaminants of concern (COCs) related to this APEC include organochlorine pesticides (OCPs) and metals.
- An underground storage tank, storing petroleum, was historically present on the central northern edge of the Phase One Property. Any spills or releases of petroleum from the UST, or migrating contamination related to the tank, may have potentially impacted the subsurface of the Phase One Property. This leads to APEC2 on the central northern edge of the Phase One Property. COCs related to this APEC include PHCs, BTEX and lead.
- Two transformers exist near the southwest corner of the townhouse located at 2087-2093 Prospect Street and near the southeast corner of the building at 2095 Prospect Street. Any spills or releases of the transformer oil may have potentially impacted the soil of the Phase One Property. This leads to APEC3 on the exterior areas of the Phase One Property. Contaminants of concern (COCs) related to this APEC include polychlorinated biphenyls (PCBs).

However, it should be noted that APEC4 is excluded in this Phase Two ESA as 2095 Prospect Street is not part of the Phase Two Property.

These APECs and the PCAs that are attributed to them are listed in the following table:

Areas of potential environmental concern	Location of area of potential environmental concern on phase one property	Potentially contaminating activity	Location of PCA (on-site or off-site)	Contaminants of potential concern	Media potentially Impacted (Ground water, soil and/or sediment)
APEC 1	Exterior areas of the Phase Twp Property	40 - Pesticides (including Herbicides, Fungicides, and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications.	On-site	Organochlorine Pesticides (OCPs)	Soil, Groundwater

APEC 2	Southeastern corner of the Phase Two Property, in the vicinity of the former UST	28 - Gasoline and Associated Products Storage in Fixed Tanks	Off-site	Petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene. xylenes (BTEX),	Soil, Groundwater
APEC 3	Southwestern corner of the Phase Two Property	55 – Transformer Manufacturing, Processing and Use	On-site	Polychlorinated Biphenyls (PCBs)	Soil

The Phase Two ESA revealed that the Phase Two Property is underlain by overburden generally described as silty sand, sand, sandy silt, and silty clay. At least one third or more of the Phase Two Property consists of soil equal to or more than 2.0 metres in depth beneath the ground surface, the Phase Two Property was not considered a shallow soil property. Cross-sections of the site are provided as Figures 7 and 8.

The groundwater table was encountered at a depth range of approximately (91.78 to 92.21 masl) 2.32 – 2.52 mbgs. Based on the measured groundwater elevations, the groundwater flow direction was calculated to be easterly. The average horizontal gradient for groundwater flow across the site was estimated to be approximately 0.005. The hydraulic conductivity of the sand, silty sand and silty clay layers that are hosting the groundwater table are estimated to be approximately 9.00×10^{-7}, 1.00×10^{-8}, and 5.00×10^{-10}, respectively, based on average values for comparable soil units noted from reference material. The groundwater aquifer is considered to be an unconfined aquifer and was investigated for potential impacts from PHCs and OCPs.

The investigation and sampling plan conducted adequately investigated the APECs identified in the Phase One ESA and Phase One ESA Update. All soil and groundwater observed and analyzed during the Phase Two ESA, delineation investigation and other on-site work appeared to be free of impacts and laboratory analytical results met applicable 2011 MECP Table 2 Standards site standards with the exception of soil sample BH4 for an Organochlorine Pesticide parameter (Chlordane).

The PCAs within the Phase Two Property and properties within 250 m of the Phase Two Property that result in APECs on the Phase Two Property are all associated with liquid chemicals and pesticides. Once released, these liquids would first infiltrate through subsurface soil and create soil contamination in an adsorbed phase, and would then contact the groundwater aquifer (unconfined) underlying the site and create groundwater contamination in a dissolved phase. The resulting contamination plume would have the highest concentrations (in all phases) nearest to the point of release and would have decreasing concentrations with distance from the release point. The potential for migration of contaminated groundwater from the source out to neighbouring sites would occur within the unconfined aquifer. This is the potential contaminant transport mode that has been investigated in this Phase Two ESA.

The analyses of the groundwater from this Phase Two ESA have indicated that the Phase Two Property does not exceed the applicable MECP Standards, for any of the parameters associated with the PCAs taking place (or formerly taking place) within the Phase Two Study Area.

The Chlordane concentration in one localized area (borehole BH4, depth 0.5-2.5') in the north-eastern portion of the Phase Two Property was slightly above the applicable MECP Table 2 Standards. Based on the contaminant concentration and historical background, it is anticipated that the chlordane concentration is very likely due to pesticides used in the past for the historical orchard on the Phase Two Property.

Underground structure/utility/sewage works are present on the Phase Two Property. However, no potential interaction between any buried utilities in or under the Phase Two Property and the ground water table was likely to be present.

Considering the level of concentration, distribution, and none to low water solubility, the chemical substances detected in the north-eastern portion of the Phase Two Property has little/no off-site migration potential.

Pathways of exposure to chlordane include ingestion of crops grown in chlordane-contaminated soil, direct contact with chlordane contaminated soil, inhalation of air in chlordane-treated homes for the extermination of termites, and from landfills.

Since the chlordane concentration is very localized and limited to the first 0.8 metres of the subsurface soil and no ground water contamination was noted, remediation is more advantageous and the most appropriate approach in dealing the OCP contaminated area. Therefore, a risk assessment is not necessary for the Phase Two Property.

Altech has prepared nine (9) drawings for the Conceptual Site Model of this Phase Two ESA: Figure 1 – Site Location Map, Figure 2 – Phase Two Property, Figure 3 – Potentially Contaminating Activities, Figure 4 – Areas of Potential Environmental Concern, Figure 5 – Groundwater Contours, Figure 6 – Elevated Levels of Chemical Substances, Figure 7 – Cross-section A-A', Figure 8 – Cross-Section B-B', and Figure 9 – Conceptual Site Model

Remediation Work

As mentioned, an extensive remediation program was completed on the Phase Two Property between November and December, 2018. This program is described in detail in Appendix E. The remediation program involved the excavation and off-site disposal of the silty sand material contaminated with an OCP parameter. A total of 279.87 metric tonnes of excavated material was transported off site for disposal at an appropriate landfill facility. The remediated area was centred in the northeast corner of the Phase Two Property.

The outcome of the remediation program was: 1) all confirmatory soil sampling representing the final extent of the excavation (sidewalls and floor) on the Phase Two Property were below the applicable 2011 MECP Table 2 Standards for all contaminants of concern. The Phase Two Property and remediation work are illustrated in four figures: Figure 10 – Excavation Area, Figure 11 – Confirmatory Sampling Locations, Figure 12 – Confirmatory Sampling Results and Figure 13 – Confirmatory Samples Cross-Sections

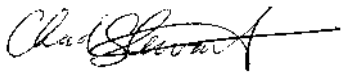
7.0 CONCLUSIONS

Based on all information, field observations, laboratory analyses, and a comparison of the analytical results compared to the applicable 2011 MECP Table 2 Standards, Altech provides the following conclusion statements:

1) The APECs identified at the Phase Two Property, were adequately investigated in this Phase Two ESA;
2) The contaminant of concern on the Phase Two Property was identified to be an Organochlorine Pesticide parameter associated with the use of pesticides due to historical operations as an orchard on the Phase Two ESA property.
3) A remediation program was completed on the Phase Two Property that resulted in the contaminants of concern in soil being removed from the RSC Property. The soil and groundwater conditions met the Standards deemed applicable to the site. The current soil and groundwater conditions on the RSC Property are provided herein;
4) This Phase Two ESA is in support of the Record of Site Condition being submitted to the MECP for filing.

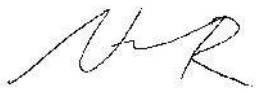
7.1 Signatures

Records and report review, project management, analytical results assessment and evaluation, and report editing was completed by:



Chad R. Stewart, P.Eng., QP^{ESA}
Manager - Site Investigation and Remediation Services

On site field work and sampling, field screening and observations, drawing, surveying and mapping, analytical results tabulation, records and report review, project management, analytical results assessment, and report writing was completed by:



Naveed Rehman, P.Geo., QP^{ESA}
Senior Project Consultant - Site Investigation and Remediation Services

7.2 Limitations

ALTECH Environmental Consulting Ltd. (Altech) has completed a Phase Two Environmental Site Assessment (ESA) for the subject site and has made the opinions, findings, conclusions and recommendations presented herein. This report has been prepared generally consistent with the Ontario Regulation 153/04, as amended in 2011, and the generally accepted industry standard of practice for a report of this type. No other warranty, expressed or implied, is made.

An environmental site assessment or investigation has inherent limitations in characterizing the conditions of a site based on the information obtained. The test data, chemical analyses, and conclusions given herein are the results of limited sampling completed at the site under the specific conditions encountered during the work program. It is impossible to interpolate between sample locations with absolute certainty, and this assessment does not warrant or guarantee that all areas within, or adjacent to, the subject site are free from exceedances of any regulated Standard, Guideline, Objective or limit in any environmental media. This report does not delineate the exact extent, size or magnitude of any such exceedances and this report on its own is not intended to be used to determine the cost of remediation of any such exceedances. The sampling locations and chemical parameters of analysis have been chosen based on Altech's professional judgement and opinion of environmental concerns, potential contamination sources, types and transport in the environment. The laboratory analytical results presented herein are limited to those laboratory analyses requested.

All information described in this report was obtained from sources deemed to be reliable, however, no representation or warranty is made as to the accuracy thereof. The content of this report represents our unbiased and professional analysis, opinions, conclusions, and recommendations based on all information available as of the date of this report. The information presented is only accurate at the time of collection and Altech reserves the right to alter or revise the findings, opinions, conclusions and recommendations, based on any changes in site conditions or new information, anecdotal or otherwise, obtained by Altech after the date of this report.

ALTECH Environmental Consulting Ltd., its officers, and its employees have no present or contemplated interest in the property. Our employment and compensation for preparing this report are not contingent upon our observations and conclusions.

This report was prepared for, and is owned by, the Client exclusively as named in this report. No statements made in this report can be interpreted as legal advice. Altech accepts no duty of care to, or responsibility for damages suffered by, any third party, whatsoever, and any use a third party makes of this report, or any reliance to, or decisions based on it, are the responsibility of such third parties.

Altech Standard Terms of Agreement Rev. 07/2012 and limitations thereof apply.

8.0 REFERENCES

The following is a list of all documents referred to in this report:

1) *Soil, Groundwater and Sediment Standard for Use Under Part XV.1 of the Environmental Protection Act*, MOE, July 27, 2009.
2) *Guide for Completing Phase Two Environmental Site Assessment under Regulation 153/04*, MOE, June, 2011.
3) *Ontario Regulation 153/04*, MOE, filed June 1, 2004.

9.0 FIGURES AND TABLES

The following Tables are attached to this report:

Table 1: Summary of Well Completion Data

Table 2: Groundwater Elevation Levels

Tables 3,4,12: Soil Analytical Results

Tables 5 - 7: Groundwater Analytical Results

Tables 9 - 11: Backfill Soil Samples Results

The following Figures are attached to this report, immediately following the above tables:

Figure 1: Site Location

Figure 2: Borehole and Monitoring Well Location Plan

Figure 3: Potentially Contaminating Activities

Figure 4: Areas of Potential Environmental Concern

Figure 5: Groundwater Elevations and Contours

Figure 6: Elevated Levels of Chemical Substances

Figure 7: Cross-Section A-A'

Figure 8: Cross-Section B-B'

Figure 9: Conceptual Site Model

Figure 10: Excavation Area

Figure 11: Confirmatory Sampling Locations

Figure 12: Confirmatory Sampling Results

Figure 13: Confirmatory Samples Cross-Sections

10.0 APPENDICES

The following additional Appendices are attached to this report:

APPENDIX A Sampling and Analysis Plan

APPENDIX B Borehole Logs

APPENDIX C Laboratory Certificates of Analysis

APPENDIX D Official Site Survey

APPENDIX E Remediation Work

APPENDIX F Soil Excavated at or Brought to the Phase Two Property

TABLE 1: **Summary of Well Completion Data**

Reference: **Phase Two ESA**
Client: **Welwyn Interests Inc. and CFGI**
Site: **2087-2093 and 2097-2103 Prospect Street, Burlington, Ontario**

Well Identification	Well Surface Elevation (masl)	Depth To Well Seal (mbgs)	Depth To Sand Pack (mbgs)	Depth To Screen (mbgs)	Total Well Depth (mbgs)
MW1	94.42	0.30	2.7	3.0	6.1
MW2	94.10	0.30	2.7	3.0	6.1
MW3	94.58	0.30	2.7	3.0	6.1
MW4	94.34	0.30	2.7	3.0	6.1

TABLE 2: Groundwater Elevation Levels

Reference: Phase Two ESA
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON

Well	Well Surface Elevation (masl)	Static Groundwater Depth (mbgs)	Date Groundwater Measured	Static Groundwater Elevation (masl)
MW1	94.42	2.52	09-Oct-18	91.90
MW2	94.10	2.32	09-Oct-18	91.78
MW3	94.58	2.37	09-Oct-18	92.21
MW4	94.34	2.35	09-Oct-18	91.99

TABLE 3: Summary of Soil Analytical Results for Petroleum Hydrocarbons

Reference: Phase Two ESA
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: August 28, 2018
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, Residential/Parkland/Institutional Property Use, Coarse Textured Soils

	Method Detection Limit (MDL)	BH2	DUPS1 (BH2)	MECP Table 2 April 15, 2011
Date Sampled		**Aug 28 2018**	**Aug 28 2018**	
Lab Sample ID		**L2155680-2**	**L2155680-6**	
Depth		**8-10`**	**8-10`**	
Petroleum Hydrocarbons F1	5.0	<5.0	<5.0	55 (65)
Petroleum Hydrocarbons F2	10	<10	<10	98 (150)
Petroleum Hydrocarbons F3	50	<50	<50	300 (1,300)
Petroleum Hydrocarbons F4	50	<50	<50	2,800 (5,600)
Benzene	0.0068	<0.0068	<0.0068	0.21 (0.17)
Toluene	0.080	<0.080	<0.080	2.3 (6.0)
Ethylbenzene	0.018	<0.018	<0.018	1.1 (1.6)
Xylenes (total)	0.050	<0.050	<0.050	3.1 (25)

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria.

np = analysis not performed.

Criteria are taken from the MOECC Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500 *Sample exceeds MECP Table 2 Standards for Residential/Parkland/Institutional Property Use, Coarse Soil Textures*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils

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TABLE 4: **Summary of Soil Analytical Results for Organochlorine Pesticides**

Reference: Phase Two ESA
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: August 28, 2018 and October 5, 2018
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, Residential/Parkland/Institutional Property Use, Coarse Textured Soils

	Method Detection Limit (MDL)	BH1	BH2	DUPS1 (BH2)	BH3	BH4	BH4A	BH5	MECP Table 2 April 15, 2011
Date Sampled		28-Aug-2018	28-Aug-2018	28-Aug-2018	28-Aug-2018	28-Aug-2018	5-Oct-2018	28-Aug-2018	
Lab Sample ID		L2155680-1	L2155680-2	L2155680-6	L2155680-3	L2155680-4	L2177192-1	L2155680-5	
Depth		0-2.5`	8-10'	8-10'	0-2.5`	0-2.5`	5-7'	0-2.5`	
Aldrin	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.05
gamma-hexachlorocyclohexane	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.056 (0.063)
a-chlordane	0.020	<0.020	<0.020	<0.020	<0.020	0.044	<0.020	<0.020	nc
Chlordane (Total)	0.028	<0.028	<0.028	<0.028	<0.028	**0.081**	<0.028	<0.028	0.05
g-chlordane	0.020	<0.020	<0.020	<0.020	<0.020	0.037	<0.020	<0.020	nc
op-DDD	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
pp-DDD	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
Total DDD	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	3.3
o,p-DDE	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
pp-DDE	0.020	<0.020	<0.020	<0.020	<0.020	0.076	<0.020	<0.020	nc
Total DDE	0.028	<0.028	<0.028	<0.028	<0.028	0.076	<0.028	<0.028	0.26 (0.33)
op-DDT	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
pp-DDT	0.020	<0.020	<0.020	<0.020	<0.020	0.026	<0.020	<0.020	nc
Total DDT	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	1.4
Dieldrin	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.05
Endosulfan I	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
Endosulfan II	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
Endosulfan (Total)	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	0.04
Endrin	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.04
Heptachlor	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.15
Heptachlor Epoxide	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.05
Hexachlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.52
Hexachlorobutadiene	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.012 (0.014)
Hexachloroethane	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.089 (0.071)
Methoxychlor	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.13

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria.

np = analysis not performed.

Criteria are taken from the MOECC Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500 *Sample exceeds MECP Table 2 Standards for Residential/Parkland/Institutional Property Use, Coarse Soil Textures*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils



TABLE 4: **Summary of Soil Analytical Results for Organochlorine Pesticides**

Reference: Phase Two ESA
Client: Welwyn Interests Inc. (on behalf of CFI)
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: August 28, 2018 and October 5, 2018
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, Residential/Parkland/Institutional Property Use, Coarse Textured Soils

	Method Detection Limit (MDL)	BH6	DUPS2 (BH6)	BH7	BH8	BH9	BH10		MECP Table 2 April 15, 2011
Date Sampled		**5-Oct-2018**	**5-Oct-2018**	**5-Oct-2018**	**5-Oct-2018**	**5-Oct-2018**	**5-Oct-2018**		
Lab Sample ID		**L2177192-1**	**L2177192-7**	**L2177192-5**	**L2177192-8**	**L2177192-10**	**L2177192-12**		
Depth		**0-2`**	**0-2`**	**0-2`**	**0-2`**	**0-2`**	**0-2`**		
Aldrin	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		0.05
gamma-hexachlorocyclohexane	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		0.056 (0.063)
a-chlordane	0.020	<0.020	<0.020	<0.020	<0.020	0.030	<0.020		nc
Chlordane (Total)	0.028	<0.028	<0.028	<0.028	<0.028	0.03	<0.028		0.05
g-chlordane	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		nc
op-DDD	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		nc
pp-DDD	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		nc
Total DDD	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028		3.3
o,p-DDE	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		nc
pp-DDE	0.020	0.034	0.093	<0.020	<0.020	<0.020	<0.020		nc
Total DDE	0.028	0.034	0.093	<0.028	<0.028	<0.028	<0.028		0.26 (0.33)
op-DDT	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		nc
pp-DDT	0.020	<0.020	0.034	<0.020	<0.020	<0.020	<0.020		nc
Total DDT	0.028	<0.028	0.034	<0.028	<0.028	<0.028	<0.028		1.4
Dieldrin	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		0.05
Endosulfan I	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		nc
Endosulfan II	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		nc
Endosulfan (Total)	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028		0.04
Endrin	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		0.04
Heptachlor	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		0.15
Heptachlor Epoxide	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		0.05
Hexachlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		0.52
Hexachlorobutadiene	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		0.012 (0.014)
Hexachloroethane	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		0.089 (0.071)
Methoxychlor	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020		0.13

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria.

np = analysis not performed.

Criteria are taken from the MOECC Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500 *Sample exceeds MECP Table 2 Standards for Residential/Parkland/Institutional Property Use, Coarse Soil Textures*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for

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TABLE 5: **Summary of Groundwater Analytical Results for Petroleum Constitu**

Reference: Phase Two ESA
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: August 29, 2018
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, All Types of Property Use, Coarse Textured Soils

	Method Detection Limit (MDL)	MW2	MECP Table 2
Date Sampled		**Aug 29 2018**	
Lab Sample ID		**L2155680-8**	
Petroleum Hydrocarbons F1	25	<25	750
Petroleum Hydrocarbons F2	100	<100	150
Petroleum Hydrocarbons F3	250	<250	500
Petroleum Hydrocarbons F4	250	<250	500
Benzene	0.50	<0.50	5
Toluene	0.50	<0.50	24
Ethylbenzene	0.50	<0.50	2
Xylenes (total)	0.50	<0.50	300

All values in micrograms per litre (µg/l) (equivalent to parts per billion (ppb))

nc = no criteria.

np = analysis not performed.

nd = results below detection limit. Alternate detection limit in bracket if applicable

Criteria are taken from the MECP Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500 *Sample exceeds MECP Table 2 Standards for All Types of Property Use, Coarse Soil Textures*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis
indicates value for coarse textured soils

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TABLE 6: **Summary of Groundwater Analytical Results for Organochlorine Pesticides**

Reference: Phase Two ESA
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: August 29, 2018
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, All Types of Property Use, Coarse Textured Soils

	Method Detection Limit (MDL)	MW1	DUPG1 (MW1)	MW2	MW3	MW4	DUPG2 (MW4)	MECP Table 2 April 15, 2011
Date Sampled		**29-Aug-2018**	**29-Aug-2018**	**29-Aug-2018**	**29-Aug-2018**	**9-Oct-2018**	**9-Oct-2018**	
Lab Sample ID		**L2155680-7**	**L2155680-10**	**L2155680-8**	**L2155680-9**	**L2178707-1**	**L2178707-2**	
Aldrin	0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.025	0.35
gamma-hexachlorocyclohexane	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.025	1.2
a-chlordane	0.020	<0.040	<0.040	<0.040	<0.040	<0.040	<0.10	nc
Chlordane (Total)	0.028	<0.057	<0.057	<0.057	<0.057	<0.057	<0.14	7
g-chlordane	0.020	<0.040	<0.040	<0.040	<0.040	<0.040	<0.10	nc
op-DDD	0.020	<0.030	<0.030	<0.030	<0.030	<0.030	<0.060	nc
pp-DDD	0.020	<0.030	<0.030	<0.030	<0.030	<0.030	<0.060	nc
Total DDD	0.028	<0.042	<0.042	<0.042	<0.042	<0.042	<0.085	10
o,p-DDE	0.020	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.020	nc
pp-DDE	0.020	<0.0080	<0.0080	<0.0080	<0.0080	<0.0080	<0.020	nc
Total DDE	0.028	<0.011	<0.011	<0.011	<0.011	<0.011	<0.028	10
op-DDT	0.020	<0.030	<0.030	<0.030	<0.030	<0.030	<0.060	nc
pp-DDT	0.020	<0.030	<0.030	<0.030	<0.030	<0.030	<0.060	nc
Total DDT	0.028	<0.042	<0.042	<0.042	<0.042	<0.042	<0.085	2.8
Dieldrin	0.020	<0.050	<0.050	<0.050	<0.050	<0.050	<0.10	0.35
Endosulfan I	0.020	<0.030	<0.030	<0.030	<0.030	<0.030	<0.075	nc
Endosulfan II	0.020	<0.030	<0.030	<0.030	<0.030	<0.030	<0.060	nc
Endosulfan (Total)	0.028	<0.042	<0.042	<0.042	<0.042	<0.042	<0.096	1.5
Endrin	0.020	<0.040	<0.040	<0.040	<0.040	<0.040	<0.080	0.48
Heptachlor	0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.025	1.5
Heptachlor Epoxide	0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.025	0.048
Hexachlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.025	1
Hexachlorobutadiene	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.025	0.44 (0.6)
Hexachloroethane	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.025	2.1
Methoxychlor	0.020	<0.050	<0.050	<0.050	<0.050	<0.050	<0.10	6.5

All values in micrograms per litre (µg/l) (equivalent to parts per billion (ppb)

nc = no criteria.

np = analysis not performed.

Criteria are taken from the MOECC Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500 *Sample exceeds MECP Table 2 Standards for All Types of Property Use, Coarse Soil Textures*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils

TABLE 7: **Summary of Groundwater Analytical Results for Volatile Organic Compounds (VOCs)**

Phase Two ESA

Reference: 6232-18
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: August 29, 2018 and Oct 9, 2018
Utilized Criteria: MECP Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use, coarse textured soils

	Method Detection Limit (MDL)	FIELD BLANK	TRIP BLANK	FIELD BLANK 2	TRIP BLANK 2	MECP Table 2 April 15, 2011
Date Sampled		**29-Aug-2018**	**29-Aug-2018**	**9-Oct-2018**	**9-Oct-2018**	
Laboratory ID		**L2156612-1**	**L2156612-2**	**L2178707-3**	**L2178707-4**	
Acetone	30	<30	<30	<30	<30	2700
Benzene	0.50	<0.50	<0.50	<0.50	<0.50	5
Bromodichloromethane	2.0	<2.0	<2.0	<2.0	<2.0	16
Bromoform	5.0	<5.0	<5.0	<5.0	<5.0	25
Bromomethane	0.50	<0.50	<0.50	<0.50	<0.50	0.89
Carbon tetrachloride	0.20	<0.20	<0.20	<0.20	<0.20	0.79 (5)
Chlorobenzene	0.50	<0.50	<0.50	<0.50	<0.50	30
Dibromochloromethane	2.0	<2.0	<2.0	<2.0	<2.0	25
Chloroform	1.0	<1.0	<1.0	<1.0	<1.0	2.4 (22)
1,2-Dibromoethane (Ethylene Dibromide)	0.20	<0.20	<0.20	<0.20	<0.20	0.2
1,2-Dichlorobenzene	0.50	<0.50	<0.50	<0.50	<0.50	3
1,3-Dichlorobenzene	0.50	<0.50	<0.50	<0.50	<0.50	59
1,4-Dichlorobenzene	0.50	<0.50	<0.50	<0.50	<0.50	1
Dichlorodifluoromethane	2.00	<2.0	<2.0	<2.0	<2.0	590
1,1-Dichloroethane	0.50	<0.50	<0.50	<0.50	<0.50	5
1,2-Dichloroethane	0.50	<0.50	<0.50	<0.50	<0.50	1.6 (5)
1,1-Dichloroethylene	0.50	<0.50	<0.50	<0.50	<0.50	1.6 (14)
cis-1,2-Dichloroethylene	0.50	<0.50	<0.50	<0.50	<0.50	1.6 (17)
trans-1,2-Dichloroethylene	0.50	<0.50	<0.50	<0.50	<0.50	1.6 (17)
Methylene Chloride	5.00	8.2	<5.0	<5.0	<5.0	50
1,2-Dichloropropane	0.50	<0.50	<0.50	<0.50	<0.50	5
cis-1,3-Dichloropropene	0.30	<0.30	<0.30	<0.30	<0.30	nc
trans-1,3-Dichloropropene	0.30	<0.30	<0.30	<0.30	<0.30	nc
1,3-Dichloropropene (cis & trans)	0.50	<0.50	<0.50	<0.50	<0.50	0.35
Ethylbenzene	0.50	<0.50	<0.50	<0.50	<0.50	2.4
n-Hexane	0.50	<0.50	<0.50	<0.50	<0.50	51 (520)
Methyl Ethyl Ketone	20	<20	<20	<20	<20	1800
Methyl Isobutyl Ketone	20	<20	<20	<20	<20	640
MTBE	2.0	<2.0	<2.0	<2.0	<2.0	15
Styrene	0.50	<0.50	<0.50	<0.50	<0.50	5.4
1,1,1,2-Tetrachloroethane	0.50	<0.50	<0.50	<0.50	<0.50	1.1
1,1,2,2-Tetrachloroethane	0.50	<0.50	<0.50	<0.50	<0.50	1
Tetrachloroethylene	0.50	<0.50	<0.50	<0.50	<0.50	1.6 (17)
Toluene	0.50	<0.50	<0.50	<0.50	<0.50	24
1,1,1-Trichloroethane	0.50	<0.50	<0.50	<0.50	<0.50	200
1,1,2-Trichloroethane	0.50	<0.50	<0.50	<0.50	<0.50	4.7 (5)
Trichloroethylene	0.50	<0.50	<0.50	<0.50	<0.50	1.6 (5)
Trichlorofluoromethane	5.00	<5.0	<5.0	<5.0	<5.0	150
Vinyl chloride	0.50	<0.50	<0.50	<0.50	<0.50	0.5 (1.7)
o-Xylene	0.30	<0.30	<0.30	<0.30	<0.30	nc
m+p-Xylenes	0.40	<0.40	<0.40	<0.40	<0.40	nc
Xylenes (Total)	0.50	<0.50	<0.50	<0.50	<0.50	300

Table Notes:

All values in micrograms per litre (µg/L) (equivalent to parts per billion (ppb))

nc = no criteria.

nd = results below detection limit.

np = analysis not performed.

Criteria are taken from the MECP Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500 *Sample exceeds MECP Table 2 Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for All Types of Property Use, coarse textured soils (please refer to table, if applicable)*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils

ALTECH

TABLE 8: **Summary of Soil Analytical Results for Organochlorine Pesticides**

Reference: Phase Two ESA
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: November 16, 2018
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, Residential/Parkland/Institutional Property Use, Coarse Textured Soils

	Method Detection Limit (MDL)	N1	N2	E1	E2	S1	S2	W1	W2	B1	B2	MECP Table 2 April 15, 2011
Date Sampled		16-Nov-2018	16-Nov-2018	16-Nov-2018	16-Nov-2018	16-Nov-2018	16-Nov-2018	16-Nov-2018	16-Nov-2018	16-Nov-2018	16-Nov-2018	
Lab Sample ID		L2197859-1	L2197859-2	L2197859-3	L2197859-4	L2197859-5	L2197859-6	L2197859-7	L2197859-8	L2197859-9	L2197859-10	
Depth		4.5'-5'	4.5'-5'	4.5'-5'	4.5'-5'	4.5'-5'	4.5'-5'	4.5'-5'	4.5'-5'	5'	5'	
Aldrin	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.05
gamma-hexachlorocyclohexane	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.056 (0.063)
a-chlordane	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
Chlordane (Total)	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	0.05
g-chlordane	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
op-DDD	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
pp-DDD	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
Total DDD	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	3.3
o,p-DDE	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
pp-DDE	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
Total DDE	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	0.26 (0.33)
op-DDT	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
pp-DDT	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
Total DDT	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	1.4
Dieldrin	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.05
Endosulfan I	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
Endosulfan II	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	nc
Endosulfan (Total)	0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	0.04
Endrin	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.04
Heptachlor	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.15
Heptachlor Epoxide	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.05
Hexachlorobenzene	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.52
Hexachlorobutadiene	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.012 (0.014)
Hexachloroethane	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.089 (0.071)
Methoxychlor	0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.13

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria.

np = analysis not performed.

Criteria are taken from the MOECC Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500 *Sample exceeds MECP Table 2 Standards for Residential/Parkland/Institutional Property Use, Coarse Soil Textures*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils

ALTECH

TABLE 9: **Summary of Soil Analytical Results for Organochlorine Pesticides**

Reference: Phase Two ESA
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: December 18, 2018
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, Residential/Parkland/Institutional Property Use, Coarse Textured Soils

	Method Detection Limit (MDL)	BF1	BF2	MECP Table 2 April 15, 2011
Date Sampled		**Dec 18 2018**	**Dec 18 2018**	
Lab Sample ID		**L2212910-1**	**L2212910-2**	
Depth		**0.5-1`**	**0.5-1`**	
Aldrin	0.020	<0.020	<0.020	0.05
gamma-hexachlorocyclohexane	0.010	<0.010	<0.010	0.056 (0.063)
a-chlordane	0.020	<0.020	<0.020	nc
Chlordane (Total)	0.028	<0.028	<0.028	0.05
g-chlordane	0.020	<0.020	<0.020	nc
op-DDD	0.020	<0.020	<0.020	nc
pp-DDD	0.020	<0.020	<0.020	nc
Total DDD	0.028	<0.028	<0.028	3.3
o,p-DDE	0.020	<0.020	<0.020	nc
pp-DDE	0.020	0.025	0.027	nc
Total DDE	0.028	<0.028	<0.028	0.26 (0.33)
op-DDT	0.020	<0.020	<0.020	nc
pp-DDT	0.020	<0.020	<0.020	nc
Total DDT	0.028	<0.028	<0.028	1.4
Dieldrin	0.020	<0.020	<0.020	0.05
Endosulfan I	0.020	<0.020	<0.020	nc
Endosulfan II	0.020	<0.020	<0.020	nc
Endosulfan (Total)	0.028	<0.028	<0.028	0.04
Endrin	0.020	<0.020	<0.020	0.04
Heptachlor	0.020	<0.020	<0.020	0.15
Heptachlor Epoxide	0.020	<0.020	<0.020	0.05
Hexachlorobenzene	0.010	<0.010	<0.010	0.52
Hexachlorobutadiene	0.010	<0.010	<0.010	0.012 (0.014)
Hexachloroethane	0.010	<0.010	<0.010	0.089 (0.071)
Methoxychlor	0.020	<0.020	<0.020	0.13

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria.

np = analysis not performed.

Criteria are taken from the MOECC Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500 *Sample exceeds MECP Table 2 Standards for Residential/Parkland/Institutional Property Use, Coarse Soil Textures*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils

ALTECH

TABLE 10:

Summary of Soil Analytical Results for Volatile Organic Compounds (VOCs)

Phase Two ESA

Reference: 6282-18
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: December 18, 2018
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, Industrial/Commercial/Community Property Use, Coarse Soil

	Method Detection Limit (MDL) µg/g	BF1	BF2	MECP Table 2 April 15, 2011 µg/g
Date Sampled		**Dec 18 2018**	**Dec 18 2018**	
Lab Sample ID		**L2212910-1**	**L2212910-2**	
Depth		**0.5-1`**	**0.5-1`**	
Acetone	0.50	<0.50	<0.50	16 (28)
Benzene	0.0068	<0.0068	<0.0068	0.21 (0.17)
Bromodichloromethane	0.050	<0.050	<0.050	1.5 (1.9)
Bromoform	0.050	<0.050	<0.050	0.27 (0.26)
Bromomethane	0.050	<0.050	<0.050	0.05
Carbon Tetrachloride	0.050	<0.050	<0.050	0.05 (0.12)
Chlorobenzene	0.050	<0.050	<0.050	2.4 (2.7)
Chloroform	0.050	<0.050	<0.050	0.05 (0.18)
Dibromochloromethane	0.050	<0.050	<0.050	2.3 (2.9)
Dichlorodifluoromethane	0.050	<0.050	<0.050	16 (25)
1,2-Dichlorobenzene	0.050	<0.050	<0.050	1.2 (1.7)
1,3-Dichlorobenzene	0.050	<0.050	<0.050	4.8 (6)
1,4-Dichlorobenzene	0.050	<0.050	<0.050	0.083 (0.097)
1,1-Dichloroethane	0.050	<0.050	<0.050	0.47 (0.6)
1,2-Dichloroethane	0.050	<0.050	<0.050	0.05
1,1-Dichloroethylene	0.050	<0.050	<0.050	0.05
cis-1,2-Dichloroethylene	0.050	<0.050	<0.050	1.9 (2.5)
trans-1,2-Dichloroethylene	0.050	<0.050	<0.050	0.084 (0.75)
1,2-Dichloropropane	0.050	<0.050	<0.050	0.05 (0.085)
cis-1,3-Dichloropropylene	0.030	<0.050	<0.050	NC
trans-1,3-Dichloropropylene	0.030	<0.050	<0.050	NC
1,3-Dichloropropene, total	0.042	<0.030	<0.030	0.05 (0.081)
Ethylbenzene	0.018	<0.030	<0.030	1.1 (1.6)
Ethylene dibromide (dibromoethane, 1,2-)	0.050	<0.042	<0.042	0.05
Hexane	0.050	<0.018	<0.018	2.8 (34)
Methyl Ethyl Ketone (2-Butanone)	0.50	<0.050	<0.050	16 (44)
Methyl Isobutyl Ketone	0.50	<0.50	<0.50	1.7 (4.3)
Methyl tert-butyl ether	0.050	<0.50	<0.50	0.75 (1.4)
Methylene Chloride	0.050	<0.050	<0.050	0.1 (0.96)
Styrene	0.050	<0.050	<0.050	0.7 (2.2)
1,1,1,2-Tetrachloroethane	0.050	<0.050	<0.050	0.058 (0.05)
1,1,2,2-Tetrachloroethane	0.050	<0.050	<0.050	0.05
Tetrachloroethylene	0.050	<0.050	<0.050	0.28 (2.3)
Toluene	0.080	<0.080	<0.080	2.3 (6)
1,1,1-Trichloroethane	0.050	<0.050	<0.050	0.38 (3.4)
1,1,2-Trichloroethane	0.050	<0.050	<0.050	0.05
Trichloroethylene	0.010	<0.010	<0.010	0.061 (0.52)
Trichlorofluoromethane	0.050	<0.050	<0.050	4 (5.8)
Vinyl Chloride	0.020	<0.020	<0.020	0.02 (0.022)
Xylenes, total	0.050	<0.050	<0.050	3.1 (25)

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

NC = no criteria.
ND = non-detect
Criteria are taken from the MECP Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500	*Sample exceeds MECP Table 2 Standards for Industrial/Commercial/Community Property Use, Coarse Soil Textures*
500	*Sample MDL rasied due to VOC interference*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils

ALTECH

TABLE 11: Summary of Soil Analytical Results for Metals

Reference: Phase Two ESA
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: December 18, 2018
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, Residential/Parkland/Institutional Property Use, Coarse Textured

	MDL µg/g	BF1	BF2	MECP Table 2 April 15, 2011
Date Sampled		**Dec 18 2018**	**Dec 18 2018**	
Lab Sample ID		**L2212910-1**	**L2212910-2**	
Depth		**0.5-1`**	**0.5-1`**	
Antimony (Sb)	1.0	<1.0	<1.0	7.5
Arsenic (As)	1.0	3.9	4.2	18
Barium (Ba)	1.0	47.7	52.2	390
Beryllium (Be)	0.50	<0.50	<0.50	4 (5)
Boron (B)	5.0	5.6	5.8	120
Cadmium (Cd)	0.50	<0.50	<0.50	1.2
Chromium (Cr)	1.0	13.1	14.1	160
Cobalt (Co)	1.0	5.5	5.9	22
Copper (Cu)	1.0	11.5	13.1	140 (180)
Lead (Pb)	1.0	13.9	15.3	120
Molybdenum (Mo)	1.0	<1.0	<1.0	6.9
Nickel (Ni)	1.0	11.5	12.1	100 (130)
Selenium (Se)	1.0	<1.0	<1.0	2.4
Silver (Ag)	0.30	<0.20	<0.20	20 (25)
Thallium (Th)	0.50	<0.50	<0.50	1
Uranium (U)	1.0	<1.0	<1.0	23
Vanadium (V)	1.0	21.1	22.7	86
Zinc (Zn)	5.0	43.1	47.5	340

Table Notes:

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))
nc = no criteria.
nd = results below detection limit.

np = analysis not performed.

