REPORT

Phase Two Environmental Site Assessment

Windfields Farm Development "Parcel D", No Municipal Address, Simcoe Street North, Oshawa, Ontario

Submitted to:

2285136 Ontario Ltd.

c/o Mr. Stuart Craig, Vice President of Planning & Development
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Distribution List

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1.0 EXECUTIVE SUMMARY

Golder Associates Ltd. (“Golder”) was retained by RioCan Realty Inv. Partner 11LP (“RioCan”) on behalf of 2285136 Ontario Limited to carry out a Phase Two Environmental Site Assessment (“ESA”) of the property located east of Simcoe Street North and North of Windfields Farm Drive (No Municipal Address) in Oshawa, Ontario, as shown in Figure 1 (herein after referred to as the ”Site” or Phase Two Property”). The Site is part of the greater Windfields Farm Property (the “Subject Property”) located just south of Winchester Road in Oshawa, Ontario. The Site and Subject Property comprise a portion of the entire property located at 2300 and 2345 Simcoe Street North, Oshawa, Ontario. Golder understands that the Site is to be redeveloped with commercial development, possibly including some residential use, with some areas of the property remaining as open space and parkland.

Golder previously completed a Phase One ESA for the Subject Property, which included the Site as well as the surrounding lands, the results of which were documented in Golder Report No. 14-1182-0003 (1000) entitled, “*Phase One Environmental Site Assessment, Windfields Farm, Part of 2300 and 2425 Simcoe Street North, Oshawa, Ontario”*, dated January 2015 (the “2015 Phase One ESA”). Additionally, Golder completed an updated Phase One ESA for the Site in 2019, entitled “*RE: Phase One Environmental Site Assessment Update, Windfields Farm Development Site, “Parcel D”, Oshawa, Ontario”* dated November 6, 2019 (the “2019 Phase One ESA Update”). Based on the findings of the January 2015 Phase One ESA and the 2019 Phase One ESA Update, a Phase Two ESA was required.

The Phase Two Property consisted of a parcel of vacant agricultural land, which was previously developed with one farmhouse, one barn, and two sheds. The remainder of the Site was occupied by agricultural fields formerly utilized for horse farming, and a 5-hectare wooded area. Underground natural gas pipelines traverse the Site.

Based on the findings of the 2015 Phase One ESA and the 2019 Phase One ESA Update, the following APECs were identified:

- APEC 1 – Fill of Unknown Quality (Site Wide): based on previous investigations, fill is reportedly present on Site;
- APEC 2 – Gasoline and Associated Products and Storage in Fixed Tanks (Vicinity of former House 46 in the north-central portion of the Site): It is likely that a heating oil AST was formerly present at House 46; and
- APEC 3 – Explosives and Firing Range (South central portion of the Site): Inferred former use of the property as a private shooting range.

Initially following the 2015 Phase One ESA and subsequently related to the 2019 Phase One ESA Update, and as part of the overall investigation of the greater Subject Property, various Phase Two ESA activities including test pitting, borehole drilling, soil and groundwater sampling programs were completed on-Site to investigate the APECs identified.

Based on the findings of the Phase Two ESA activities, elevated concentrations of lead, antimony and cyanide were identified in shallow soil samples which were in excess of the Table 1 Standards[1]. These exceedances

[1] Table 1 (Full Depth Background) Site Condition Standards from the Ministry of the Environment Document “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the *Environmental Protection Act”* dated April 15, 2011 (“Table 1 Standards”).

were inferred to be related to APEC 3 and were found to be limited to the shallow soil/topsoil located in the central portion of the Site.

No other soil concentrations in excess of the Table 1 Standards were identified on Site for this or any other APECs. No groundwater concentrations in excess of the Table 1 Standards were identified on Site for this or any other APECs as part of this Phase Two ESA.

Following the identification and delineation of the lead, antimony and cyanide exceedances in the shallow soil on Site, Golder monitored the associated remedial activities. The remedial works consisted of the excavation and ultimate off-Site disposal of the impacted soil.

Based upon the completion of Golder's verification sampling program, all remaining soils at the Site satisfy the Table 1 Standards for the parameters tested.

2.0 INTRODUCTION

2.1 Site Description

Golder was retained by RioCan to conduct a Phase Two ESA of the following property:

Municipal Address	No Assigned Municipal Address (formerly part of 2300 Simcoe Street North)
Property Identification Number	16262-2984 (LT)
Legal Description	PART LOTS 11 & 12 CONCESSION 5 EAST WHITBY, S/T EASEMENT OVER PARTS 4,6,10 & 14 40R20841 AS IN CO66935, S/T EASEMENT OVER PARTS 3,7,11 & 15 40R20841 AS IN CO243736, S/T EASEMENT OVER PARTS 2, 3,4,5,9 & 13 40R20841 AS IN D21957; TOGETHER WITH AN EASEMENT OVER PART 1 40R28699 AS IN DR1473694; CITY OF OSHAWA; being all of the lands described in PIN 16262-2984 (LT) (lying North of Plan 40M-2605).
Size of the Phase Two Property	Approximately 297,139.63 m^2

The Site location is provided on Figure 1. A Site plan with the Phase Two property boundaries is provided on Figures 2 and 3. A plan of survey for the Site is included in Appendix A (iv).

2.2 Property Ownership

The contact information for the Phase Two Property owner is as follows:

Site Owner / Client	Address	Contact Information
2285136 Ontario Ltd. c/o RioCan Management Inc.	RioCan Yonge Eglinton Centre 2300 Yonge Street, Suite 500 P.O. Box 2386 Toronto, Ontario M4P 1E4	Mr. Stuart Craig, Vice President of Planning and Development Office: (416) 847-8001 Email: scraig@riocan.com

Authorization to proceed with this investigation was received from Mr. Stuart Craig of RioCan on May 20, 2015.