Criteria are taken from the MECP Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

500 *Sample exceeds MECP Table 2 Standards for Residential/Parkland/Industrial Property Use, Coarse Textures (please refer to table, if applicable).*

Table 2 Standards: Standard value within parenthesis indicates value for coarse textured soils; Standard value without parenthesis indicates value for coarse textured soils

TABLE 12: Summary of Soil Analytical Results for Polychlorinated Biphenyls

Reference: Phase Two ESA - Soil Sample Investigation
Client: Welwyn Interests Inc. and CFGI
Site: 2087-2093 and 2097-2103 Prospect Street, Burlington, ON
Date Sampled: March 22, 2019
Utilized Criteria: MECP Table 2, Full Depth Generic Site Condition Standards in a Potable Ground Water Condition, Residential/Parkland/Institutional Property Use, Coarse Textured Soils

	Method Detection Limit (MDL)	TP1	TP2	MECP Table 2 April 15, 2011
Date Sampled		**22-Mar-19**	**22-Mar-19**	
Lab Sample ID		**L2247945-1**	**L2247945-2**	
Depth		**0-1'**	**0-1'**	
Aroclor 1242	0.010	<0.010	<0.010	-
Aroclor 1248	0.010	<0.010	<0.010	-
Aroclor 1254	0.010	<0.010	<0.010	-
Aroclor 1260	0.010	<0.010	<0.010	-
Total PCBs	<0.020	<0.020	<0.020	0.35

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

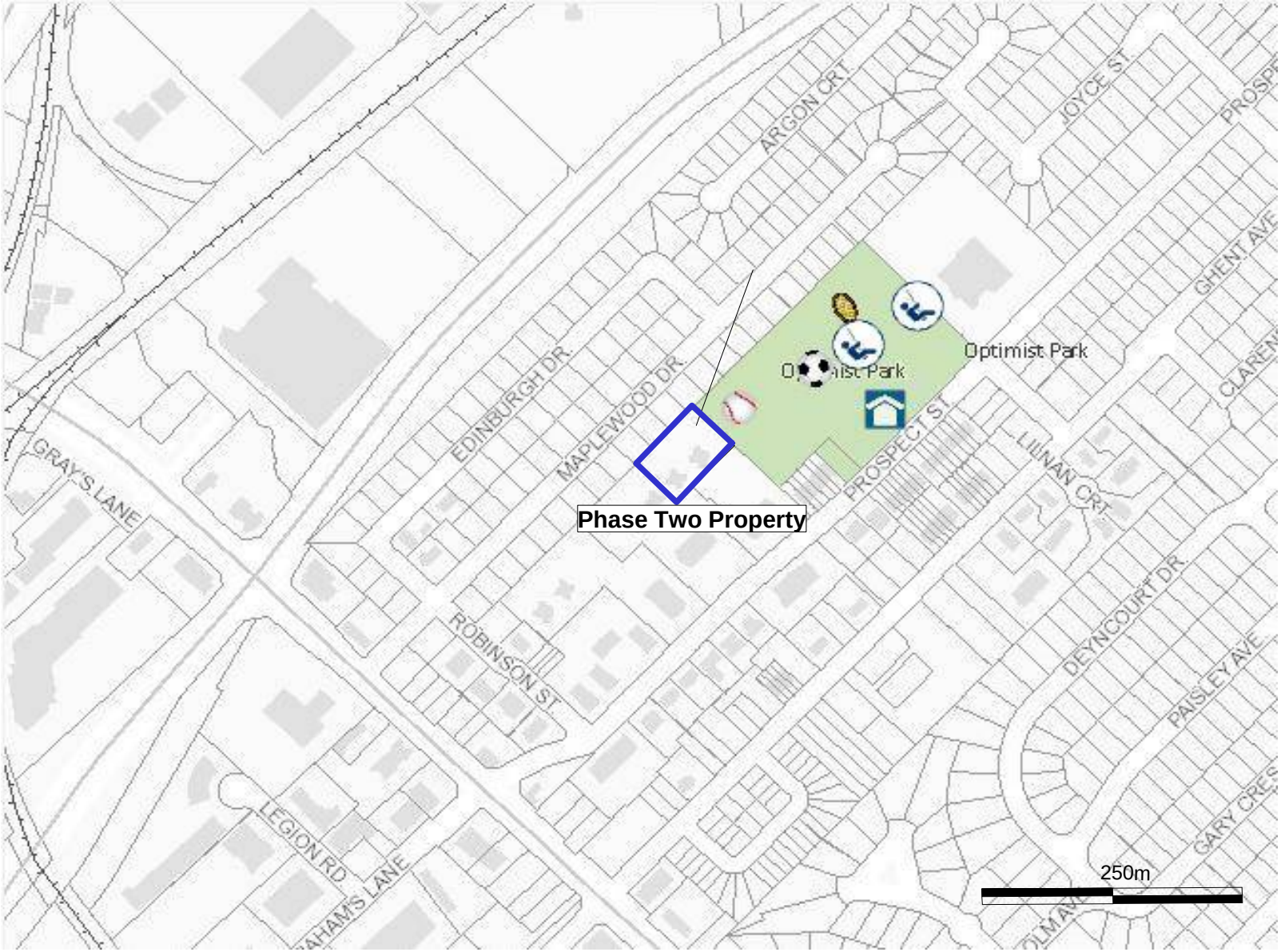
nc = no criteria.

np = analysis not performed.

Environmental Protection Act, April 15, 2011.

500 *Residential/Parkland/Institutional Property Use, Coarse Soil Textures*

Table 2 Standards: Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for



LEGEND

Phase Two Property

REV	DATE	REVISION DESCRIPTION	DRW	CHK
01	2018/09/05	Phase Two ESA	AM	NR
00	2018/01/26	Original	AM	CLC

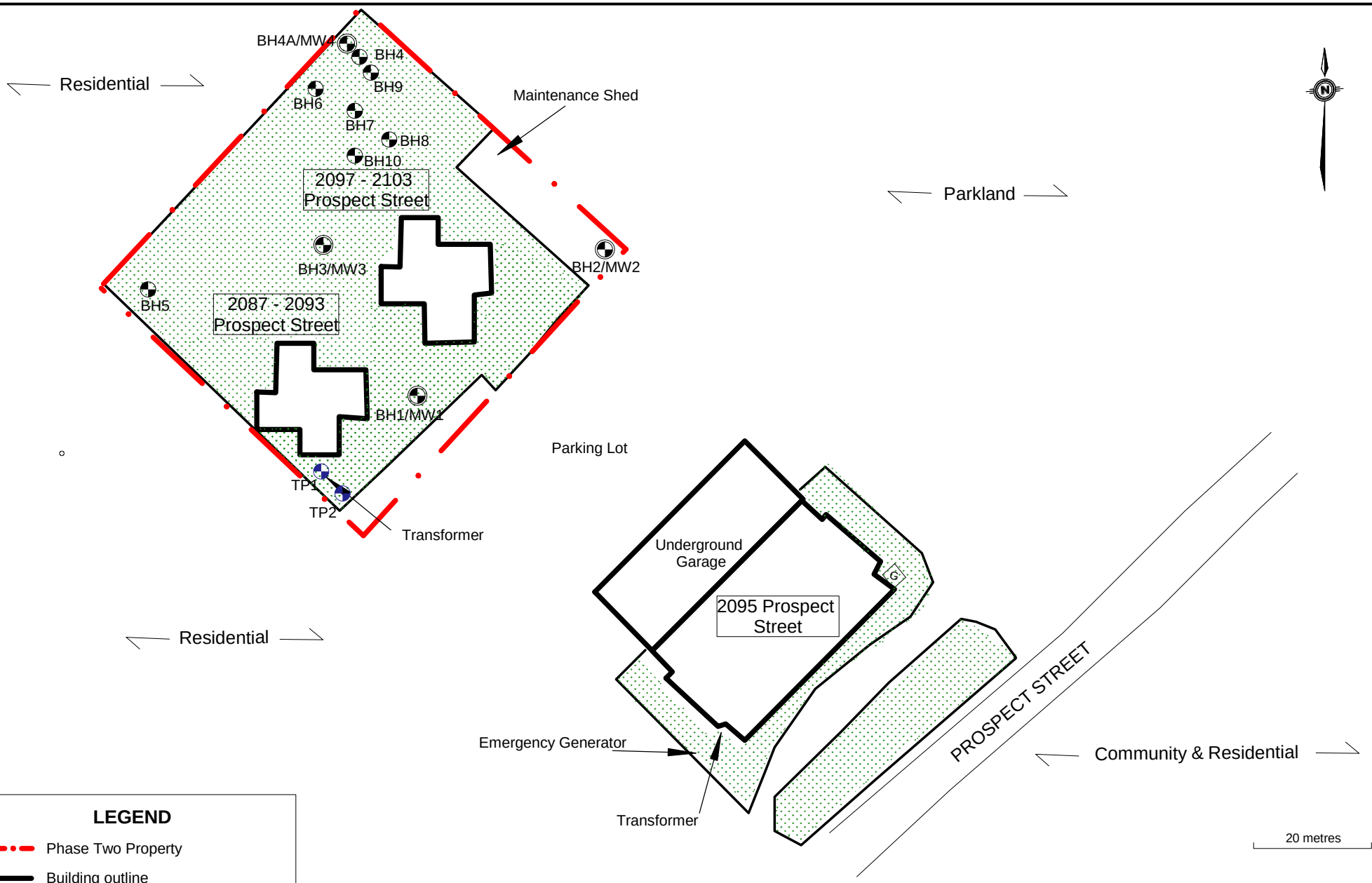
ALTECH Environmental Consulting Ltd.

ALTECH Environmental Consulting Ltd.

PROJECT; CLIENT
Phase Two ESA; Welwyn Interests Inc. and CFGI

TITLE
Site Location Map
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE NO.
AM	2018/09/05	6232-18	1
CHECKED BY	DATE	SCALE	REV
NR	2018/09/06	as shown	01



LEGEND

- Phase Two Property
- Building outline
- G — Natural gas meter
- Landscaped/vegetated areas
- Borehole*
- Borehole with Monitoring Well*
- Hand-Dug Sample

REV	DATE	REVISION DESCRIPTION	DRW	CHK
00	2015/11/20	Original	NR	CRS

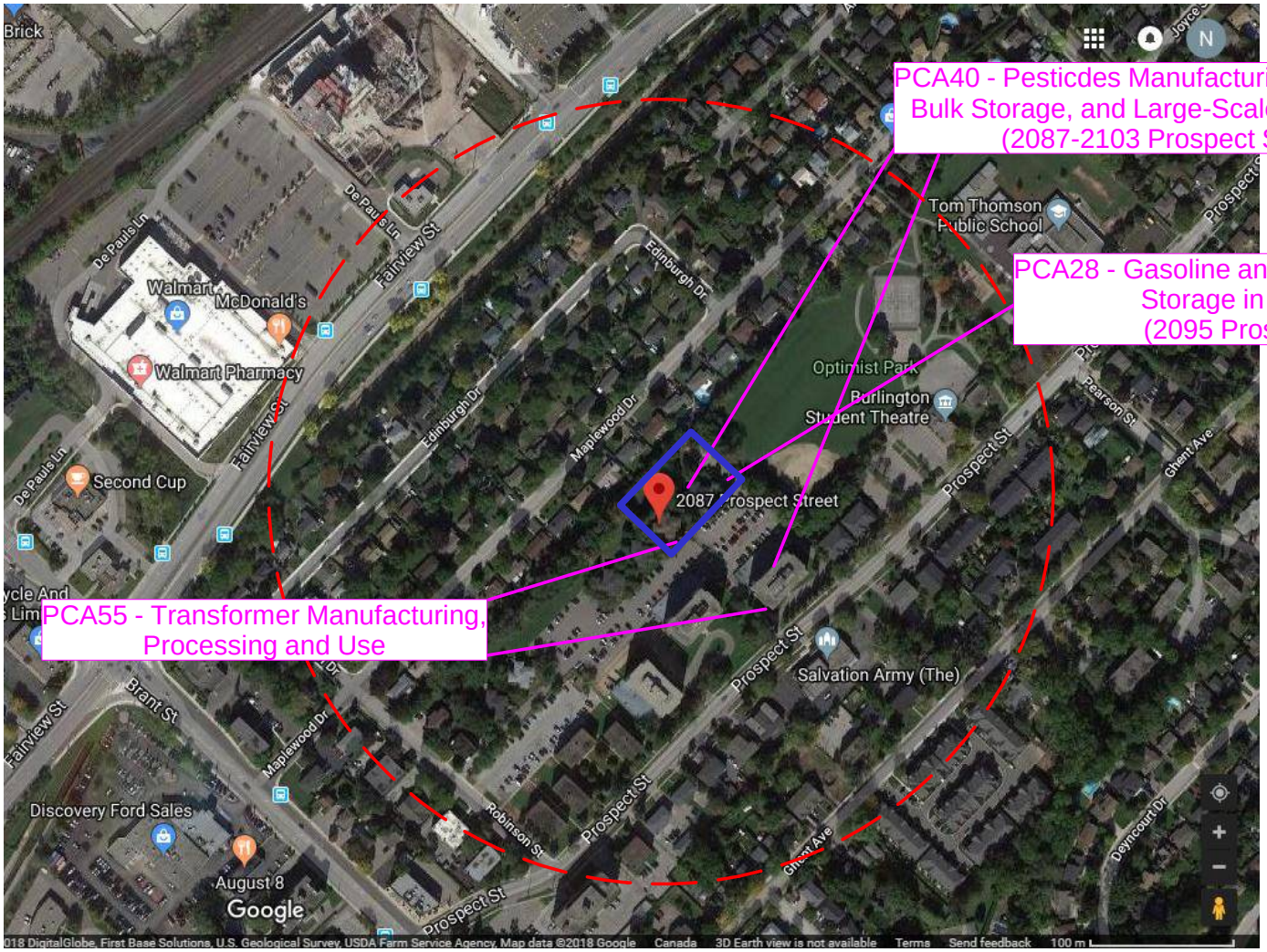
ALTECH Environmental Consulting Ltd.

ALTECH Environmental Consulting Ltd.

PROJECT; CLIENT
Phase Two ESA; Welwyn Interests Inc. and CFGI

TITLE
Borehole and Monitoring Well Location Plan
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE NO
NR	2018/08/09	6232-18	2
CHECKED BY	DATE	SCALE	REV
CRS	2018/08/09	as shown	01



LEGEND

Phase Two Property

REV	DATE	REVISION DESCRIPTION	DRW	CHK
01	2018/09/05	Phase Two ESA	AM	NR
00	2018/01/26	Original	AM	CLC

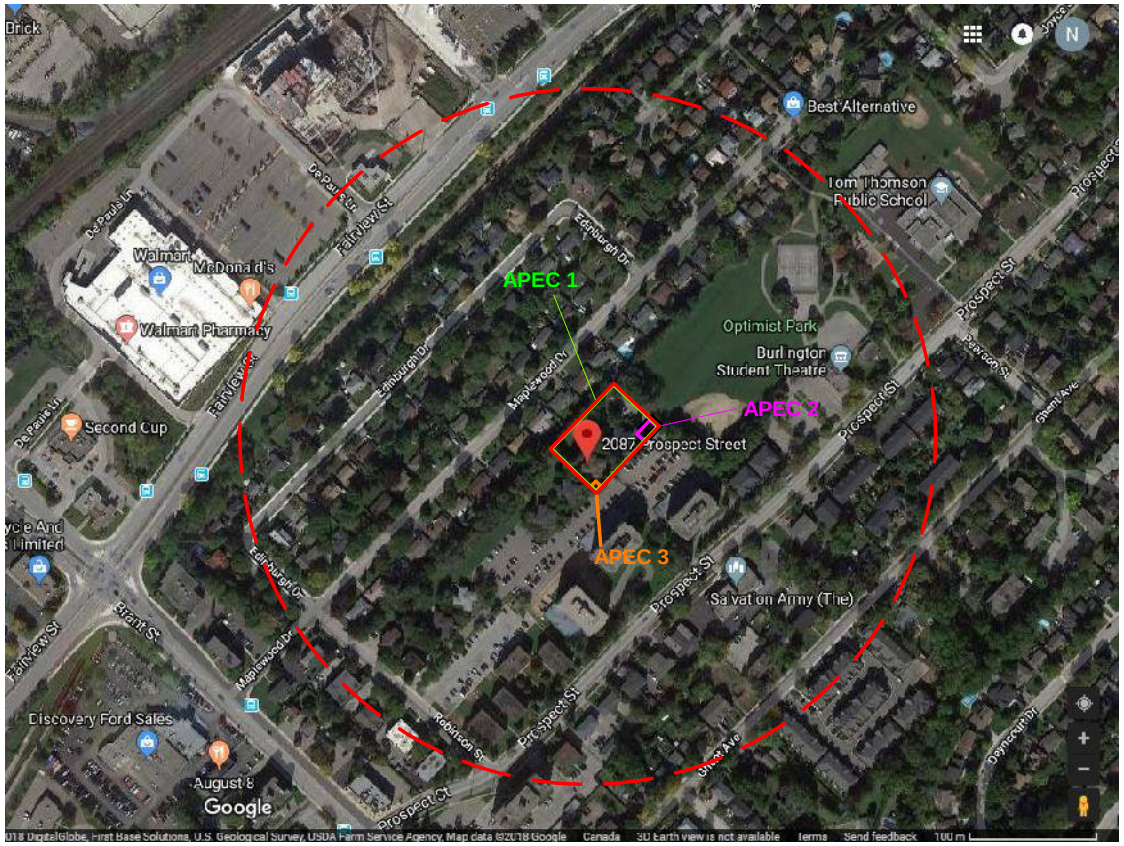
ALTECH Environmental Consulting Ltd.

ALTECH Environmental Consulting Ltd.

PROJECT; CLIENT
Phase Two ESA; Welwyn Interests Inc. and CFGI

TITLE
Potentially Contaminating Activities
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE NO.
AM	2018/09/05	6232-18	3
CHECKED BY	DATE	SCALE	REV
NR	2018/09/06	as shown	01



LEGEND

- Phase Two Property
- APEC 1
- APEC 2
- APEC 3

REV	DATE	REVISION DESCRIPTION	DRW	CHK
01	2018/09/05	Phase Two ESA	AM	NR
00	2018/01/26	Original	AM	CLC

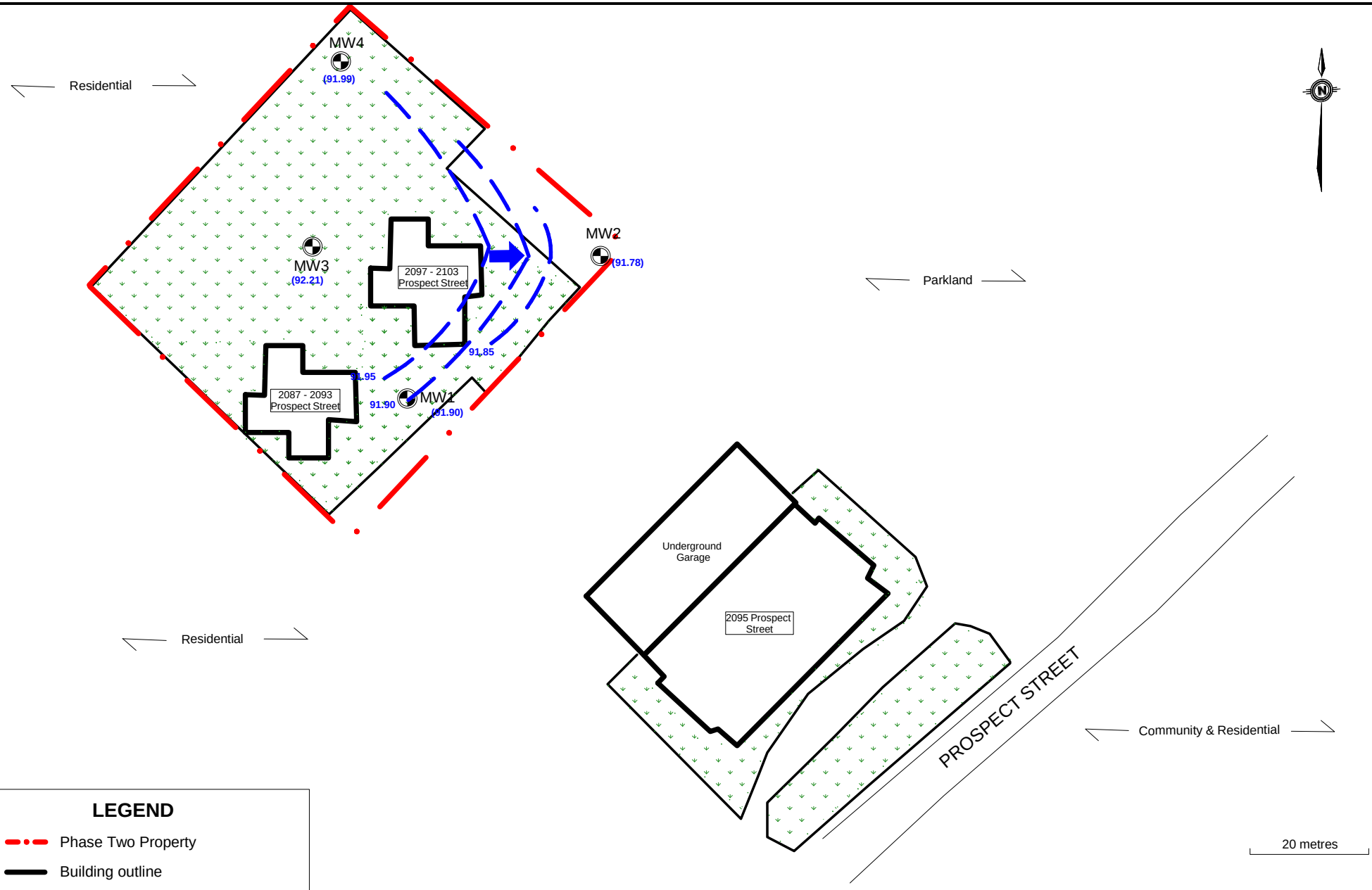
ALTECH Environmental Consulting Ltd.

ALTECH Environmental Consulting Ltd.

PROJECT; CLIENT
Phase Two ESA; Welwyn Interests Inc. and CFGI

TITLE
Area of Potential Environmental Concern
2087-2103 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE NO.
AM	2018/09/05	6232-18	4
CHECKED BY	DATE	SCALE	REV
NR	2018/09/06	as shown	01



LEGEND

- Phase Two Property
- Building outline
- Groundwater contour
- 97.0 — Elevation of groundwater in metres above sea level (masl)
- Landscaped/vegetated areas
- Groundwater Flow Direction
- Monitoring Well

REV	DATE	REVISION DESCRIPTION	DRW	CHK
00	2015/11/20	Original	NR	CRS

ALTECH Environmental Consulting Ltd.

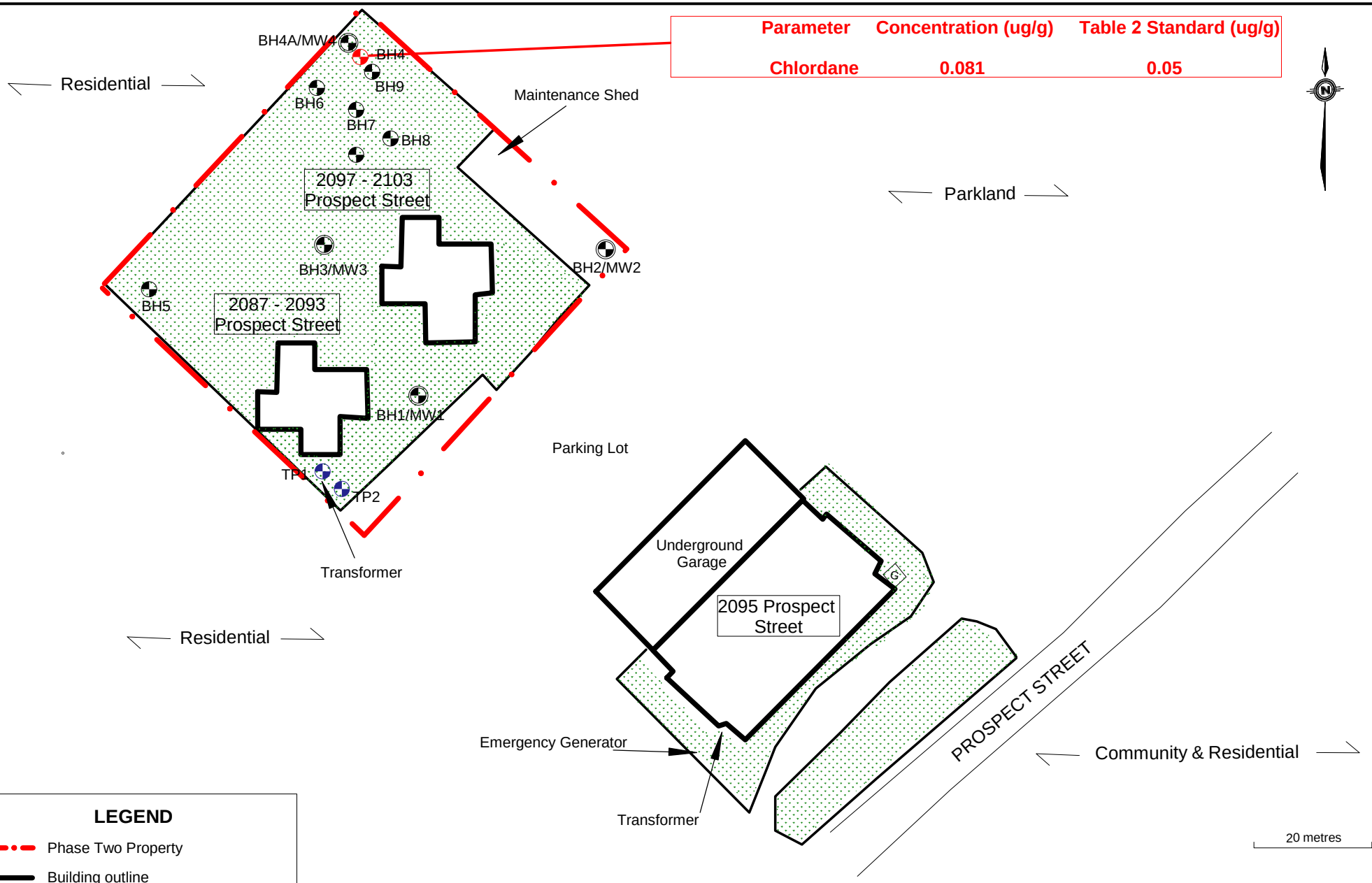
ALTECH Environmental Consulting Ltd.

PROJECT; CLIENT
Phase Two ESA; Welwyn Interests Inc. and CFGI

TITLE
Groundwater Contours
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE NO
NR	2018/08/09	6232-18	5
CHECKED BY	DATE	SCALE	REV
CRS	2018/08/09	as shown	01

Parameter	Concentration (ug/g)	Table 2 Standard (ug/g)
Chlordane	0.081	0.05



LEGEND

- Phase Two Property
- Building outline
- G — Natural gas meter
- Landscaped/vegetated areas
- Borehole*
- Borehole with Monitoring Well*
- Hand-Dug Sample

*Borehole locations where soil and/or groundwater samples exceeds O. Reg. 153/04 Table 2 Standards shown as RED
Borehole locations where soil and/or groundwater samples within O. Reg. 153/04 Table 2 Standards shown as BLUE

REV	DATE	REVISION DESCRIPTION	DRW	CHK
00	2015/11/20	Original	NR	CRS

ALTECH Environmental Consulting Ltd.

ALTECH Environmental Consulting Ltd.

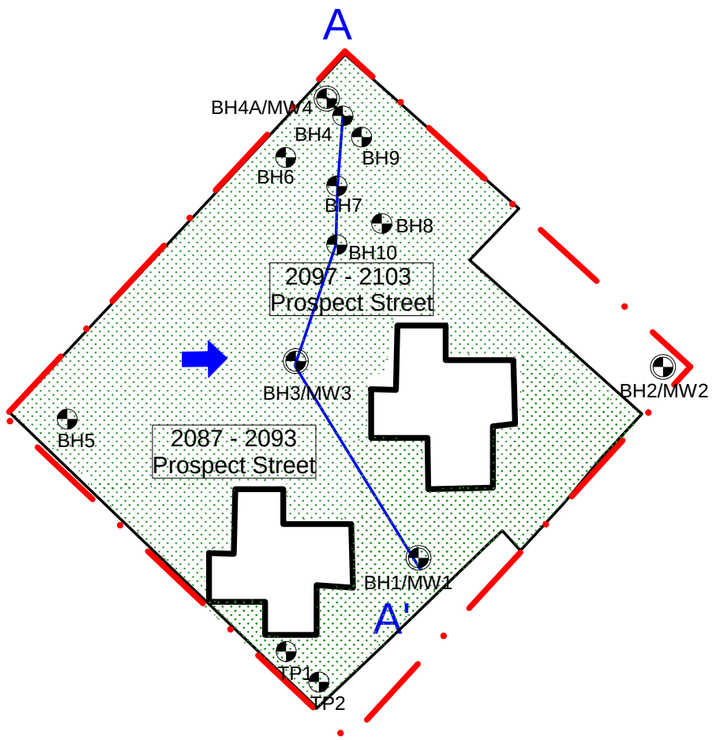
PROJECT; CLIENT
Phase Two ESA; Welwyn Interests Inc. and CFGI

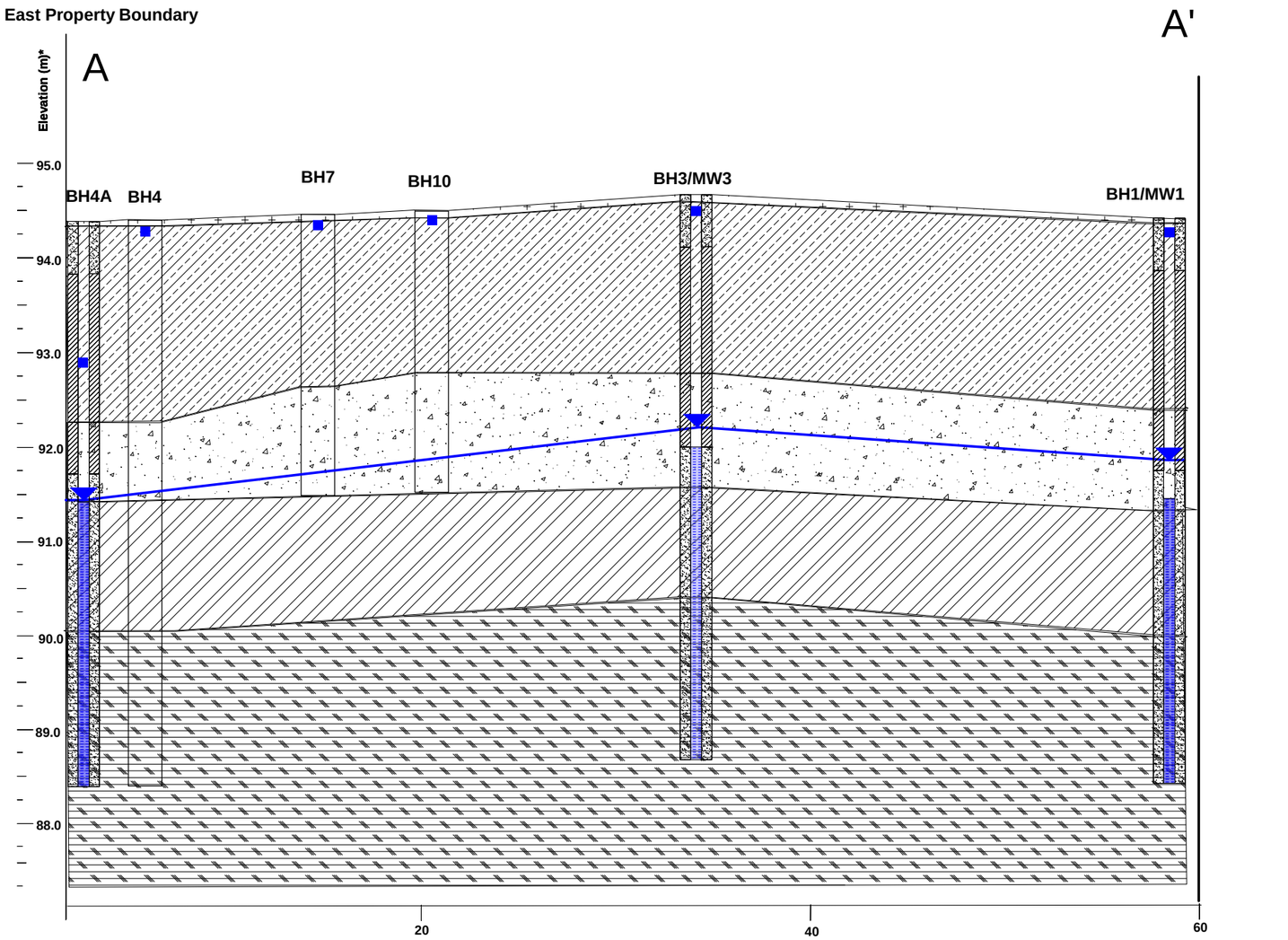
TITLE
Elevated Levels in Chemical Substances
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE NO
NR	2018/08/09	6232-18	6
CHECKED BY	DATE	SCALE	REV
CRS	2018/08/09	as shown	01

Cross-Section Profile

Plan View





LEGEND

- Property Boundary
- Soil Sample within Table 2 Standards
- Soil Sample exceeds Table 2 Standards
- Groundwater Sample within Table 2 Standards
- Groundwater Sample exceeds Table 2 Standards
- Groundwater Table
- Top soil
- Silty sand
- Sand
- Silty clay
- Sandy Silt
- GW Direction Flow

*Elevations expressed in metres above sea level.

REV	DATE	REVISION DESCRIPTION	DRW	CHK
00	2018/09/10	Original	NR	

ALTECH Environmental Consulting Ltd.

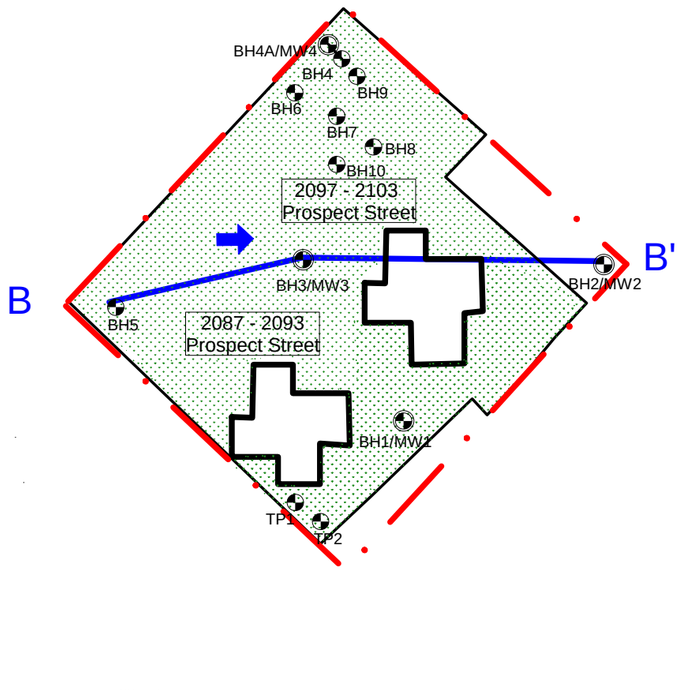
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TITLE: Phase Two ESA: Welwyn Interests Inc. and CFGI

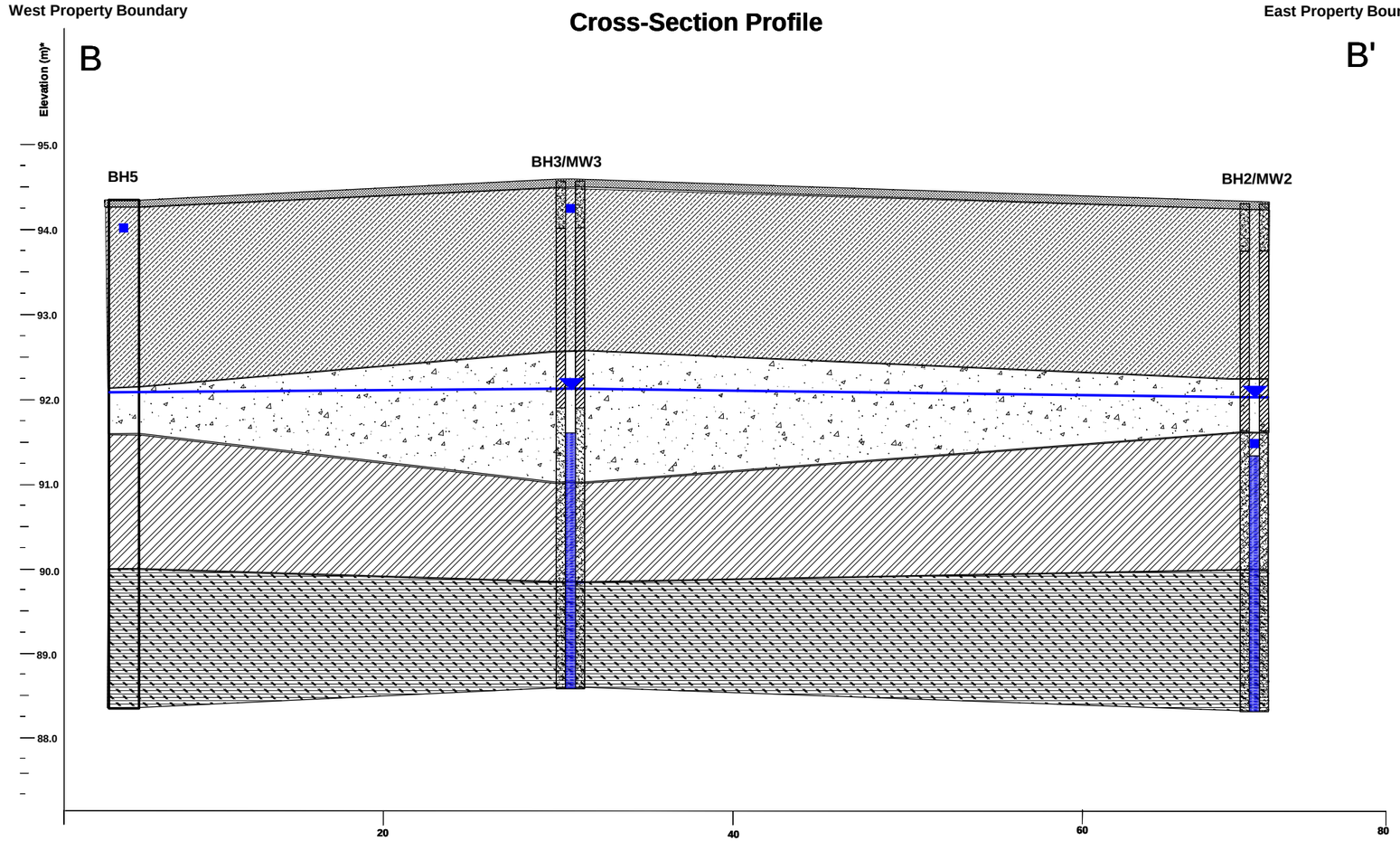
PROJECT: **Cross-Section Profile A-A'**
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE ID.
NR	2018/10/10	6232-18	7
CHECKED BY	DATE	SCALE	REV
CRS	2018/10/10	as shown	00

Plan View



Cross-Section Profile



LEGEND

- Phase Two Property
- Soil Sample within Table 2 Standards
- Soil Sample exceeds Table 2 Standards
- Groundwater Sample within Table 2 Standards
- Groundwater Sample exceeds Table 2 Standards
- Groundwater Table
- Topsoil
- Silty Sand
- Sand
- Silty Clay
- Sandy Silt
- GW Direction Flow

*Elevations expressed in metres above sea level.

REV	DATE	REVISION DESCRIPTION	DRW	CHK
00	2018/09/10	Original	NR	

ALTECH Environmental Consulting Ltd.

ALTECH Environmental Consulting Ltd.

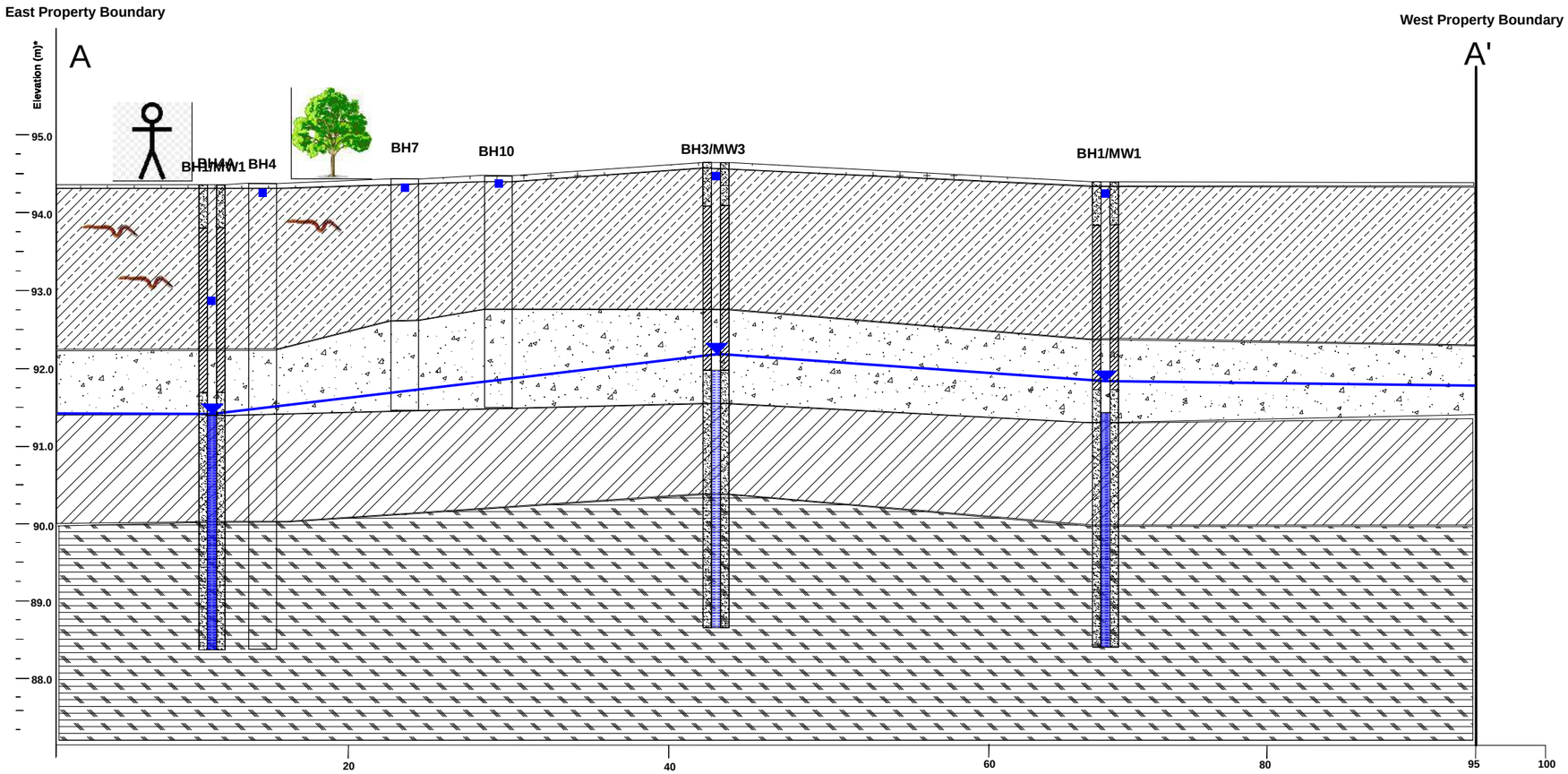
TITLE: Phase Two ESA: Welwyn Interests Inc. and CFGI

PROJECT: **Cross-section Profile B-B'**
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE ID.
NR	2018/09/10	6232-18	8
CHECKED BY: CRS	DATE: 2018/09/10	SCALE: as shown	REV: 00

Cross-Section Profile

1) The release mechanism for the contaminants is leaching of Chlordane into deeper depths of soil over time by way of precipitation
2) No contaminant transport pathways. Chlordane is localized in the first few metres of the topsoil and native soil
3) Both human and ecological receptors are impacted. Ecological receptors include burrowing animals (worms) and plants.
4) Receptor points are epidermis (bark and skin) and digestive tract
5) Routes of exposure are direct contact or digestion



LEGEND

- Top soil
- Silty sand
- Sand
- Silty clay
- Groundwater Table

*Elevations expressed in metres above sea level.

REV	DATE	REVISION DESCRIPTION	DRW	CHK
00	2018/09/11	Original	NR	

ALTECH Environmental Consulting Ltd.

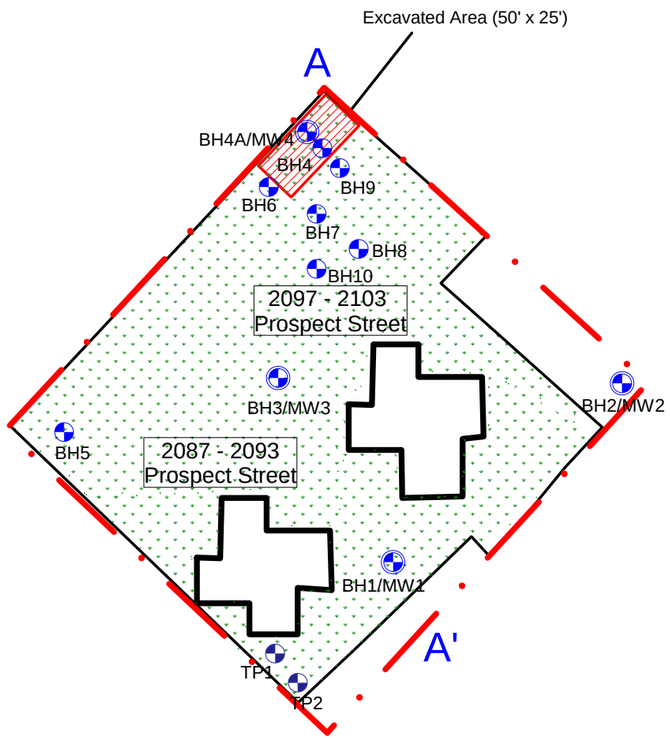
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TITLE: Phase Two ESA: Welwyn Interests Inc. and CFGI

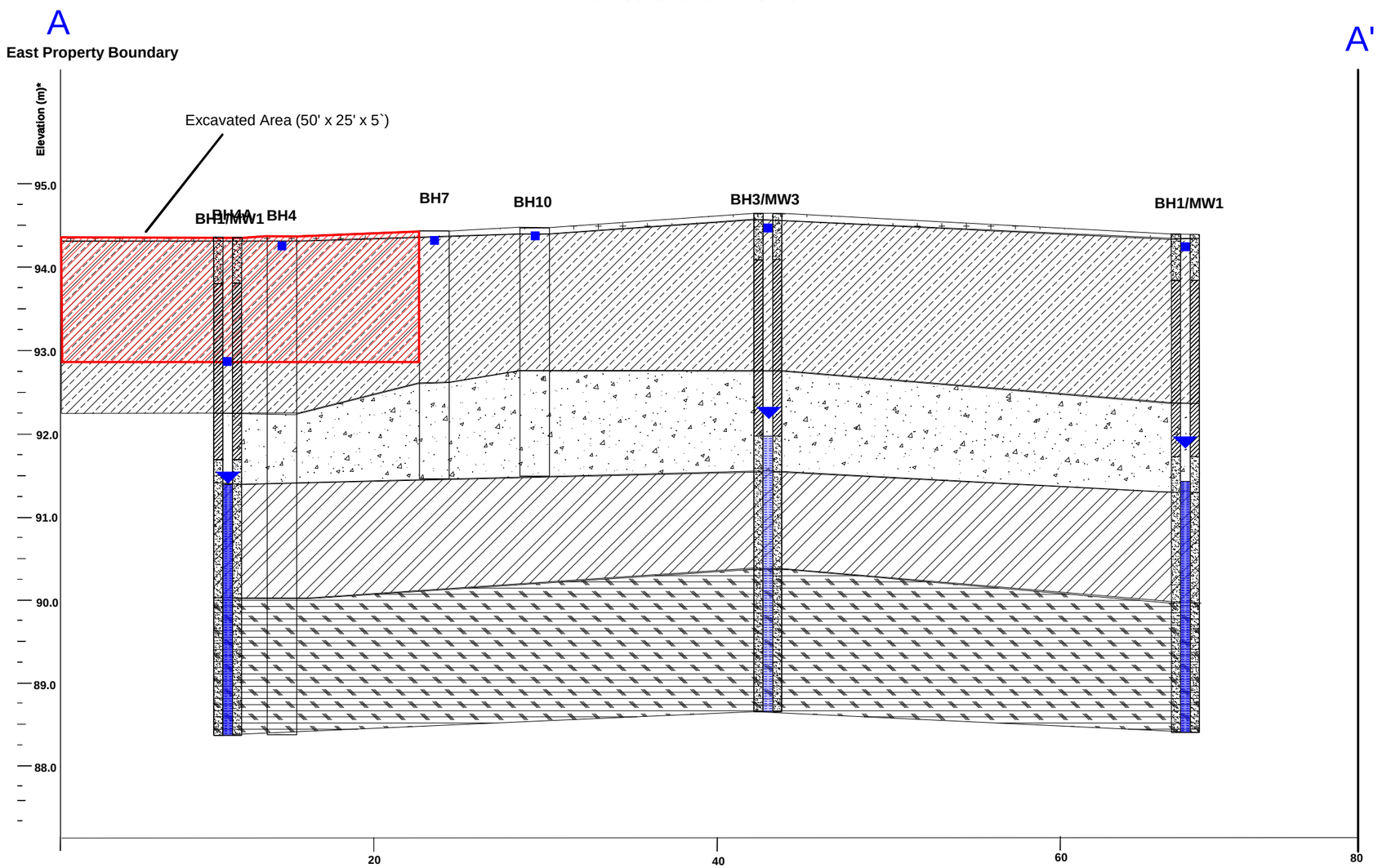
PROJECT: **Conceptual Site Model**
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE ID.
NR	2018/11/23	6232-18	9
CHECKED BY	DATE	SCALE	REV
CRS	2018/11/23	as shown	00

Plan View



Cross-Section Profile



LEGEND

- Property Boundary
- Excavated Area
- Borehole
- Borehole with Monitoring Well
- Hand-Dug Sample
- Groundwater Table
- Top soil
- Silty sand
- Sand
- Silty clay
- Sandy Silt

*Elevations expressed in metres above sea level.

REV	DATE	REVISION DESCRIPTION	DRW	CHK
00	2018/11/19	Original	NR	

ALTECH Environmental Consulting Ltd.

ALTECH Environmental Consulting Ltd.

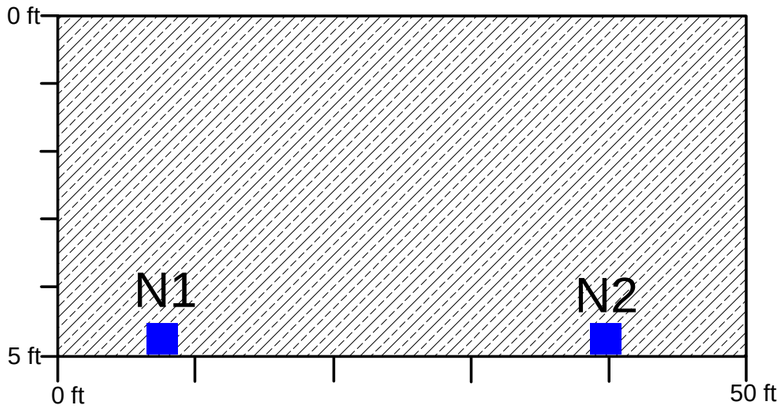
TITLE: Phase Two ESA: Welwyn Interests Inc. and CFGI

PROJECT: **Excavation Area**
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

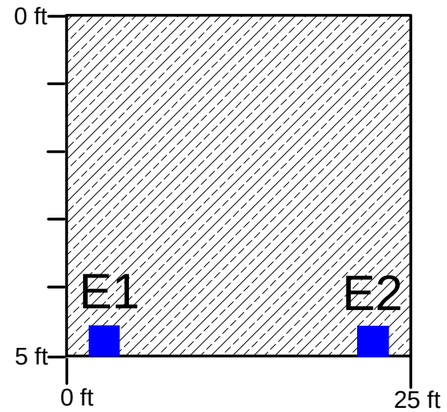
DRAWN BY	DATE	PROJECT NO.	FIGURE ID.
NR	2018/11/19	6232-18	10

CHECKED BY	DATE	SCALE	REV
CRS	2018/11/19	as shown	00

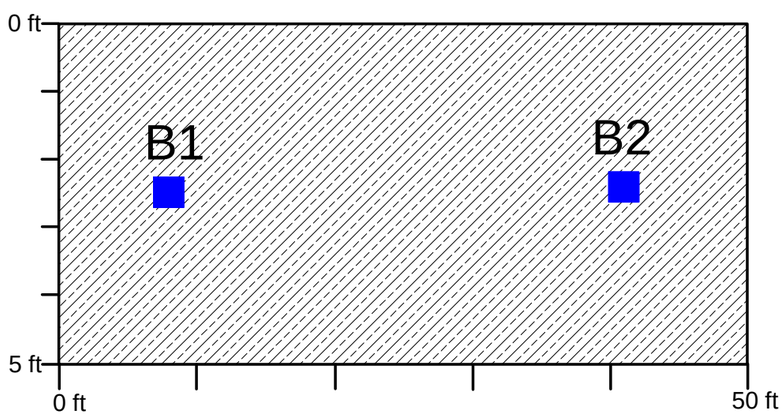
North Wall



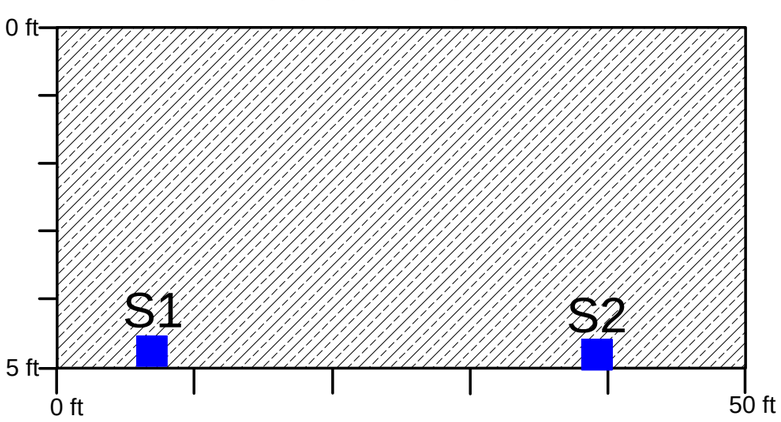
East Wall



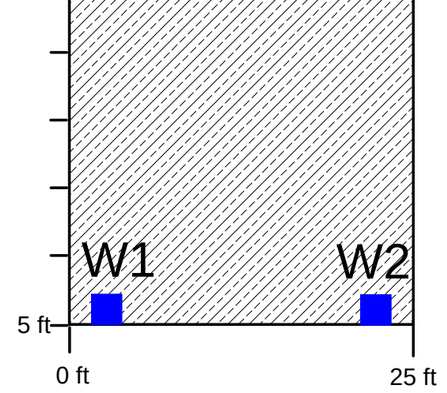
Base



South Wall



West Wall



LEGEND

- Soil Sample within Table 2 Standards
- Soil Sample exceeds Table 2 Standards

- Top soil
- Silty sand
- Sand
- Silty clay
- Sandy Silt

REV	DATE	REVISION DESCRIPTION	DRW	CHK
00	2018/09/10	Original	NR	CRS

ALTECH Environmental Consulting Ltd.

ALTECH Environmental Consulting Ltd.

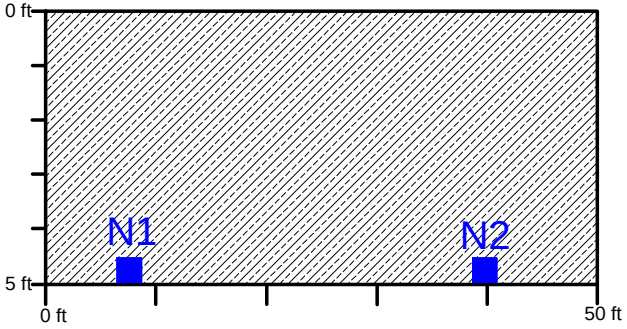
TITLE: Phase Two ESA; Welwyn Interests Inc. and CFGI

PROJECT: **Confirmatory Sampling Locations**
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

DRAWN BY	DATE	PROJECT NO.	FIGURE ID.
NR	2018/11/21	6232-18	11

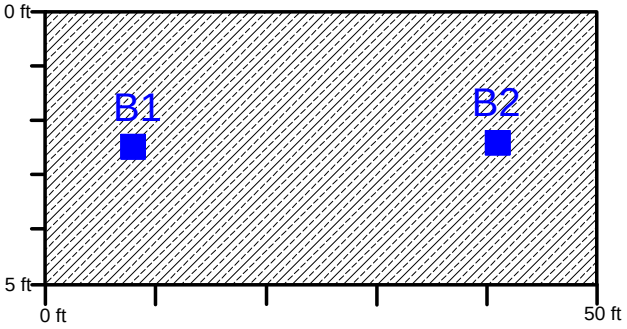
CHECKED BY	DATE	SCALE	REV
CRS	2018/11/21	as shown	00

North Wall



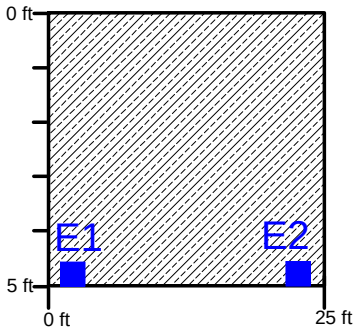
Soil samples N1 & N2: for all paramaters analyzed were below the detection limit.

Base



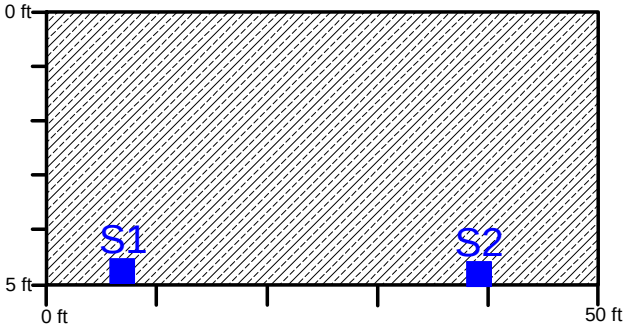
Soil samples B1 & B2: for all paramaters analyzed were below the detection limit.

East Wall



Soil samples E1 & E2: for all paramaters analyzed were below the detection limit.

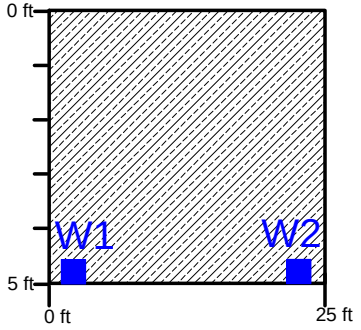
South Wall



Soil samples S1 & S2: for all paramaters analyzed were below the detecftion limit.

Analyzed Parameters for OCP Pesticides: Aldrin, gamma-hexachlorocyclohexane, a-chlordane, g-chlordane, chlordane (total), op-DDD, pp,-DDD, DDD (total), o,p-DDE, pp-DDE, DDE (total), op-DDT, pp-DDT, DDT (total), Dieldrin, Endosulfan I, Endosulfan II, Endosulfan (total), Endrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorobutadiene, Hexachloroethane, and Methoxychlor

West Wall



Soil samples W1 & W2: for all paramaters analyzed were below the detection limit.

LEGEND

- Soil Sample within Table 2 Standards
- Soil Sample exceeds Table 2 Standards

- Top soil
- Silty sand
- Sand
- Silty clay
- Sandy Silt

REV	DATE	REVISION DESCRIPTION	DRW	CHK
01	2018/11/29	Confirmatory Samples	AM	NR
00	2018/09/10	Original	NR	CRS

ALTECH Environmental Consulting Ltd.

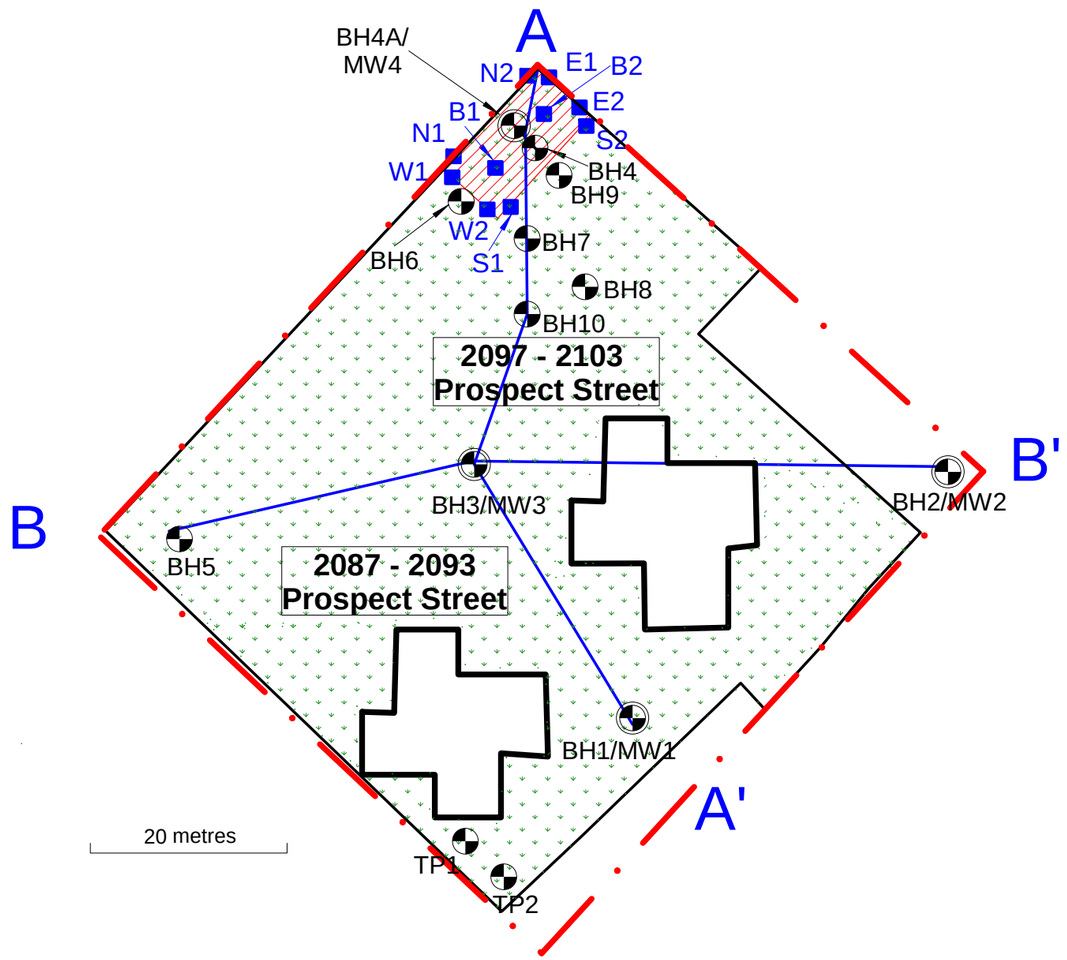
ALTECH Environmental Consulting Ltd.

TITLE: Phase Two ESA: Welwyn Interests Inc. and CFGI

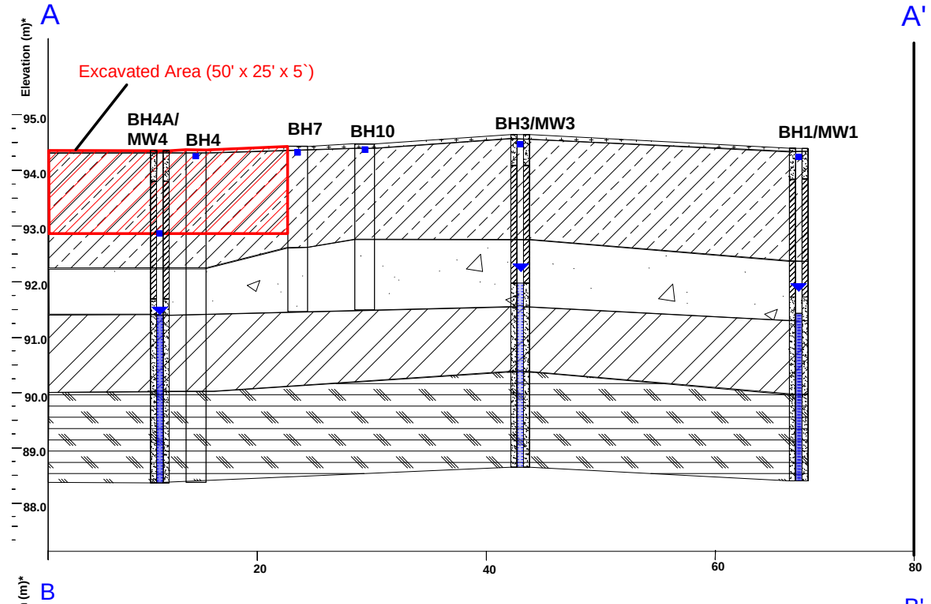
PROJECT: **Confirmatory Sample Results**
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

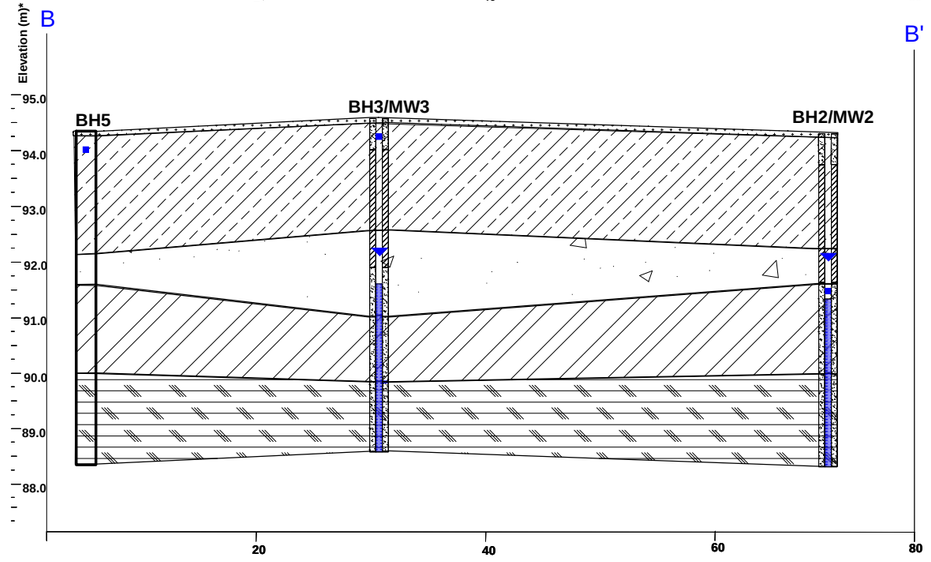
DRAWN BY	DATE	PROJECT NO.	FIGURE ID.
AM	2018/11/29	6232-18	12
CHECKED BY	DATE	SCALE	REV
NR	2018/12/03	as shown	01

Plan View



Cross-Section Profiles





Analyzed Parameters for OCP Pesticides:
Aldrin, gamma-hexachlorocyclohexane, a-chlordane, g-chlordane, chlordane (total), op-DDD, pp,-DDD, DDD (total), o,p-DDE, pp-DDE, DDE (total), op-DDT, pp-DDT, DDT (total), Dieldrin, Endosulfan I, Endosulfan II, Endosulfan (total), Endrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorobutadiene, Hexachloroethane, and Methoxychlor

Soil samples:
N1, N2, S1, S2,
W1, W2, E1, E2,
B1, and B2 for all paramaters
analyzed were below the dection limit

LEGEND

- Phase Two Property
- Soil Sample within Table 2 Standards
- Soil Sample exceeds Table 2 Standards
- Groundwater Sample within Table 2 Standards
- Groundwater Sample exceeds Table 2 Standards
- Groundwater Table
- Topsoil
- Silty Sand
- Sand
- Silty Clay
- Sandy Silt

*Elevations expressed in metres above sea level.

REV	DATE	REVISION DESCRIPTION	DRW	CHK
00	2018/09/10	Original	NR	

ALTECH Environmental Consulting Ltd.

ALTECH Environmental Consulting Ltd.

TITLE: Phase Two ESA: Welwyn Interests Inc. and CFGI

PROJECT: **Confirmatory Samples Cross-sections Profile 2087-2093 and 2097-2103 Prospect Street, Burlington, ON**

DRAWN BY	DATE	PROJECT NO.	FIGURE ID.
NR	2018/09/10	6232-18	13
CHECKED BY	**DATE**	**SCALE**	**REV**
CRS	2018/09/10	as shown	00

APPENDIX A

Appendix A - 1: Sampling and Analysis Plan

This Phase Two ESA, delineation investigation and a separate soil sampling event was designed withthe objective of investigating the potential for subsurface contamination associated with the Potentially Contaminating Activities (PCAs) identified in the Phase One ESA completed by Altech in February 2018 and Phase One ESA Update in March 2019.

Scope of Sampling and Media Investigated

The subsurface investigation included the advancement of a total of ten (10) boreholes (BH1 to BH4, BH4A, and BH5 to BH10) and two (2) hand-dug samples to a maximum depth of approximately 6.1 metres below ground surface (mbgs) and installation of four monitoring wells (MW1 to MW4).

The media investigated included soil and groundwater, sediment was not investigated due to the absence of surface water bodies (and thereby sediments). The assessment included the advancement of the boreholes, collection and field screening of soil samples, installation of monitoring wells, collection of groundwater samples, measurement and/or observation of hydrogeologic properties, and analysis of samples for several chemical parameters.

Parameters of Concern

Soil and groundwater samples were collected and analyzed for parameters including Petroleum Hydrocarbons (PHCs), Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), Polychlorinated Biphenyls (PCBs) and Organochlorine Pesticides (OCPs). Laboratory analytical results were compared to the Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (coarse textured soils) for Residential/Parkland/Institutional land use (2011 Ministry of Environment, Conservation and Parks [MECP] Table 2 Standards), based on the proposed future property use.

Sampling Locations

Altech chose the borehole and monitoring well locations to adequately assess the subsurface quality of the soil and groundwater underlying the Phase Two Property in the identified Areas of Potential Environmental Concern (APECs). Please refer to Figure 2 for an illustration of the borehole locations. The boreholes (BH) and monitoring wells (MW) were located as follows:

- BH1, completed as MW1, was advanced on the south-central portion of the Phase Two Property. This borehole was situated to investigate impacts from the historic orchard on the subject site.
- BH2, completed as MW2, was advanced on the south-eastern portion of the Phase Two Property. This borehole was situated to investigate impacts from the historic orchard on the subject site as wells as a former UST from the southern adjacent property.

- BH3, completed as MW3, was advanced on the central portion of the Phase Two Property. This borehole was situated to investigate impacts from the historic orchard on the subject site.
- BH4 was advanced on the north-eastern portion of the Phase Two Property. This borehole was situated to investigate impacts from the historical orchard on the subject site.
- BH5, was advanced on the north-western portion of the Phase Two Property. This borehole was situated to investigate impacts from the historic orchard on the subject site.

A delineation investigation was also undertaken on the property in October 2018. The program included advancement of five (5) boreholes (BH4A, BH6, BH7, BH8, BH9 and BH10) and one (1) monitoring well (MW4 in borehole BH4A) in the vicinity of the northeast portion of the Phase Two Property. The rationale for this was to delineate the soil contamination discovered during the Phase Two ESA investigation in the northeastern portion of the Phase Two ESA property.

A separate soil sampling event was also undertaken in March 2019 when an additional PCA, an on-site transformer, was identified on the Phase Two Property (which resulted the Phase One ESA to be updated) and two hand-dug samples were collected near the on-site transformer to confirm or deny PCB contamination in its vicinity. As no staining was observed on or near the transformer, no monitoring wells were installed to collect groundwater samples.

Sampling Methodology

Soil

Soil samples were retrieved from various depth intervals in each borehole. The soil samples were collected and field preserved in accordance with the instructions provided by the laboratory, ALS Environmental Laboratory Group (ALS). Soil selected for PHC, PCBs and OCPs, analysis was placed into a new, clean, 120 or 250 ml glass jar with a Teflon lined lid, and soil selected for BTEX analysis was transferred directly from the soil core using a new, clean, Terracore sampler into two (2) new, clean, 40 ml clear glass vials with Teflon-lined lids. Each vial contained 10 ml of methanol, as prepared by the laboratory.

Soil from each depth interval was placed into clean, sealed, 18 x 19 centimetre heavy polyethylene bags so that approximately one quarter of the bag was full, with some headspace in the bag. Any lumps of soil within the bag were gently massaged and broken up by hand. The sample was then monitored for soil vapours accumulated in the headspace. Samples were selected for laboratory analysis on the basis of the field-testing for combustible vapours, and any visual and olfactory evidence of impact.

The samples were labelled with the following information:

- A site reference number (6232-18 and 6255-18);

- A borehole (BH#) reference number, for placement of the sample at the site; and,
- A sample sleeve number (SS#) and depth reference from which the sample was retrieved.

Groundwater

Monitoring wells for groundwater sampling were installed in boreholes BH1, BH2, BH3 and BH4A. The monitoring wells were screened to straddle the shallow groundwater table within the unconfined aquifer underlying the site. For further details of monitoring wells please refer to section 5.5 of the report.

Groundwater samples were taken in accordance with the Ontario MECP document *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario.* No measurements of groundwater quality parameters were made in the field. Samples were taken from the monitoring wells MW1, MW2, MW3 and MW4, and submitted for laboratory analysis of PHCs F1toF4, BTEX and OCPs parameters.

The groundwater samples were labelled with the following information:

- A site reference number (6232-18 and 6255-18); and,
- A monitoring well location reference (MW#) for placement of the sample at the site.

The investigation and sampling plan conducted set out to adequately investigate the APECs identified in the Phase One ESA (Altech, February 2018) and Phase One ESA Update (Altech, March 2019). It is Altech's opinion that the plan was thorough and conservative in its approach.

APPENDIX B

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH1/MW1

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

Logged by: NR
Date: August 28, 2018
Drilling Co.: Direct Environmental
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	TOPSOIL some rootlets							
	Reddish-brown, SILTY SAND trace gravel, no odour, no staining	1			SS1	80	0	SOIL SAMPLE: BH1 0-2.5 FT for Organochlorine Pesticides
1		2						
		3			SS2	80	0	
		4						
		5						
		6			SS3	90	0	
2	Brown, SAND, trace gravel, no odour, no staining	7						
		8			SS4	90	0	Groundwater Level - 2.52 mbgs (August 29, 2018)
		9						
3		10			SS5	100	0	Monitoring well installed to 6.1 mbgs Screen: 3.04 - 6.1 mbgs Sand: 2.74 - 3.04 mbgs Bentonite: 0.15 - 2.74 mbgs Concrete: 0 - 0.15 mbgs
	Grey, SANDY SILT, some gravel, no odour, no staining	11						
		12						
4		13			SS6	100	0	
		14						
		15			SS7	100	0	
	Grey, SILTY CLAY, trace gravel, no odour, no staining	16						
		17						
5		18			SS8	100	0	
		19						
6		20						
	End of borehole ~20'	21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH2/MW2

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street,
Burlington, ON

Logged by: NR
Date: August 28, 2018
Drilling Co.: Direct Environmental
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	ASPHALT							
	Reddish-brown, SILTY SAND trace gravel, no odour, no staining	1			SS1	70	0	Monitoring well installed to 6.1 mbgs Screen: 3.04 - 6.1 mbgs Sand: 2.74 - 3.04 mbgs Bentonite: 0.15 - 2.74 mbgs Concrete: 0 - 0.15 mbgs
1		2						
		3			SS2	70	0	
		4						
		5			SS3	90	0	
2		6						
	Brown, SAND, some cobbles, no odour, no staining	7						
		8			SS4	90	0	Groundwater Level - 2.32 mbgs (August 29, 2018) **SOIL SAMPLE: BH2 and DUPS1 8-10 FT for Organochlorine Pesticides, BTEX and PHCs F1 to F4**
		9						
3	Grey, SANDY SILT, some gravel, no odour, no staining	10			SS5	90	0	
		11						
		12						
4		13			SS6	90	0	
		14						
	Grey, SILTY CLAY, trace gravel, no odour, no staining	15			SS7	90	0	
		16						
		17						
5		18			SS8	90	0	
		19						
6	End of borehole ~20'	20						
		21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH3/MW3

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street,
Burlington, ON

Logged by: NR
Date: August 28, 2018
Drilling Co.: Direct Environmental
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	TOPSOIL some rootlets	1			SS1	60	0	SOIL SAMPLE: BH3 0-2.5 FT for Organochlorine Pesticides
	Reddish-brown, SILTY SAND trace gravel, no odour, no staining	2						
1		3			SS2	60	0	
		4						
		5			SS3	80	0	
		6						
2	Brown, SAND, trace gravel, no odour, no staining	7						
		8			SS4	80	0	Groundwater Level - 2.37 mbgs (August 29, 2018)
		9						
3		10			SS5	90	0	Monitoring well installed to 6.1 mbgs Screen: 3.04 - 6.1 mbgs Sand: 2.74 - 3.04 mbgs Bentonite: 0.15 - 2.74 mbgs Concrete: 0 - 0.15 mbgs
	Grey, SANDY SILT, some gravel, no odour, no staining	11						
		12						
4		13			SS6	90	0	
		14						
	Grey, SILTY CLAY, trace gravel, no odour, no staining	15						
		16			SS7	90	0	
5		17						
		18						
		19			SS8	90	0	
6		20						
	End of borehole ~20'	21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH4

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

Logged by: NR
Date: August 28, 2018
Drilling Co.: Direct Environmental
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	TOPSOIL some rootlets	0						
	Reddish-brown, SILTY SAND trace gravel, no odour, no staining	1			SS1	50	0	SOIL SAMPLE: BH4 0 - 2.5 FT for Organochlorine Pesticides
1		2						
		3			SS2	50	0	
		4						
		5						
		6			SS3	80	0	
2		7						
	Brown, SAND, some cobbles, no odour, no staining	8			SS4	80	0	
		9						
	Grey, SANDY SILT, some gravel, no odour, no staining	10			SS5	100	0	
3		11						
		12						
		13			SS6	100	0	
4		14						
	Grey, SILTY CLAY, trace gravel, no odour, no staining	15			SS7	100	0	
		16						
		17						
		18			SS8	100	0	
5		19						
		20						
6	End of borehole ~20'	21						
		22						
		23						
7		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH4A/MW4

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street,
Burlington, ON

Logged by: NR
Date: October 5, 2018
Drilling Co.: Pontil Drilling
Drill Method: Auger

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	TOPSOIL some rootlets							
	Reddish-brown, SILTY SAND trace gravel, no odour, no staining	1–7						
1					SS1	80	0	SOIL SAMPLE: BH4A 5 - 7 FT for Organochlorine Pesticides
2								
	Brown, SAND, trace gravel, no odour, no staining	7–9			SS2	80	0	Groundwater Level - 2.72 mbgs (October 10, 2018)
3	End of borehole ~9.5'	10						Monitoring well installed to 6.1 mbgs Screen: 3.04 - 6.1 mbgs Sand: 2.74 - 3.04 mbgs Bentonite: 0.15 - 2.74 mbgs Concrete: 0 - 0.15 mbgs
4		11–13						
		14–15						
5		16–17						
		18–19						
6		20–21						
		22–23						
7		24–25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH5

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street,
Burlington, ON

Logged by: NR
Date: August 28, 2018
Drilling Co.: Direct Environmental
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	TOPSOIL some rootlets	0			SS1	50	0	SOIL SAMPLE: BH5 0 - 2.5 FT for Organochlorine Pesticides
	Reddish-brown, SILTY SAND trace gravel, no odour, no staining	1						
1		2						
		3			SS2	50	0	
		4						
		5						
2		6			SS3	80	0	
	Brown, SAND, some cobbles, no odour, no staining	7						
		8			SS4	80	0	
		9						
3	Grey, SANDY SILT, some gravel, no odour, no staining	10			SS5	90	0	
		11						
		12						
4		13			SS6	90	0	
	Grey, SILTY CLAY, trace gravel, no odour, no staining	14						
		15						
5		16			SS7	100	0	
		17						
		18						
6		19			SS8	100	0	
	End of borehole ~20'	20						
		21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH6

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

Logged by: NR
Date: October 5, 2018
Drilling Co.: Pontil Drilling
Drill Method: Auger

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	TOPSOIL some rootlets	1			SS1	40	0	SOIL SAMPLE: BH6 0 - 2 FT for Organochlorine Pesticides DUPS2 taken from BH6 0 - 2 FT for Organochlorine Pesticides
	Reddish-brown, SILTY SAND some gravel, no odour, no staining	2						
1		3			SS2	80	0	
		4						
		5						
		6			SS3	90	0	
2		7						
	Brown, SAND, trace gravel, no odour, no staining	8			SS4	100	0	
		9						
3	End of borehole ~9.5'	10						
		11						
		12						
4		13						
		14						
		15						
5		16						
		17						
		18						
		19						
6		20						
		21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH7

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

Logged by: NR
Date: October 5, 2018
Drilling Co.: Pontil Drilling
Drill Method: Auger

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	TOPSOIL some rootlets	0						
	Reddish-brown, SILTY SAND some gravel, no odour, no staining	1			SS1	50	0	SOIL SAMPLE: BH7 0 - 2 FT for Organochlorine Pesticides
		2						
1		3			SS2	50	0	
		4						
		5						
		6			SS3	90	0	
2		7						
	Brown, SAND, trace gravel, no odour, no staining	8			SS4	100	0	
		9						
3	End of borehole ~9.5'	10						
		11						
		12						
4		13						
		14						
		15						
5		16						
		17						
		18						
		19						
6		20						
		21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH8

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street,
Burlington, ON

Logged by: NR
Date: October 5, 2018
Drilling Co.: Pontil Drilling
Drill Method: Auger

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	TOPSOIL some rootlets	1			SS1	50	0	SOIL SAMPLE: BH8 0 - 2 FT for Organochlorine Pesticides
	Reddish-brown, SILTY SAND some gravel, no odour, no staining	2						
1		3			SS2	50	0	
		4						
		5						
		6			SS3	100	0	
2		7						
	Brown, SAND, trace gravel, no odour, no staining	8			SS4	100	0	
	- wet @ 8'	9						
3		10						
		11						
		12						
4		13						
		14						
		15						
5		16						
		17						
		18						
		19						
6		20						
		21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH9

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

Logged by: NR
Date: October 5, 2018
Drilling Co.: Pontil Drilling
Drill Method: Auger

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	ASPHALT some rootlets	0						
	Reddish-brown, SILTY SAND some gravel, no odour, no staining	1			SS1	50	0	SOIL SAMPLE: BH9 0 - 2 FT for Organochlorine Pesticides
		2						
1		3			SS2	50	0	
		4						
		5						
		6			SS3	100	0	
2	Brown, SAND, trace gravel, no odour, no staining - wet @ 8'	7						
		8			SS4	100	0	
		9						
3		10						
		11						
		12						
4		13						
		14						
		15						
5		16						
		17						
		18						
		19						
6		20						
		21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: BH10

Phase Two ESA
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

Logged by: NR
Date: October 5, 2018
Drilling Co.: Pontil Drilling
Drill Method: Auger

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
0	TOPSOIL some rootlets	0						
	Reddish-brown, SILTY SAND some gravel, no odour, no staining	1			SS1	50	0	SOIL SAMPLE: BH10 0 - 2 FT for Organochlorine Pesticides
		2						
1		3			SS2	50	0	
		4						
		5						
		6			SS3	80	0	
2	Brown, SAND, trace gravel, no odour, no staining	7						
		8			SS4	90	0	
		9						
3		10						
		11						
		12						
4		13						
		14						
		15						
5		16						
		17						
		18						
		19						
6		20						
		21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: TP1

Soil Sampling Event
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

Logged by: NR
Date: March 22, 2019
Drilling Co.: None
Drill Method: Hand-Dug

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
	TOPSOIL some rootlets							
	Reddish-brown, SILTY SAND some gravel, no odour, no staining	1			SS1	100	0	SOIL SAMPLE: TP1 0 - 1 FT for Polychlorianted Biphenyls
1		2						
		3						
		4						
		5						
2		6						
		7						
		8						
		9						
3		10						
		11						
		12						
4		13						
		14						
		15						
5		16						
		17						
		18						
		19						
6		20						
		21						
		22						
7		23						
		24						
		25						

ALTECH Environmental Consulting Ltd.