2.3 Current and Proposed Future Uses

The Phase Two Property currently consists of a parcel of vacant agricultural and rural residential land, which was previously developed with one house, one barn, and two sheds. The remainder of the Site was occupied by agricultural fields formerly utilized for horse farming, and a 5-hectare wooded area. In addition, easements for TransCanada Pipelines and Enbridge Gas cross the Phase Two Property from northwest to southeast. Golder understands that the Phase Two Property is to be redeveloped with a commercial development, possibly including some residential use, with some open space and parkland areas included. Please see the proposed development plan included in Appendix C.

This Phase Two ESA report was prepared in support of the filing of a RSC with the MECP pursuant to Ontario Regulation ("O. Reg.") 153/04 (as amended). Although the Phase Two Property is currently under predominantly agricultural use, we understand that under Reg. 153/04, MECP interprets the underground pipelines to represent an industrial use. The pipelines and associated easements will remain and no change in use is proposed for that portion of the Phase Two Property. Likewise, the woodlot at the northwest corner of the Site will remain. The existing agricultural areas of the Phase Two Property are proposed to be redeveloped for mixed use including parkland and commercial. As such, since no portion of the property is changing to a more sensitive use it is the QP's interpretation that no RSC is required under O. Reg. 153/04; however, we understand that a municipal permitting requirement for a RSC exists.

2.4 Applicable Site Condition Standard

The soil and groundwater results were compared to the MECP "*Soil, Ground Water, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*", April 2011, Table 1 Full Depth Background Site Condition Standards for a residential / parkland / institutional / industrial / commercial / community property use (hereafter referred to as the "Table 1 Standards"). The laboratory was notified of the use of Table 1 Standards on this project, to achieve reportable detection limits that meet the project objectives. The following factors were considered in selecting the assessment criteria:

- At present, the Site is not serviced, therefore potable groundwater standards were deemed applicable to Site;
- The Site is not located in an area designated in a municipal official plan as a well-head protection area or other designation identified by the municipality for the protection of ground water; however, the Site is identified as a Sensitive Site, based on the findings of a Species At Risk[2] ("SAR") study completed for the property in 2018;
- A tributary to East Oshawa Creek crosses the eastern portion of the Site; however, as part of the SAR, it was noted that the tributary is intermittent only, and would not be considered a water body as defined in the Regulation;
- The intended land use for the Phase Two Property is parkland and commercial use (with residential option); and,

[2] "Areas of Natural Significance and Species at Risk Screening, Windfields Farm Development, Oshawa, Ontario", prepared by Golder Associates for RioCan Realty Inv. Partner 11LP and dated July 6, 2018 (Report #1791121(1000))

- The average thickness of overburden at the Phase Two Property is greater than 2 m; however, groundwater is variable and was found to be relatively shallow (within 1m of ground surface) at some locations at the Site.

3.0 BACKGROUND INFORMATION

This section presents the background conditions of the Phase Two Property including a description of the physical setting and a summary of previous investigations conducted at the Site.

The objectives of the Phase Two ESA were to obtain information about environmental conditions in the soil on, in or under the Site, and to develop the information necessary to complete a RSC for the property. The objectives of this Phase Two ESA were achieved by:

- Developing an understanding of the geological and hydrogeological conditions at the Site; and,
- Conducting field sampling for contaminants of concern ("COC") associated with areas of potential environmental concern ("APECs") identified at the Site.

3.1 Physical Setting

A tributary to East Oshawa Creek crosses the eastern portion of the Site; however, the surface water features on the Site were not considered to be permanent watercourses according to the *Conservation Authorities Act* (Government of Ontario 1990), the OSAP (Stanfield 2010) and Reg 153/04 Table 1, as they lacked defined bed and banks as well as were limited in flow and lacked connection to East Oshawa Creek. No fish habitat was identified on the site.

Based on the background review of existing information and site reconnaissance as described in the SAR, two areas that meet the criteria of an Area of Natural Significance, as defined under O.Reg 153/04 were identified on the study area: habitat for threatened or endangered species. The abandoned house and barn, and constructed compensation structures on the site provide nesting habitats for barn swallow. The eastern agricultural farmland and field grasses on the site also provided suitable foraging habitat for barn swallow. The defined habitat on the site for barn swallow consists of the compensation structures and suitable foraging habitat (i.e., open fields) within 200 m of the structure. The deciduous forest in the northwest corner of the study area was observed to provide potential maternity roost habitat for little brown myotis, northern myotis and tri-colored bat. The defined habitat for endangered bat species on the site consists of the deciduous forest unit.

Land use surrounding the Phase Two Property consists of agricultural use and rural residential development, as shown in Figure 2.

The topography of the Phase Two Property and surrounding areas is generally flat, sloping slightly down to the south. According to Ontario Base Maps for the area, ground surface elevation at the Site reportedly ranges from approximately 185 m (in the northeast corner of the Site) to approximately 175 m (in the southwest corner of the Site), referenced to geodetic datum;

The Site reportedly lies in the physiographic region of Southern Ontario known as the South Slope, composed generally of glacial till with a predominant silt matrix, bordering on glacial deposits of sands. Underlying bedrock is anticipated to be shale of the Collingwood, Blue Mountain formation.