BOREHOLE: TP2

Soil Sampling Event
Welwyn Interests Inc. and CFGI
2087-2093 and 2097-2103 Prospect Street, Burlington, ON

Logged by: NR
Date: March 22, 2019
Drilling Co.: None
Drill Method: Hand-Dug

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	% Recovery	VOC Concentration (ppm)	Comments: Blow Count, N Value, Water level
	TOPSOIL some rootlets							
	Reddish-brown, SILTY SAND some gravel, no odour, no staining	1			SS1	100	0	SOIL SAMPLE: TP2 0 - 1 FT for Polychlorianted Biphenyls
1		2						
		3						
		4						
		5						
2		6						
		7						
		8						
		9						
3		10						
		11						
		12						
4		13						
		14						
		15						
		16						
5		17						
		18						
		19						
6		20						
		21						
		22						
7		23						
		24						
		25						

APPENDIX C

ALTECH ENVIRONMENTAL
ATTN: Naveed Rehman
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 29-AUG-18
Report Date: 17-SEP-18 08:23 (MT)
Version: FINAL REV. 2

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L2155680

Project P.O. #: NOT SUBMITTED
Job Reference: 6232-18
C of C Numbers: 17-638624
Legal Site Desc:

Comments: ADDITIONAL 10-SEP-18 13:26
10-SEP-18 Adding pH to samples BH1, BH2, BH3, BH4, BH5, DUPS1 and PSA to sample BH1 on regular TAT as per client request via phone. -A.Fazekas

Amanda Fazekas
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-1 BH1 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Physical Tests							
% Moisture	6.81		0.10	%	04-SEP-18	05-SEP-18	R4199027
pH	7.51		0.10	pH units		14-SEP-18	R4215910
Particle Size							
% >75um	57.8		1.0	%	11-SEP-18	11-SEP-18	R4211340
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
a-chlordane	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Chlordane (Total)	<0.028		0.028	ug/g		07-SEP-18	
g-chlordane	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
op-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDD	<0.028		0.028	ug/g		07-SEP-18	
o,p-DDE	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDE	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDE	<0.028		0.028	ug/g		07-SEP-18	
op-DDT	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDT	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDT	<0.028		0.028	ug/g		07-SEP-18	
Dieldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan I	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan II	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan (Total)	<0.028		0.028	ug/g		07-SEP-18	
Endrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor Epoxide	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobenzene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobutadiene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachloroethane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Methoxychlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Surrogate: 2-Fluorobiphenyl	77.7		50-140	%	31-AUG-18	07-SEP-18	R4204031
Surrogate: d14-Terphenyl	63.7		50-140	%	31-AUG-18	07-SEP-18	R4204031
L2155680-2 BH2 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Physical Tests							
% Moisture	16.0		0.10	%	04-SEP-18	05-SEP-18	R4199027
pH	8.02		0.10	pH units		14-SEP-18	R4215910
Volatile Organic Compounds							
Benzene	<0.0068		0.0068	ug/g	30-AUG-18	31-AUG-18	R4195245
Ethylbenzene	<0.018		0.018	ug/g	30-AUG-18	31-AUG-18	R4195245
Toluene	<0.080		0.080	ug/g	30-AUG-18	31-AUG-18	R4195245

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-2 BH2 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Volatile Organic Compounds							
o-Xylene	<0.020		0.020	ug/g	30-AUG-18	31-AUG-18	R4195245
m+p-Xylenes	<0.030		0.030	ug/g	30-AUG-18	31-AUG-18	R4195245
Xylenes (Total)	<0.050		0.050	ug/g		06-SEP-18	
Surrogate: 4-Bromofluorobenzene	85.2		50-140	%	30-AUG-18	31-AUG-18	R4195245
Surrogate: 1,4-Difluorobenzene	90.4		50-140	%	30-AUG-18	31-AUG-18	R4195245
Hydrocarbons							
F1 (C6-C10)	<5.0		5.0	ug/g	30-AUG-18	04-SEP-18	R4195245
F1-BTEX	<5.0		5.0	ug/g		06-SEP-18	
F2 (C10-C16)	<10		10	ug/g	03-SEP-18	06-SEP-18	R4202648
F3 (C16-C34)	<50		50	ug/g	03-SEP-18	06-SEP-18	R4202648
F4 (C34-C50)	<50		50	ug/g	03-SEP-18	06-SEP-18	R4202648
Total Hydrocarbons (C6-C50)	<72		72	ug/g		06-SEP-18	
Chrom. to baseline at nC50	YES				03-SEP-18	06-SEP-18	R4202648
Surrogate: 2-Bromobenzotrifluoride	96.1		60-140	%	03-SEP-18	06-SEP-18	R4202648
Surrogate: 3,4-Dichlorotoluene	107.8		60-140	%	30-AUG-18	04-SEP-18	R4195245
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
a-chlordane	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Chlordane (Total)	<0.028		0.028	ug/g		07-SEP-18	
g-chlordane	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
op-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDD	<0.028		0.028	ug/g		07-SEP-18	
o,p-DDE	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDE	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDE	<0.028		0.028	ug/g		07-SEP-18	
op-DDT	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDT	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDT	<0.028		0.028	ug/g		07-SEP-18	
Dieldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan I	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan II	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan (Total)	<0.028		0.028	ug/g		07-SEP-18	
Endrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor Epoxide	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobenzene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobutadiene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachloroethane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Methoxychlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-2 BH2 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Organochlorine Pesticides							
Surrogate: 2-Fluorobiphenyl	78.4		50-140	%	31-AUG-18	07-SEP-18	R4204031
Surrogate: d14-Terphenyl	78.7		50-140	%	31-AUG-18	07-SEP-18	R4204031
L2155680-3 BH3 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Physical Tests							
% Moisture	21.8		0.10	%	04-SEP-18	05-SEP-18	R4200932
pH	6.79		0.10	pH units		14-SEP-18	R4215910
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
a-chlordane	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Chlordane (Total)	<0.028		0.028	ug/g		07-SEP-18	
g-chlordane	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
op-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDD	<0.028		0.028	ug/g		07-SEP-18	
o,p-DDE	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDE	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDE	<0.028		0.028	ug/g		07-SEP-18	
op-DDT	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDT	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDT	<0.028		0.028	ug/g		07-SEP-18	
Dieldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan I	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan II	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan (Total)	<0.028		0.028	ug/g		07-SEP-18	
Endrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor Epoxide	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobenzene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobutadiene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachloroethane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Methoxychlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Surrogate: 2-Fluorobiphenyl	83.1		50-140	%	31-AUG-18	07-SEP-18	R4204031
Surrogate: d14-Terphenyl	84.4		50-140	%	31-AUG-18	07-SEP-18	R4204031
L2155680-4 BH4 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Physical Tests							
% Moisture	5.82		0.10	%	04-SEP-18	05-SEP-18	R4200932
pH	7.30		0.10	pH units		14-SEP-18	R4215910

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-4 BH4 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Physical Tests							
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
a-chlordane	0.044		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Chlordane (Total)	0.081		0.028	ug/g		07-SEP-18	
g-chlordane	0.037		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
op-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDD	<0.028		0.028	ug/g		07-SEP-18	
o,p-DDE	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDE	0.076		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDE	0.076		0.028	ug/g		07-SEP-18	
op-DDT	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDT	0.026		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDT	<0.028		0.028	ug/g		07-SEP-18	
Dieldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan I	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan II	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan (Total)	<0.028		0.028	ug/g		07-SEP-18	
Endrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor Epoxide	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobenzene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobutadiene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachloroethane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Methoxychlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Surrogate: 2-Fluorobiphenyl	81.8		50-140	%	31-AUG-18	07-SEP-18	R4204031
Surrogate: d14-Terphenyl	78.4		50-140	%	31-AUG-18	07-SEP-18	R4204031
L2155680-5 BH5 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Physical Tests							
% Moisture	7.82		0.10	%	04-SEP-18	05-SEP-18	R4200932
pH	5.34		0.10	pH units		14-SEP-18	R4215910
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
a-chlordane	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Chlordane (Total)	<0.028		0.028	ug/g		07-SEP-18	
g-chlordane	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
op-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDD	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-5 BH5 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Organochlorine Pesticides							
Total DDD	<0.028		0.028	ug/g		07-SEP-18	
o,p-DDE	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDE	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDE	<0.028		0.028	ug/g		07-SEP-18	
op-DDT	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
pp-DDT	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Total DDT	<0.028		0.028	ug/g		07-SEP-18	
Dieldrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan I	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan II	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Endosulfan (Total)	<0.028		0.028	ug/g		07-SEP-18	
Endrin	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Heptachlor Epoxide	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobenzene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachlorobutadiene	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Hexachloroethane	<0.010		0.010	ug/g	31-AUG-18	07-SEP-18	R4204031
Methoxychlor	<0.020		0.020	ug/g	31-AUG-18	07-SEP-18	R4204031
Surrogate: 2-Fluorobiphenyl	83.1		50-140	%	31-AUG-18	07-SEP-18	R4204031
Surrogate: d14-Terphenyl	80.9		50-140	%	31-AUG-18	07-SEP-18	R4204031
L2155680-6 DUPS1 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Physical Tests							
% Moisture	15.6		0.10	%	04-SEP-18	05-SEP-18	R4200932
pH	7.97		0.10	pH units		14-SEP-18	R4215910
Volatile Organic Compounds							
Benzene	<0.0068		0.0068	ug/g	30-AUG-18	31-AUG-18	R4195245
Ethylbenzene	<0.018		0.018	ug/g	30-AUG-18	31-AUG-18	R4195245
Toluene	<0.080		0.080	ug/g	30-AUG-18	31-AUG-18	R4195245
o-Xylene	<0.020		0.020	ug/g	30-AUG-18	31-AUG-18	R4195245
m+p-Xylenes	<0.030		0.030	ug/g	30-AUG-18	31-AUG-18	R4195245
Xylenes (Total)	<0.050		0.050	ug/g		06-SEP-18	
Surrogate: 4-Bromofluorobenzene	90.6		50-140	%	30-AUG-18	31-AUG-18	R4195245
Surrogate: 1,4-Difluorobenzene	96.9		50-140	%	30-AUG-18	31-AUG-18	R4195245
Hydrocarbons							
F1 (C6-C10)	<5.0		5.0	ug/g	30-AUG-18	04-SEP-18	R4195245
F1-BTEX	<5.0		5.0	ug/g		06-SEP-18	
F2 (C10-C16)	<10		10	ug/g	03-SEP-18	06-SEP-18	R4202648
F3 (C16-C34)	<50		50	ug/g	03-SEP-18	06-SEP-18	R4202648
F4 (C34-C50)	<50		50	ug/g	03-SEP-18	06-SEP-18	R4202648
Total Hydrocarbons (C6-C50)	<72		72	ug/g		06-SEP-18	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-6 DUPS1 Sampled By: CLIENT on 28-AUG-18 Matrix: SOIL							
Hydrocarbons							
Chrom. to baseline at nC50	YES				03-SEP-18	06-SEP-18	R4202648
Surrogate: 2-Bromobenzotrifluoride	97.5		60-140	%	03-SEP-18	06-SEP-18	R4202648
Surrogate: 3,4-Dichlorotoluene	105.6		60-140	%	30-AUG-18	04-SEP-18	R4195245
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	31-AUG-18	06-SEP-18	R4204031
a-chlordane	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Chlordane (Total)	<0.028		0.028	ug/g		06-SEP-18	
g-chlordane	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
op-DDD	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
pp-DDD	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Total DDD	<0.028		0.028	ug/g		06-SEP-18	
o,p-DDE	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
pp-DDE	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Total DDE	<0.028		0.028	ug/g		06-SEP-18	
op-DDT	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
pp-DDT	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Total DDT	<0.028		0.028	ug/g		06-SEP-18	
Dieldrin	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Endosulfan I	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Endosulfan II	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Endosulfan (Total)	<0.028		0.028	ug/g		06-SEP-18	
Endrin	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Heptachlor	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Heptachlor Epoxide	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Hexachlorobenzene	<0.010		0.010	ug/g	31-AUG-18	06-SEP-18	R4204031
Hexachlorobutadiene	<0.010		0.010	ug/g	31-AUG-18	06-SEP-18	R4204031
Hexachloroethane	<0.010		0.010	ug/g	31-AUG-18	06-SEP-18	R4204031
Methoxychlor	<0.020		0.020	ug/g	31-AUG-18	06-SEP-18	R4204031
Surrogate: 2-Fluorobiphenyl	83.4		50-140	%	31-AUG-18	06-SEP-18	R4204031
Surrogate: d14-Terphenyl	69.5		50-140	%	31-AUG-18	06-SEP-18	R4204031
L2155680-7 MW1 Sampled By: CLIENT on 28-AUG-18 @ 12:00 Matrix: WATER							
Organochlorine Pesticides							
Aldrin	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
gamma-hexachlorocyclohexane	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
a-chlordane	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
Chlordane (Total)	<0.057		0.057	ug/L		10-SEP-18	
g-chlordane	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
o,p-DDD	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDD	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-7 MW1 Sampled By: CLIENT on 28-AUG-18 @ 12:00 Matrix: WATER							
Organochlorine Pesticides							
Total DDD	<0.042		0.042	ug/L		10-SEP-18	
o,p-DDE	<0.0080		0.0080	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDE	<0.0080		0.0080	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDE	<0.011		0.011	ug/L		10-SEP-18	
op-DDT	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDT	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDT	<0.042		0.042	ug/L		10-SEP-18	
Dieldrin	<0.050		0.050	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan I	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan II	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan (Total)	<0.042		0.042	ug/L		10-SEP-18	
Endrin	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
Heptachlor	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Heptachlor Epoxide	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachlorobenzene	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachlorobutadiene	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachloroethane	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Methoxychlor	<0.050		0.050	ug/L	01-SEP-18	10-SEP-18	R4204781
Surrogate: 2-Fluorobiphenyl	74.4		50-140	%	01-SEP-18	10-SEP-18	R4204781
Surrogate: d14-Terphenyl	104.7		60-140	%	01-SEP-18	10-SEP-18	R4204781
L2155680-8 MW2 Sampled By: CLIENT on 28-AUG-18 @ 12:00 Matrix: WATER							
Volatile Organic Compounds							
Benzene	<0.50	OWP	0.50	ug/L		04-SEP-18	R4197288
Ethylbenzene	<0.50	OWP	0.50	ug/L		04-SEP-18	R4197288
Toluene	<0.50	OWP	0.50	ug/L		04-SEP-18	R4197288
o-Xylene	<0.30	OWP	0.30	ug/L		04-SEP-18	R4197288
m+p-Xylenes	<0.40	OWP	0.40	ug/L		04-SEP-18	R4197288
Xylenes (Total)	<0.50		0.50	ug/L		04-SEP-18	
Surrogate: 4-Bromofluorobenzene	100.5		70-130	%		04-SEP-18	R4197288
Surrogate: 1,4-Difluorobenzene	97.3		70-130	%		04-SEP-18	R4197288
Hydrocarbons							
F1 (C6-C10)	<25	OWP	25	ug/L		04-SEP-18	R4197288
F1-BTEX	<25		25	ug/L		05-SEP-18	
F2 (C10-C16)	<100		100	ug/L	30-AUG-18	04-SEP-18	R4198934
F3 (C16-C34)	<250		250	ug/L	30-AUG-18	04-SEP-18	R4198934
F4 (C34-C50)	<250		250	ug/L	30-AUG-18	04-SEP-18	R4198934
Total Hydrocarbons (C6-C50)	<370		370	ug/L		05-SEP-18	
Chrom. to baseline at nC50	YES				30-AUG-18	04-SEP-18	R4198934
Surrogate: 2-Bromobenzotrifluoride	81.5		60-140	%	30-AUG-18	04-SEP-18	R4198934
Surrogate: 3,4-Dichlorotoluene	97.6		60-140	%		04-SEP-18	R4197288

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-8 MW2 Sampled By: CLIENT on 28-AUG-18 @ 12:00 Matrix: WATER							
Hydrocarbons							
Organochlorine Pesticides							
Aldrin	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
gamma-hexachlorocyclohexane	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
a-chlordane	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
Chlordane (Total)	<0.057		0.057	ug/L		10-SEP-18	
g-chlordane	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
o,p-DDD	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDD	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDD	<0.042		0.042	ug/L		10-SEP-18	
o,p-DDE	<0.0080		0.0080	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDE	<0.0080		0.0080	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDE	<0.011		0.011	ug/L		10-SEP-18	
op-DDT	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDT	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDT	<0.042		0.042	ug/L		10-SEP-18	
Dieldrin	<0.050		0.050	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan I	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan II	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan (Total)	<0.042		0.042	ug/L		10-SEP-18	
Endrin	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
Heptachlor	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Heptachlor Epoxide	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachlorobenzene	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachlorobutadiene	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachloroethane	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Methoxychlor	<0.050		0.050	ug/L	01-SEP-18	10-SEP-18	R4204781
Surrogate: 2-Fluorobiphenyl	71.7		50-140	%	01-SEP-18	10-SEP-18	R4204781
Surrogate: d14-Terphenyl	90.7		60-140	%	01-SEP-18	10-SEP-18	R4204781
L2155680-9 MW3 Sampled By: CLIENT on 28-AUG-18 @ 12:00 Matrix: WATER							
Organochlorine Pesticides							
Aldrin	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
gamma-hexachlorocyclohexane	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
a-chlordane	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
Chlordane (Total)	<0.057		0.057	ug/L		10-SEP-18	
g-chlordane	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
o,p-DDD	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDD	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDD	<0.042		0.042	ug/L		10-SEP-18	
o,p-DDE	<0.0080		0.0080	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDE	<0.0080		0.0080	ug/L	01-SEP-18	10-SEP-18	R4204781

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-9 MW3 Sampled By: CLIENT on 28-AUG-18 @ 12:00 Matrix: WATER							
Organochlorine Pesticides							
Total DDE	<0.011		0.011	ug/L		10-SEP-18	
op-DDT	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDT	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDT	<0.042		0.042	ug/L		10-SEP-18	
Dieldrin	<0.050		0.050	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan I	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan II	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan (Total)	<0.042		0.042	ug/L		10-SEP-18	
Endrin	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
Heptachlor	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Heptachlor Epoxide	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachlorobenzene	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachlorobutadiene	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachloroethane	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Methoxychlor	<0.050		0.050	ug/L	01-SEP-18	10-SEP-18	R4204781
Surrogate: 2-Fluorobiphenyl	68.1		50-140	%	01-SEP-18	10-SEP-18	R4204781
Surrogate: d14-Terphenyl	64.8		60-140	%	01-SEP-18	10-SEP-18	R4204781
L2155680-10 DUPG1 Sampled By: CLIENT on 28-AUG-18 @ 12:00 Matrix: WATER							
Organochlorine Pesticides							
Aldrin	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
gamma-hexachlorocyclohexane	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
a-chlordane	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
Chlordane (Total)	<0.057		0.057	ug/L		10-SEP-18	
g-chlordane	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
o,p-DDD	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDD	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDD	<0.042		0.042	ug/L		10-SEP-18	
o,p-DDE	<0.0080		0.0080	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDE	<0.0080		0.0080	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDE	<0.011		0.011	ug/L		10-SEP-18	
op-DDT	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
pp-DDT	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Total DDT	<0.042		0.042	ug/L		10-SEP-18	
Dieldrin	<0.050		0.050	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan I	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan II	<0.030		0.030	ug/L	01-SEP-18	10-SEP-18	R4204781
Endosulfan (Total)	<0.042		0.042	ug/L		10-SEP-18	
Endrin	<0.040		0.040	ug/L	01-SEP-18	10-SEP-18	R4204781
Heptachlor	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Heptachlor Epoxide	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2155680-10 DUPG1 Sampled By: CLIENT on 28-AUG-18 @ 12:00 Matrix: WATER							
Organochlorine Pesticides							
Hexachlorobenzene	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachlorobutadiene	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Hexachloroethane	<0.010		0.010	ug/L	01-SEP-18	10-SEP-18	R4204781
Methoxychlor	<0.050		0.050	ug/L	01-SEP-18	10-SEP-18	R4204781
Surrogate: 2-Fluorobiphenyl	67.2		50-140	%	01-SEP-18	10-SEP-18	R4204781
Surrogate: d14-Terphenyl	76.7		60-140	%	01-SEP-18	10-SEP-18	R4204781

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Method Blank	F3 (C16-C34)	MB-LOR	L2155680-8
Method Blank	F4 (C34-C50)	MB-LOR	L2155680-8

Sample Parameter Qualifier key listed:

Qualifier	Description
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.
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 sediment.

Test Method References:

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).

BTX-511-HS-WT	Water	BTEX by Headspace	SW846 8260 (511)

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

CHLORDANE-T-CALC-WT	Soil	Chlordane Total sums	CALCULATION

Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.

CHLORDANE-T-CALC-WT	Water	Chlordane Total sums	CALCULATION

Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.

DDD-DDE-DDT-CALC-WT	Soil	DDD, DDE, DDT sums	CALCULATION

Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.

DDD-DDE-DDT-CALC-WT	Water	DDD, DDE, DDT sums	CALCULATION

Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.

ENDOSULFAN-T-CALC-WT	Soil	Endosulfan Total sums	CALCULATION

Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.

ENDOSULFAN-T-CALC-WT	Water	Endosulfan Total sums	CALCULATION

Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.

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.

Reference Information

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 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).

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 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:
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).

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).

MOISTURE-WT Soil % Moisture Gravimetric: Oven Dried

PEST-OC-511-WT Soil OC Pesticides-O.Reg 153/04 (July 2011) SW846 8270 (511)

Soil sample is extracted in a solvent, after extraction a number of clean up techniques may be applied, depending on the sample matrix and analyzed by 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), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG

Reference Information

must be reported).

PEST-OC-511-WT Water OC Pesticides-O. Reg 153/04 (July 2011) SW846 8270 (511)
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by 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), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

PH-WT Soil pH MOEE E3137A
A minimum 10g portion of the sample is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil and then analyzed using a pH meter and electrode.

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).

PSA-75UM-SIEVE-WT Soil % Particles>75um (Coarse/Fine) CARTER CSSS 55.4 (modified)
An air-dried sample is reduced to < 2 mm size and mixed with a dispersing agent (sodium metaphosphate). The sample is washed through a 200 mesh (75 µm) sieve. The retained mass of sample is used to determine % sand fraction. If the percentage of sand is >50%, the soil is considered to be coarse textured soil. If the percentage of sand is <50%, the soil is considered to be fine textured.

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

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

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.

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

Chain of Custody Numbers:

17-638624

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 weight of sample
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.

Quality Control Report

Workorder: L2155680 Report Date: 17-SEP-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-511-HS-WT	**Water**							
Batch R4197288								
WG2860377-4 DUP		**WG2860377-3**						
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
m+p-Xylenes		<0.40	<0.40	RPD-NA	ug/L	N/A	30	04-SEP-18
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	04-SEP-18
Toluene		11.4	11.4		ug/L	0.1	30	04-SEP-18
WG2860377-1 LCS								
Benzene			97.5		%		70-130	04-SEP-18
Ethylbenzene			88.8		%		70-130	04-SEP-18
m+p-Xylenes			93.8		%		70-130	04-SEP-18
o-Xylene			88.0		%		70-130	04-SEP-18
Toluene			90.1		%		70-130	04-SEP-18
WG2860377-2 MB								
Benzene			<0.50		ug/L		0.5	04-SEP-18
Ethylbenzene			<0.50		ug/L		0.5	04-SEP-18
m+p-Xylenes			<0.40		ug/L		0.4	04-SEP-18
o-Xylene			<0.30		ug/L		0.3	04-SEP-18
Toluene			<0.50		ug/L		0.5	04-SEP-18
Surrogate: 1,4-Difluorobenzene			96.5		%		70-130	04-SEP-18
Surrogate: 4-Bromofluorobenzene			96.3		%		70-130	04-SEP-18
WG2860377-5 MS		**WG2860377-3**						
Benzene			96.8		%		50-140	04-SEP-18
Ethylbenzene			89.7		%		50-140	04-SEP-18
m+p-Xylenes			93.1		%		50-140	04-SEP-18
o-Xylene			88.6		%		50-140	04-SEP-18
Toluene			90.3		%		50-140	04-SEP-18
F1-HS-511-WT	**Water**							
Batch R4197288								
WG2860377-4 DUP		**WG2860377-3**						
F1 (C6-C10)		29	27		ug/L	4.6	30	04-SEP-18
WG2860377-1 LCS								
F1 (C6-C10)			96.2		%		80-120	04-SEP-18
WG2860377-2 MB								
F1 (C6-C10)			<25		ug/L		25	04-SEP-18
Surrogate: 3,4-Dichlorotoluene			106.1		%		60-140	04-SEP-18
WG2860377-5 MS		**WG2860377-3**						

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT	**Water**							
Batch R4197288								
WG2860377-5 MS		**WG2860377-3**						
F1 (C6-C10)			81.4		%		60-140	04-SEP-18
F2-F4-511-WT	**Water**							
Batch R4198934								
WG2864438-2 LCS								
F2 (C10-C16)			95.6		%		70-130	04-SEP-18
F3 (C16-C34)			97.7		%		70-130	04-SEP-18
F4 (C34-C50)			106.1		%		70-130	04-SEP-18
WG2864438-3 LCSD		**WG2864438-2**						
F2 (C10-C16)		95.6	106.3		%	11	50	04-SEP-18
F3 (C16-C34)		97.7	104.1		%	6.3	50	04-SEP-18
F4 (C34-C50)		106.1	109.8		%	3.4	50	04-SEP-18
WG2864438-1 MB								
F2 (C10-C16)			<100		ug/L		100	04-SEP-18
F3 (C16-C34)			8800	MB-LOR	ug/L		250	04-SEP-18
F4 (C34-C50)			960	MB-LOR	ug/L		250	04-SEP-18
Surrogate: 2-Bromobenzotrifluoride			129.0		%		60-140	04-SEP-18
PEST-OC-511-WT	**Water**							
Batch R4204781								
WG2865262-2 LCS								
Aldrin			88.5		%		50-140	07-SEP-18
a-chlordane			97.0		%		50-140	07-SEP-18
g-chlordane			101.0		%		50-140	07-SEP-18
o,p-DDD			90.3		%		50-140	07-SEP-18
pp-DDD			88.1		%		50-140	07-SEP-18
o,p-DDE			92.6		%		50-140	07-SEP-18
pp-DDE			86.5		%		50-140	07-SEP-18
op-DDT			93.7		%		50-140	07-SEP-18
pp-DDT			110.0		%		50-140	07-SEP-18
Dieldrin			101.4		%		50-140	07-SEP-18
Endosulfan I			97.5		%		50-140	07-SEP-18
Endosulfan II			98.0		%		50-140	07-SEP-18
Endrin			118.6		%		50-140	07-SEP-18
gamma-hexachlorocyclohexane			90.3		%		50-140	07-SEP-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Water**							
Batch R4204781								
WG2865262-2 LCS								
Heptachlor			77.4		%		50-140	07-SEP-18
Heptachlor Epoxide			111.9		%		50-140	07-SEP-18
Hexachlorobenzene			84.4		%		40-130	07-SEP-18
Hexachlorobutadiene			62.5		%		40-130	07-SEP-18
Hexachloroethane			63.8		%		40-130	07-SEP-18
Methoxychlor			125.0		%		50-140	07-SEP-18
WG2865262-3 LCSD		**WG2865262-2**						
Aldrin		88.5	101.5		%	14	50	07-SEP-18
a-chlordane		97.0	107.2		%	10	50	07-SEP-18
g-chlordane		101.0	119.2		%	17	50	07-SEP-18
o,p-DDD		90.3	100.4		%	11	50	07-SEP-18
pp-DDD		88.1	94.4		%	6.9	50	07-SEP-18
o,p-DDE		92.6	108.0		%	15	50	07-SEP-18
pp-DDE		86.5	99.3		%	14	50	07-SEP-18
op-DDT		93.7	103.1		%	9.6	50	07-SEP-18
pp-DDT		110.0	114.5		%	4.0	50	07-SEP-18
Dieldrin		101.4	112.1		%	10	50	07-SEP-18
Endosulfan I		97.5	109.1		%	11	50	07-SEP-18
Endosulfan II		98.0	106.3		%	8.1	50	07-SEP-18
Endrin		118.6	122.7		%	3.4	50	07-SEP-18
gamma-hexachlorocyclohexane		90.3	97.0		%	7.1	50	07-SEP-18
Heptachlor		77.4	95.1		%	21	50	07-SEP-18
Heptachlor Epoxide		111.9	128.2		%	14	50	07-SEP-18
Hexachlorobenzene		84.4	81.4		%	3.7	50	07-SEP-18
Hexachlorobutadiene		62.5	64.0		%	2.4	50	07-SEP-18
Hexachloroethane		63.8	61.8		%	3.1	50	07-SEP-18
Methoxychlor		125.0	141.6		%	12	50	07-SEP-18
WG2865262-1 MB								
Aldrin			<0.010		ug/L		0.01	07-SEP-18
a-chlordane			<0.040		ug/L		0.04	07-SEP-18
g-chlordane			<0.040		ug/L		0.04	07-SEP-18
o,p-DDD			<0.030		ug/L		0.03	07-SEP-18
pp-DDD			<0.030		ug/L		0.03	07-SEP-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Water**							
Batch R4204781								
WG2865262-1 MB								
o,p-DDE			<0.0080		ug/L		0.008	07-SEP-18
pp-DDE			<0.0080		ug/L		0.008	07-SEP-18
op-DDT			<0.030		ug/L		0.03	07-SEP-18
pp-DDT			<0.030		ug/L		0.03	07-SEP-18
Dieldrin			<0.050		ug/L		0.05	07-SEP-18
Endosulfan I			<0.030		ug/L		0.03	07-SEP-18
Endosulfan II			<0.030		ug/L		0.03	07-SEP-18
Endrin			<0.040		ug/L		0.04	07-SEP-18
gamma-hexachlorocyclohexane			<0.010		ug/L		0.01	07-SEP-18
Heptachlor			<0.010		ug/L		0.01	07-SEP-18
Heptachlor Epoxide			<0.010		ug/L		0.01	07-SEP-18
Hexachlorobenzene			<0.010		ug/L		0.01	07-SEP-18
Hexachlorobutadiene			<0.010		ug/L		0.01	07-SEP-18
Hexachloroethane			<0.010		ug/L		0.01	07-SEP-18
Methoxychlor			<0.050		ug/L		0.05	07-SEP-18
Surrogate: 2-Fluorobiphenyl			82.8		%		50-140	07-SEP-18
Surrogate: d14-Terphenyl			88.4		%		60-140	07-SEP-18
BTX-511-HS-WT	**Soil**							
Batch R4195245								
WG2864204-4 DUP		**WG2864204-3**						
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	31-AUG-18
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	31-AUG-18
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	31-AUG-18
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	31-AUG-18
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	31-AUG-18
WG2864204-2 LCS								
Benzene			102.8		%		70-130	31-AUG-18
Ethylbenzene			99.3		%		70-130	31-AUG-18
m+p-Xylenes			101.9		%		70-130	31-AUG-18
o-Xylene			98.2		%		70-130	31-AUG-18
Toluene			101.8		%		70-130	31-AUG-18
WG2864204-1 MB								
Benzene			<0.0068		ug/g		0.0068	31-AUG-18
Ethylbenzene			<0.018		ug/g		0.018	31-AUG-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-511-HS-WT	**Soil**							
Batch R4195245								
WG2864204-1 MB								
m+p-Xylenes			<0.030		ug/g		0.03	31-AUG-18
o-Xylene			<0.020		ug/g		0.02	31-AUG-18
Toluene			<0.080		ug/g		0.08	31-AUG-18
Surrogate: 1,4-Difluorobenzene			96.3		%		50-140	31-AUG-18
Surrogate: 4-Bromofluorobenzene			90.5		%		50-140	31-AUG-18
WG2864204-5 MS		**L2155723-1**						
Benzene			121.3		%		60-140	31-AUG-18
Ethylbenzene			112.7		%		60-140	31-AUG-18
m+p-Xylenes			115.4		%		60-140	31-AUG-18
o-Xylene			113.1		%		60-140	31-AUG-18
Toluene			116.8		%		60-140	31-AUG-18
F1-HS-511-WT	**Soil**							
Batch R4195245								
WG2864204-4 DUP		**WG2864204-3**						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	04-SEP-18
WG2864204-2 LCS								
F1 (C6-C10)			100.4		%		80-120	04-SEP-18
WG2864204-1 MB								
F1 (C6-C10)			<5.0		ug/g		5	04-SEP-18
Surrogate: 3,4-Dichlorotoluene			115.8		%		60-140	04-SEP-18
WG2864204-6 MS		**L2155723-4**						
F1 (C6-C10)			84.4		%		60-140	04-SEP-18
F2-F4-511-WT	**Soil**							
Batch R4202648								
WG2866750-8 DUP		**WG2866750-10**						
F2 (C10-C16)		<10	<10	RPD-NA	ug/g	N/A	30	05-SEP-18
F3 (C16-C34)		<50	<50	RPD-NA	ug/g	N/A	30	05-SEP-18
F4 (C34-C50)		<50	<50	RPD-NA	ug/g	N/A	30	05-SEP-18
WG2866750-7 LCS								
F2 (C10-C16)			110.8		%		80-120	05-SEP-18
F3 (C16-C34)			108.7		%		80-120	05-SEP-18
F4 (C34-C50)			102.8		%		80-120	05-SEP-18
WG2866750-6 MB								
F2 (C10-C16)			<10		ug/g		10	05-SEP-18
F3 (C16-C34)			<50		ug/g		50	05-SEP-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-511-WT	**Soil**							
Batch R4202648								
WG2866750-6 MB								
F4 (C34-C50)			<50		ug/g		50	05-SEP-18
Surrogate: 2-Bromobenzotrifluoride			97.1		%		60-140	05-SEP-18
WG2866750-9 MS		**WG2866750-10**						
F2 (C10-C16)			105.6		%		60-140	05-SEP-18
F3 (C16-C34)			101.5		%		60-140	05-SEP-18
F4 (C34-C50)			101.7		%		60-140	05-SEP-18
MOISTURE-WT	**Soil**							
Batch R4199027								
WG2866762-3 DUP		**L2155659-6**						
% Moisture		16.2	17.5		%	7.6	20	05-SEP-18
WG2866762-2 LCS								
% Moisture			100.1		%		90-110	05-SEP-18
WG2866762-1 MB								
% Moisture			<0.10		%		0.1	05-SEP-18
Batch R4200932								
WG2867066-3 DUP		**L2155129-1**						
% Moisture		16.3	16.0		%	2.3	20	05-SEP-18
WG2867066-2 LCS								
% Moisture			101.1		%		90-110	05-SEP-18
WG2867066-1 MB								
% Moisture			<0.10		%		0.1	05-SEP-18
PEST-OC-511-WT	**Soil**							
Batch R4204031								
WG2865297-4 DUP		**WG2865297-3**						
Aldrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
a-chlordane		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
g-chlordane		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
op-DDD		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
pp-DDD		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
o,p-DDE		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
pp-DDE		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
op-DDT		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
pp-DDT		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
Dieldrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
Endosulfan I		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4204031								
WG2865297-4 DUP		**WG2865297-3**						
Endosulfan II		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
Endrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
gamma-hexachlorocyclohexane		<0.010	<0.010	RPD-NA	ug/g	N/A	40	06-SEP-18
Heptachlor		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
Heptachlor Epoxide		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
Hexachlorobenzene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	06-SEP-18
Hexachlorobutadiene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	06-SEP-18
Hexachloroethane		<0.010	<0.010	RPD-NA	ug/g	N/A	40	06-SEP-18
Methoxychlor		<0.020	<0.020	RPD-NA	ug/g	N/A	40	06-SEP-18
WG2865297-2 LCS								
Aldrin			97.8		%		50-140	06-SEP-18
a-chlordane			112.4		%		50-140	06-SEP-18
g-chlordane			122.0		%		50-140	06-SEP-18
op-DDD			111.9		%		50-140	06-SEP-18
pp-DDD			111.7		%		50-140	06-SEP-18
o,p-DDE			113.6		%		50-140	06-SEP-18
pp-DDE			107.6		%		50-140	06-SEP-18
op-DDT			90.3		%		50-140	06-SEP-18
pp-DDT			94.2		%		50-140	06-SEP-18
Dieldrin			121.3		%		50-140	06-SEP-18
Endosulfan I			115.5		%		50-140	06-SEP-18
Endosulfan II			117.9		%		50-140	06-SEP-18
Endrin			121.3		%		50-140	06-SEP-18
gamma-hexachlorocyclohexane			98.1		%		50-140	06-SEP-18
Heptachlor			90.0		%		50-140	06-SEP-18
Heptachlor Epoxide			130.8		%		50-140	06-SEP-18
Hexachlorobenzene			101.6		%		50-140	06-SEP-18
Hexachlorobutadiene			88.2		%		50-140	06-SEP-18
Hexachloroethane			99.3		%		50-140	06-SEP-18
Methoxychlor			105.6		%		50-140	06-SEP-18
WG2865297-1 MB								
Aldrin			<0.020		ug/g		0.02	06-SEP-18
a-chlordane			<0.020		ug/g		0.02	06-SEP-18
g-chlordane			<0.020		ug/g		0.02	06-SEP-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4204031								
WG2865297-1 MB								
op-DDD			<0.020		ug/g		0.02	06-SEP-18
pp-DDD			<0.020		ug/g		0.02	06-SEP-18
o,p-DDE			<0.020		ug/g		0.02	06-SEP-18
pp-DDE			<0.020		ug/g		0.02	06-SEP-18
op-DDT			<0.020		ug/g		0.02	06-SEP-18
pp-DDT			<0.020		ug/g		0.02	06-SEP-18
Dieldrin			<0.020		ug/g		0.02	06-SEP-18
Endosulfan I			<0.020		ug/g		0.02	06-SEP-18
Endosulfan II			<0.020		ug/g		0.02	06-SEP-18
Endrin			<0.020		ug/g		0.02	06-SEP-18
gamma-hexachlorocyclohexane			<0.010		ug/g		0.01	06-SEP-18
Heptachlor			<0.020		ug/g		0.02	06-SEP-18
Heptachlor Epoxide			<0.020		ug/g		0.02	06-SEP-18
Hexachlorobenzene			<0.010		ug/g		0.01	06-SEP-18
Hexachlorobutadiene			<0.010		ug/g		0.01	06-SEP-18
Hexachloroethane			<0.010		ug/g		0.01	06-SEP-18
Methoxychlor			<0.020		ug/g		0.02	06-SEP-18
Surrogate: 2-Fluorobiphenyl			83.1		%		50-140	06-SEP-18
Surrogate: d14-Terphenyl			92.9		%		50-140	06-SEP-18
WG2865297-5 MS		**WG2865297-3**						
Aldrin			96.3		%		50-140	06-SEP-18
a-chlordane			100.0		%		50-140	06-SEP-18
g-chlordane			104.0		%		50-140	06-SEP-18
op-DDD			93.4		%		50-140	06-SEP-18
pp-DDD			91.5		%		50-140	06-SEP-18
o,p-DDE			97.6		%		50-140	06-SEP-18
pp-DDE			91.0		%		50-140	06-SEP-18
op-DDT			80.7		%		50-140	06-SEP-18
pp-DDT			84.7		%		50-140	06-SEP-18
Dieldrin			101.3		%		50-140	06-SEP-18
Endosulfan I			97.9		%		50-140	06-SEP-18
Endosulfan II			96.9		%		50-140	06-SEP-18
Endrin			107.1		%		50-140	06-SEP-18
gamma-hexachlorocyclohexane			98.3		%		50-140	06-SEP-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4204031								
WG2865297-5 MS		**WG2865297-3**						
Heptachlor			90.8		%		50-140	06-SEP-18
Heptachlor Epoxide			103.5		%		50-140	06-SEP-18
Hexachlorobenzene			89.8		%		50-140	06-SEP-18
Hexachlorobutadiene			91.5		%		50-140	06-SEP-18
Hexachloroethane			103.1		%		50-140	06-SEP-18
Methoxychlor			96.4		%		50-140	06-SEP-18
PH-WT	**Soil**							
Batch R4215910								
WG2873156-1 DUP		**L2161598-1**						
pH		7.98	8.06	J	pH units	0.08	0.3	14-SEP-18
WG2876449-1 LCS								
pH			7.02		pH units		6.9-7.1	14-SEP-18
PSA-75UM-SIEVE-WT	**Soil**							
Batch R4211340								
WG2873518-2 DUP		**L2161049-11**						
% >75um		24.5	22.7	J	%	1.7	5	11-SEP-18
WG2873518-1 IRM		**PSA_IRM**						
% >75um			99.1		%		70-130	11-SEP-18

Quality Control Report

Workorder: L2155680 Report Date: 17-SEP-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

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
J	Duplicate results and limits are expressed in terms of absolute difference.
MB-LOR	Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.
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.