3.2 Past Investigations

The following environmental reports relating to the Subject Property, which was larger than but included the Site, were reviewed as part of this Phase Two ESA report, with permission to do so originally granted by Mr. Stuart Craig of RioCan on May 20, 2015:

- Report entitled *"Phase I Environmental Site Assessment, Windfields Farm, RioCan Proposed Commercial Development, Oshawa, Ontario"* (Project No. 08-1186-0510B), prepared by Golder for RioCan and dated June 2008 ("2008 Golder Phase I ESA");
- Report entitled *"Preliminary Geotechnical Investigation, Windfields Farm Property, Parcel 1 – Future Commercial Development, City of Oshawa, Ontario"* (Project No. 08-1186-0510(G)), prepared by Golder for RioCan and dated March 2008 ("2008 Golder Geotechnical Report");
- Report entitled *"Phase II Environmental Site Assessment, Proposed Commercial Development, Windfields Farm, Oshawa, Ontario"* (Project No. 08-1186-0510 (6000), prepared by Golder for RioCan and dated June 2008 ("2008 Golder Phase II ESA");
- Report entitled "*Phase One Environmental Site Assessment, Windfields Farm, Part of 2300 and 2425 Simcoe Street North, Ontario*" Golder Project Number 14-1182-0003 (1000), prepared by Golder for RioCan Management Inc. and dated January 2015 ("January 2015 Phase One ESA"); and,
- Report entitled "*Environmental Test Pit Investigation, Windfields Farm Development, Northeast Block, Oshawa, Ontario*", Project Number 1791121 (2000), prepared by Golder for RioCan Realty Inv. Partner 11LP and dated February 2018 ("February 2018 Environmental Test Pit Investigation").

Based on the previous investigations, the Subject Property consisted of a parcel of vacant agricultural and rural residential land approximately 58.7hectares in area, located south of Winchester Road West. At the time of the previous work, the Subject Property was owned and operated by 2157236 Ontario Ltd. (2008 to 2011), and by 2285136 Ontario Ltd. (2011 to present).

Summaries of the relevant information from the past investigations are provided in the following sections.

3.2.1 2008 Golder Phase I ESA Report

Issues of potential environmental concern identified in the 2008 Phase I ESA in association with the Subject Property were as follows:

- The reported presence of two heating oil aboveground storage tanks ("ASTS") in association with Barn 21. No spills, stains or stressed vegetation were reported in association with the empty ASTs (located off-Site to the southwest of the Phase Two Property);
- The presence of a manure stockpile to the west of Barn 21 (located off-Site to the southwest of the Phase Two Property);
- The suspected presence of asbestos, lead paint and other designated substances in the building materials in the Subject Property; and

- Based on Golder's review of the 2001 Windfields Planning Report, nine groundwater samples were reportedly collected and analyzed for metals and inorganics, taken from across the Subject Property and neighbouring properties to the south. Five of the nine water samples reportedly exceeded the 2004 MOE Table 2 Standards for copper, including the sample from BH6, which was located within the Subject Property, but off-Site to the West, across Simcoe Street North.

3.2.2 2008 Golder Geotechnical Report

- The 2008 Golder Geotechnical investigation was reportedly carried out to provide preliminary geotechnical information for the planning of a proposed commercial development within the investigation area;
- Bedrock was not encountered in the 2008 Golder Geotechnical investigation, which had investigation depths up to approximately 6 m below ground surface ("bgs");
- Twenty boreholes were reportedly advanced in locations dispersed throughout the areas surrounding the Subject Property in March, 2008. Subsurface conditions were reported to include fill and/or topsoil (0.2 m to 0.7 m in thickness), underlain by glacial tills ranging in gradation from silty sand till to clayey silt till. The tills were reportedly overlain by and/or contained discontinuous, sporadic deposits of sand and gravel, fine to medium sand, silty sand, sandy silt and/or clayey silt;
- Shallow groundwater was encountered in 13 of the 20 boreholes, at variable depths ranging from 0.6 m to 4.6 m bgs;
- Fill material was identified in the geotechnical investigation in boreholes BH8, BH10, BH11 and BH15 (which fall within 250 m of the current Site) which extended to depths ranging from 0.8 m bgs to 1.8 m bgs; and,
- Fill materials were generally observed to be composed of loose dark brown sandy silt/silty sand/clayey silt with some reported trace organics, trace clay and trace gravel. No debris, odours or staining was reported in any of the fill encountered.

3.2.3 2008 Golder Phase II ESA Report

- Three boreholes installed with monitoring wells (BH21, BH22 and BH23) were drilled within the investigation property to depths ranging from 6.7 m bgs to 12.3 m bgs. Boreholes BH22 and BH23 were drilled to the south of the manure stock-pile area (approximately 250 m southwest of the Site) to investigate possible nitrate loading to groundwater and BH21 (completed as nested monitoring wells (BH21A and BH21B)) was drilled near a pre-existing well (approximately 100 m west of the Site) with historical data concerning elevated copper levels in groundwater;
- BH21, BH22 and BH23 were reportedly sampled on April 10, 2008. In addition, five pre-existing water supply wells (DW1 through DW5) located on the investigation property were sampled on April 10, 2008. A total of ten groundwater samples were submitted to AGAT Laboratories for laboratory analysis of metals (10 samples) and inorganics (4 samples);
- Subsurface soil conditions were reported to generally consist of silty sand fill overlying native silty sand, sandy silt and silty sand glacial till deposits and topsoil underlain by clayey silt till, and silty sand till. No odours or staining were observed in association with the soils in any of the three boreholes; and,

- The results of the chemical analyses conducted in the 2008 Golder Phase II ESA investigation were compared to the Ministry of the Environment's "*Soil Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*", Table 8 for use in a potable groundwater setting within 30 metres of a water body, April 15, 2011 (the "2011 MOE Table 8 Standards"), which were inferred to be the standards most applicable to the Site as a whole at that time. Based on this comparison all samples contained target parameter concentrations below the MOE 2011 Table 8 Standards with the exception of cobalt in groundwater at monitoring well BH22 (located off-Site to the southwest, across Simcoe Street North), with a measured concentration of 4.87 µg/L, as compared to the Table 8 standard of 3.8 µg/L.