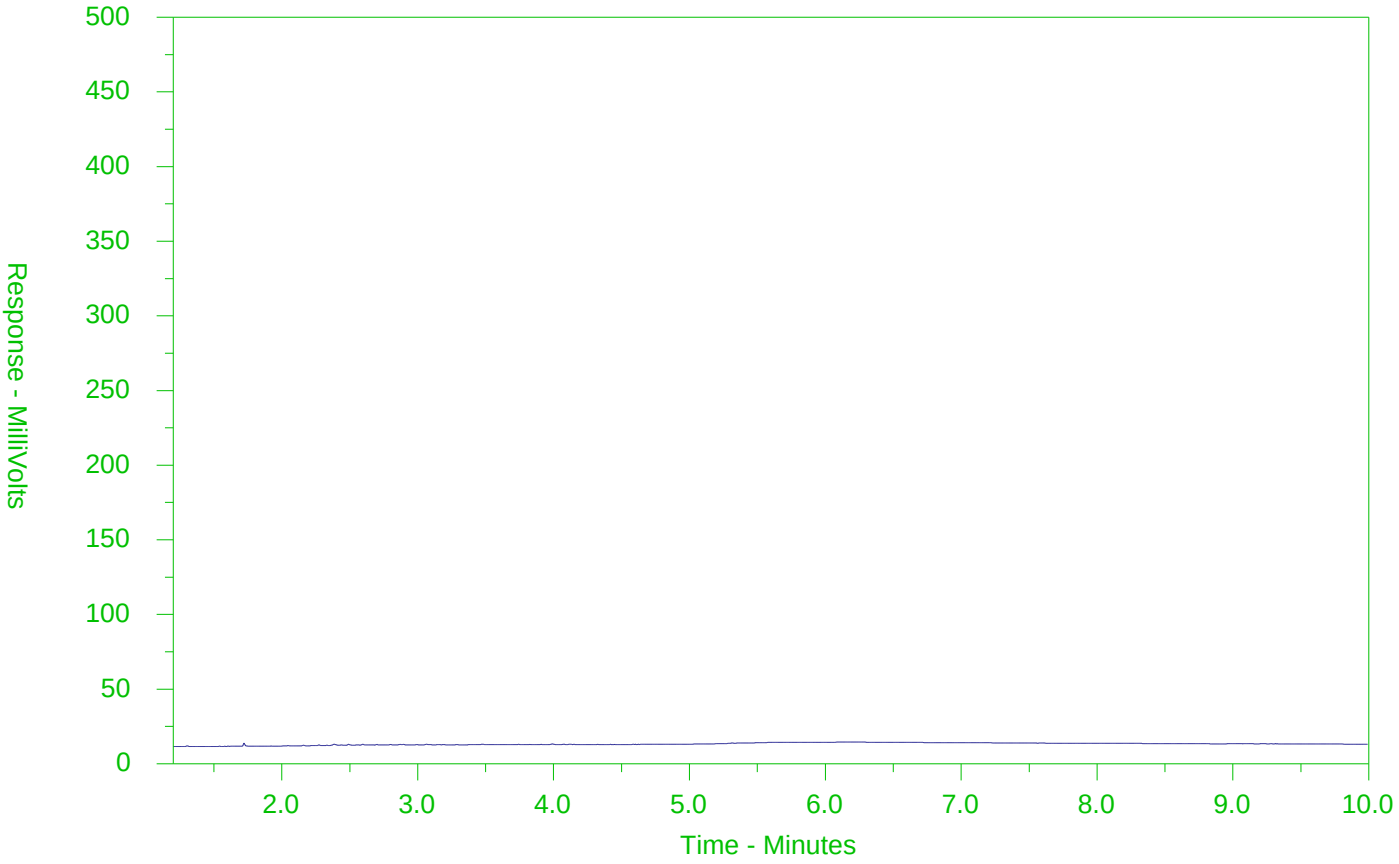
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

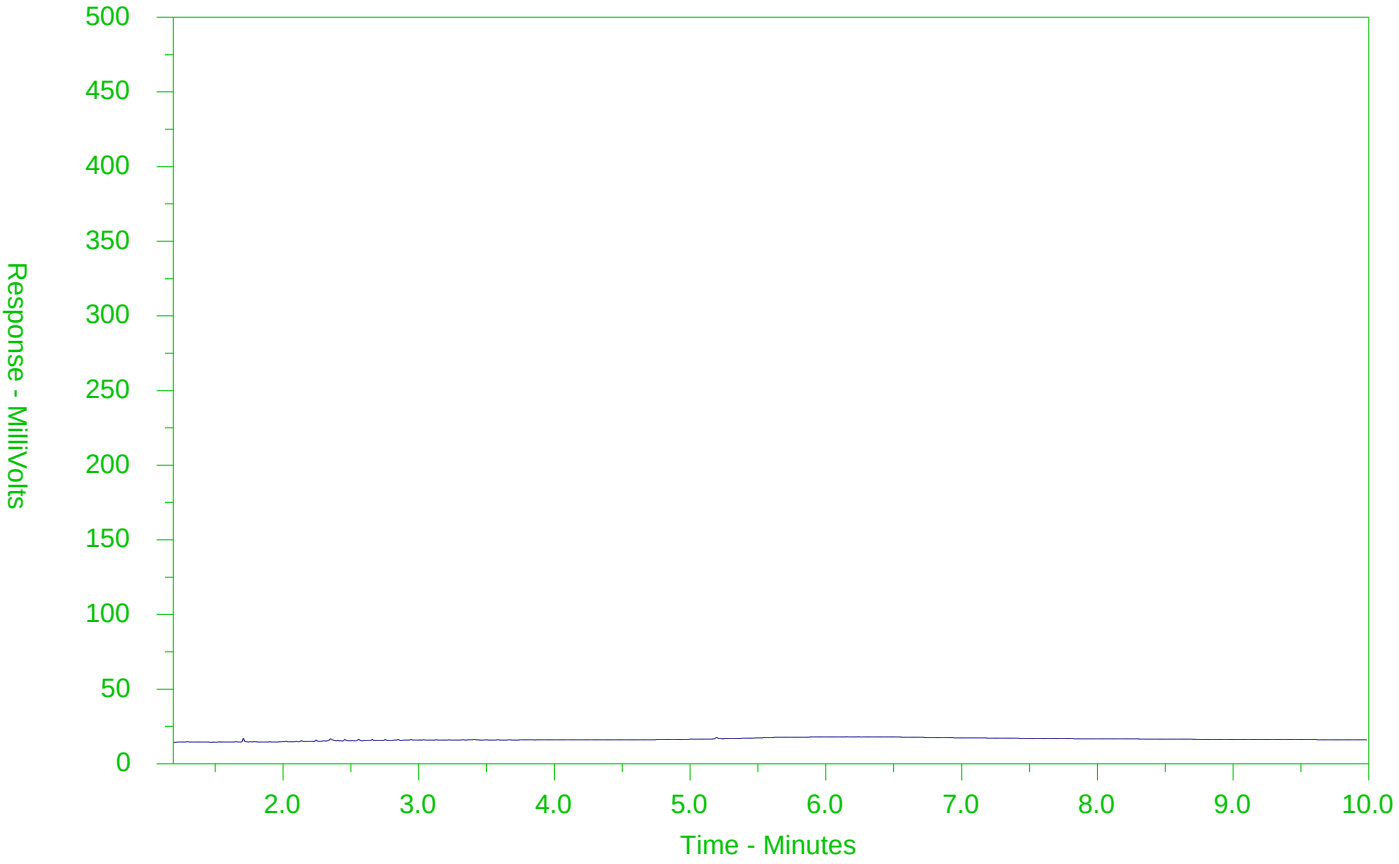
ALS Sample ID: L2155680-2
Client Sample ID: BH2



←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 →			

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

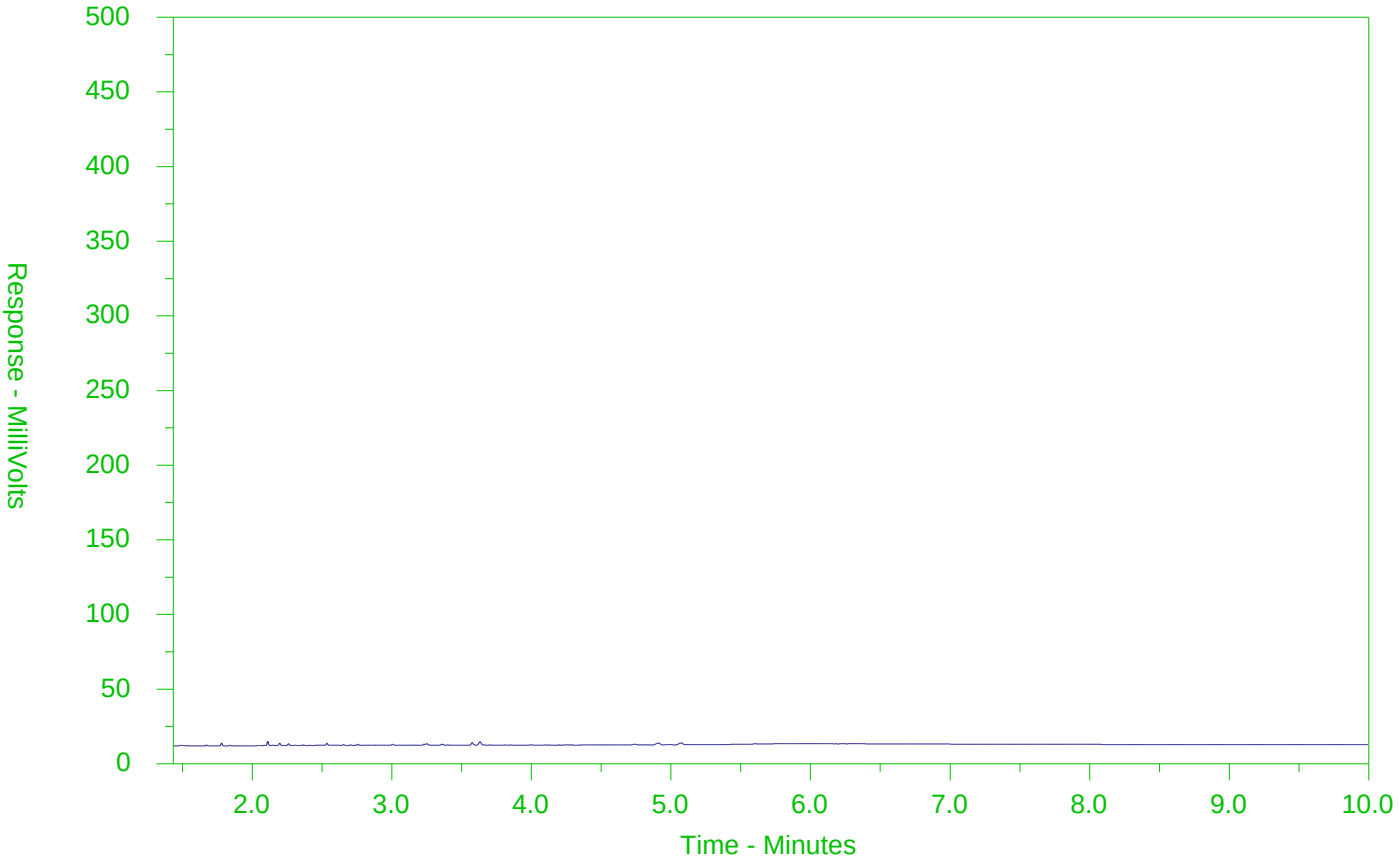
ALS Sample ID: L2155680-6
Client Sample ID: DUPS1



←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 →			

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2155680-8
Client Sample ID: MW2



←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→			

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com
Canada Toll Free: 1 800 668 9878

L2155680-COFC

COC Number: 17 - 638624
Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Altech
Contact:	
Phone:	
Company address below will appear on the final report	
Street:	
City/Province:	
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: ☐ 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
Email 2
Email 3

Invoice Distribution

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax
Email 2

Project Information

ALS Account # / Quote #:
Job #: 6232-18
PO / AFE:
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): L2155680
ALS Contact: Sampler:

Turnaround Time (TAT) Requested - 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: dd-mmm-yy hh:mm
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	OCPS	PHC, F1 to F4, BTEX	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	BH1	Aug 28/18	AM	Soil	X				
	BH2		AM		X	X			
	BH3		AM		X				
	BH4		AM		X				
	BH5		AM		X				
	DUP S1		AM		X	X			
	MW1		PM	GW	X				
	MW2		PM		X	X			
	MW3		PM		X				
	DUP(G1)		PM		X	[redacted]			

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

Are samples taken from a Regulated DW System? ☐ YES ☐ NO
Are samples for human consumption/ use? ☐ YES ☐ NO

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

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			
8.9				6.6			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Navaid Rahman	Aug 28/18	

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
BF	Aug 29, 2018	13:42

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
	AUG 29/18	6:30 pm

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**.

ALTECH ENVIRONMENTAL
ATTN: Naveed Rehman
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 30-AUG-18
Report Date: 07-SEP-18 14:29 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L2156612

Project P.O. #: NOT SUBMITTED
Job Reference: 6232-18
C of C Numbers: 17-639037
Legal Site Desc:

Amanda Fazekas
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2156612-1 FIELD BLANK Sampled By: CLIENT on 29-AUG-18 Matrix: GW							
Volatile Organic Compounds							
Acetone	<30		30	ug/L		04-SEP-18	R4197407
Benzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Bromodichloromethane	<2.0		2.0	ug/L		04-SEP-18	R4197407
Bromoform	<5.0		5.0	ug/L		04-SEP-18	R4197407
Bromomethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
Carbon tetrachloride	<0.20		0.20	ug/L		04-SEP-18	R4197407
Chlorobenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Dibromochloromethane	<2.0		2.0	ug/L		04-SEP-18	R4197407
Chloroform	<1.0		1.0	ug/L		04-SEP-18	R4197407
1,2-Dibromoethane	<0.20		0.20	ug/L		04-SEP-18	R4197407
1,2-Dichlorobenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,3-Dichlorobenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,4-Dichlorobenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Dichlorodifluoromethane	<2.0		2.0	ug/L		04-SEP-18	R4197407
1,1-Dichloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,2-Dichloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,1-Dichloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Methylene Chloride	8.2		5.0	ug/L		05-SEP-18	R4201277
1,2-Dichloropropane	<0.50		0.50	ug/L		04-SEP-18	R4197407
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		04-SEP-18	R4197407
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		04-SEP-18	R4197407
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		05-SEP-18	
Ethylbenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
n-Hexane	<0.50		0.50	ug/L		05-SEP-18	R4201277
Methyl Ethyl Ketone	<20		20	ug/L		04-SEP-18	R4197407
Methyl Isobutyl Ketone	<20		20	ug/L		04-SEP-18	R4197407
MTBE	<2.0		2.0	ug/L		04-SEP-18	R4197407
Styrene	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
Tetrachloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Toluene	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,1,1-Trichloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,1,2-Trichloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
Trichloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Trichlorofluoromethane	<5.0		5.0	ug/L		04-SEP-18	R4197407
Vinyl chloride	<0.50		0.50	ug/L		04-SEP-18	R4197407
o-Xylene	<0.30		0.30	ug/L		04-SEP-18	R4197407
m+p-Xylenes	<0.40		0.40	ug/L		04-SEP-18	R4197407

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2156612-1 FIELD BLANK Sampled By: CLIENT on 29-AUG-18 Matrix: GW							
Volatile Organic Compounds							
Xylenes (Total)	<0.50		0.50	ug/L		05-SEP-18	
Surrogate: 4-Bromofluorobenzene	84.1		70-130	%		04-SEP-18	R4197407
Surrogate: 1,4-Difluorobenzene	96.0		70-130	%		04-SEP-18	R4197407
L2156612-2 TRIP BLANK Sampled By: CLIENT on 29-AUG-18 Matrix: GW							
Volatile Organic Compounds							
Acetone	<30		30	ug/L		04-SEP-18	R4197407
Benzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Bromodichloromethane	<2.0		2.0	ug/L		04-SEP-18	R4197407
Bromoform	<5.0		5.0	ug/L		04-SEP-18	R4197407
Bromomethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
Carbon tetrachloride	<0.20		0.20	ug/L		04-SEP-18	R4197407
Chlorobenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Dibromochloromethane	<2.0		2.0	ug/L		04-SEP-18	R4197407
Chloroform	<1.0		1.0	ug/L		04-SEP-18	R4197407
1,2-Dibromoethane	<0.20		0.20	ug/L		04-SEP-18	R4197407
1,2-Dichlorobenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,3-Dichlorobenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,4-Dichlorobenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Dichlorodifluoromethane	<2.0		2.0	ug/L		04-SEP-18	R4197407
1,1-Dichloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,2-Dichloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,1-Dichloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Methylene Chloride	<5.0		5.0	ug/L		04-SEP-18	R4197407
1,2-Dichloropropane	<0.50		0.50	ug/L		04-SEP-18	R4197407
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		04-SEP-18	R4197407
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		04-SEP-18	R4197407
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		04-SEP-18	
Ethylbenzene	<0.50		0.50	ug/L		04-SEP-18	R4197407
n-Hexane	<0.50		0.50	ug/L		04-SEP-18	R4198116
Methyl Ethyl Ketone	<20		20	ug/L		04-SEP-18	R4197407
Methyl Isobutyl Ketone	<20		20	ug/L		04-SEP-18	R4197407
MTBE	<2.0		2.0	ug/L		04-SEP-18	R4197407
Styrene	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
Tetrachloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Toluene	<0.50		0.50	ug/L		04-SEP-18	R4197407
1,1,1-Trichloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2156612-2 TRIP BLANK Sampled By: CLIENT on 29-AUG-18 Matrix: GW							
Volatile Organic Compounds							
1,1,2-Trichloroethane	<0.50		0.50	ug/L		04-SEP-18	R4197407
Trichloroethylene	<0.50		0.50	ug/L		04-SEP-18	R4197407
Trichlorofluoromethane	<5.0		5.0	ug/L		04-SEP-18	R4197407
Vinyl chloride	<0.50		0.50	ug/L		04-SEP-18	R4197407
o-Xylene	<0.30		0.30	ug/L		04-SEP-18	R4197407
m+p-Xylenes	<0.40		0.40	ug/L		04-SEP-18	R4197407
Xylenes (Total)	<0.50		0.50	ug/L		04-SEP-18	
Surrogate: 4-Bromofluorobenzene	85.2		70-130	%		04-SEP-18	R4197407
Surrogate: 1,4-Difluorobenzene	95.7		70-130	%		04-SEP-18	R4197407

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Chlorobenzene	MS-B	L2156612-1, -2

Sample Parameter Qualifier key listed:

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
VOC-1,3-DCP-CALC-WT	Water	Regulation 153 VOCs	SW8260B/SW8270C
VOC-511-HS-WT	Water	VOC by GCMS HS O.Reg 153/04 (July 2011)	SW846 8260

Liquid samples are analyzed by headspace GC/MSD.

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.

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

Chain of Custody Numbers:

17-639037

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 weight of sample
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.

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4197407								
WG2861460-4 DUP		**WG2861460-3**						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	04-SEP-18
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
Acetone		<30	<30	RPD-NA	ug/L	N/A	30	04-SEP-18
Benzene		3.25	3.20		ug/L	1.6	30	04-SEP-18
Bromodichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	04-SEP-18
Bromoform		<5.0	<5.0	RPD-NA	ug/L	N/A	30	04-SEP-18
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
Carbon tetrachloride		<0.20	<0.20	RPD-NA	ug/L	N/A	30	04-SEP-18
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	04-SEP-18
cis-1,2-Dichloroethylene		4.02	3.96		ug/L	1.5	30	04-SEP-18
cis-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	04-SEP-18
Dibromochloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	04-SEP-18
Dichlorodifluoromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	04-SEP-18
Ethylbenzene		1.19	1.18		ug/L	0.8	30	04-SEP-18
m+p-Xylenes		0.40	0.41		ug/L	2.5	30	04-SEP-18
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	04-SEP-18
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	04-SEP-18
Methylene Chloride		<5.0	<5.0	RPD-NA	ug/L	N/A	30	04-SEP-18
MTBE		<2.0	<2.0	RPD-NA	ug/L	N/A	30	04-SEP-18
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	04-SEP-18
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
Toluene		0.87	0.84		ug/L	3.5	30	04-SEP-18
trans-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
trans-1,3-Dichloropropene		<0.30	<0.30		ug/L			04-SEP-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4197407								
WG2861460-4 DUP		**WG2861460-3**						
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	04-SEP-18
Trichloroethylene		4.23	4.18		ug/L	1.2	30	04-SEP-18
Trichlorofluoromethane		<5.0	<5.0	RPD-NA	ug/L	N/A	30	04-SEP-18
Vinyl chloride		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
WG2861460-2 MB								
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	04-SEP-18
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	04-SEP-18
1,1,1-Trichloroethane			<0.50		ug/L		0.5	04-SEP-18
1,1,2-Trichloroethane			<0.50		ug/L		0.5	04-SEP-18
1,1-Dichloroethane			<0.50		ug/L		0.5	04-SEP-18
1,1-Dichloroethylene			<0.50		ug/L		0.5	04-SEP-18
1,2-Dibromoethane			<0.20		ug/L		0.2	04-SEP-18
1,2-Dichlorobenzene			<0.50		ug/L		0.5	04-SEP-18
1,2-Dichloroethane			<0.50		ug/L		0.5	04-SEP-18
1,2-Dichloropropane			<0.50		ug/L		0.5	04-SEP-18
1,3-Dichlorobenzene			<0.50		ug/L		0.5	04-SEP-18
1,4-Dichlorobenzene			<0.50		ug/L		0.5	04-SEP-18
Acetone			<30		ug/L		30	04-SEP-18
Benzene			<0.50		ug/L		0.5	04-SEP-18
Bromodichloromethane			<2.0		ug/L		2	04-SEP-18
Bromoform			<5.0		ug/L		5	04-SEP-18
Bromomethane			<0.50		ug/L		0.5	04-SEP-18
Carbon tetrachloride			<0.20		ug/L		0.2	04-SEP-18
Chlorobenzene			<0.50		ug/L		0.5	04-SEP-18
Chloroform			<1.0		ug/L		1	04-SEP-18
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	04-SEP-18
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	04-SEP-18
Dibromochloromethane			<2.0		ug/L		2	04-SEP-18
Dichlorodifluoromethane			<2.0		ug/L		2	04-SEP-18
Ethylbenzene			<0.50		ug/L		0.5	04-SEP-18
m+p-Xylenes			<0.40		ug/L		0.4	04-SEP-18
Methyl Ethyl Ketone			<20		ug/L		20	04-SEP-18
Methyl Isobutyl Ketone			<20		ug/L		20	04-SEP-18
Methylene Chloride			<5.0				5	

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4197407								
WG2861460-2 MB								
Methylene Chloride			<5.0		ug/L		5	04-SEP-18
MTBE			<2.0		ug/L		2	04-SEP-18
o-Xylene			<0.30		ug/L		0.3	04-SEP-18
Styrene			<0.50		ug/L		0.5	04-SEP-18
Tetrachloroethylene			<0.50		ug/L		0.5	04-SEP-18
Toluene			<0.50		ug/L		0.5	04-SEP-18
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	04-SEP-18
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	04-SEP-18
Trichloroethylene			<0.50		ug/L		0.5	04-SEP-18
Trichlorofluoromethane			<5.0		ug/L		5	04-SEP-18
Vinyl chloride			<0.50		ug/L		0.5	04-SEP-18
Surrogate: 1,4-Difluorobenzene			96.2		%		70-130	04-SEP-18
Surrogate: 4-Bromofluorobenzene			83.4		%		70-130	04-SEP-18
WG2861460-5 MS		**WG2861460-3**						
1,1,1,2-Tetrachloroethane			103.2		%		50-140	04-SEP-18
1,1,2,2-Tetrachloroethane			104.2		%		50-140	04-SEP-18
1,1,1-Trichloroethane			119.7		%		50-140	04-SEP-18
1,1,2-Trichloroethane			104.9		%		50-140	04-SEP-18
1,1-Dichloroethane			131.8		%		50-140	04-SEP-18
1,1-Dichloroethylene			115.2		%		50-140	04-SEP-18
1,2-Dibromoethane			96.7		%		50-140	04-SEP-18
1,2-Dichlorobenzene			108.6		%		50-140	04-SEP-18
1,2-Dichloroethane			119.2		%		50-140	04-SEP-18
1,2-Dichloropropane			116.8		%		50-140	04-SEP-18
1,3-Dichlorobenzene			111.3		%		50-140	04-SEP-18
1,4-Dichlorobenzene			112.7		%		50-140	04-SEP-18
Acetone			110.0		%		50-140	04-SEP-18
Benzene			116.5		%		50-140	04-SEP-18
Bromodichloromethane			118.9		%		50-140	04-SEP-18
Bromoform			93.7		%		50-140	04-SEP-18
Bromomethane			86.6		%		50-140	04-SEP-18
Carbon tetrachloride			116.2		%		50-140	04-SEP-18
Chlorobenzene			N/A	MS-B	%		-	04-SEP-18
Chloroform			121.1		%		50-140	04-SEP-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4197407								
WG2861460-5 MS		**WG2861460-3**						
cis-1,2-Dichloroethylene			108.6		%		50-140	04-SEP-18
cis-1,3-Dichloropropene			111.7		%		50-140	04-SEP-18
Dibromochloromethane			100.5		%		50-140	04-SEP-18
Dichlorodifluoromethane			105.8		%		50-140	04-SEP-18
Ethylbenzene			99.8		%		50-140	04-SEP-18
m+p-Xylenes			107.2		%		50-140	04-SEP-18
Methyl Ethyl Ketone			89.2		%		50-140	04-SEP-18
Methyl Isobutyl Ketone			90.2		%		50-140	04-SEP-18
Methylene Chloride			116.5		%		50-140	04-SEP-18
MTBE			109.8		%		50-140	04-SEP-18
o-Xylene			99.0		%		50-140	04-SEP-18
Styrene			101.2		%		50-140	04-SEP-18
Tetrachloroethylene			100.6		%		50-140	04-SEP-18
Toluene			100.1		%		50-140	04-SEP-18
trans-1,2-Dichloroethylene			122.7		%		50-140	04-SEP-18
trans-1,3-Dichloropropene			99.2		%		50-140	04-SEP-18
Trichloroethylene			110.8		%		50-140	04-SEP-18
Trichlorofluoromethane			123.1		%		50-140	04-SEP-18
Vinyl chloride			107.5		%		50-140	04-SEP-18
Batch R4198116								
WG2860416-4 DUP		**WG2860416-3**						
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-SEP-18
WG2860416-1 LCS								
n-Hexane			82.5		%		70-130	04-SEP-18
WG2860416-2 MB								
n-Hexane			<0.50		ug/L		0.5	04-SEP-18
WG2860416-5 MS		**WG2860416-3**						
n-Hexane			81.1		%		50-140	04-SEP-18
Batch R4201277								
WG2861461-4 DUP		**WG2861461-3**						
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-18
Methylene Chloride		<5.0	<5.0	RPD-NA	ug/L	N/A	30	05-SEP-18
WG2861461-1 LCS								
n-Hexane			117.2		%		70-130	05-SEP-18
Methylene Chloride			116.4		%		70-130	05-SEP-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4201277								
WG2861461-2 MB								
n-Hexane			<0.50		ug/L		0.5	05-SEP-18
Methylene Chloride			<5.0		ug/L		5	05-SEP-18
WG2861461-5 MS		**WG2861461-3**						
n-Hexane			115.0		%		50-140	05-SEP-18
Methylene Chloride			106.6		%		50-140	05-SEP-18

Quality Control Report

Workorder: L2156612 Report Date: 07-SEP-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

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
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
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.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2156612-COFC

COC Number: 17 - 639037

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distri...	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Altech	Select Report Format: ☒ PDF ☒ EXCEL ☐ EDD (DIGITAL)	Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Naveed Rehman	Quality Control (QC) Report with Report ☐ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐
Phone:	416-467-[illegible] ext 224	☐ Compare Results to Criteria on Report - provide details below if box checked	EMERGENCY: 1 Business day [E-100%] ☐ / Same Day, Weekend or Statutory holiday [E2-200% (Laboratory opening fees may apply)] ☐
	Company address below will appear on the final report	Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
Street:	12 Bronson Ave, Toronto	Email 1 or Fax [illegible]	For tests that can not be performed according to the service level selected, you will be contacted.
City/Province:	Toronto	Email 2	
Postal Code:		Email 3	

Invoice To		Invoice Distribution	
	Same as Report To ☒ YES ☐ NO		
	Copy of Invoice with Report ☒ YES ☐ NO	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	
Company:		Email 1 or Fax	
Contact:		Email 2	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	6232-8	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact:	Sampler:

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	VOCs	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	Field blank	Aug 30/18	AM	GW	X			
	Trip blank	"	"	GW	X			

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	
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			
5.5				4.1			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Naveed Rehman	Aug 30/18	1:45	RF	Aug 30, 2018	13:45	[illegible]	AUG 30/18	6:12 pm

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**.

ALTECH ENVIRONMENTAL
ATTN: Naveed Rehman
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

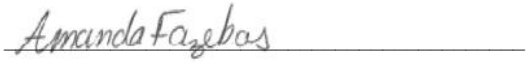
Date Received: 05-OCT-18
Report Date: 15-OCT-18 16:23 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L2177192

Project P.O. #: NOT SUBMITTED
Job Reference: G258-18
C of C Numbers: 17-638941, 17-638942
Legal Site Desc:



Amanda Fazekas
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2177192-1 BH4-A (5-7) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Physical Tests							
% Moisture	12.5		0.10	%	09-OCT-18	10-OCT-18	R4267428
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
a-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Chlordane (Total)	<0.028		0.028	ug/g		15-OCT-18	
g-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
op-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDD	<0.028		0.028	ug/g		15-OCT-18	
o,p-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDE	<0.028		0.028	ug/g		15-OCT-18	
op-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDT	<0.028		0.028	ug/g		15-OCT-18	
Dieldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan I	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan II	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan (Total)	<0.028		0.028	ug/g		15-OCT-18	
Endrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor Epoxide	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobenzene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobutadiene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachloroethane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Methoxychlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Surrogate: 2-Fluorobiphenyl	72.3		50-140	%	10-OCT-18	15-OCT-18	R4278711
Surrogate: d14-Terphenyl	87.2		50-140	%	10-OCT-18	15-OCT-18	R4278711
L2177192-3 BH6 (0-2) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Physical Tests							
% Moisture	5.70		0.10	%	09-OCT-18	10-OCT-18	R4267409
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
a-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Chlordane (Total)	<0.028		0.028	ug/g		15-OCT-18	
g-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
op-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2177192-3 BH6 (0-2) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Organochlorine Pesticides							
Total DDD	<0.028		0.028	ug/g		15-OCT-18	
o,p-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDE	0.034		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDE	0.034		0.028	ug/g		15-OCT-18	
op-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDT	<0.028		0.028	ug/g		15-OCT-18	
Dieldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan I	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan II	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan (Total)	<0.028		0.028	ug/g		15-OCT-18	
Endrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor Epoxide	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobenzene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobutadiene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachloroethane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Methoxychlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Surrogate: 2-Fluorobiphenyl	77.7		50-140	%	10-OCT-18	15-OCT-18	R4278711
Surrogate: d14-Terphenyl	68.4		50-140	%	10-OCT-18	15-OCT-18	R4278711
L2177192-5 BH7 (0-2) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Physical Tests							
% Moisture	9.27		0.10	%	09-OCT-18	10-OCT-18	R4267409
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
a-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Chlordane (Total)	<0.028		0.028	ug/g		15-OCT-18	
g-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
op-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDD	<0.028		0.028	ug/g		15-OCT-18	
o,p-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDE	<0.028		0.028	ug/g		15-OCT-18	
op-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDT	<0.028		0.028	ug/g		15-OCT-18	
Dieldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan I	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2177192-5 BH7 (0-2) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Organochlorine Pesticides							
Endosulfan II	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan (Total)	<0.028		0.028	ug/g		15-OCT-18	
Endrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor Epoxide	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobenzene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobutadiene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachloroethane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Methoxychlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Surrogate: 2-Fluorobiphenyl	72.7		50-140	%	10-OCT-18	15-OCT-18	R4278711
Surrogate: d14-Terphenyl	71.6		50-140	%	10-OCT-18	15-OCT-18	R4278711
L2177192-7 DUPS2 Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Physical Tests							
% Moisture	10.8		0.10	%	09-OCT-18	10-OCT-18	R4267409
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
a-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Chlordane (Total)	<0.028		0.028	ug/g		15-OCT-18	
g-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
op-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDD	<0.028		0.028	ug/g		15-OCT-18	
o,p-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDE	0.093		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDE	0.093		0.028	ug/g		15-OCT-18	
op-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDT	0.034		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDT	0.034		0.028	ug/g		15-OCT-18	
Dieldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan I	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan II	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan (Total)	<0.028		0.028	ug/g		15-OCT-18	
Endrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor Epoxide	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobenzene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobutadiene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachloroethane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Methoxychlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2177192-7 DUPS2 Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Organochlorine Pesticides							
Surrogate: 2-Fluorobiphenyl	74.3		50-140	%	10-OCT-18	15-OCT-18	R4278711
Surrogate: d14-Terphenyl	75.9		50-140	%	10-OCT-18	15-OCT-18	R4278711
L2177192-8 BH8 (0-2) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Physical Tests							
% Moisture	11.6		0.10	%	09-OCT-18	10-OCT-18	R4267409
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
a-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Chlordane (Total)	<0.028		0.028	ug/g		15-OCT-18	
g-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
op-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDD	<0.028		0.028	ug/g		15-OCT-18	
o,p-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDE	<0.028		0.028	ug/g		15-OCT-18	
op-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDT	<0.028		0.028	ug/g		15-OCT-18	
Dieldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan I	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan II	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan (Total)	<0.028		0.028	ug/g		15-OCT-18	
Endrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor Epoxide	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobenzene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobutadiene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachloroethane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Methoxychlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Surrogate: 2-Fluorobiphenyl	76.0		50-140	%	10-OCT-18	15-OCT-18	R4278711
Surrogate: d14-Terphenyl	68.3		50-140	%	10-OCT-18	15-OCT-18	R4278711
L2177192-10 BH9 (0-2) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Physical Tests							
% Moisture	19.0		0.10	%	09-OCT-18	10-OCT-18	R4267409
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2177192-10 BH9 (0-2) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Organochlorine Pesticides							
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
a-chlordane	0.030		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Chlordane (Total)	0.030		0.028	ug/g		15-OCT-18	
g-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
op-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDD	<0.028		0.028	ug/g		15-OCT-18	
o,p-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDE	<0.028		0.028	ug/g		15-OCT-18	
op-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDT	<0.028		0.028	ug/g		15-OCT-18	
Dieldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan I	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan II	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan (Total)	<0.028		0.028	ug/g		15-OCT-18	
Endrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor Epoxide	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobenzene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobutadiene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachloroethane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Methoxychlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Surrogate: 2-Fluorobiphenyl	83.0		50-140	%	10-OCT-18	15-OCT-18	R4278711
Surrogate: d14-Terphenyl	75.3		50-140	%	10-OCT-18	15-OCT-18	R4278711
L2177192-12 BH10 (0-2) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Physical Tests							
% Moisture	9.71		0.10	%	09-OCT-18	10-OCT-18	R4267409
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
a-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Chlordane (Total)	<0.028		0.028	ug/g		15-OCT-18	
g-chlordane	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
op-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDD	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDD	<0.028		0.028	ug/g		15-OCT-18	
o,p-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDE	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2177192-12 BH10 (0-2) Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Organochlorine Pesticides							
Total DDE	<0.028		0.028	ug/g		15-OCT-18	
op-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
pp-DDT	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Total DDT	<0.028		0.028	ug/g		15-OCT-18	
Dieldrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan I	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan II	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Endosulfan (Total)	<0.028		0.028	ug/g		15-OCT-18	
Endrin	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Heptachlor Epoxide	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobenzene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachlorobutadiene	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Hexachloroethane	<0.010		0.010	ug/g	10-OCT-18	15-OCT-18	R4278711
Methoxychlor	<0.020		0.020	ug/g	10-OCT-18	15-OCT-18	R4278711
Surrogate: 2-Fluorobiphenyl	76.9		50-140	%	10-OCT-18	15-OCT-18	R4278711
Surrogate: d14-Terphenyl	79.3		50-140	%	10-OCT-18	15-OCT-18	R4278711

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CHLORDANE-T-CALC-WT	Soil	Chlordane Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
DDD-DDE-DDT-CALC-WT	Soil	DDD, DDE, DDT sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
ENDOSULFAN-T-CALC-WT	Soil	Endosulfan Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
MOISTURE-WT	Soil	% Moisture	Gravimetric: Oven Dried
PEST-OC-511-WT	Soil	OC Pesticides-O.Reg 153/04 (July 2011)	SW846 8270 (511)
Soil sample is extracted in a solvent, after extraction a number of clean up techniques may be applied, depending on the sample matrix and analyzed by 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), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			

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

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

Chain of Custody Numbers:

17-638941 17-638942

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 weight of sample
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.

Quality Control Report

Workorder: L2177192 Report Date: 15-OCT-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-WT	**Soil**							
Batch R4267409								
WG2898667-3 DUP		**L2176808-1**						
% Moisture		10.2	10.2		%	0.1	20	10-OCT-18
WG2898667-2 LCS								
% Moisture			95.2		%		90-110	10-OCT-18
WG2898667-1 MB								
% Moisture			<0.10		%		0.1	10-OCT-18
Batch R4267428								
WG2898571-3 DUP		**L2177186-2**						
% Moisture		14.5	14.6		%	0.0	20	10-OCT-18
WG2898571-2 LCS								
% Moisture			99.9		%		90-110	10-OCT-18
WG2898571-1 MB								
% Moisture			<0.10		%		0.1	10-OCT-18
PEST-OC-511-WT	**Soil**							
Batch R4278711								
WG2899794-3 DUP		**WG2899794-5**						
Aldrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
a-chlordane		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
g-chlordane		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
op-DDD		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
pp-DDD		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
o,p-DDE		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
pp-DDE		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
op-DDT		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
pp-DDT		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
Dieldrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
Endosulfan I		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
Endosulfan II		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
Endrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
gamma-hexachlorocyclohexane		<0.010	<0.010	RPD-NA	ug/g	N/A	40	15-OCT-18
Heptachlor		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
Heptachlor Epoxide		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
Hexachlorobenzene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	15-OCT-18
Hexachlorobutadiene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	15-OCT-18
Hexachloroethane		<0.010	<0.010	RPD-NA	ug/g	N/A	40	15-OCT-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4278711								
WG2899794-3 DUP		**WG2899794-5**						
Methoxychlor		<0.020	<0.020	RPD-NA	ug/g	N/A	40	15-OCT-18
WG2899794-2 LCS								
Aldrin			92.6		%		50-140	12-OCT-18
a-chlordane			91.5		%		50-140	12-OCT-18
g-chlordane			108.4		%		50-140	12-OCT-18
op-DDD			83.0		%		50-140	12-OCT-18
pp-DDD			76.8		%		50-140	12-OCT-18
o,p-DDE			91.8		%		50-140	12-OCT-18
pp-DDE			86.4		%		50-140	12-OCT-18
op-DDT			90.3		%		50-140	12-OCT-18
pp-DDT			88.6		%		50-140	12-OCT-18
Dieldrin			85.6		%		50-140	12-OCT-18
Endosulfan I			84.9		%		50-140	12-OCT-18
Endosulfan II			80.3		%		50-140	12-OCT-18
Endrin			86.6		%		50-140	12-OCT-18
gamma-hexachlorocyclohexane			86.3		%		50-140	12-OCT-18
Heptachlor			94.0		%		50-140	12-OCT-18
Heptachlor Epoxide			99.9		%		50-140	12-OCT-18
Hexachlorobenzene			95.8		%		50-140	12-OCT-18
Hexachlorobutadiene			95.2		%		50-140	12-OCT-18
Hexachloroethane			104.3		%		50-140	12-OCT-18
Methoxychlor			103.7		%		50-140	12-OCT-18
WG2899794-1 MB								
Aldrin			<0.020		ug/g		0.02	12-OCT-18
a-chlordane			<0.020		ug/g		0.02	12-OCT-18
g-chlordane			<0.020		ug/g		0.02	12-OCT-18
op-DDD			<0.020		ug/g		0.02	12-OCT-18
pp-DDD			<0.020		ug/g		0.02	12-OCT-18
o,p-DDE			<0.020		ug/g		0.02	12-OCT-18
pp-DDE			<0.020		ug/g		0.02	12-OCT-18
op-DDT			<0.020		ug/g		0.02	12-OCT-18
pp-DDT			<0.020		ug/g		0.02	12-OCT-18
Dieldrin			<0.020		ug/g		0.02	12-OCT-18
Endosulfan I			<0.020		ug/g		0.02	12-OCT-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4278711								
WG2899794-1 MB								
Endosulfan II			<0.020		ug/g		0.02	12-OCT-18
Endrin			<0.020		ug/g		0.02	12-OCT-18
gamma-hexachlorocyclohexane			<0.010		ug/g		0.01	12-OCT-18
Heptachlor			<0.020		ug/g		0.02	12-OCT-18
Heptachlor Epoxide			<0.020		ug/g		0.02	12-OCT-18
Hexachlorobenzene			<0.010		ug/g		0.01	12-OCT-18
Hexachlorobutadiene			<0.010		ug/g		0.01	12-OCT-18
Hexachloroethane			<0.010		ug/g		0.01	12-OCT-18
Methoxychlor			<0.020		ug/g		0.02	12-OCT-18
Surrogate: 2-Fluorobiphenyl			79.4		%		50-140	12-OCT-18
Surrogate: d14-Terphenyl			90.0		%		50-140	12-OCT-18
WG2899794-4 MS		**WG2899794-5**						
Aldrin			91.0		%		50-140	12-OCT-18
a-chlordane			98.4		%		50-140	12-OCT-18
g-chlordane			100.5		%		50-140	12-OCT-18
op-DDD			87.5		%		50-140	12-OCT-18
pp-DDD			81.3		%		50-140	12-OCT-18
o,p-DDE			92.0		%		50-140	12-OCT-18
pp-DDE			89.6		%		50-140	12-OCT-18
op-DDT			90.0		%		50-140	12-OCT-18
pp-DDT			94.2		%		50-140	12-OCT-18
Dieldrin			89.1		%		50-140	12-OCT-18
Endosulfan I			86.8		%		50-140	12-OCT-18
Endosulfan II			82.2		%		50-140	12-OCT-18
Endrin			94.5		%		50-140	12-OCT-18
gamma-hexachlorocyclohexane			85.6		%		50-140	12-OCT-18
Heptachlor			88.3		%		50-140	12-OCT-18
Heptachlor Epoxide			114.3		%		50-140	12-OCT-18
Hexachlorobenzene			93.8		%		50-140	12-OCT-18
Hexachlorobutadiene			95.3		%		50-140	12-OCT-18
Hexachloroethane			101.5		%		50-140	12-OCT-18
Methoxychlor			107.4		%		50-140	12-OCT-18

Quality Control Report

Workorder: L2177192 Report Date: 15-OCT-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

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.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2177192-COFC

COC Number: 17 - 638941

Page 1 of 2

Report To	Contact and company name below will appear on the final report
Company:	Altech
Contact:	Naveed Rehman
Phone:	~~905~~ 416-467-5555 ext 224
	Company address below will appear on the final report
Street:	12 Bronoco Drive
City/Province:	ON
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:	☐ 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	
Email 2	
Email 3	

Invoice Distribution	
Select Invoice Distribution:	☐ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	
Email 2	

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:	dd-mmm-yy hh:mm
For tests that can not be performed according to the service level selected, you will be contacted.	

Project Information	
ALS Account # / Quote #:	
Job #:	6258-18
PO / AFE:	
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): LA177192 COB

ALS Contact: | Sampler:

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	OCPs	HOLD	TCLP Analysis	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	BH4-A (5'-7') TCLP	Oct-5-18	AM	Soil	X		X			
	BH4-A (7½'-9½')					X				
	BH6-(0'-2')				X					
	BH6-(5'-7')					X				
	BH7-(0'-2')				X					
	BH7-(5'-7')					X				
	DUP52				X					
	BH8-(0'-2')				X					
	BH8-(5'-7')					X				
	BH9-(0'-2')				X					
	BH9-(5'-7')					X				

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	
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
6.4°C	4.6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Naveed Rehman	Oct 5/18	12:00	AARon Burton	5-oct-2018	12:00	AP	5/10/18	16:15

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.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2177192-COFC

COC Number: 17 - 638942

Page 2 of 2

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:		Select Report Format: PDF EXCEL EDD (DIGITAL)	Regular [R] Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:		Quality Control (QC) Report with Report YES NO	PRIORITY (Business Days): 4 day [P4-20%] / 3 day [P3-25%] / 2 day [P2-50%]
Phone:		Compare Results to Criteria on Report - provide details below if box checked	EMERGENCY: 1 Business day [E-100%] / Same Day, Weekend or Statutory holiday [E2-200%] (Laboratory opening fees may apply)]
	Company address below will appear on the final report	Select Distribution: EMAIL MAIL FAX	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
Street:		Email 1 or Fax	For tests that can not be performed according to the service level selected, you will be contacted.
City/Province:		Email 2	
Postal Code:		Email 3	

SEE 1ST PAGE

Invoice To	Same as Report To YES NO	Invoice Distribution
	Copy of Invoice with Report YES NO	Select Invoice Distribution: EMAIL MAIL FAX
Company:		Email 1 or Fax
Contact:		Email 2

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):	L2177192 COC	ALS Contact:	Sampler:

Analysis Request

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

OCPs Hold

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		SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	BH10 (0'-2')	Oct-5-18	AM	Soil	X			
	BH10 (5'-7')	↓	↓	↓	X			

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	
Are samples for human consumption/ use? YES NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

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

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
6.4°C	4.6

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Naveed Rehman	Oct 5/18	pm	AARON BURTON	5-oct-2018	12:00	AP	5-10-18	16:15

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.

ALTECH ENVIRONMENTAL
ATTN: NAVEED REHMAN
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 05-OCT-18
Report Date: 15-OCT-18 14:26 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L2177193

Project P.O. #: NOT SUBMITTED
Job Reference: G255-18
C of C Numbers:
Legal Site Desc:

Amanda Fazekas
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2177193-1 TCLP Sampled By: CLIENT on 05-OCT-18 Matrix: SOIL							
Sample Preparation							
Initial pH	8.89		0.10	pH units		10-OCT-18	R4268039
Final pH	5.27		0.10	pH units		10-OCT-18	R4268039
TCLP Extractables							
Cyanide, Weak Acid Diss	<0.10		0.10	mg/L		10-OCT-18	R4271133
Fluoride (F)	<10		10	mg/L		11-OCT-18	R4275720
Nitrate and Nitrite as N	<4.0		4.0	mg/L		11-OCT-18	R4275720
Nitrate-N	<2.0		2.0	mg/L		11-OCT-18	R4275720
Nitrite-N	<2.0		2.0	mg/L		11-OCT-18	R4275720
TCLP Metals							
Arsenic (As)	<0.050		0.050	mg/L		11-OCT-18	R4270792
Barium (Ba)	<0.50		0.50	mg/L		11-OCT-18	R4270792
Boron (B)	<2.5		2.5	mg/L		11-OCT-18	R4270792
Cadmium (Cd)	<0.0050		0.0050	mg/L		11-OCT-18	R4270792
Chromium (Cr)	<0.050		0.050	mg/L		11-OCT-18	R4270792
Lead (Pb)	<0.050		0.050	mg/L		11-OCT-18	R4270792
Mercury (Hg)	<0.00010		0.00010	mg/L		10-OCT-18	R4268056
Selenium (Se)	<0.025		0.025	mg/L		11-OCT-18	R4270792
Silver (Ag)	<0.0050		0.0050	mg/L		11-OCT-18	R4270792
Uranium (U)	<0.25		0.25	mg/L		11-OCT-18	R4270792
TCLP VOCs							
1,1-Dichloroethylene	<0.025	VTHS	0.025	mg/L		12-OCT-18	R4273838
1,2-Dichlorobenzene	<0.025	VTHS	0.025	mg/L		12-OCT-18	R4273838
1,2-Dichloroethane	<0.025	VTHS	0.025	mg/L		12-OCT-18	R4273838
1,4-Dichlorobenzene	<0.025	VTHS	0.025	mg/L		12-OCT-18	R4273838
Benzene	<0.025	VTHS	0.025	mg/L		12-OCT-18	R4273838
Carbon tetrachloride	<0.025	VTHS	0.025	mg/L		12-OCT-18	R4273838
Chlorobenzene	<0.025	VTHS	0.025	mg/L		12-OCT-18	R4273838
Chloroform	<0.10	VTHS	0.10	mg/L		12-OCT-18	R4273838
Dichloromethane	<0.50	VTHS	0.50	mg/L		12-OCT-18	R4273838
Methyl Ethyl Ketone	<1.0	VTHS	1.0	mg/L		12-OCT-18	R4273838
Tetrachloroethylene	<0.025	VTHS	0.025	mg/L		12-OCT-18	R4273838
Trichloroethylene	<0.025	VTHS	0.025	mg/L		12-OCT-18	R4273838
Vinyl chloride	<0.050	VTHS	0.050	mg/L		12-OCT-18	R4273838
Surrogate: 4-Bromofluorobenzene	93.9		70-130	%		12-OCT-18	R4273838
Volatile Organic Compounds							
Surrogate: 1,4-Difluorobenzene	100.4		70-130	%		12-OCT-18	R4273838

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
VTHS	Volatile test was conducted on sample with headspace. Results may be biased low.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CN-TCLP-WT	Waste	Cyanide for O. Reg 347	APHA 4500CN I
F-TCLP-WT	Waste	Fluoride (F) for O. Reg 347	APHA 4110 B-Ion Chromatography
HG-TCLP-WT	Waste	Mercury (CVAA) for O.Reg 347	SW846 7470A
LEACH-TCLP-WT	Waste	Leachate Procedure for Reg 347	EPA 1311
		Inorganic and Semi-Volatile Organic contaminants are leached from waste samples in strict accordance with US EPA Method 1311, "Toxicity Characteristic Leaching Procedure" (TCLP). Test results are reported in leachate concentration units (normally mg/L).	
MET-TCLP-WT	Waste	O.Reg 347 TCLP Leachable Metals	EPA 200.8
N2N3-TCLP-WT	Waste	Nitrate/Nitrite-N for O. Reg 347	APHA 4110 B-Ion Chromatography
VOC-TCLP-WT	Waste	VOC for O. Reg 347	SW846 8260
		A sample of waste is leached in a zero headspace extractor at 30–2 rpm for 18–2.0 hours with the appropriate leaching solution. After tumbling the leachate is analyzed directly by headspace technology, followed by GC/MS using internal standard quantitation.	

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

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

Chain of Custody Numbers:

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 weight of sample
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.

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: NAVEED REHMAN

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-TCLP-WT	**Waste**							
Batch R4271133								
WG2899768-2 LCS								
Cyanide, Weak Acid Diss			104.6		%		70-130	10-OCT-18
WG2899768-1 MB								
Cyanide, Weak Acid Diss			<0.10		mg/L		0.1	10-OCT-18
F-TCLP-WT	**Waste**							
Batch R4275720								
WG2900636-2 LCS								
Fluoride (F)			92.5		%		70-130	11-OCT-18
WG2900636-1 MB								
Fluoride (F)			<10		mg/L		10	11-OCT-18
HG-TCLP-WT	**Waste**							
Batch R4268056								
WG2899433-2 LCS								
Mercury (Hg)			101.0		%		70-130	10-OCT-18
WG2899433-1 MB								
Mercury (Hg)			<0.00010		mg/L		0.0001	10-OCT-18
MET-TCLP-WT	**Waste**							
Batch R4270792								
WG2900295-2 LCS								
Silver (Ag)			88.5		%		70-130	11-OCT-18
Arsenic (As)			92.1		%		70-130	11-OCT-18
Boron (B)			83.5		%		70-130	11-OCT-18
Barium (Ba)			94.1		%		70-130	11-OCT-18
Cadmium (Cd)			91.7		%		70-130	11-OCT-18
Chromium (Cr)			90.8		%		70-130	11-OCT-18
Lead (Pb)			89.0		%		70-130	11-OCT-18
Selenium (Se)			90.4		%		70-130	11-OCT-18
Uranium (U)			87.5		%		70-130	11-OCT-18
WG2900295-1 MB								
Silver (Ag)			<0.0050		mg/L		0.005	11-OCT-18
Arsenic (As)			<0.050		mg/L		0.05	11-OCT-18
Boron (B)			<2.5		mg/L		2.5	11-OCT-18
Barium (Ba)			<0.50		mg/L		0.5	11-OCT-18
Cadmium (Cd)			<0.0050		mg/L		0.005	11-OCT-18
Chromium (Cr)			<0.050		mg/L		0.05	11-OCT-18
Lead (Pb)			<0.050		mg/L		0.05	11-OCT-18

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-TCLP-WT	**Waste**							
Batch R4270792								
WG2900295-1 MB								
Selenium (Se)			<0.025		mg/L		0.025	11-OCT-18
Uranium (U)			<0.25		mg/L		0.25	11-OCT-18
N2N3-TCLP-WT	**Waste**							
Batch R4275720								
WG2900636-2 LCS								
Nitrate-N			100.5		%		70-130	11-OCT-18
Nitrite-N			98.0		%		70-130	11-OCT-18
WG2900636-1 MB								
Nitrate-N			<2.0		mg/L		2	11-OCT-18
Nitrite-N			<2.0		mg/L		2	11-OCT-18
VOC-TCLP-WT	**Waste**							
Batch R4273838								
WG2897982-1 LCS								
1,1-Dichloroethylene			106.3		%		70-130	11-OCT-18
1,2-Dichlorobenzene			109.3		%		70-130	11-OCT-18
1,2-Dichloroethane			110.9		%		70-130	11-OCT-18
1,4-Dichlorobenzene			111.6		%		70-130	11-OCT-18
Benzene			109.7		%		70-130	11-OCT-18
Carbon tetrachloride			113.3		%		60-140	11-OCT-18
Chlorobenzene			107.6		%		70-130	11-OCT-18
Chloroform			112.5		%		70-130	11-OCT-18
Dichloromethane			116.9		%		70-130	11-OCT-18
Methyl Ethyl Ketone			112.3		%		50-150	11-OCT-18
Tetrachloroethylene			112.9		%		70-130	11-OCT-18
Trichloroethylene			118.6		%		70-130	11-OCT-18
Vinyl chloride			103.6		%		60-130	11-OCT-18
WG2897982-2 MB								
1,1-Dichloroethylene			<0.025		mg/L		0.025	12-OCT-18
1,2-Dichlorobenzene			<0.025		mg/L		0.025	12-OCT-18
1,2-Dichloroethane			<0.025		mg/L		0.025	12-OCT-18
1,4-Dichlorobenzene			<0.025		mg/L		0.025	12-OCT-18
Benzene			<0.025		mg/L		0.025	12-OCT-18
Carbon tetrachloride			<0.025		mg/L		0.025	12-OCT-18
Chlorobenzene			<0.025		mg/L		0.025	12-OCT-18
Chloroform			<0.10		mg/L		0.1	12-OCT-18

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-TCLP-WT	**Waste**							
Batch R4273838								
WG2897982-2 MB								
Dichloromethane			<0.50		mg/L		0.5	12-OCT-18
Methyl Ethyl Ketone			<1.0		mg/L		1	12-OCT-18
Tetrachloroethylene			<0.025		mg/L		0.025	12-OCT-18
Trichloroethylene			<0.025		mg/L		0.025	12-OCT-18
Vinyl chloride			<0.050		mg/L		0.05	12-OCT-18
Surrogate: 1,4-Difluorobenzene			98.5		%		70-130	12-OCT-18
Surrogate: 4-Bromofluorobenzene			95.2		%		70-130	12-OCT-18

Quality Control Report

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

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.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L2177193-COFC

COC Number: 17 - 638941

Page 1 of 2

Report To	Contact and company name below will appear on the final report
Company:	Altech
Contact:	Naveed Rahman
Phone:	~~519~~ 416-467-5555 ext 224
	Company address below will appear on the final report
Street:	12 Berrigan Drive
City/Province:	ON
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: ☐ 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

Email 2

Email 3

Invoice Distribution

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax

Email 2

Project Information

ALS Account # / Quote #:

Job #: 6258-18

PO / AFE:

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): L2177193 COC

ALS Contact: Sampler:

Turnaround Time (TAT) Requested - 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: dd-mmm-yy hh:mm

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

OC PS | HOLD | TCLP soil

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	OC PS	HOLD	TCLP soil	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	BH4-A (5'-7') TCLP	Oct-5/18	AM	Soil	X		X			
	BH4-A (7½'-9½')					X				
	BH6-(0'-2')				X	X				
	BH6-(5'-7')					X				
	BH7-(0'-2')				X					
	BH7-(5'-7')					X				
	DUP52				X					
	BH8-(0'-2')				X					
	BH8-(5'-7')					X				
	BH9-(0'-2')				X					
	BH9-(5'-7')					X				

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

Are samples taken from a Regulated DW System? ☐ YES ☐ NO

Are samples for human consumption/ use? ☐ YES ☐ NO

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

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			
6.4°C				4.6			

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Naveed Rahman	Oct-5/18	12:00

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AARON BURTON	5-oct-2018	12:00

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AP	5 10-18	16:15

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.

ALTECH ENVIRONMENTAL
ATTN: Naveed Rehman
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 09-OCT-18
Report Date: 16-OCT-18 13:47 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L2178707

Project P.O. #: NOT SUBMITTED
Job Reference: 6255-18
C of C Numbers: 17-639354
Legal Site Desc:

Amanda Fazekas
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2178707-1 MW4 Sampled By: CLIENT on 09-OCT-18 Matrix: WATER							
Organochlorine Pesticides							
Aldrin	<0.010		0.010	ug/L	11-OCT-18	15-OCT-18	R4278472
gamma-hexachlorocyclohexane	<0.010		0.010	ug/L	11-OCT-18	15-OCT-18	R4278472
a-chlordane	<0.040		0.040	ug/L	11-OCT-18	15-OCT-18	R4278472
Chlordane (Total)	<0.057		0.057	ug/L		16-OCT-18	
g-chlordane	<0.040		0.040	ug/L	11-OCT-18	15-OCT-18	R4278472
o,p-DDD	<0.030		0.030	ug/L	11-OCT-18	15-OCT-18	R4278472
pp-DDD	<0.030		0.030	ug/L	11-OCT-18	15-OCT-18	R4278472
Total DDD	<0.042		0.042	ug/L		16-OCT-18	
o,p-DDE	<0.0080		0.0080	ug/L	11-OCT-18	15-OCT-18	R4278472
pp-DDE	<0.0080		0.0080	ug/L	11-OCT-18	15-OCT-18	R4278472
Total DDE	<0.011		0.011	ug/L		16-OCT-18	
op-DDT	<0.030		0.030	ug/L	11-OCT-18	15-OCT-18	R4278472
pp-DDT	<0.030		0.030	ug/L	11-OCT-18	15-OCT-18	R4278472
Total DDT	<0.042		0.042	ug/L		16-OCT-18	
Dieldrin	<0.050		0.050	ug/L	11-OCT-18	15-OCT-18	R4278472
Endosulfan I	<0.030		0.030	ug/L	11-OCT-18	15-OCT-18	R4278472
Endosulfan II	<0.030		0.030	ug/L	11-OCT-18	15-OCT-18	R4278472
Endosulfan (Total)	<0.042		0.042	ug/L		16-OCT-18	
Endrin	<0.040		0.040	ug/L	11-OCT-18	15-OCT-18	R4278472
Heptachlor	<0.010		0.010	ug/L	11-OCT-18	15-OCT-18	R4278472
Heptachlor Epoxide	<0.010		0.010	ug/L	11-OCT-18	15-OCT-18	R4278472
Hexachlorobenzene	<0.010		0.010	ug/L	11-OCT-18	15-OCT-18	R4278472
Hexachlorobutadiene	<0.010		0.010	ug/L	11-OCT-18	15-OCT-18	R4278472
Hexachloroethane	<0.010		0.010	ug/L	11-OCT-18	15-OCT-18	R4278472
Methoxychlor	<0.050		0.050	ug/L	11-OCT-18	15-OCT-18	R4278472
Surrogate: 2-Fluorobiphenyl	62.2		50-140	%	11-OCT-18	15-OCT-18	R4278472
Surrogate: d14-Terphenyl	77.3		60-140	%	11-OCT-18	15-OCT-18	R4278472
L2178707-2 DUP G2 Sampled By: CLIENT on 09-OCT-18 Matrix: WATER							
Organochlorine Pesticides							
Aldrin	<0.025	RRR	0.025	ug/L	11-OCT-18	15-OCT-18	R4278472
gamma-hexachlorocyclohexane	<0.025	RRR	0.025	ug/L	11-OCT-18	15-OCT-18	R4278472
a-chlordane	<0.10	RRR	0.10	ug/L	11-OCT-18	15-OCT-18	R4278472
Chlordane (Total)	<0.14		0.14	ug/L		16-OCT-18	
g-chlordane	<0.10	RRR	0.10	ug/L	11-OCT-18	15-OCT-18	R4278472
o,p-DDD	<0.060	RRR	0.060	ug/L	11-OCT-18	15-OCT-18	R4278472
pp-DDD	<0.060	RRR	0.060	ug/L	11-OCT-18	15-OCT-18	R4278472
Total DDD	<0.085		0.085	ug/L		16-OCT-18	
o,p-DDE	<0.020	RRR	0.020	ug/L	11-OCT-18	15-OCT-18	R4278472
pp-DDE	<0.020	RRR	0.020	ug/L	11-OCT-18	15-OCT-18	R4278472
Total DDE	<0.028		0.028	ug/L		16-OCT-18	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2178707-2 DUP G2 Sampled By: CLIENT on 09-OCT-18 Matrix: WATER							
Organochlorine Pesticides							
op-DDT	<0.060	RRR	0.060	ug/L	11-OCT-18	15-OCT-18	R4278472
pp-DDT	<0.060	RRR	0.060	ug/L	11-OCT-18	15-OCT-18	R4278472
Total DDT	<0.085		0.085	ug/L		16-OCT-18	
Dieldrin	<0.10	RRR	0.10	ug/L	11-OCT-18	15-OCT-18	R4278472
Endosulfan I	<0.075	RRR	0.075	ug/L	11-OCT-18	15-OCT-18	R4278472
Endosulfan II	<0.060	RRR	0.060	ug/L	11-OCT-18	15-OCT-18	R4278472
Endosulfan (Total)	<0.096		0.096	ug/L		16-OCT-18	
Endrin	<0.080	RRR	0.080	ug/L	11-OCT-18	15-OCT-18	R4278472
Heptachlor	<0.025	RRR	0.025	ug/L	11-OCT-18	15-OCT-18	R4278472
Heptachlor Epoxide	<0.025	RRR	0.025	ug/L	11-OCT-18	15-OCT-18	R4278472
Hexachlorobenzene	<0.025	RRR	0.025	ug/L	11-OCT-18	15-OCT-18	R4278472
Hexachlorobutadiene	<0.025	RRR	0.025	ug/L	11-OCT-18	15-OCT-18	R4278472
Hexachloroethane	<0.025	RRR	0.025	ug/L	11-OCT-18	15-OCT-18	R4278472
Methoxychlor	<0.10	RRR	0.10	ug/L	11-OCT-18	15-OCT-18	R4278472
Surrogate: 2-Fluorobiphenyl	40.7	RRR	50-140	%	11-OCT-18	15-OCT-18	R4278472
Surrogate: d14-Terphenyl	55.1	RRR	60-140	%	11-OCT-18	15-OCT-18	R4278472
Report Remarks : RRR: Surrogate recovery below ALS DQO. Detection limits have been adjusted.							
L2178707-3 TRIP BLANK 2 Sampled By: CLIENT on 09-OCT-18 Matrix: WATER							
Volatile Organic Compounds							
Acetone	<30		30	ug/L		15-OCT-18	R4277656
Benzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Bromodichloromethane	<2.0		2.0	ug/L		15-OCT-18	R4277656
Bromoform	<5.0		5.0	ug/L		15-OCT-18	R4277656
Bromomethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
Carbon tetrachloride	<0.20		0.20	ug/L		15-OCT-18	R4277656
Chlorobenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Dibromochloromethane	<2.0		2.0	ug/L		15-OCT-18	R4277656
Chloroform	<1.0		1.0	ug/L		15-OCT-18	R4277656
1,2-Dibromoethane	<0.20		0.20	ug/L		15-OCT-18	R4277656
1,2-Dichlorobenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,3-Dichlorobenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,4-Dichlorobenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Dichlorodifluoromethane	<2.0		2.0	ug/L		15-OCT-18	R4277656
1,1-Dichloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,2-Dichloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1-Dichloroethylene	<0.50		0.50	ug/L		15-OCT-18	R4277656
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		15-OCT-18	R4277656
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Methylene Chloride	<5.0		5.0	ug/L		15-OCT-18	R4277656
1,2-Dichloropropane	<0.50		0.50	ug/L		15-OCT-18	R4277656

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2178707-3 TRIP BLANK 2 Sampled By: CLIENT on 09-OCT-18 Matrix: WATER							
Volatile Organic Compounds							
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		15-OCT-18	R4277656
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		15-OCT-18	R4277656
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		16-OCT-18	
Ethylbenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
n-Hexane	<0.50		0.50	ug/L		15-OCT-18	R4277656
Methyl Ethyl Ketone	<20		20	ug/L		15-OCT-18	R4277656
Methyl Isobutyl Ketone	<20		20	ug/L		15-OCT-18	R4277656
MTBE	<2.0		2.0	ug/L		15-OCT-18	R4277656
Styrene	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
Tetrachloroethylene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Toluene	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1,1-Trichloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1,2-Trichloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
Trichloroethylene	<0.50		0.50	ug/L		16-OCT-18	R4280731
Trichlorofluoromethane	<5.0		5.0	ug/L		15-OCT-18	R4277656
Vinyl chloride	<0.50		0.50	ug/L		15-OCT-18	R4277656
o-Xylene	<0.30		0.30	ug/L		15-OCT-18	R4277656
m+p-Xylenes	<0.40		0.40	ug/L		15-OCT-18	R4277656
Xylenes (Total)	<0.50		0.50	ug/L		16-OCT-18	
Surrogate: 4-Bromofluorobenzene	96.4		70-130	%		15-OCT-18	R4277656
Surrogate: 1,4-Difluorobenzene	98.7		70-130	%		15-OCT-18	R4277656
L2178707-4 FIELD BLANK 2 Sampled By: CLIENT on 09-OCT-18 Matrix: WATER							
Volatile Organic Compounds							
Acetone	<30		30	ug/L		15-OCT-18	R4277656
Benzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Bromodichloromethane	<2.0		2.0	ug/L		15-OCT-18	R4277656
Bromoform	<5.0		5.0	ug/L		15-OCT-18	R4277656
Bromomethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
Carbon tetrachloride	<0.20		0.20	ug/L		15-OCT-18	R4277656
Chlorobenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Dibromochloromethane	<2.0		2.0	ug/L		15-OCT-18	R4277656
Chloroform	<1.0		1.0	ug/L		15-OCT-18	R4277656
1,2-Dibromoethane	<0.20		0.20	ug/L		15-OCT-18	R4277656
1,2-Dichlorobenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,3-Dichlorobenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,4-Dichlorobenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Dichlorodifluoromethane	<2.0		2.0	ug/L		15-OCT-18	R4277656
1,1-Dichloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2178707-4 FIELD BLANK 2 Sampled By: CLIENT on 09-OCT-18 Matrix: WATER							
Volatile Organic Compounds							
1,2-Dichloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1-Dichloroethylene	<0.50		0.50	ug/L		15-OCT-18	R4277656
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		15-OCT-18	R4277656
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Methylene Chloride	<5.0		5.0	ug/L		15-OCT-18	R4277656
1,2-Dichloropropane	<0.50		0.50	ug/L		15-OCT-18	R4277656
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		15-OCT-18	R4277656
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		15-OCT-18	R4277656
1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L		16-OCT-18	
Ethylbenzene	<0.50		0.50	ug/L		15-OCT-18	R4277656
n-Hexane	<0.50		0.50	ug/L		15-OCT-18	R4277656
Methyl Ethyl Ketone	<20		20	ug/L		15-OCT-18	R4277656
Methyl Isobutyl Ketone	<20		20	ug/L		15-OCT-18	R4277656
MTBE	<2.0		2.0	ug/L		15-OCT-18	R4277656
Styrene	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
Tetrachloroethylene	<0.50		0.50	ug/L		15-OCT-18	R4277656
Toluene	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1,1-Trichloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
1,1,2-Trichloroethane	<0.50		0.50	ug/L		15-OCT-18	R4277656
Trichloroethylene	<0.50		0.50	ug/L		16-OCT-18	R4280731
Trichlorofluoromethane	<5.0		5.0	ug/L		15-OCT-18	R4277656
Vinyl chloride	<0.50		0.50	ug/L		15-OCT-18	R4277656
o-Xylene	<0.30		0.30	ug/L		15-OCT-18	R4277656
m+p-Xylenes	<0.40		0.40	ug/L		15-OCT-18	R4277656
Xylenes (Total)	<0.50		0.50	ug/L		16-OCT-18	
Surrogate: 4-Bromofluorobenzene	97.9		70-130	%		15-OCT-18	R4277656
Surrogate: 1,4-Difluorobenzene	98.8		70-130	%		15-OCT-18	R4277656

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Laboratory Control Sample	1,1-Dichloroethane	MES	L2178707-3, -4
Laboratory Control Sample	cis-1,2-Dichloroethylene	MES	L2178707-3, -4

Sample Parameter Qualifier key listed:

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
RRR	Refer to Report Remarks for issues regarding this analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CHLORDANE-T-CALC-WT	Water	Chlordane Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
DDD-DDE-DDT-CALC-WT	Water	DDD, DDE, DDT sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
ENDOSULFAN-T-CALC-WT	Water	Endosulfan Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
PEST-OC-511-WT	Water	OC Pesticides-O. Reg 153/04 (July 2011)	SW846 8270 (511)
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by 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), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
VOC-1,3-DCP-CALC-WT	Water	Regulation 153 VOCs	SW8260B/SW8270C
VOC-511-HS-WT	Water	VOC by GCMS HS O.Reg 153/04 (July 2011)	SW846 8260
Liquid samples are analyzed by headspace GC/MSD. 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.

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

Chain of Custody Numbers:

17-639354

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 weight of sample
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.

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Water**							
Batch R4278472								
WG2900332-2 LCS								
Aldrin			81.7		%		50-140	12-OCT-18
a-chlordane			74.5		%		50-140	12-OCT-18
g-chlordane			77.4		%		50-140	12-OCT-18
o,p-DDD			70.2		%		50-140	12-OCT-18
pp-DDD			67.1		%		50-140	12-OCT-18
o,p-DDE			72.1		%		50-140	12-OCT-18
pp-DDE			72.8		%		50-140	12-OCT-18
op-DDT			86.2		%		50-140	12-OCT-18
pp-DDT			91.7		%		50-140	12-OCT-18
Dieldrin			72.3		%		50-140	12-OCT-18
Endosulfan I			73.4		%		50-140	12-OCT-18
Endosulfan II			67.1		%		50-140	12-OCT-18
Endrin			81.2		%		50-140	12-OCT-18
gamma-hexachlorocyclohexane			89.7		%		50-140	12-OCT-18
Heptachlor			88.0		%		50-140	12-OCT-18
Heptachlor Epoxide			90.4		%		50-140	12-OCT-18
Hexachlorobenzene			81.9		%		40-130	12-OCT-18
Hexachlorobutadiene			77.6		%		40-130	12-OCT-18
Hexachloroethane			77.0		%		40-130	12-OCT-18
Methoxychlor			116.5		%		50-140	12-OCT-18
WG2900332-3 LCSD		**WG2900332-2**						
Aldrin		81.7	70.3		%	15	50	12-OCT-18
a-chlordane		74.5	94.3		%	23	50	12-OCT-18
g-chlordane		77.4	91.5		%	17	50	12-OCT-18
o,p-DDD		70.2	88.1		%	23	50	12-OCT-18
pp-DDD		67.1	87.5		%	26	50	12-OCT-18
o,p-DDE		72.1	87.5		%	19	50	12-OCT-18
pp-DDE		72.8	87.2		%	18	50	12-OCT-18
op-DDT		86.2	96.8		%	12	50	12-OCT-18
pp-DDT		91.7	94.4		%	3.0	50	12-OCT-18
Dieldrin		72.3	91.3		%	23	50	12-OCT-18
Endosulfan I		73.4	92.3		%	23	50	12-OCT-18
Endosulfan II		67.1	87.1		%	26	50	12-OCT-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Water**							
Batch R4278472								
WG2900332-3 LCSD		**WG2900332-2**						
Endrin		81.2	92.1		%	13	50	12-OCT-18
gamma-hexachlorocyclohexane		89.7	81.7		%	9.4	50	12-OCT-18
Heptachlor		88.0	75.8		%	15	50	12-OCT-18
Heptachlor Epoxide		90.4	117.2		%	26	50	12-OCT-18
Hexachlorobenzene		81.9	71.9		%	13	50	12-OCT-18
Hexachlorobutadiene		77.6	62.5		%	22	50	12-OCT-18
Hexachloroethane		77.0	70.4		%	8.9	50	12-OCT-18
Methoxychlor		116.5	117.3		%	0.7	50	12-OCT-18
WG2900332-1 MB								
Aldrin			<0.010		ug/L		0.01	12-OCT-18
a-chlordane			<0.040		ug/L		0.04	12-OCT-18
g-chlordane			<0.040		ug/L		0.04	12-OCT-18
o,p-DDD			<0.030		ug/L		0.03	12-OCT-18
pp-DDD			<0.030		ug/L		0.03	12-OCT-18
o,p-DDE			<0.0080		ug/L		0.008	12-OCT-18
pp-DDE			<0.0080		ug/L		0.008	12-OCT-18
op-DDT			<0.030		ug/L		0.03	12-OCT-18
pp-DDT			<0.030		ug/L		0.03	12-OCT-18
Dieldrin			<0.050		ug/L		0.05	12-OCT-18
Endosulfan I			<0.030		ug/L		0.03	12-OCT-18
Endosulfan II			<0.030		ug/L		0.03	12-OCT-18
Endrin			<0.040		ug/L		0.04	12-OCT-18
gamma-hexachlorocyclohexane			<0.010		ug/L		0.01	12-OCT-18
Heptachlor			<0.010		ug/L		0.01	12-OCT-18
Heptachlor Epoxide			<0.010		ug/L		0.01	12-OCT-18
Hexachlorobenzene			<0.010		ug/L		0.01	12-OCT-18
Hexachlorobutadiene			<0.010		ug/L		0.01	12-OCT-18
Hexachloroethane			<0.010		ug/L		0.01	12-OCT-18
Methoxychlor			<0.050		ug/L		0.05	12-OCT-18
Surrogate: 2-Fluorobiphenyl			70.5		%		50-140	12-OCT-18
Surrogate: d14-Terphenyl			94.5		%		60-140	12-OCT-18
VOC-511-HS-WT	**Water**							

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4277656								
WG2902728-4 DUP		**WG2902728-3**						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,1-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,1-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	15-OCT-18
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
Acetone		<30	<30	RPD-NA	ug/L	N/A	30	15-OCT-18
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
Bromodichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	15-OCT-18
Bromoform		<5.0	<5.0	RPD-NA	ug/L	N/A	30	15-OCT-18
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
Carbon tetrachloride		<0.20	<0.20	RPD-NA	ug/L	N/A	30	15-OCT-18
Chlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	15-OCT-18
cis-1,2-Dichloroethylene		1.01	0.98		ug/L	3.0	30	16-OCT-18
cis-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	15-OCT-18
Dibromochloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	15-OCT-18
Dichlorodifluoromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	15-OCT-18
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
m+p-Xylenes		<0.40	<0.40	RPD-NA	ug/L	N/A	30	15-OCT-18
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	15-OCT-18
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	15-OCT-18
Methylene Chloride		<5.0	<5.0	RPD-NA	ug/L	N/A	30	15-OCT-18
MTBE		<2.0	<2.0	RPD-NA	ug/L	N/A	30	15-OCT-18
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	15-OCT-18
Styrene		<0.50	<0.50		ug/L			15-OCT-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4277656								
WG2902728-4 DUP		**WG2902728-3**						
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
Toluene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	15-OCT-18
trans-1,2-Dichloroethylene		10.7	11.4		ug/L	6.1	30	15-OCT-18
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	15-OCT-18
Trichlorofluoromethane		<5.0	<5.0	RPD-NA	ug/L	N/A	30	15-OCT-18
Vinyl chloride		2.41	2.43		ug/L	0.8	30	15-OCT-18
WG2902728-1 LCS								
1,1,1,2-Tetrachloroethane			108.9		%		70-130	15-OCT-18
1,1,2,2-Tetrachloroethane			111.0		%		70-130	15-OCT-18
1,1,1-Trichloroethane			70.6		%		70-130	15-OCT-18
1,1,2-Trichloroethane			109.2		%		70-130	15-OCT-18
1,1-Dichloroethane			61.1	MES	%		70-130	15-OCT-18
1,1-Dichloroethylene			104.5		%		70-130	15-OCT-18
1,2-Dibromoethane			109.4		%		70-130	15-OCT-18
1,2-Dichlorobenzene			110.0		%		70-130	15-OCT-18
1,2-Dichloroethane			114.3		%		70-130	15-OCT-18
1,2-Dichloropropane			108.7		%		70-130	15-OCT-18
1,3-Dichlorobenzene			107.3		%		70-130	15-OCT-18
1,4-Dichlorobenzene			108.1		%		70-130	15-OCT-18
Acetone			117.4		%		60-140	15-OCT-18
Benzene			76.8		%		70-130	15-OCT-18
Bromodichloromethane			112.1		%		70-130	15-OCT-18
Bromoform			110.5		%		70-130	15-OCT-18
Bromomethane			90.4		%		60-140	15-OCT-18
Carbon tetrachloride			73.0		%		70-130	15-OCT-18
Chlorobenzene			108.6		%		70-130	15-OCT-18
Chloroform			70.1		%		70-130	15-OCT-18
cis-1,2-Dichloroethylene			64.7	MES	%		70-130	15-OCT-18
cis-1,3-Dichloropropene			105.2		%		70-130	15-OCT-18
Dibromochloromethane			110.1		%		70-130	15-OCT-18
Dichlorodifluoromethane			130.0		%		50-140	15-OCT-18
Ethylbenzene			100.2		%		70-130	15-OCT-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4277656								
WG2902728-1 LCS								
n-Hexane			98.9		%		70-130	15-OCT-18
m+p-Xylenes			105.2		%		70-130	15-OCT-18
Methyl Ethyl Ketone			60.4		%		60-140	15-OCT-18
Methyl Isobutyl Ketone			103.9		%		60-140	15-OCT-18
Methylene Chloride			112.6		%		70-130	15-OCT-18
MTBE			108.7		%		70-130	15-OCT-18
o-Xylene			104.7		%		70-130	15-OCT-18
Styrene			108.6		%		70-130	15-OCT-18
Tetrachloroethylene			107.2		%		70-130	15-OCT-18
Toluene			102.0		%		70-130	15-OCT-18
trans-1,2-Dichloroethylene			108.1		%		70-130	15-OCT-18
trans-1,3-Dichloropropene			110.7		%		70-130	15-OCT-18
Trichlorofluoromethane			119.4		%		60-140	15-OCT-18
Vinyl chloride			107.4		%		60-140	15-OCT-18
WG2902728-2 MB								
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	15-OCT-18
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	15-OCT-18
1,1,1-Trichloroethane			<0.50		ug/L		0.5	15-OCT-18
1,1,2-Trichloroethane			<0.50		ug/L		0.5	15-OCT-18
1,1-Dichloroethane			<0.50		ug/L		0.5	15-OCT-18
1,1-Dichloroethylene			<0.50		ug/L		0.5	15-OCT-18
1,2-Dibromoethane			<0.20		ug/L		0.2	15-OCT-18
1,2-Dichlorobenzene			<0.50		ug/L		0.5	15-OCT-18
1,2-Dichloroethane			<0.50		ug/L		0.5	15-OCT-18
1,2-Dichloropropane			<0.50		ug/L		0.5	15-OCT-18
1,3-Dichlorobenzene			<0.50		ug/L		0.5	15-OCT-18
1,4-Dichlorobenzene			<0.50		ug/L		0.5	15-OCT-18
Acetone			<30		ug/L		30	15-OCT-18
Benzene			<0.50		ug/L		0.5	15-OCT-18
Bromodichloromethane			<2.0		ug/L		2	15-OCT-18
Bromoform			<5.0		ug/L		5	15-OCT-18
Bromomethane			<0.50		ug/L		0.5	15-OCT-18
Carbon tetrachloride			<0.20		ug/L		0.2	15-OCT-18
Chlorobenzene			<0.50		ug/L		0.5	15-OCT-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4277656								
WG2902728-2 MB								
Chloroform			<1.0		ug/L		1	15-OCT-18
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	15-OCT-18
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	15-OCT-18
Dibromochloromethane			<2.0		ug/L		2	15-OCT-18
Dichlorodifluoromethane			<2.0		ug/L		2	15-OCT-18
Ethylbenzene			<0.50		ug/L		0.5	15-OCT-18
n-Hexane			<0.50		ug/L		0.5	15-OCT-18
m+p-Xylenes			<0.40		ug/L		0.4	15-OCT-18
Methyl Ethyl Ketone			<20		ug/L		20	15-OCT-18
Methyl Isobutyl Ketone			<20		ug/L		20	15-OCT-18
Methylene Chloride			<5.0		ug/L		5	15-OCT-18
MTBE			<2.0		ug/L		2	15-OCT-18
o-Xylene			<0.30		ug/L		0.3	15-OCT-18
Styrene			<0.50		ug/L		0.5	15-OCT-18
Tetrachloroethylene			<0.50		ug/L		0.5	15-OCT-18
Toluene			<0.50		ug/L		0.5	15-OCT-18
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	15-OCT-18
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	15-OCT-18
Trichlorofluoromethane			<5.0		ug/L		5	15-OCT-18
Vinyl chloride			<0.50		ug/L		0.5	15-OCT-18
Surrogate: 1,4-Difluorobenzene			99.1		%		70-130	15-OCT-18
Surrogate: 4-Bromofluorobenzene			98.0		%		70-130	15-OCT-18
WG2902728-5 MS		**WG2902728-3**						
1,1,1,2-Tetrachloroethane			112.0		%		50-140	15-OCT-18
1,1,2,2-Tetrachloroethane			113.4		%		50-140	15-OCT-18
1,1,1-Trichloroethane			112.7		%		50-140	15-OCT-18
1,1,2-Trichloroethane			111.8		%		50-140	15-OCT-18
1,1-Dichloroethane			111.9		%		50-140	15-OCT-18
1,1-Dichloroethylene			102.8		%		50-140	15-OCT-18
1,2-Dibromoethane			111.3		%		50-140	15-OCT-18
1,2-Dichlorobenzene			109.2		%		50-140	15-OCT-18
1,2-Dichloroethane			118.2		%		50-140	15-OCT-18
1,2-Dichloropropane			110.6		%		50-140	15-OCT-18
1,3-Dichlorobenzene			103.8		%		50-140	15-OCT-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R4277656								
WG2902728-5 MS		**WG2902728-3**						
1,4-Dichlorobenzene			105.0		%		50-140	15-OCT-18
Acetone			122.9		%		50-140	15-OCT-18
Benzene			110.7		%		50-140	15-OCT-18
Bromodichloromethane			116.5		%		50-140	15-OCT-18
Bromoform			113.8		%		50-140	15-OCT-18
Bromomethane			86.6		%		50-140	15-OCT-18
Carbon tetrachloride			111.9		%		50-140	15-OCT-18
Chlorobenzene			108.3		%		50-140	15-OCT-18
Chloroform			114.9		%		50-140	15-OCT-18
cis-1,2-Dichloroethylene			109.1		%		50-140	15-OCT-18
cis-1,3-Dichloropropene			102.1		%		50-140	15-OCT-18
Dibromochloromethane			113.1		%		50-140	15-OCT-18
Dichlorodifluoromethane			123.1		%		50-140	15-OCT-18
Ethylbenzene			98.0		%		50-140	15-OCT-18
n-Hexane			95.8		%		50-140	15-OCT-18
m+p-Xylenes			102.6		%		50-140	15-OCT-18
Methyl Ethyl Ketone			106.6		%		50-140	15-OCT-18
Methyl Isobutyl Ketone			107.6		%		50-140	15-OCT-18
Methylene Chloride			116.3		%		50-140	15-OCT-18
MTBE			109.0		%		50-140	15-OCT-18
o-Xylene			103.6		%		50-140	15-OCT-18
Styrene			103.8		%		50-140	15-OCT-18
Tetrachloroethylene			102.5		%		50-140	15-OCT-18
Toluene			100.1		%		50-140	15-OCT-18
trans-1,2-Dichloroethylene			104.7		%		50-140	15-OCT-18
trans-1,3-Dichloropropene			104.5		%		50-140	15-OCT-18
Trichlorofluoromethane			118.3		%		50-140	15-OCT-18
Vinyl chloride			102.3		%		50-140	15-OCT-18
Batch R4280731								
WG2901879-1 LCS								
Trichloroethylene			106.8		%		70-130	16-OCT-18
WG2901879-2 MB								
Trichloroethylene			<0.50		ug/L		0.5	16-OCT-18