3.2.4 January 2015 Phase One ESA

The January 2015 Phase One ESA was completed for a part of the Subject Property. The following APEC was identified in the July 2015 Phase One ESA:

- Fill was potentially present on the property, as identified in the 2008 Golder Geotechnical Report. Fill materials in surrounding areas were generally observed to be composed of loose dark brown sandy silt/silty sand/clayey silt with some reported trace organics, trace clay and trace gravel. No debris, odours or staining was reported in any of the fill encountered near the property.

3.2.5 February 2018 Environmental Test Pit Investigation

This report was completed as part of previous delineation work to further assess the vertical and horizontal extent of the noted antimony and lead exceedances. The following findings were identified:

- A total of 12 shallow test pits were advanced at the Site on November 20, 2017. Two samples from each test pit were collected, one from the topsoil and one from the underlying native material and submitted for laboratory analysis for metals and hydride-forming metals;
- The analytical results were compared to the Table 8 generic Site condition standards for use within 30 m of a water body in a potable groundwater and coarse soil texture conditions for residential / parkland / institutional / commercial / community ("RPI/ICC") property uses as listed in the Ministry of the Environment document "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*", dated April 15, 2011 ("Table 8 standards");
- All topsoil samples submitted to the laboratory exceeded the Table 8 Standard for antimony (1.3 µg/g);
- Topsoil samples from TP17-1 SA1 (0 – 0.1 m bgs), TP17-3 SA1 (0 – 0.1 m bgs), TP17-6 SA1 (0 – 0.1 m bgs), TP17-7 SA1 (0 – 0.2 m bgs), TP17-9 SA1 (0 – 0.2 m bgs), TP17-10 SA1 (0 – 0.3 m bgs) and TP17-12 SA1 (0 – 0.1 m bgs), exceeded the Table 8 Standard for lead (120 µg/g);
- All of the underlying native soil samples, with the exception of TP17-3 SA2, contained target parameter concentrations which were less than the Table 8 Standards for the parameters analyzed. Sample TP17-3 SA2 (0.24 - 0.33 m bgs) exceeded the Table 8 Standard for antimony (3.4 µg vs. Table 8 Standard of 1.3 µg/g); and,
- Based on the results of the 2018 Test Pit Investigation Golder reported that the impacts appeared to be generally confined to the topsoil. Golder estimated that approximately 52,252 metric tonnes of impacted topsoil was present on the Site, which would need to be removed or managed.

The QP was involved in the completion of this investigation and has ensured that the sampling methods were in accordance with the requirements of the Regulation. A such it is the QP's opinion that the data acquired from this investigation are of adequate quality and can be relied upon for the Phase Two ESA.

3.3 November 2019 Golder Phase One ESA Update Report

Golder recently conducted a Phase One ESA Update entitled, "*Phase One Environmental Site Assessment Update, Windfields Farm Development Site, "Parcel D", Oshawa, Ontario*", dated November 6, 2019. The Phase One ESA Update was conducted to assess the likelihood of soil and/or groundwater contamination resulting from activities at the Site since the 2015 Phase One ESA. This assessment was completed as an update of Golder's 2015 Phase One ESA report and included a review of available historical information on the Site, interviews with persons familiar with the Site and a site reconnaissance. The APECs identified for the Site in the October 2019 Phase One ESA Update are summarized in the following table:

Area 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 (Groundwater, Soil and/or Sediment)
APEC 1 Based on previous investigations, fill is reportedly present on Site	Entire Site	***#30. Importation of Fill Material of Unknown Quality***	On-Site	Metals, Hydride-Forming Metals and select Other Regulated Parameters (Cyanide, Mercury, Electrical Conductivity, Sodium Adsorption Ratio)	Soil
APEC 2 It is likely that a heating oil AST was formerly present at House 46	The area in the vicinity of the former House 46, located in the north-central portion of the Site.	***#28 Gasoline and Associated Products Storage in Fixed Tanks***	On-Site	PHCs, BTEX	Soil and Groundwater

Area 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 (Groundwater, Soil and/or Sediment)
APEC 3 Inferred former use of the property as a private shooting range	South central portion of the Site.	***#21 Explosives and Firing Range***	On-Site	Metals, Hydride-Forming Metals	Soil

This report was prepared under the supervision of the Qualified Person and will be relied upon for the Phase Two investigation.

4.0 SCOPE OF THE INVESTIGATION

The primary objectives of this Phase Two ESA were to assess the presence or absence of target contaminants in relation to the potential environmental concerns identified for the Site in the 2019 Phase One ESA Update, to further characterize the subsurface conditions at the Site, assess the identified contaminants of concern, and to provide support for the filing of a RSC for the Site. The locations of the boreholes, test pits, soil samples, and the parameters for chemical analysis were determined to investigate the issues identified in the 2019 Phase One ESA Update.

4.1 Overview of the Site Investigation

The Phase Two ESA investigation activities were completed between June 9, 2015 to July 15, 2015, November 30, 2015 to December 18, 2015, February 12, 2016 to August 19, 2016, November 20, 2017, and June 25, 2019 to September 5, 2019 which included the following tasks:

- **Preparing a Health and Safety Plan:** A Health and Safety Plan for internal and subcontractor use was prepared prior to initiating any fieldwork at the Site;
- **Preparing a Sampling and Analysis Plan ("SAP"):** A SAP was prepared for each phase of work outlining the rationale for the field investigation activities carried out at the Phase Two Property, and the associated methods used to meet the objectives of this Phase Two ESA (provided in Appendix A(i);
- **Utility Clearances**: Coordination of utility clearances with local utility companies, including representatives of TransCanada Pipelines and Enbridge Gas, along with retaining the services of a private locator to assess for possible services in the areas of the proposed test locations;

- **Borehole Advancement:** The borehole advancement program included drilling a total of nine boreholes; two shallow boreholes (BH15-8 and BH15-9), which were advanced on July 15, 2015, were located in the basement of the former house (prior to demolition) in the general vicinity of the historical AST, and four boreholes, which were advanced between June 9 and July 15, 2015. The four boreholes identified as MW15-3, MW15-11, MW15-18, and MW15-19 were completed as monitoring wells. Three additional boreholes (identified as MW19-1, MW19-2 and MW19-3) were drilled on August 7, 2019 and were also completed as monitoring wells. The rationale for the selected locations of the boreholes and monitoring wells is provided in the Sampling and Analysis Plans provided in Appendix A(i). The locations of the boreholes and monitoring wells are shown on Figure 3. The monitoring well construction details are presented in Table 1;
- **Test Pitting:** The test pitting program included: the excavation of fourteen test pits which were completed from June 10, 2015 to June 12, 2015 (identified as TP15-7 through TP15-26). Additional test pits were completed February 12, 2016 (HS100 series; 25 in total), July 12 and August 19, 2016 (TP200 series, TP300 series, and TP400 series; 64 in total) and November 20, 2017 (TP17-1 to TP17-12; 12 in total). The test pit locations were selected to delineate known impacts in the shallow soil at the Site. The locations of the test pits are shown on Figure 3;
- **Soil Sampling:** Selected soil samples were collected from the various boreholes and test pits. Soil samples were submitted for chemical analysis of one or more of the following: metals and inorganics, petroleum hydrocarbons, fractions F1 to F4 ("PHCs F1-F4") plus benzene, toluene, ethylbenzene, and xylenes ("BTEX"), and/or grain size analysis. The summary of soil sample analyses is provided in Table 3, following the text of this report;
- **Groundwater Monitoring and Sampling**: Groundwater samples were collected on June 16, 2015, July 4, 2019 and August 7, 2019. Groundwater samples were submitted for analysis of PHCs F1-F4 plus BTEX;
- **Surveying**. A Plan of Survey for the Phase Two Property and Subject Property was prepared by J.D. Barnes on August 25, 2015, which included the elevations of the borehole sampling locations, test pits and monitoring wells completed prior to August 25, 2015. An updated, signed Plan of Survey for the Phase Two Property was prepared by J.D. Barnes on November 4, 2019, and is included in Appendix A(iv). The 2019 boreholes/monitoring wells were tied into the geodetic survey which J.D. Barnes provided in 2015; and,
- **Reporting:** Golder compiled and assessed the field and laboratory results from the above noted activities into this report.

The Phase Two investigation was carried out in general accordance with Golder's standard operating procedures, which conform to the requirements of O. Reg. 153/04. The data from the Phase Two ESA investigations completed by Golder at the Site were incorporated into a single Phase Two ESA report following the Phase Two ESA report format required under O. Reg. 153/04 (as amended).

4.2 Media Investigated

To address the potential environmental issues identified in the Phase One ESA, the Phase Two ESA field program included the sampling of subsurface soil and of groundwater from wells screened within the overburden at the Site. No sediment was present at the Site and therefore no sediment sampling was completed. A

summary of media investigated and the applicable contaminants of potential concern are provided in Tables 3 and 4. The sampling and analysis plan outlines the rationale for the field investigation activities carried out at the Site and the associated methodologies used to meet the objectives of this Phase Two ESA.

4.3 Phase One ESA Conceptual Site Model

The Phase One ESA Conceptual Site Model ("CSM"), described below, is based on the results of the 2019 Phase One ESA Update.

The following key Site features are presented in Figures 1, 2A, and 2B:

- Existing buildings and structures;
- Water bodies and areas of natural significance located in the Phase One Study Area;
- Drinking water wells on the Phase One Property;
- Roads (including names) within the Phase One Study Area;
- Uses of properties adjacent to the Phase One Property; and,
- Location of identified PCAs in the Phase One Study Area.

The following describes the Phase One ESA CSM for the Site based on the information obtained and reviewed as part of this Phase One ESA:

- The Site primarily consisted of undeveloped agricultural fields at the time of the Site visit. Structures noted in the 2015 Phase One ESA Report were demolished/removed in November 2016. Topsoil at the Site has been stripped and stockpiled for removal in conjunction with on going remediation, planned development activities, and the Site remains vacant;
- Potable water in the newly constructed buildings within the Phase One Study Area is provided by the Regional Municipality of Durham and is obtained from Lake Ontario. Five domestic water wells were identified within the Phase One Study Area (four noted to be abandoned);
- Three groundwater monitoring wells with stick-up casings were observed on the Phase One Property. These monitoring wells had been previously advanced for geotechnical and Phase Two ESA investigations within the overall Phase One Study Area;
- At the time of the Phase One ESA Update, the Site was undeveloped. Historically, the Site has been used solely for agricultural purposes specifically for breeding and raising horses;
- The Site is considered an enhanced investigation property ("EIP") due to the presence of a natural gas pipeline easement which crosses the Site (which we understand is considered by MECP to represent an industrial land use). Although the Site was not previously identified as an EIP in the 2015 Phase One ESA, that assessment was conducted in accordance with the requirements for an EIP as described in subsection 13(3) of O.Reg. 153/04, as a conservative measure. There are no indications that the Phase One Property was used for any of the following commercial uses: vehicle garage, bulk liquid dispensing facility, or dry-cleaning facility;