Quality Control Report

Workorder: L2178707 Report Date: 16-OCT-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

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
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
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.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2178707-COFC

COC Number: 17 - 639354

Page 1 of 1

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Atech	Select Report Format: ☐ PDF ☐ EXCEL ☐ EDD (DIGITAL)	Regular [R] ☒ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Naveed Rehman	Quality Control (QC) Report with Report ☐ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐
Phone:		☐ Compare Results to Criteria on Report - provide details below if box checked	EMERGENCY: 1 Business day [E-100%] ☐ / Same Day, Weekend or Statutory holiday [E2-200% (Laboratory opening fees may apply)] ☐
	Company address below will appear on the final report	Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
Street:	12 Penny-Dale	Email 1 or Fax	For tests that can not be performed according to the service level selected, you will be contacted.
City/Province:	Toronto	Email 2	
Postal Code:		Email 3	
Invoice To	Same as Report To ☐ YES ☐ NO	**Invoice Distribution**	**Analysis Request**
	Copy of Invoice with Report ☐ YES ☐ NO	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:		Email 1 or Fax	
Contact:		Email 2	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	6255-18	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):	L2178707	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	DCBS	DOC	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	MW4	Oct 9/18	AM	GW	X				
	DUPG2				X				
	Trip Blank 2					X			
	Field Blank 2					X			

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	
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			
3.6°C				-0.0			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Naveed Rehman	Oct 9/18	1:55	Amrav Bhatia	9-oct-2018	13:55	AP	10-10-18	15:30

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**.

ALTECH ENVIRONMENTAL
ATTN: Naveed Rehman
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 16-NOV-18
Report Date: 19-NOV-18 10:41 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L2197859

Project P.O. #: NOT SUBMITTED
Job Reference: 6282-18
C of C Numbers: 14-469255
Legal Site Desc:

Amanda Fazekas
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2197859-1 N1 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	22.1		0.10	%	16-NOV-18	17-NOV-18	R4341391
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Surrogate: 2-Fluorobiphenyl	100.3		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	92.9		50-140	%	16-NOV-18	19-NOV-18	R4341674
L2197859-2 N2 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	2.84		0.10	%	16-NOV-18	17-NOV-18	R4341391
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2197859-2 N2 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Organochlorine Pesticides							
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Surrogate: 2-Fluorobiphenyl	98.0		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	99.4		50-140	%	16-NOV-18	19-NOV-18	R4341674
L2197859-3 E1 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	5.86		0.10	%	16-NOV-18	17-NOV-18	R4341391
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2197859-3 E1 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Organochlorine Pesticides							
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Surrogate: 2-Fluorobiphenyl	102.0		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	89.0		50-140	%	16-NOV-18	19-NOV-18	R4341674
L2197859-4 E2 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	4.67		0.10	%	16-NOV-18	17-NOV-18	R4341391
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2197859-4 E2 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Organochlorine Pesticides							
Surrogate: 2-Fluorobiphenyl	101.0		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	92.1		50-140	%	16-NOV-18	19-NOV-18	R4341674
L2197859-5 S1 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	4.32		0.10	%	16-NOV-18	17-NOV-18	R4341391
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Surrogate: 2-Fluorobiphenyl	98.2		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	99.6		50-140	%	16-NOV-18	19-NOV-18	R4341674
L2197859-6 S2 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	4.52		0.10	%	16-NOV-18	17-NOV-18	R4340852
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2197859-6 S2 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Organochlorine Pesticides							
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Surrogate: 2-Fluorobiphenyl	98.5		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	83.9		50-140	%	16-NOV-18	19-NOV-18	R4341674
L2197859-7 W1 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	3.47		0.10	%	16-NOV-18	17-NOV-18	R4340852
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2197859-7 W1 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Organochlorine Pesticides							
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Surrogate: 2-Fluorobiphenyl	96.7		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	100.1		50-140	%	16-NOV-18	19-NOV-18	R4341674
L2197859-8 W2 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	5.20		0.10	%	16-NOV-18	17-NOV-18	R4340852
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2197859-8 W2 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Organochlorine Pesticides							
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Surrogate: 2-Fluorobiphenyl	96.6		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	89.2		50-140	%	16-NOV-18	19-NOV-18	R4341674
L2197859-9 B1 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	1.93		0.10	%	16-NOV-18	17-NOV-18	R4340852
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Surrogate: 2-Fluorobiphenyl	93.9		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	94.1		50-140	%	16-NOV-18	19-NOV-18	R4341674
L2197859-10 B2							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2197859-10 B2 Sampled By: CLIENT on 16-NOV-18 Matrix: SOIL							
Physical Tests							
% Moisture	12.0		0.10	%	16-NOV-18	17-NOV-18	R4340852
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
a-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Chlordane (Total)	<0.028		0.028	ug/g		19-NOV-18	
g-chlordane	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
op-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDD	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDD	<0.028		0.028	ug/g		19-NOV-18	
o,p-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDE	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDE	<0.028		0.028	ug/g		19-NOV-18	
op-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
pp-DDT	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Total DDT	<0.028		0.028	ug/g		19-NOV-18	
Dieldrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan I	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan II	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Endosulfan (Total)	<0.028		0.028	ug/g		19-NOV-18	
Endrin	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Heptachlor Epoxide	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobenzene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachlorobutadiene	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Hexachloroethane	<0.010		0.010	ug/g	16-NOV-18	19-NOV-18	R4341674
Methoxychlor	<0.020		0.020	ug/g	16-NOV-18	19-NOV-18	R4341674
Surrogate: 2-Fluorobiphenyl	94.0		50-140	%	16-NOV-18	19-NOV-18	R4341674
Surrogate: d14-Terphenyl	91.1		50-140	%	16-NOV-18	19-NOV-18	R4341674

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

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.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CHLORDANE-T-CALC-WT	Soil	Chlordane Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
DDD-DDE-DDT-CALC-WT	Soil	DDD, DDE, DDT sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
ENDOSULFAN-T-CALC-WT	Soil	Endosulfan Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
MOISTURE-WT	Soil	% Moisture	Gravimetric: Oven Dried
PEST-OC-511-WT	Soil	OC Pesticides-O.Reg 153/04 (July 2011)	SW846 8270 (511)
Soil sample is extracted in a solvent, after extraction a number of clean up techniques may be applied, depending on the sample matrix and analyzed by 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), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			

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

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

Chain of Custody Numbers:

14-469255

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 weight of sample
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.

Quality Control Report

Workorder: L2197859 Report Date: 19-NOV-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-WT	**Soil**							
Batch R4340852								
WG2932711-3 DUP		**L2197610-1**						
% Moisture		23.6	23.9		%	1.4	20	17-NOV-18
WG2932711-2 LCS								
% Moisture			99.0		%		90-110	17-NOV-18
WG2932711-1 MB								
% Moisture			<0.10		%		0.1	17-NOV-18
Batch R4341391								
WG2932512-3 DUP		**L2197756-4**						
% Moisture		18.7	19.9		%	6.3	20	17-NOV-18
WG2932512-2 LCS								
% Moisture			99.4		%		90-110	17-NOV-18
WG2932512-1 MB								
% Moisture			<0.10		%		0.1	17-NOV-18
PEST-OC-511-WT	**Soil**							
Batch R4341674								
WG2932700-3 DUP		**WG2932700-5**						
Aldrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
a-chlordane		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
g-chlordane		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
op-DDD		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
pp-DDD		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
o,p-DDE		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
pp-DDE		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
op-DDT		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
pp-DDT		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
Dieldrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
Endosulfan I		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
Endosulfan II		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
Endrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
gamma-hexachlorocyclohexane		<0.010	<0.010	RPD-NA	ug/g	N/A	40	19-NOV-18
Heptachlor		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
Heptachlor Epoxide		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
Hexachlorobenzene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	19-NOV-18
Hexachlorobutadiene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	19-NOV-18
Hexachloroethane		<0.010	<0.010	RPD-NA	ug/g	N/A	40	19-NOV-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4341674								
WG2932700-3 DUP		**WG2932700-5**						
Methoxychlor		<0.020	<0.020	RPD-NA	ug/g	N/A	40	19-NOV-18
WG2932700-2 LCS								
Aldrin			96.9		%		50-140	19-NOV-18
a-chlordane			84.1		%		50-140	19-NOV-18
g-chlordane			85.1		%		50-140	19-NOV-18
op-DDD			96.4		%		50-140	19-NOV-18
pp-DDD			99.95		%		50-140	19-NOV-18
o,p-DDE			85.0		%		50-140	19-NOV-18
pp-DDE			85.0		%		50-140	19-NOV-18
op-DDT			70.7		%		50-140	19-NOV-18
pp-DDT			58.9		%		50-140	19-NOV-18
Dieldrin			85.9		%		50-140	19-NOV-18
Endosulfan I			90.0		%		50-140	19-NOV-18
Endosulfan II			95.3		%		50-140	19-NOV-18
Endrin			135.3		%		50-140	19-NOV-18
gamma-hexachlorocyclohexane			93.2		%		50-140	19-NOV-18
Heptachlor			94.9		%		50-140	19-NOV-18
Heptachlor Epoxide			89.3		%		50-140	19-NOV-18
Hexachlorobenzene			91.9		%		50-140	19-NOV-18
Hexachlorobutadiene			94.3		%		50-140	19-NOV-18
Hexachloroethane			95.0		%		50-140	19-NOV-18
Methoxychlor			80.5		%		50-140	19-NOV-18
WG2932700-1 MB								
Aldrin			<0.020		ug/g		0.02	19-NOV-18
a-chlordane			<0.020		ug/g		0.02	19-NOV-18
g-chlordane			<0.020		ug/g		0.02	19-NOV-18
op-DDD			<0.020		ug/g		0.02	19-NOV-18
pp-DDD			<0.020		ug/g		0.02	19-NOV-18
o,p-DDE			<0.020		ug/g		0.02	19-NOV-18
pp-DDE			<0.020		ug/g		0.02	19-NOV-18
op-DDT			<0.020		ug/g		0.02	19-NOV-18
pp-DDT			<0.020		ug/g		0.02	19-NOV-18
Dieldrin			<0.020		ug/g		0.02	19-NOV-18
Endosulfan I			<0.020		ug/g		0.02	19-NOV-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4341674								
WG2932700-1 MB								
Endosulfan II			<0.020		ug/g		0.02	19-NOV-18
Endrin			<0.020		ug/g		0.02	19-NOV-18
gamma-hexachlorocyclohexane			<0.010		ug/g		0.01	19-NOV-18
Heptachlor			<0.020		ug/g		0.02	19-NOV-18
Heptachlor Epoxide			<0.020		ug/g		0.02	19-NOV-18
Hexachlorobenzene			<0.010		ug/g		0.01	19-NOV-18
Hexachlorobutadiene			<0.010		ug/g		0.01	19-NOV-18
Hexachloroethane			<0.010		ug/g		0.01	19-NOV-18
Methoxychlor			<0.020		ug/g		0.02	19-NOV-18
Surrogate: 2-Fluorobiphenyl			101.1		%		50-140	19-NOV-18
Surrogate: d14-Terphenyl			87.7		%		50-140	19-NOV-18
WG2932700-4 MS		**WG2932700-5**						
Aldrin			94.8		%		50-140	19-NOV-18
a-chlordane			78.0		%		50-140	19-NOV-18
g-chlordane			79.1		%		50-140	19-NOV-18
op-DDD			88.1		%		50-140	19-NOV-18
pp-DDD			86.5		%		50-140	19-NOV-18
o,p-DDE			80.9		%		50-140	19-NOV-18
pp-DDE			81.7		%		50-140	19-NOV-18
op-DDT			68.9		%		50-140	19-NOV-18
pp-DDT			52.2		%		50-140	19-NOV-18
Dieldrin			78.8		%		50-140	19-NOV-18
Endosulfan I			80.9		%		50-140	19-NOV-18
Endosulfan II			82.1		%		50-140	19-NOV-18
Endrin			105.7		%		50-140	19-NOV-18
gamma-hexachlorocyclohexane			92.2		%		50-140	19-NOV-18
Heptachlor			92.4		%		50-140	19-NOV-18
Heptachlor Epoxide			84.9		%		50-140	19-NOV-18
Hexachlorobenzene			89.6		%		50-140	19-NOV-18
Hexachlorobutadiene			97.1		%		50-140	19-NOV-18
Hexachloroethane			96.9		%		50-140	19-NOV-18
Methoxychlor			68.6		%		50-140	19-NOV-18

Quality Control Report

Workorder: L2197859 Report Date: 19-NOV-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

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.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L2197859-COFC

COC Number: 14 - 469255

Page 1 of 1

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Altech	Select Report Format:	☒ PDF ☒ EXCEL ☐ EDD (DIGITAL)	R ☐ Regular (Standard TAT if received by 3pm)
Contact:	Nawed Rahman	Quality Control (QC) Report with Report	☐ Yes ☐ No	P ☐ Priority (2-4 business days if received by 3pm)
Address:		☐ Criteria on Report - provide details below if box checked		E ☒ Emergency (1-2 business days if received by 3pm)
		Select Distribution:	☐ EMAIL ☐ MAIL ☐ FAX	E2 ☐ Same day or weekend emergency if received by 10am – contact ALS for surcharge.
Phone:		Email 1 or Fax	nrahman@altech-group.com	Specify Date Required for E2,E or P:
		Email 2		

Invoice To	Same as Report To ☐ Yes ☐ No	Invoice Distribution	
	Copy of Invoice with Report ☐ Yes ☐ No	Select Invoice Distribution:	☐ EMAIL ☐ MAIL ☐ FAX
Company:		Email 1 or Fax	
Contact:		Email 2	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	6282-18	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	
ALS Lab Work Order # (lab use only)	L2197859	ALS Contact:	Sampler:

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	Oil & Gas	Number of Containers
	U1	Nov 14/18	AM	Soil	X	
	U2	↓	↓	↓	↓	
	E1					
	E2					
	S1					
	S2					
	W1					
	W2					
	B1					
	B2					

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☐ No	Please have report sent by Monday November 19th 2018
Are samples for human drinking water use? ☐ Yes ☐ No	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐		SIF Observations	Yes ☐	No ☒		
Ice packs	Yes ☒	No ☐	Custody seal intact	Yes ☐	No ☐		
Cooling Initiated	☒						

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
2.1			2.8		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Nawed Rahman	Nov 16/18	11:00	C Kocharakkal	16-Nov-18	11:00		16-NOV-18	1530

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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**.

ALTECH ENVIRONMENTAL
ATTN: Naveed Rehman
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 19-DEC-18
Report Date: 20-DEC-18 14:59 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L2212910

Project P.O. #: NOT SUBMITTED
Job Reference: 6282-18
C of C Numbers: 14-469274
Legal Site Desc:

Amanda Fazekas
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2212910-1 BF-1 Sampled By: CLIENT on 18-DEC-18 Matrix: SOIL							
Physical Tests							
% Moisture	15.8		0.10	%	20-DEC-18	21-DEC-18	R4405212
Metals							
Antimony (Sb)	<1.0		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Arsenic (As)	3.9		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Barium (Ba)	47.7		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Beryllium (Be)	<0.50		0.50	ug/g	20-DEC-18	20-DEC-18	R4406431
Boron (B)	5.6		5.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Cadmium (Cd)	<0.50		0.50	ug/g	20-DEC-18	20-DEC-18	R4406431
Chromium (Cr)	13.1		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Cobalt (Co)	5.5		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Copper (Cu)	11.5		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Lead (Pb)	13.9		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Molybdenum (Mo)	<1.0		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Nickel (Ni)	11.5		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Selenium (Se)	<1.0		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Silver (Ag)	<0.20		0.20	ug/g	20-DEC-18	20-DEC-18	R4406431
Thallium (Tl)	<0.50		0.50	ug/g	20-DEC-18	20-DEC-18	R4406431
Uranium (U)	<1.0		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Vanadium (V)	21.1		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Zinc (Zn)	43.1		5.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Volatile Organic Compounds							
Acetone	<0.50		0.50	ug/g	19-DEC-18	20-DEC-18	R4405211
Benzene	<0.0068		0.0068	ug/g	19-DEC-18	20-DEC-18	R4405211
Bromodichloromethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Bromoform	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Bromomethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Carbon tetrachloride	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Chlorobenzene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Dibromochloromethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Chloroform	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,2-Dibromoethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,2-Dichlorobenzene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,3-Dichlorobenzene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,4-Dichlorobenzene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Dichlorodifluoromethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1-Dichloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,2-Dichloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1-Dichloroethylene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
cis-1,2-Dichloroethylene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
trans-1,2-Dichloroethylene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Methylene Chloride	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2212910-1 BF-1 Sampled By: CLIENT on 18-DEC-18 Matrix: SOIL							
Volatile Organic Compounds							
1,2-Dichloropropane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
cis-1,3-Dichloropropene	<0.030		0.030	ug/g	19-DEC-18	20-DEC-18	R4405211
trans-1,3-Dichloropropene	<0.030		0.030	ug/g	19-DEC-18	20-DEC-18	R4405211
1,3-Dichloropropene (cis & trans)	<0.042		0.042	ug/g		20-DEC-18	
Ethylbenzene	<0.018		0.018	ug/g	19-DEC-18	20-DEC-18	R4405211
n-Hexane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Methyl Ethyl Ketone	<0.50		0.50	ug/g	19-DEC-18	20-DEC-18	R4405211
Methyl Isobutyl Ketone	<0.50		0.50	ug/g	19-DEC-18	20-DEC-18	R4405211
MTBE	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Styrene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1,1,2-Tetrachloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1,2,2-Tetrachloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Tetrachloroethylene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Toluene	<0.080		0.080	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1,1-Trichloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1,2-Trichloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Trichloroethylene	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4405211
Trichlorofluoromethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Vinyl chloride	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4405211
o-Xylene	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4405211
m+p-Xylenes	<0.030		0.030	ug/g	19-DEC-18	20-DEC-18	R4405211
Xylenes (Total)	<0.050		0.050	ug/g		20-DEC-18	
Surrogate: 4-Bromofluorobenzene	96.9		50-140	%	19-DEC-18	20-DEC-18	R4405211
Surrogate: 1,4-Difluorobenzene	111.0		50-140	%	19-DEC-18	20-DEC-18	R4405211
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4407011
a-chlordane	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Chlordane (Total)	<0.028		0.028	ug/g		20-DEC-18	
g-chlordane	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
op-DDD	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
pp-DDD	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Total DDD	<0.028		0.028	ug/g		20-DEC-18	
o,p-DDE	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
pp-DDE	0.025		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Total DDE	<0.028		0.028	ug/g		20-DEC-18	
op-DDT	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
pp-DDT	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Total DDT	<0.028		0.028	ug/g		20-DEC-18	
Dieldrin	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Endosulfan I	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2212910-1 BF-1 Sampled By: CLIENT on 18-DEC-18 Matrix: SOIL							
Organochlorine Pesticides							
Endosulfan II	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Endosulfan (Total)	<0.028		0.028	ug/g		20-DEC-18	
Endrin	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Heptachlor	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Heptachlor Epoxide	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Hexachlorobenzene	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4407011
Hexachlorobutadiene	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4407011
Hexachloroethane	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4407011
Methoxychlor	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Surrogate: 2-Fluorobiphenyl	97.7		50-140	%	19-DEC-18	20-DEC-18	R4407011
Surrogate: d14-Terphenyl	114.7		50-140	%	19-DEC-18	20-DEC-18	R4407011
L2212910-2 BF-2 Sampled By: CLIENT on 18-DEC-18 Matrix: SOIL							
Physical Tests							
% Moisture	18.9		0.10	%	20-DEC-18	21-DEC-18	R4405212
Metals							
Antimony (Sb)	<1.0		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Arsenic (As)	4.2		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Barium (Ba)	52.2		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Beryllium (Be)	<0.50		0.50	ug/g	20-DEC-18	20-DEC-18	R4406431
Boron (B)	5.8		5.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Cadmium (Cd)	<0.50		0.50	ug/g	20-DEC-18	20-DEC-18	R4406431
Chromium (Cr)	14.1		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Cobalt (Co)	5.9		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Copper (Cu)	13.1		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Lead (Pb)	15.3		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Molybdenum (Mo)	<1.0		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Nickel (Ni)	12.1		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Selenium (Se)	<1.0		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Silver (Ag)	<0.20		0.20	ug/g	20-DEC-18	20-DEC-18	R4406431
Thallium (Tl)	<0.50		0.50	ug/g	20-DEC-18	20-DEC-18	R4406431
Uranium (U)	<1.0		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Vanadium (V)	22.7		1.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Zinc (Zn)	47.5		5.0	ug/g	20-DEC-18	20-DEC-18	R4406431
Volatile Organic Compounds							
Acetone	<0.50		0.50	ug/g	19-DEC-18	20-DEC-18	R4405211
Benzene	<0.0068		0.0068	ug/g	19-DEC-18	20-DEC-18	R4405211
Bromodichloromethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Bromoform	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Bromomethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Carbon tetrachloride	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2212910-2 BF-2 Sampled By: CLIENT on 18-DEC-18 Matrix: SOIL							
Volatile Organic Compounds							
Chlorobenzene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Dibromochloromethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Chloroform	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,2-Dibromoethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,2-Dichlorobenzene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,3-Dichlorobenzene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,4-Dichlorobenzene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Dichlorodifluoromethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1-Dichloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,2-Dichloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1-Dichloroethylene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
cis-1,2-Dichloroethylene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
trans-1,2-Dichloroethylene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Methylene Chloride	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,2-Dichloropropane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
cis-1,3-Dichloropropene	<0.030		0.030	ug/g	19-DEC-18	20-DEC-18	R4405211
trans-1,3-Dichloropropene	<0.030		0.030	ug/g	19-DEC-18	20-DEC-18	R4405211
1,3-Dichloropropene (cis & trans)	<0.042		0.042	ug/g		20-DEC-18	
Ethylbenzene	<0.018		0.018	ug/g	19-DEC-18	20-DEC-18	R4405211
n-Hexane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Methyl Ethyl Ketone	<0.50		0.50	ug/g	19-DEC-18	20-DEC-18	R4405211
Methyl Isobutyl Ketone	<0.50		0.50	ug/g	19-DEC-18	20-DEC-18	R4405211
MTBE	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Styrene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1,1,2-Tetrachloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1,2,2-Tetrachloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Tetrachloroethylene	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Toluene	<0.080		0.080	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1,1-Trichloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
1,1,2-Trichloroethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Trichloroethylene	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4405211
Trichlorofluoromethane	<0.050		0.050	ug/g	19-DEC-18	20-DEC-18	R4405211
Vinyl chloride	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4405211
o-Xylene	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4405211
m+p-Xylenes	<0.030		0.030	ug/g	19-DEC-18	20-DEC-18	R4405211
Xylenes (Total)	<0.050		0.050	ug/g		20-DEC-18	
Surrogate: 4-Bromofluorobenzene	93.5		50-140	%	19-DEC-18	20-DEC-18	R4405211
Surrogate: 1,4-Difluorobenzene	108.2		50-140	%	19-DEC-18	20-DEC-18	R4405211
Organochlorine Pesticides							
Aldrin	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4407011

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2212910-2 BF-2 Sampled By: CLIENT on 18-DEC-18 Matrix: SOIL							
Organochlorine Pesticides							
a-chlordane	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Chlordane (Total)	<0.028		0.028	ug/g		20-DEC-18	
g-chlordane	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
op-DDD	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
pp-DDD	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Total DDD	<0.028		0.028	ug/g		20-DEC-18	
o,p-DDE	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
pp-DDE	0.027		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Total DDE	<0.028		0.028	ug/g		20-DEC-18	
op-DDT	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
pp-DDT	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Total DDT	<0.028		0.028	ug/g		20-DEC-18	
Dieldrin	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Endosulfan I	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Endosulfan II	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Endosulfan (Total)	<0.028		0.028	ug/g		20-DEC-18	
Endrin	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Heptachlor	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Heptachlor Epoxide	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Hexachlorobenzene	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4407011
Hexachlorobutadiene	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4407011
Hexachloroethane	<0.010		0.010	ug/g	19-DEC-18	20-DEC-18	R4407011
Methoxychlor	<0.020		0.020	ug/g	19-DEC-18	20-DEC-18	R4407011
Surrogate: 2-Fluorobiphenyl	104.6		50-140	%	19-DEC-18	20-DEC-18	R4407011
Surrogate: d14-Terphenyl	115.6		50-140	%	19-DEC-18	20-DEC-18	R4407011

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Laboratory Control Sample	1,2-Dichloroethane	MES	L2212910-1, -2

Sample Parameter Qualifier key listed:

Qualifier	Description
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CHLORDANE-T-CALC-WT	Soil	Chlordane Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
DDD-DDE-DDT-CALC-WT	Soil	DDD, DDE, DDT sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
ENDOSULFAN-T-CALC-WT	Soil	Endosulfan Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
MET-200.2-CCMS-WT	Soil	Metals in Soil by CRC ICPMS	EPA 200.2/6020A (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).			
MOISTURE-WT	Soil	% Moisture	CCME PHC in Soil - Tier 1 (mod)
PEST-OC-511-WT	Soil	OC Pesticides-O.Reg 153/04 (July 2011)	SW846 8270 (511)
Soil sample is extracted in a solvent, after extraction a number of clean up techniques may be applied, depending on the sample matrix and analyzed by 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), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
VOC-1,3-DCP-CALC-WT	Soil	Regulation 153 VOCs	SW8260B/SW8270C
VOC-511-HS-WT	Soil	VOC-O.Reg 153/04 (July 2011)	SW846 8260 (511)
Soil and sediment samples are extracted in methanol and analyzed 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), 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.

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

Chain of Custody Numbers:

14-469274

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 weight of sample
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.

Quality Control Report

Workorder: L2212910 Report Date: 20-DEC-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R4406431								
WG2957837-2 CRM		**WT-CANMET-TILL1**						
Antimony (Sb)			111.7		%		70-130	20-DEC-18
Arsenic (As)			111.5		%		70-130	20-DEC-18
Barium (Ba)			108.1		%		70-130	20-DEC-18
Beryllium (Be)			103.2		%		70-130	20-DEC-18
Boron (B)			2.8		mg/kg		0-8.2	20-DEC-18
Cadmium (Cd)			108.8		%		70-130	20-DEC-18
Chromium (Cr)			109.1		%		70-130	20-DEC-18
Cobalt (Co)			110.1		%		70-130	20-DEC-18
Copper (Cu)			113.8		%		70-130	20-DEC-18
Lead (Pb)			106.0		%		70-130	20-DEC-18
Molybdenum (Mo)			106.0		%		70-130	20-DEC-18
Nickel (Ni)			111.0		%		70-130	20-DEC-18
Selenium (Se)			0.29		mg/kg		0.11-0.51	20-DEC-18
Silver (Ag)			0.24		mg/kg		0.13-0.33	20-DEC-18
Thallium (Tl)			0.127		mg/kg		0.077-0.18	20-DEC-18
Uranium (U)			102.6		%		70-130	20-DEC-18
Vanadium (V)			107.9		%		70-130	20-DEC-18
Zinc (Zn)			105.8		%		70-130	20-DEC-18
WG2957837-6 DUP		**WG2957837-5**						
Antimony (Sb)		<0.10	<0.10	RPD-NA	ug/g	N/A	30	20-DEC-18
Arsenic (As)		3.06	3.05		ug/g	0.4	30	20-DEC-18
Barium (Ba)		128	128		ug/g	0.1	40	20-DEC-18
Beryllium (Be)		0.62	0.62		ug/g	0.4	30	20-DEC-18
Boron (B)		7.2	7.3		ug/g	1.7	30	20-DEC-18
Cadmium (Cd)		0.115	0.112		ug/g	2.5	30	20-DEC-18
Chromium (Cr)		25.3	25.3		ug/g	0.1	30	20-DEC-18
Cobalt (Co)		8.62	8.67		ug/g	0.7	30	20-DEC-18
Copper (Cu)		16.7	16.7		ug/g	0.6	30	20-DEC-18
Lead (Pb)		7.74	7.94		ug/g	2.6	40	20-DEC-18
Molybdenum (Mo)		0.24	0.25		ug/g	5.8	40	20-DEC-18
Nickel (Ni)		18.8	18.6		ug/g	1.1	30	20-DEC-18
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	20-DEC-18
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R4406431								
WG2957837-6 DUP		**WG2957837-5**						
Thallium (Tl)		0.183	0.187		ug/g	2.2	30	20-DEC-18
Uranium (U)		0.545	0.561		ug/g	2.9	30	20-DEC-18
Vanadium (V)		39.0	39.2		ug/g	0.6	30	20-DEC-18
Zinc (Zn)		47.3	47.2		ug/g	0.2	30	20-DEC-18
WG2957837-4 LCS								
Antimony (Sb)			105.1		%		80-120	20-DEC-18
Arsenic (As)			103.5		%		80-120	20-DEC-18
Barium (Ba)			106.2		%		80-120	20-DEC-18
Beryllium (Be)			100.2		%		80-120	20-DEC-18
Boron (B)			98.4		%		80-120	20-DEC-18
Cadmium (Cd)			102.1		%		80-120	20-DEC-18
Chromium (Cr)			107.5		%		80-120	20-DEC-18
Cobalt (Co)			104.3		%		80-120	20-DEC-18
Copper (Cu)			102.4		%		80-120	20-DEC-18
Lead (Pb)			101.5		%		80-120	20-DEC-18
Molybdenum (Mo)			103.6		%		80-120	20-DEC-18
Nickel (Ni)			105.7		%		80-120	20-DEC-18
Selenium (Se)			100.4		%		80-120	20-DEC-18
Silver (Ag)			98.9		%		80-120	20-DEC-18
Thallium (Tl)			103.7		%		80-120	20-DEC-18
Uranium (U)			104.1		%		80-120	20-DEC-18
Vanadium (V)			108.4		%		80-120	20-DEC-18
Zinc (Zn)			101.2		%		80-120	20-DEC-18
WG2957837-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	20-DEC-18
Arsenic (As)			<0.10		mg/kg		0.1	20-DEC-18
Barium (Ba)			<0.50		mg/kg		0.5	20-DEC-18
Beryllium (Be)			<0.10		mg/kg		0.1	20-DEC-18
Boron (B)			<5.0		mg/kg		5	20-DEC-18
Cadmium (Cd)			<0.020		mg/kg		0.02	20-DEC-18
Chromium (Cr)			<0.50		mg/kg		0.5	20-DEC-18
Cobalt (Co)			<0.10		mg/kg		0.1	20-DEC-18
Copper (Cu)			<0.50		mg/kg		0.5	20-DEC-18
Lead (Pb)			<0.50		mg/kg		0.5	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R4406431								
WG2957837-1 MB								
Molybdenum (Mo)			<0.10		mg/kg		0.1	20-DEC-18
Nickel (Ni)			<0.50		mg/kg		0.5	20-DEC-18
Selenium (Se)			<0.20		mg/kg		0.2	20-DEC-18
Silver (Ag)			<0.10		mg/kg		0.1	20-DEC-18
Thallium (Tl)			<0.050		mg/kg		0.05	20-DEC-18
Uranium (U)			<0.050		mg/kg		0.05	20-DEC-18
Vanadium (V)			<0.20		mg/kg		0.2	20-DEC-18
Zinc (Zn)			<2.0		mg/kg		2	20-DEC-18
MOISTURE-WT	**Soil**							
Batch R4405212								
WG2957857-3 DUP		**L2212859-1**						
% Moisture		17.9	17.3		%	3.3	20	21-DEC-18
WG2957857-2 LCS								
% Moisture			98.8		%		90-110	21-DEC-18
WG2957857-1 MB								
% Moisture			<0.10		%		0.1	21-DEC-18
PEST-OC-511-WT	**Soil**							
Batch R4407011								
WG2957784-3 DUP		**WG2957784-5**						
Aldrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
a-chlordane		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
g-chlordane		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
op-DDD		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
pp-DDD		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
o,p-DDE		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
pp-DDE		0.027	0.023		ug/g	16	40	20-DEC-18
op-DDT		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
pp-DDT		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
Dieldrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
Endosulfan I		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
Endosulfan II		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
Endrin		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
gamma-hexachlorocyclohexane		<0.010	<0.010	RPD-NA	ug/g	N/A	40	20-DEC-18
Heptachlor		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4407011								
WG2957784-3 DUP		**WG2957784-5**						
Heptachlor Epoxide		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
Hexachlorobenzene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	20-DEC-18
Hexachlorobutadiene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	20-DEC-18
Hexachloroethane		<0.010	<0.010	RPD-NA	ug/g	N/A	40	20-DEC-18
Methoxychlor		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
WG2957784-2 LCS								
Aldrin			93.8		%		50-140	20-DEC-18
a-chlordane			99.2		%		50-140	20-DEC-18
g-chlordane			101.9		%		50-140	20-DEC-18
op-DDD			99.7		%		50-140	20-DEC-18
pp-DDD			97.0		%		50-140	20-DEC-18
o,p-DDE			99.3		%		50-140	20-DEC-18
pp-DDE			96.8		%		50-140	20-DEC-18
op-DDT			88.4		%		50-140	20-DEC-18
pp-DDT			81.5		%		50-140	20-DEC-18
Dieldrin			100.3		%		50-140	20-DEC-18
Endosulfan I			98.9		%		50-140	20-DEC-18
Endosulfan II			99.7		%		50-140	20-DEC-18
Endrin			92.3		%		50-140	20-DEC-18
gamma-hexachlorocyclohexane			93.9		%		50-140	20-DEC-18
Heptachlor			84.9		%		50-140	20-DEC-18
Heptachlor Epoxide			99.3		%		50-140	20-DEC-18
Hexachlorobenzene			96.9		%		50-140	20-DEC-18
Hexachlorobutadiene			99.2		%		50-140	20-DEC-18
Hexachloroethane			103.5		%		50-140	20-DEC-18
Methoxychlor			91.5		%		50-140	20-DEC-18
WG2957784-1 MB								
Aldrin			<0.020		ug/g		0.02	20-DEC-18
a-chlordane			<0.020		ug/g		0.02	20-DEC-18
g-chlordane			<0.020		ug/g		0.02	20-DEC-18
op-DDD			<0.020		ug/g		0.02	20-DEC-18
pp-DDD			<0.020		ug/g		0.02	20-DEC-18
o,p-DDE			<0.020		ug/g		0.02	20-DEC-18
pp-DDE			<0.020		ug/g		0.02	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4407011								
WG2957784-1 MB								
op-DDT			<0.020		ug/g		0.02	20-DEC-18
pp-DDT			<0.020		ug/g		0.02	20-DEC-18
Dieldrin			<0.020		ug/g		0.02	20-DEC-18
Endosulfan I			<0.020		ug/g		0.02	20-DEC-18
Endosulfan II			<0.020		ug/g		0.02	20-DEC-18
Endrin			<0.020		ug/g		0.02	20-DEC-18
gamma-hexachlorocyclohexane			<0.010		ug/g		0.01	20-DEC-18
Heptachlor			<0.020		ug/g		0.02	20-DEC-18
Heptachlor Epoxide			<0.020		ug/g		0.02	20-DEC-18
Hexachlorobenzene			<0.010		ug/g		0.01	20-DEC-18
Hexachlorobutadiene			<0.010		ug/g		0.01	20-DEC-18
Hexachloroethane			<0.010		ug/g		0.01	20-DEC-18
Methoxychlor			<0.020		ug/g		0.02	20-DEC-18
Surrogate: 2-Fluorobiphenyl			108.8		%		50-140	20-DEC-18
Surrogate: d14-Terphenyl			113.4		%		50-140	20-DEC-18
WG2957784-4 MS		**WG2957784-5**						
Aldrin			89.4		%		50-140	20-DEC-18
a-chlordane			88.0		%		50-140	20-DEC-18
g-chlordane			87.0		%		50-140	20-DEC-18
op-DDD			84.9		%		50-140	20-DEC-18
pp-DDD			85.4		%		50-140	20-DEC-18
o,p-DDE			88.5		%		50-140	20-DEC-18
pp-DDE			82.5		%		50-140	20-DEC-18
op-DDT			77.3		%		50-140	20-DEC-18
pp-DDT			75.1		%		50-140	20-DEC-18
Dieldrin			88.2		%		50-140	20-DEC-18
Endosulfan I			102.7		%		50-140	20-DEC-18
Endosulfan II			82.3		%		50-140	20-DEC-18
Endrin			86.6		%		50-140	20-DEC-18
gamma-hexachlorocyclohexane			83.4		%		50-140	20-DEC-18
Heptachlor			77.8		%		50-140	20-DEC-18
Heptachlor Epoxide			86.8		%		50-140	20-DEC-18
Hexachlorobenzene			92.4		%		50-140	20-DEC-18
Hexachlorobutadiene			92.1		%		50-140	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT	**Soil**							
Batch R4407011								
WG2957784-4 MS		**WG2957784-5**						
Hexachloroethane			94.5		%		50-140	20-DEC-18
Methoxychlor			86.5		%		50-140	20-DEC-18
VOC-511-HS-WT	**Soil**							
Batch R4405211								
WG2957727-4 DUP		**WG2957727-3**						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	20-DEC-18
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	20-DEC-18
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	20-DEC-18
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	20-DEC-18
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R4405211								
WG2957727-4 DUP		**WG2957727-3**						
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	20-DEC-18
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	20-DEC-18
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	20-DEC-18
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	20-DEC-18
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	20-DEC-18
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	20-DEC-18
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	20-DEC-18
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	20-DEC-18
WG2957727-2 LCS								
1,1,1,2-Tetrachloroethane			108.8		%		60-130	20-DEC-18
1,1,2,2-Tetrachloroethane			129.9		%		60-130	20-DEC-18
1,1,1-Trichloroethane			111.4		%		60-130	20-DEC-18
1,1,2-Trichloroethane			120.8		%		60-130	20-DEC-18
1,1-Dichloroethane			113.5		%		60-130	20-DEC-18
1,1-Dichloroethylene			100.9		%		60-130	20-DEC-18
1,2-Dibromoethane			122.2		%		70-130	20-DEC-18
1,2-Dichlorobenzene			114.1		%		70-130	20-DEC-18
1,2-Dichloroethane			131.6	MES	%		60-130	20-DEC-18
1,2-Dichloropropane			119.2		%		70-130	20-DEC-18
1,3-Dichlorobenzene			111.0		%		70-130	20-DEC-18
1,4-Dichlorobenzene			113.3		%		70-130	20-DEC-18
Acetone			119.5		%		60-140	20-DEC-18
Benzene			114.8		%		70-130	20-DEC-18
Bromodichloromethane			125.0		%		50-140	20-DEC-18
Bromoform			123.9		%		70-130	20-DEC-18
Bromomethane			106.8		%		50-140	20-DEC-18
Carbon tetrachloride			108.8		%		70-130	20-DEC-18
Chlorobenzene			112.6		%		70-130	20-DEC-18
Chloroform			118.4		%		70-130	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R4405211								
WG2957727-2 LCS								
cis-1,2-Dichloroethylene			117.1		%		70-130	20-DEC-18
cis-1,3-Dichloropropene			126.2		%		70-130	20-DEC-18
Dibromochloromethane			117.9		%		60-130	20-DEC-18
Dichlorodifluoromethane			65.5		%		50-140	20-DEC-18
Ethylbenzene			95.7		%		70-130	20-DEC-18
n-Hexane			89.8		%		70-130	20-DEC-18
Methylene Chloride			128.0		%		70-130	20-DEC-18
MTBE			107.4		%		70-130	20-DEC-18
m+p-Xylenes			102.0		%		70-130	20-DEC-18
Methyl Ethyl Ketone			114.8		%		60-140	20-DEC-18
Methyl Isobutyl Ketone			101.2		%		60-140	20-DEC-18
o-Xylene			97.6		%		70-130	20-DEC-18
Styrene			101.7		%		70-130	20-DEC-18
Tetrachloroethylene			108.4		%		60-130	20-DEC-18
Toluene			100.3		%		70-130	20-DEC-18
trans-1,2-Dichloroethylene			115.0		%		60-130	20-DEC-18
trans-1,3-Dichloropropene			116.0		%		70-130	20-DEC-18
Trichloroethylene			116.7		%		60-130	20-DEC-18
Trichlorofluoromethane			94.9		%		50-140	20-DEC-18
Vinyl chloride			70.3		%		60-140	20-DEC-18
WG2957727-1 MB								
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	20-DEC-18
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	20-DEC-18
1,1,1-Trichloroethane			<0.050		ug/g		0.05	20-DEC-18
1,1,2-Trichloroethane			<0.050		ug/g		0.05	20-DEC-18
1,1-Dichloroethane			<0.050		ug/g		0.05	20-DEC-18
1,1-Dichloroethylene			<0.050		ug/g		0.05	20-DEC-18
1,2-Dibromoethane			<0.050		ug/g		0.05	20-DEC-18
1,2-Dichlorobenzene			<0.050		ug/g		0.05	20-DEC-18
1,2-Dichloroethane			<0.050		ug/g		0.05	20-DEC-18
1,2-Dichloropropane			<0.050		ug/g		0.05	20-DEC-18
1,3-Dichlorobenzene			<0.050		ug/g		0.05	20-DEC-18
1,4-Dichlorobenzene			<0.050		ug/g		0.05	20-DEC-18
Acetone			<0.50		ug/g		0.5	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R4405211								
WG2957727-1 MB								
Benzene			<0.0068		ug/g		0.0068	20-DEC-18
Bromodichloromethane			<0.050		ug/g		0.05	20-DEC-18
Bromoform			<0.050		ug/g		0.05	20-DEC-18
Bromomethane			<0.050		ug/g		0.05	20-DEC-18
Carbon tetrachloride			<0.050		ug/g		0.05	20-DEC-18
Chlorobenzene			<0.050		ug/g		0.05	20-DEC-18
Chloroform			<0.050		ug/g		0.05	20-DEC-18
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	20-DEC-18
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	20-DEC-18
Dibromochloromethane			<0.050		ug/g		0.05	20-DEC-18
Dichlorodifluoromethane			<0.050		ug/g		0.05	20-DEC-18
Ethylbenzene			<0.018		ug/g		0.018	20-DEC-18
n-Hexane			<0.050		ug/g		0.05	20-DEC-18
Methylene Chloride			<0.050		ug/g		0.05	20-DEC-18
MTBE			<0.050		ug/g		0.05	20-DEC-18
m+p-Xylenes			<0.030		ug/g		0.03	20-DEC-18
Methyl Ethyl Ketone			<0.50		ug/g		0.5	20-DEC-18
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	20-DEC-18
o-Xylene			<0.020		ug/g		0.02	20-DEC-18
Styrene			<0.050		ug/g		0.05	20-DEC-18
Tetrachloroethylene			<0.050		ug/g		0.05	20-DEC-18
Toluene			<0.080		ug/g		0.08	20-DEC-18
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	20-DEC-18
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	20-DEC-18
Trichloroethylene			<0.010		ug/g		0.01	20-DEC-18
Trichlorofluoromethane			<0.050		ug/g		0.05	20-DEC-18
Vinyl chloride			<0.020		ug/g		0.02	20-DEC-18
Surrogate: 1,4-Difluorobenzene			109.7		%		50-140	20-DEC-18
Surrogate: 4-Bromofluorobenzene			96.9		%		50-140	20-DEC-18
WG2957727-5 MS		**L2212613-1**						
1,1,1,2-Tetrachloroethane			117.0		%		50-140	20-DEC-18
1,1,2,2-Tetrachloroethane			129.8		%		50-140	20-DEC-18
1,1,1-Trichloroethane			120.4		%		50-140	20-DEC-18
1,1,2-Trichloroethane			127.3		%		50-140	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R4405211								
WG2957727-5 MS		**L2212613-1**						
1,1-Dichloroethane			121.3		%		50-140	20-DEC-18
1,1-Dichloroethylene			109.3		%		50-140	20-DEC-18
1,2-Dibromoethane			128.2		%		50-140	20-DEC-18
1,2-Dichlorobenzene			119.8		%		50-140	20-DEC-18
1,2-Dichloroethane			137.0		%		50-140	20-DEC-18
1,2-Dichloropropane			125.6		%		50-140	20-DEC-18
1,3-Dichlorobenzene			119.0		%		50-140	20-DEC-18
1,4-Dichlorobenzene			120.5		%		50-140	20-DEC-18
Acetone			124.2		%		50-140	20-DEC-18
Benzene			122.2		%		50-140	20-DEC-18
Bromodichloromethane			131.3		%		50-140	20-DEC-18
Bromoform			127.4		%		50-140	20-DEC-18
Bromomethane			112.6		%		50-140	20-DEC-18
Carbon tetrachloride			118.1		%		50-140	20-DEC-18
Chlorobenzene			119.0		%		50-140	20-DEC-18
Chloroform			126.1		%		50-140	20-DEC-18
cis-1,2-Dichloroethylene			123.7		%		50-140	20-DEC-18
cis-1,3-Dichloropropene			128.4		%		50-140	20-DEC-18
Dibromochloromethane			124.4		%		50-140	20-DEC-18
Dichlorodifluoromethane			74.4		%		50-140	20-DEC-18
Ethylbenzene			104.4		%		50-140	20-DEC-18
n-Hexane			98.4		%		50-140	20-DEC-18
Methylene Chloride			135.9		%		50-140	20-DEC-18
MTBE			111.9		%		50-140	20-DEC-18
m+p-Xylenes			109.4		%		50-140	20-DEC-18
Methyl Ethyl Ketone			109.0		%		50-140	20-DEC-18
Methyl Isobutyl Ketone			98.5		%		50-140	20-DEC-18
o-Xylene			105.5		%		50-140	20-DEC-18
Styrene			107.3		%		50-140	20-DEC-18
Tetrachloroethylene			119.4		%		50-140	20-DEC-18
Toluene			109.7		%		50-140	20-DEC-18
trans-1,2-Dichloroethylene			122.8		%		50-140	20-DEC-18
trans-1,3-Dichloropropene			117.8		%		50-140	20-DEC-18