- At the time of the Phase One ESA, the neighbouring properties within the Phase One Study Area consisted of residential and agricultural land uses. There are no indications that neighbouring properties in the Phase One Study Area were used for an industrial use or any of the following commercial uses: vehicle garage, bulk liquid dispensing facility, or dry-cleaning facility;

The following relevant PCAs (i.e. PCAs contributing to areas of potential environmental concern) and associated contaminants of concern were identified:

PCA ID	Location	Description of Potentially Contaminating Activity	Information Source	Status and Rationale	Contaminants of Concern
1	**Phase One Property**	***#30 Importation of Fill Material of Unknown Quality*** **–** Fill is reportedly present on Site, as identified in the 2008 Golder Geotechnical Report. Fill materials were generally observed to be composed of loose dark brown sandy silt/silty sand/clayey silt with some reported trace organics, trace clay and trace gravel. No debris, odours or staining was reported in any of the fill encountered on-Site.	The 2008 Golder Geotechnical Report, Site Observations	The PCA is located on the Phase One Property and must be identified as an APEC.	Metals, Hydride-Forming Metals and select Other Regulated Parameters (Cyanide, Mercury, Electrical Conductivity, Sodium Adsorption Ratio)
2	**Phase One Property**	***#28 Gasoline and Associated Products Storage in Fixed Tanks*** **–** It is considered likely that a heating oil AST was formerly present at House 46.	The 2015 Phase I Environmental Site Assessment	The PCA is located on the Phase One Property and must be identified as an APEC.	PHCs, BTEX
3	**Phase One Property**	***#21 Explosives and Firing Range*** **–** Debris fragments from what appeared to be clay pigeons, suggesting the historical use of the Site as a shooting range by the former site occupants.	Site Observations	The PCA is located on the Phase One Property and must be identified as an APEC.	Metals, Hydride-Forming Metals

- Subsurface conditions at the Site are anticipated to generally consisted of silty sandy fill overlying native silty sand and sandy silt. Bedrock at the Phase One Property was anticipated to be shale;
- Bedrock was not encountered in the previous subsurface investigation reports reviewed. However, depth to bedrock was anticipated to greater than 6 m below grade. Depth to groundwater was reported between 0.6 m and 6.1 m below grade for the Phase One Property; and,
- The local groundwater flow was anticipated to be generally in a southeast direction. Regional groundwater flow was anticipated to be in a southerly direction towards Lake Ontario, located approximately 12.2 km south of the property.

4.3.1 Uncertainty and Absence of Information

Responses to Golder's requests for information from the MECP was not available at the time of writing this report.

There were no material deviations to the Phase One ESA requirements set out in O.Reg. 153/04 that would cause uncertainty or absence of information that would affect the validity of the Phase One Conceptual Site Model or the findings of this Phase One ESA.

4.4 Deviations from Sampling and Analysis Plan

A sampling and analysis plan for each major field program is provided in Appendix A(i). The sampling and analysis plans outline the rationale for the field investigation activities carried out at the Site and the associated methods used to meet the objectives of this Phase Two ESA. These plans, dated June 5, 2015 July 18, 2018 November 15, 2018 and June 25, 2019, cover the activities undertaken during the Phase Two ESA. The procedures described in the Sampling and Analysis Plans were generally followed; no material deviations were identified.

4.5 Impediments

There were no impediments or access limitations encountered that would affect the conclusions of this Phase Two ESA report.

5.0 INVESTIGATION METHOD

5.1 General

The following sections describe the pre-field work activities and field investigation methods employed during the Phase Two ESA conducted at the Site. The field work was conducted between June 9, 2015 to July 15, 2015, November 30, 2015 to December 18, 2015, February 12, 2016, July 12, 2016 and August 19, 2016, November 20, 2017, and June 25, 2019 to September 4, 2019.

Prior to initiating the field work, Golder developed and implemented Site-specific protocols to protect the health and safety of its employees and subcontractors through the preparation of a Site-specific Health and Safety Plan. An assessment of potential health and safety hazards at the Phase Two Property and those associated with the proposed work was completed each day of the field program. A health and safety tail gate meeting was held with Golder's subcontractors each day prior to completion of the field work. The document was reviewed and signed on-Site by field personnel prior to commencing work. Additionally, prior to any intrusive investigations, including drilling, Golder completed public and private utility clearances.

5.2 Drilling

A total of six boreholes were advanced at the Site from June 9, 2015 to July 15, 2015 and an additional three boreholes were advanced at the Site on July 16, 2019. The borehole locations were selected based on the APECs identified in the January 2015 Golder Phase One ESA and the 2019 Phase One ESA Update. The boreholes were advanced to total depths ranging from 1.27 m (interior borehole BH15-9) to 6.71 m bgs (exterior borehole MW15-18). Golder retained the services of Geo-Environmental Drilling Inc. ("Geo-Environmental") of Milton, Ontario for drilling at the Site in 2015 and Golder Construction in 2019. Borehole locations are provided in Figure 3.

Exterior boreholes drilled in 2015 were advanced by Geo-Environmental using a track-mounted CME 55 auger drill rig equipped with 200 mm outside diameter ("OD") hollow stem augers; the two interior boreholes were completed using a Pneumatic Pionjar sampler. Soil samples were collected using non-continuous split spoon samplers. Boreholes in 2019 were advanced by Golder Construction using a track-mounted AMS Powerprobe 9720 equipped with 108 mm outside diameter ("OD") solid stem augers. Soil samples were collected using a continuous dual tube sampler.

5.3 Test Pitting

Fourteen test pits (identified as TP15-7 to TP15-9, TP15-11 to TP15-12, TP15-15 to TP15-20, TP15-22, and TP15-25 to TP15-26) were advanced at the Site between June 10, 2015 to June 12, 2015; fifty test pits (identified as HS100 through HS143A) were advanced at the Site on November 30, 2015, December 18, 2015 and February 12, 2016; sixty-four test pits (identified as TP201-SA1 through TP246-SA1, TP300 through TP315, and TP400 through TP409) were advanced at the Site between July 12, 2016 and August 19, 2016; and twelve test pits (identified as TP17-1 to TP17-12) were advanced at the Site on November 20, 2017. The test pit locations were selected based on the APECs identified in the January 2015 Golder Phase One ESA for the Site (i.e. APECs 1 and 3) and subsequently to delineate the identified impacts in soil at the Site. The test pits were advanced to total depths ranging from 0.08 m to 2.50 m bgs. Test pits were excavated by using a CAT420D rubber tire backhoe as well as hand dug with shovels. Test Pit locations are provided in Figure 3. During test pit excavation activities, undisturbed overburden soil samples were retrieved directly from the side walls of the test pits or from the excavator bucket using a clean, gloved hand and/or trowel at regular depth intervals (0.3 m). Excavated material was replaced back into the test pits and was loosely compacted by foot for hand-dug test pits, or with the backhoe bucket for machine-excavated test pits.

5.4 Soil Sampling

Soil samples were collected in general accordance with Golder's Standard Operating Procedure ("SOP") #6 Soil Logging. Soil samples were generally split in the field into two components; one component of each sample was placed into laboratory supplied sample jars and stored in a cooler with ice for possible subsequent chemical analysis. The second component of the sample was placed inside a labelled plastic bag for subsequent field headspace screening. When handling soil samples, a clean gloved hand was used and equipment in contact with soils was decontaminated between sampling locations to minimize the potential for cross-contamination.

The subsurface soil conditions within the boreholes and test pits were described in terms of their texture, presence of staining, odour and debris, if any. Geologic descriptions of soil samples are presented in the Record of Borehole and Record of Test Pit sheets (Appendix A(ii)).

Soil samples collected and submitted for chemical analysis were obtained, to the extent practical, from relatively undisturbed soils, including fill materials and native overburden by borehole drilling methods and test pit excavation methods. Three soil samples were submitted as part of this investigation for grain size analysis to confirm the appropriate soil texture site condition standards at the Site.

A minimum of one soil sample was collected for each APEC identified at the Site. Where a contaminant concentration was found in a soil sample to be above the Table 1 Standards, an additional soil sample was subsequently collected and submitted for chemical analysis to vertically delineate impacts, where available.

Soil samples submitted for chemical analysis were based on the results of field screening (see Section 5.5 below), visual (e.g., staining, discolouration and/or free product, if any) and/or olfactory (if any) observations obtained from investigation activities, or were selected to represent a specific depth horizon for vertical and lateral delineation purposes.

Visual and olfactory observations and results of soil headspace measurements are presented on the Record of Borehole and Record of Test Pit sheets provided in Appendix A(ii).

5.5 Field Screening Measurements

Field measurements of sample headspace concentration were made using the following equipment:

Equipment	Make and Model	Parameters Detected	Detection Limits	Precision	Accuracy	Calibration Standard	Calibration Procedure
RKI Eagle	Eagle 2	Combustible gas	0 - 50,000 ppm	N/A	+/- 5%	Hexane	By supplier prior to fieldwork & by Golder Associates field staff during work
		VOCs	0 - 2,000 ppm	N/A	+/- 5%	Isobutylene	

The results of soil headspace screening measurements are provided on the Record of Borehole and Test Pit sheets in Appendix A(ii).

5.6 Groundwater Monitoring Well Installation

Seven of the nine boreholes advanced at the Site (MW15-3, MW15-11, MW15-18, MW15-19 and MW19-1 through MW19-3) were completed as groundwater monitoring wells (and were subsequently identified/designated with ‘MW’ in the sample description) by Geo-Environmental at the time of borehole drilling in 2015 and by Golder Construction in 2019 (using the equipment described in Section 4.1). As stated in Section 4.1, drilling equipment was cleaned between borehole and monitoring well locations to minimize the potential for cross-contamination. All monitoring wells were completed within the overburden and constructed with 51-mm diameter threaded Schedule 40, polyvinyl chloride (“PVC”) well screens (10 slot) and riser pipe, in accordance with O. Reg. 903 and Golder SOP 1: Monitoring Well Installation. The monitoring wells were constructed with 3.0-metre long well screens.

The well screens and PVC riser pipes were pre-washed and delivered to the Site in factory sealed plastic bags and the drilling contractor wore dedicated Nitrile gloves while handing the screens and riser pipe. The annulus surrounding the screened portion of the well and approximately 0.3 m of the riser pipe above the screen were backfilled with silica filter sand. The annular space above the filter sand at each monitoring well location was sealed with bentonite to approximately 0.3 mbgs and capped with concrete up to ground surface. The monitoring wells were completed with stick-up monument protective casings set in the concrete. Further details regarding the monitoring well installations are provided in Table 1, and on the respective Record of Borehole sheets in Appendix A(ii). The locations of the groundwater monitoring wells are shown on Figure 3.

Following installation, the monitoring wells were developed by surging the monitoring well screen with dedicated Waterra™ surge blocks and pumping groundwater using dedicated Waterra™ inertial pumps (13-mm inside diameter polyethylene tubing and foot valve). The wells were purged in accordance with Golder SOP 5: Monitoring Well Development. The groundwater recovered during development was inspected in the field for qualitative evidence of chemical impact (e.g., odour, sheen) and discharged to the ground as no evidence of impact was noted.