Quality Control Report

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R4405211								
WG2957727-5 MS		**L2212613-1**						
Trichloroethylene			125.4		%		50-140	20-DEC-18
Trichlorofluoromethane			103.7		%		50-140	20-DEC-18
Vinyl chloride			76.4		%		50-140	20-DEC-18

Quality Control Report

Workorder: L2212910 Report Date: 20-DEC-18

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

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
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
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.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L2212910-COFC

COC Number: 14 - 469274

Page 1 of 1

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Altech	Select Report Format:	PDF EXCEL EDD (DIGITAL)	R X Regular (Standard TAT if received by 3pm)
Contact:	Naveed Rahman	Quality Control (QC) Report with Report	Yes No	P Priority (2-4 business days if received by 3pm)
Address:		Criteria on Report - provide details below if box checked		E Emergency (1-2 business days if received by 3pm)
		Select Distribution:	EMAIL MAIL FAX	E2 Same day or weekend emergency if received by 10am – contact ALS for surcharge.
Phone:		Email 1 or Fax	nrahman@altech-group.com	Specify Date Required for E2,E or P:
		Email 2		

Invoice To	Same as Report To	Yes No	Invoice Distribution		Analysis Request
	Copy of Invoice with Report	Yes No	Select Invoice Distribution:	EMAIL MAIL FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:			Email 1 or Fax		
Contact:			Email 2		

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	6282-18	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	
ALS Lab Work Order # (lab use only)	L2212910	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	VOCs	Metals	BTEX	Number of Containers
	BF1	Dec 18/18	PM	Soil	X	X	X	
	BF2	"	"	"	X	X	X	

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? Yes No	
Are samples for human drinking water use? Yes No	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen		SIF Observations	Yes	No
Ice packs	Yes ☑ No ☐	Custody seal intact	Yes	No
Cooling Initiated	☑			

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
3.2°C			3.1		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Naveed Rah	Dec 18/18	1:40pm	AARON BURTON	18-Dec-2018	13:40	AP	19-12-18	17:45

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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**.

ALTECH ENVIRONMENTAL
ATTN: Naveed Rehman
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 22-MAR-19
Report Date: 29-MAR-19 12:28 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L2247945

Project P.O. #: NOT SUBMITTED
Job Reference: 6232-18
C of C Numbers: 17-732848
Legal Site Desc:

Amanda Fazekas
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2247945-1 TP-1 Sampled By: Client on 22-MAR-19 @ 12:00 Matrix: Soil							
Physical Tests							
% Moisture	34.7		0.10	%	22-MAR-19	23-MAR-19	R4580082
Polychlorinated Biphenyls							
Aroclor 1242	<0.015	DLM	0.015	ug/g	22-MAR-19	22-MAR-19	R4586547
Aroclor 1248	<0.010		0.010	ug/g	22-MAR-19	22-MAR-19	R4586547
Aroclor 1254	<0.010		0.010	ug/g	22-MAR-19	22-MAR-19	R4586547
Aroclor 1260	<0.010		0.010	ug/g	22-MAR-19	22-MAR-19	R4586547
Total PCBs	<0.025	DLM	0.025	ug/g	22-MAR-19	22-MAR-19	R4586547
Surrogate: d14-Terphenyl	85.8		60-140	%	22-MAR-19	22-MAR-19	R4586547
L2247945-2 TP-2 Sampled By: Client on 22-MAR-19 @ 12:00 Matrix: Soil							
Physical Tests							
% Moisture	30.5		0.10	%	22-MAR-19	23-MAR-19	R4580082
Polychlorinated Biphenyls							
Aroclor 1242	<0.010		0.010	ug/g	22-MAR-19	22-MAR-19	R4586547
Aroclor 1248	<0.010		0.010	ug/g	22-MAR-19	22-MAR-19	R4586547
Aroclor 1254	<0.010		0.010	ug/g	22-MAR-19	22-MAR-19	R4586547
Aroclor 1260	<0.010		0.010	ug/g	22-MAR-19	22-MAR-19	R4586547
Total PCBs	<0.020		0.020	ug/g	22-MAR-19	22-MAR-19	R4586547
Surrogate: d14-Terphenyl	89.6		60-140	%	22-MAR-19	22-MAR-19	R4586547

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
MOISTURE-WT	Soil	% Moisture	CCME PHC in Soil - Tier 1 (mod)
PCB-511-WT	Soil	PCB-O.Reg 153/04 (July 2011)	SW846 3510/8082

An aliquot of a solid sample is extracted with a solvent, extract is cleaned up and analyzed on the 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).

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

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

Chain of Custody Numbers:

17-732848

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 weight of sample
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.

Quality Control Report

Workorder: L2247945 Report Date: 29-MAR-19

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-WT	**Soil**							
Batch R4580082								
WG3012715-3 DUP		**L2247204-1**						
% Moisture		4.96	5.67		%	13	20	23-MAR-19
WG3012715-2 LCS								
% Moisture			100.1		%		90-110	23-MAR-19
WG3012715-1 MB								
% Moisture			<0.10		%		0.1	23-MAR-19
PCB-511-WT	**Soil**							
Batch R4586547								
WG3012635-3 DUP		**WG3012635-5**						
Aroclor 1242		<0.010	<0.010	RPD-NA	ug/g	N/A	40	22-MAR-19
Aroclor 1248		<0.010	<0.010	RPD-NA	ug/g	N/A	40	22-MAR-19
Aroclor 1254		<0.010	<0.010	RPD-NA	ug/g	N/A	40	22-MAR-19
Aroclor 1260		<0.010	<0.010	RPD-NA	ug/g	N/A	40	22-MAR-19
WG3012635-2 LCS								
Aroclor 1242			96.3		%		60-140	22-MAR-19
Aroclor 1248			93.2		%		60-140	22-MAR-19
Aroclor 1254			102.5		%		60-140	22-MAR-19
Aroclor 1260			96.6		%		60-140	22-MAR-19
WG3012635-1 MB								
Aroclor 1242			<0.010		ug/g		0.01	22-MAR-19
Aroclor 1248			<0.010		ug/g		0.01	22-MAR-19
Aroclor 1254			<0.010		ug/g		0.01	22-MAR-19
Aroclor 1260			<0.010		ug/g		0.01	22-MAR-19
Surrogate: d14-Terphenyl			82.7		%		60-140	22-MAR-19
WG3012635-4 MS		**WG3012635-5**						
Aroclor 1242			94.6		%		60-140	22-MAR-19
Aroclor 1254			92.9		%		60-140	22-MAR-19
Aroclor 1260			111.2		%		60-140	22-MAR-19

Quality Control Report

Workorder: L2247945 Report Date: 29-MAR-19

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: Naveed Rehman

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.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 17 - 732848

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Altech
Contact:	
Phone:	
	Company address below will appear on the final report
Street:	
City/Province:	
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: ☒ 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
Email 2
Email 3

Invoice Distribution

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax
Email 2

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: dd-mmm-yy hh:mm

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

Project Information

ALS Account # / Quote #:
Job #: 6232-18
PO / AFE:
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): L2247945
ALS Contact: | Sampler:

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	PCBs	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
-1	TP-1	Mar 22/19	AM	Soil	X			
-2	TP-2	"	"	"	X			

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

Are samples taken from a Regulated DW System? ☐ YES ☐ NO
Are samples for human consumption/ use? | | YES | | NO

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

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			
2.2							

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Naveed Rehman	Mar 22/19	12:05pm

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
CB	March 22/19	12:00

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

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.

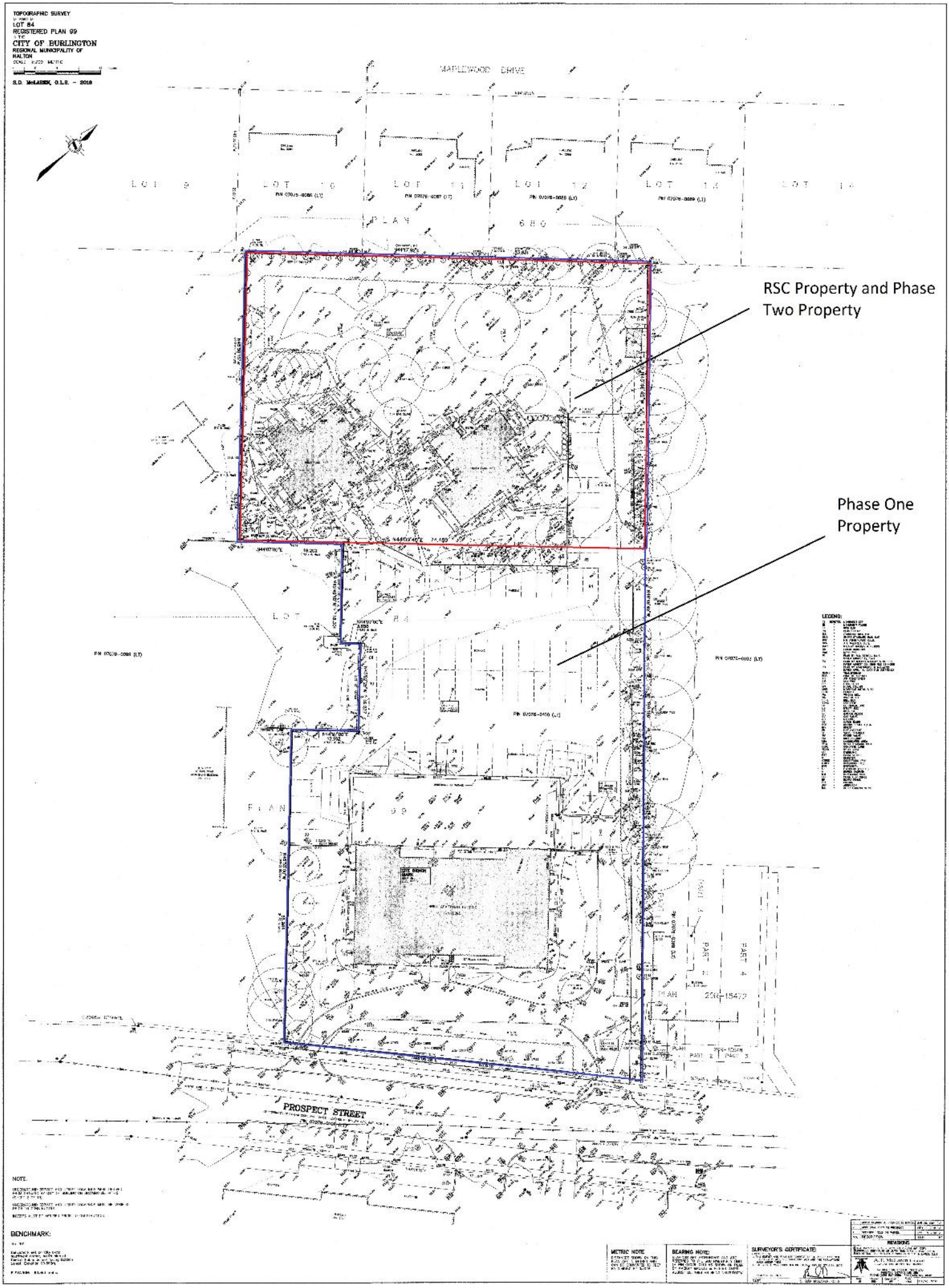
1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

GENERAL TERMS AND CONDITIONS:

These terms and conditions are incorporated in and form part of the Agreement between ALS Group's Environmental Division and the party named in the Offer (the "Client").

1. Definitions. Capitalized Terms not defined in these Terms and Conditions have the definitions set out in the other Agreement documents.
2. The Services. ALS will provide the Services to the Client as described in the Offer and in any chain of custody form provided with any sample.
3. Prices. ALS may review and change all prices, fees, surcharges or other charges set out in the Agreement if there are changes to ALS's cost beyond ALS's control, including changes in legislative requirements, Client variations of sample numbers and Client requests for changes to standard reporting requirements. Notwithstanding Condition 3, all quotations expire after three years.
4. Payment Terms. The Client shall pay ALS within 30 days of the invoice date OAC. ALS may, for reasonable business reasons, require the Client to arrange for payment in advance.
5. Quotation Numbers. The Client shall provide the quotation number to ALS (where applicable) to ensure correct pricing.
6. Taxes. Applicable taxes are not included in prices, surcharges and additional fees will be added at the time of invoicing.
7. Quality Control. ALS has an extensive QA/QC program. Clients' samples are analyzed using approved, referenced procedures followed by thorough data validation prior to reporting the analytical results.
8. Test Results are Not Guaranteed. Results are obtained from analytical measurements that are subject to inherent variability. Measurement results reflect characteristics of submitted test samples at time of analysis. The Client is responsible for informing itself on the limitation of test results and acknowledges that test results are not guaranteed.
9. Standard of Care. ALS will use reasonable care and diligence as required by the laws of the province or territory where the sample is tested.
10. Storage. Where possible, ALS will store; soil and water samples for 45 days from date of receipt, tissue/biota samples for 6 months from date of receipt, air samples or re-usable media for 14 days from date of receipt, and microbiological samples for 3 days from date of receipt.
11. Holds. If the Client requests a sample to be placed on hold, ALS will store the samples according to paragraph 10, after which ALS will invoice the Client and discard the sample. Each sample is subject to a minimum $5.00 hold fee. Longer hold periods are available upon request. See paragraph 12.
12. Archives. If the Client requests a sample be archived, ALS will invoice in advance and store the sample for the period requested, after which ALS may discard the sample.
13. Handling Protocol. Legal sample handling protocol must be arranged before samples are collected. ALS charges a surcharge on the list price plus the hourly technologist or chemist rates for legal sample protocol. Additional charges will apply for samples that require storage by ALS.
14. Samples. The quality, condition, content and source of samples stored and tested are not known to ALS except as declared and described on the chain of custody form completed and submitted by the Client and accompanying the sample.
15. Risk of Loss. ALS will use reasonable care to protect samples during storage, however all samples are stored at the Client's risk and the Client is responsible for obtaining appropriate insurance, if desired. The Client acknowledges that during the performance of the Services samples may be altered, lost, damaged or destroyed and the Client releases ALS from any claim the Client may have for any loss or damage to the sample.
16. Environmental. The Client must comply with all applicable environment legislation, including labeling all hazardous samples to comply with GHS and TDG regulations, and must provide appropriate Safety Data that include the nature of the hazard and a contact name and phone number to call for information. The Client will indemnify ALS for all loss or damages, including any fine or cost of complying with an order of any government authority, resulting from the Client's breach of this paragraph.
17. Hazardous Materials Disposal. ALS may return, at the Client's cost, hazardous material to the Client for disposal.
18. Hazardous Materials Surcharge. ALS may apply an additional surcharge for handling of hazardous samples or samples with Naturally Occurring Radioactive Materials (NORM), H2S, CN, etc.
19. Sample Containers. ALS may ship sample containers to the Client's location by the most cost effective means using ALS preferred courier suppliers, within the specified project timeline.
20. Additional Charges. ALS may charge the Client (a) its cost for emergency bottle shipments and shipments to and from a remote site, and (b) where pick up and delivery services are provided, subject in each instance to a minimum charge of $25.00.
21. Re-Tests. ALS reserves the right to re-test any samples that remains in its possession. Re-tests requested by the Client may be charged.
22. Waiver. The Client is responsible for making any assessment regarding the suitability of the Services and the intended results for the Client's purposes and waives any claims against ALS it may have as a result of the interpretation of the results. The Client shall indemnify ALS for all claims made by any third party against ALS in respect of all losses however arising from the performance of the Services or the use of any report provided in the performance of the Services.
23. Limitation of Liability. In no event shall ALS be liable for any consequential, indirect, incidental, special, exemplary or punitive damages, whether foreseeable or unforeseeable, (including claims for loss of profits or revenue or losses caused by stoppage of other work or impairment of other assets) incurred by the Client arising out of breach or failure of express or implied warranty, breach of contract, breach of warranty, misrepresentation, negligence, strict liability in tort or otherwise. In any event, the liability of ALS to the Client shall be limited to the cost of testing the sample as requested in the chain of custody form under which the sample was originally deposited. For the purposes of this paragraph and paragraphs 8, 15, 16, 22 and 24, as the applicable, "ALS" includes without limitations its directors, officers, employees and affiliates and the "Client" includes without limitation any third party that may have a claim against ALS through the Client.
24. Notice of Liability. Notwithstanding paragraph 23, ALS shall not be liable to the Client unless the Client provides notice in writing to ALS of such loss or damage, together with full particulars thereof, within 30 days of the Client's receipt of the report of the analysis of the sample giving rise to such liability. The provisions of this paragraph allocate the risk under the Agreement between the Client and ALS, and the fees to be paid by the Client to ALS reflect this allocation of risks and the limitations of liability in this Agreement.
25. Third Party Service Provider Indemnity. Should the Client require ALS to forward samples and/or obtain services from a third party service provider, the Client will provide ALS notice in writing. The Client indemnifies ALS against any breach of this Agreement, all liabilities or losses incurred in connection with the third party service provider, including but not limited to courier services, testing turn-around time, and any additional costs associated with such third party.
26. Third Party Service Provider Indemnity. If ALS is required to engage a third party service provider for whatever reason, the Client indemnifies ALS against any breach of this Agreement, liabilities or losses incurred in connection with the third party service provider, including but not limited to courier services, testing turn-around time, and any additional costs associated with such third party.
27. Entire Agreement. The Agreement is the entire agreement between the parties and supersedes and takes precedence over any terms and conditions contained in any documentation provided by the Client. ALS's execution of any subsequent documentation from the Client only acknowledges receipt and not acceptance of any terms or conditions therein. If there is a conflict between these terms and conditions and any other Agreement document, these terms and conditions prevail.
28. Term. Providing the first batch of samples to which this tender refers is submitted within three months of the starting date of this quotation, the following prices, terms and conditions will remain firm until the closing date. This offer, and terms and conditions will automatically lapse if the offer has not been accepted, and samples not delivered to ALS, within the Closing Date.
29. Termination. (a) Either party may terminate this Agreement for any reason by giving the other party thirty (30) days written notice (Notice Period).(b) If the Agreement is terminated pursuant to clause (a), then the Client must pay ALS for all Services performed up to the expiry of the Notice Period.

APPENDIX D


TOPOGRAPHIC SURVEY
LOT 84
REGISTERED PLAN 99
CITY OF BURLINGTON
REGIONAL MUNICIPALITY OF HALTON
S.D. McLAREN, O.L.S. – 2018
MAPLEWOOD DRIVE
PLAN 680
LOT 9
LOT 10
LOT 11
LOT 12
LOT 13
LOT 14
RSC Property and Phase Two Property
Phase One Property
LEGEND:
PROSPECT STREET
NOTE:
BENCHMARK:
METRIC NOTE
BEARING NOTE:
SURVEYOR'S CERTIFICATE:
REVISIONS
A.J. McLAREN LIMITED

APPENDIX E

APPENDIX E – REMEDIATION WORK

Subsequent to the initial Phase Two ESA and delineation investigation completed in August and October 2018, a remediation program (henceforth referred to as 'Remediation work') was undertaken on the Phase Two Property. The Remediation Work is defined in the regulation as, and generally conformed to, 'action taken to reduce the concentration of contaminants on, in or under a Phase Two Property'. The Remediation work was completed between November 12 and December 13, 2018.

This Appendix describes in detail the Remediation work completed on the Phase Two Property, subsequent to the initial Phase Two ESA. This appendix includes the following sections:

- Remedial Actions
- Results and Confirmation Sampling and Analysis
- Conclusions

1.0 Remedial Actions

1.1 Soil Remediation Activities

The most feasible remediation approach to reduce or remove the concentrations of contaminants in soil that exceeded the applicable 2011 Ministry of Environment, Conservation and Parks (MECP) Table 2 Standards on the Phase Two Property was determined to be excavation and off site disposal. This determination was based on:

- The Phase Two Conceptual Site Model prepared at the time - depth and location of soil contamination;
- Input from the property owner – time and cost considerations, site access and utilities available on the site;
- The objectives of the intended Record of Site Condition (RSC) – the target MECP Standards and the reason the RSC is being prepared (ie. requested by municipality as part of redevelopment approval).

The Remediation work was completed generally between November 12, and December 13, 2018. Welwyn Interests Inc provided the heavy equipment, excavation, soil transportation, backfilling, and compaction services. One landfill facility was used to accept the contaminated soil for disposal: Terrapure in Hamilton, Ontario. One Altech representative (also a QP) was on-site throughout all excavation stages to supervise the project. All soil sample collection and submission was completed by Altech. Laboratory analytical services were provided by ALS Laboratories Inc. of Burlington, ON.

The excavation of contaminated soil took place between two days: November 12 and 13, 2018. Figure 10 illustrates the location and dimensions of the excavation area. Confirmatory soil samples were collected on November 13, 2018. Figure 11 illustrates the sampling locations with their approximate depths.

The excavation process involved the following steps:

1) Removal of topsoil and silty sand,
2) Removal and transport offsite of contaminated soil,
3) Collection of confirmatory soil samples on the sidewalls and floor representing the final extent of the excavated area,
4) Backfilling and compaction of the excavated section.

The total spatial area of the remediation excavation was approximately 116 m^2. As per Table 3: Minimum Confirmation Sampling Requirements for Excavation in the regulation Reg. 153/04 as amended, the minimum number of confirmatory soil samples required to represent an excavation of this size is five (5) sidewall samples and three (3) floor samples. The total number of confirmatory soil samples representing the final extents of the remediation excavation *on the Phase Two Property* was eight (8) sidewall samples and two (2) floor samples – ten (10) confirmatory soil samples in total. The sidewall samples were collected from depths ranging from 1.37 to 1.52 metres (4.5 to 5 feet) below surface, and the floor samples were collected from depth of 5 feet (1.52 m) below surface. The floor of each section of the excavation was noted to be the native silty sand. The results of the interim soil samples of contaminated material, later removed from the site, are listed in Table 4 in Section 9.0 of the Phase Two ESA report. The results of the confirmatory soil samples are listed in Table 8 in Section 9.0 of the Phase Two ESA report.

During the excavation activities, Altech recorded visual observations of the contaminated material, field screened soil samples of the contaminated material, and generally supervised and directed the excavation process.

During the excavation process, a total of 279.87 metric tonnes of contaminated soil was removed from the Phase Two Property and transported offsite to a landfill facility for appropriate disposal.

During the excavation, the monitoring well MW4 was physically removed by the excavation equipment and disposed of. The excavation depth in this section was approximately 1.52 metres (5 feet) below grade and the monitoring well annulus below this depth was sealed with clay backfill.

Discussion on Backfill Material Used:

> During the Remediation Project, only one type of soil material was used for backfilling the Phase Two Property. The material used was sourced from offsite (Almack Agronomic Services Inc.), delivered by contractors from the source site. The soil texture is described as 'loam' with forty-five percent sand, thirty-two percent silt and twenty-three percent clay. The organic matter by weight is characterized as 3.5 percent. The pH reading is 7.7. All of the major nutrients (which includes nitrogen, phosphorous, calcium, magnesium, potassium and sulphur) were in adequate concentrations for normal plant growth. The topsoil did not require any lime supplementation. The element sodium

was also reported to be at an acceptable level. The level of nitrate nitrogen at 21 ppm was also beneficial. Based on this information, Altech deemed the topsoil to be acceptable for backfill on the Phase Two Property. A copy of the information on the backfill is attached at the end of this Appendix E.

1.2 Groundwater Remediation Activities

As groundwater was not contaminated on the Phase Two Property, no groundwater remedial activities were undertaken during the remediation work.

Sediment Remediation Activities

There are no surface water bodies present on the Phase Two Property. Therefore, the remediated area does not contain any sediment, and this section is not applicable.

Free Flowing Product

There was no evidence noted, during the Phase Two ESA, delineation investigation or the Remediation work, of any light or dense non-aqueous phase liquids (LNAPL or DNAPL) in any of the groundwater encountered.

2.0 Results of Confirmation Sampling and Analysis

Confirmatory Soil Sampling

As mentioned above, a total of ten (10) confirmatory soil samples were analysed to represent the final extent of the remediation excavation *within the Phase Two Property*. The following is a list of the confirmatory soil samples, location, and depth.

Soil sample identification	Location within excavation	Depth (metres)
N1	Northwall; 8 feet east from top left corner and 4.5 to 5 feet below ground surface	1.37 – 1.52
N2	Northwall; 40 feet east from top left corner and 4.5 to 5 feet below ground surface	1.37 – 1.52
E1	East wall; 7 feet south from top left corner and 4.5 to 5 feet below ground surface	1.37 – 1.52
E2	East wall; 43 feet south from top left corner and 4.5 to 5 feet below ground surface	1.37 – 1.52
S1	Southwall; 7 feet west from top left corner and 4.5 to 5 feet below ground surface	1.37 – 1.52

S2	Southwall; 39 feet west from top left corner and 4.5 to 5 feet below ground surface	1.37 – 1.52
W1	West wall; 8 feet north from top left corner and 4.5 to 5 feet below ground surface	1.37 – 1.52
W2	West wall; 42 feet from top left corner and 4.5 to 5 feet below ground surface	1.37 – 1.52
B1	Floor; 8 feet from top left corner and 2.5 feet south	1.52
B2	Floor; 41 feet from top left corner and 2.5 feet south	1.52

The rationale for the sampling locations were to collect a sample anywhere from 3 to 5 feet below ground surface as an exceedance was discovered at an interval of 0-2.5 feet during the Phase Two ESA.

The results of the confirmatory soil sampling and analysis indicate that all soil samples were below the applicable 2011 MECP Table 2 Standards, for all contaminants of concern. The results of the confirmatory soil samples are listed in Table 8 in Section 9.0 of the Phase Two ESA report.

3.0 Conclusion of the Remediation Work

As described here, the outcome of the remediation program was as follows:

1) All confirmatory soil sampling representing the final extent of the excavation (sidewalls and floor) on the Phase Two Property, were below the applicable 2011 MECP Table 2 Standards for all contaminants of concern identified in soil;

In conclusion, as of the date of the most recent sampling, there are no soil or groundwater exceedances of the applicable 2011 MECP Table 2 Standards currently on the Phase Two Property.

The Phase Two Property is intended for redevelopment of townhouses. It is the opinion of the Qualified Person that the current soil and groundwater conditions on the Phase Two Property are adequate for this intended use.

APPENDIX F

ALMACK AGRONOMIC SERVICES INC.

SPECIALISTS IN TURFGRASS NUTRITION

May 14th, 2018

Mr. John Wheeler
Petric Quality Topsoil Ltd.
4321 Sixth Line
Milton, Ont.
L9T 5S3

#2
Commercial

Dear John:

The analyses of the recently submitted *2018 Screened Topsoil #2* sample are enclosed.

This topsoil is classified as having a " loam" texture as it contains forty-five percent sand, thirty-two percent silt and twenty-three percent clay.

The organic matter by weight of 3.5 percent is a very respectable amount for a topsoil which is primarily used as the base for sod placement.

The pH reading of 7.7, common with southern Ontario soils, is acceptable as a pH of 7.0 is neutral. This topsoil does not require any lime supplementation.

All necessary major nutrients including nitrogen, phosphorus, calcium, magnesium, potassium, sulphur and the micronutrients are in adequate concentrations for normal plant growth. The detrimental element sodium is also at a very low acceptable level. The level of nitrate nitrogen at 21 ppms is also beneficial.

The very low soluble salt reading of 0.29 mmhos/cm is also acceptable. There is little risk of any sodded areas being stressed by salt levels growing in this topsoil.

Based on these analyses, I feel this topsoil is very acceptable to be used in the various mixes that you blend.

If I can be of further assistance, please do not hesitate to contact me.

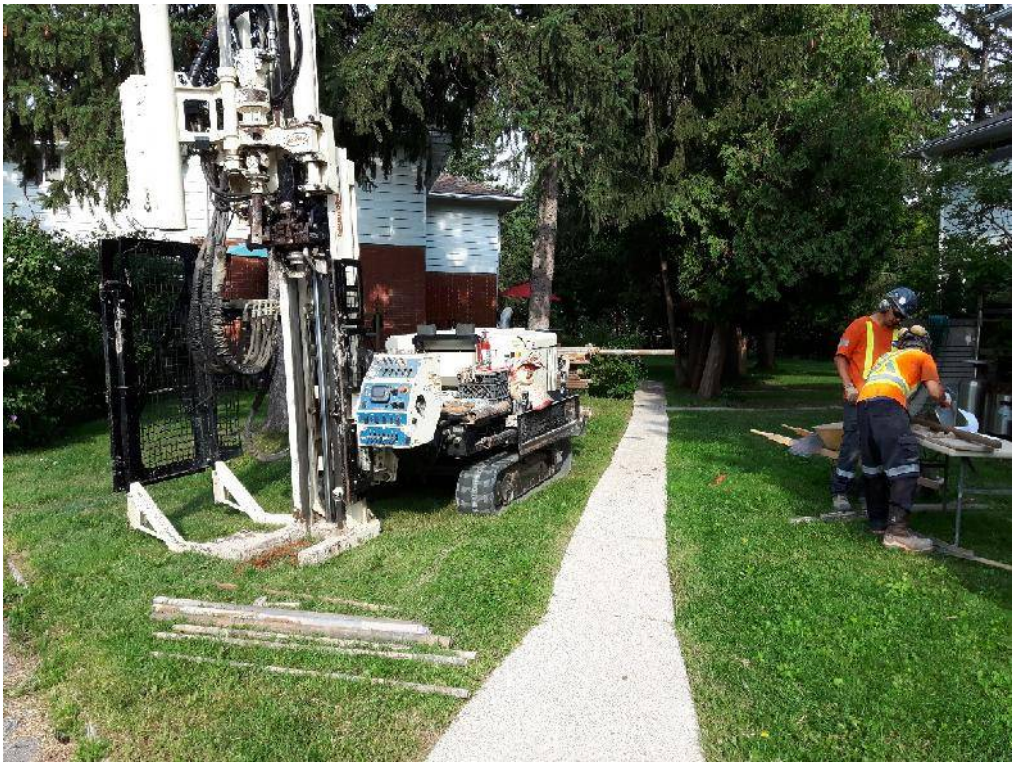
Yours sincerely,

Corrie Almack

Corrie Almack P.Ag.

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Tel: (905) 689-6174 Email: c.almack@sympatico.ca Cell: (416) 580-5152

Site Photographs



Photograph 1: Drilling BH1/MW1 at south-central portion of the Phase Two Property looking west.



Photograph 2: Drilling BH2/MW2 at eastern portion of the property looking northeast.

Site Photographs



Photograph 3: Drilling BH4 in northern portion of the property looking northeast.



Photograph 4: Drilling BH3/MW3 in central portion of the property looking southwest.

Site Photographs



Photograph 5: Drilling BH5 in western portion of the property looking west.



Photograph 6: Drilling BH4A/BH4 in northern portion of the property looking north.

Site Photographs



Photograph 7: Drilling BH6 in northern portion of the property looking north.



Photograph 8: Drilling BH8 looking northeast.

Site Photographs



Photograph 9: Excavator in the beginning stages of excavation in northern portion of the property looking north east



Photograph 10: View of contaminated soil in bin

Site Photographs



Photograph 11: View of excavated area in northern portion of the property looking northeast



Photograph 12: View of excavated area barricaded looking northeast.

Site Photographs



Photograph 13: View of truck placing backfill in excavated area looking northeast.



Photograph 14: View of the final look of the remediated area looking north.