5.7 Groundwater Field Measurements of Water Quality Parameters

Groundwater indicator parameters, including temperature, pH and electrical conductivity ("EC") were measured prior to sampling to ensure adequate well development and purging. Field parameters were taken at five-minute intervals while purging using a Hanna HI 9828.

Observations of water quality (i.e., colour, clarity) and evidence of chemical impact in the purge water (e.g., odour, sheen) were also noted. Groundwater levels were measured prior to well development and groundwater sampling in accordance with Golder SOP #2: Water Level Measurement.

5.8 Groundwater Monitoring and Sampling

The groundwater monitoring and sampling program included all monitoring wells installed by Golder at the Phase Two Property. The selection of the groundwater sampling locations was made to fulfill the objectives noted in Section 3.0. Following installation of the monitoring wells, and prior to sampling, all monitoring wells were developed using the applicable requirements of Golder's Quality Assurance Program ("QAP") and SOP #5: Monitoring well Development, using dedicated Waterra®-type internal samplers (i.e., tubing with foot valves).

On June 16, 2015 water level measurements and groundwater samples were collected from the monitoring wells. Prior to sample collection, the monitoring wells were purged using the applicable requirements of Golder's QAP and SOP #9: Conventional Groundwater Sample Collection, using dedicated Waterra®-type inertial samplers (i.e., tubing with foot valves). During purging, qualitative observations were made of water colour, clarity, the presence or absence of any hydrocarbon sheen and any odours present. As mentioned above, field parameters (temperature, pH, and conductivity) were taken at five-minute intervals while purging using a Hanna HI 9828. The monitoring wells were purged of a volume of approximately three standing water columns or until they were purged to dryness. In general, purging continued until the field parameters had stabilized over at least three sequential readings to within specified stabilization criteria. The recovered purge water contained no obvious evidence of chemical impact (i.e., odour or visible sheen) and was discharged to the ground surface away from the monitoring wells. Golder did not encounter free product, sheen or odours in any of the monitoring wells sampled as part of the Phase Two ESA.

On July 2, 2019 and July 3, 2019 monitoring well MW15-3 was redeveloped according to the applicable requirements of Golder's QAP and SOP 5: Monitoring Well Development, as described above. On July 17, 2019 water level measurements were collected from the 2019 monitoring wells prior to their development. The 2019 monitoring wells were subsequently developed as per Golder's QAP and SOP #5: Monitoring Well Development, as described above. On July 4, 2019 MW15-3 was resampled as per Golder's QAP and SOP #10: Low-flow Groundwater Sample Collection, with a peristaltic pump to minimize the possibility of sediment accumulating in the ground water sample. On August 7, 2019 MW15-3 was resampled again, and MW19-1 to MW19-3 were sampled, all using the low-flow method.

All purge water generated during the ground water sampling programs contained no evidence of chemical impact and was discretely discharged to the ground surface away from the monitoring wells. Golder did not encounter free product, sheen or odours in any of the monitoring wells sampled as part of the Phase Two ESA

Following purging, groundwater samples were collected into the appropriate containers, as supplied by the analytical laboratory, placed in a cooler with ice and delivered under chain-of-custody procedures to Bureau Veritas Laboratories of Mississauga, Ontario ("BV Labs")[3] for chemical analysis. Samples were analyzed for PHCs F1-F4s and BTEX following chain-of-custody procedures. Details of the parameters analyzed at each monitoring well are presented in Table 4. Figure 3 shows the locations of the groundwater monitoring wells. The construction details of the monitoring wells are presented in Table 1 and in the Record of Borehole sheets (Appendix A(ii)).

5.9 Sediment: Sampling

Sediment was not present at the Site; therefore, no sediment samples were collected as part of the investigation.

5.10 Analytical Testing

Soil and groundwater samples were submitted and delivered by courier, under chain-of-custody procedures to the following accredited laboratory:

Bureau Veritas Laboratories
6740 Campobello Rd.
Mississauga, Ontario, L5N 2L8
Laboratory Contact: Ema Gitej 905-817-5829

The analytical laboratory is accredited in accordance with the International Standard ISO/IEC 17025 (General Requirement for the Competence of Testing and Calibration Laboratories, May 5, 2005, as amended) and the standards for proficiency testing developed by the Standards Council of Canada, the Canadian Association for Laboratory Accreditation ("CALA") or another accreditation body accepted by the MECP.

5.11 Residue Management Procedures

Residues produced during the investigation (soil cuttings from drilling, groundwater from well development purging, wash water from equipment decontamination) were returned to its sampling location or left at surface as no obvious evidence of impact (i.e., odour or staining) was noted at the time of sampling.

5.12 Elevation Survey

A Plan of Survey for the Phase Two Property and Subject Property was prepared by J.D. Barnes on August 25, 2015, which included the elevations of the borehole sampling locations, test pits and monitoring wells completed prior to August 25, 2015. An updated, signed Plan of Survey for the Phase Two Property was prepared by J.D. Barnes on November 4, 2019, and is included in Appendix A(iv). The 2019 boreholes/monitoring wells were tied into the geodetic survey which J.D. Barnes provided in 2015.

[3] Bureau Veritas Laboratories was previously named Maxxam Analytics, prior to January 2019.

5.13 Quality Assurance and Quality Control Measures

Golder's quality assurance program for environmental investigations was implemented to ensure that analytical data obtained by the investigation were valid and representative. The quality assurance program included the following measures:

- The use of standard operating procedures for all field investigation activities;
- The collection of field duplicate samples at a planned frequency of one duplicate for every ten samples;
- Initial calibration of field equipment was performed at the start of each field day, with a daily checks of calibration, as needed, using a standard of known concentration;
- Soil samples were handled and stored in accordance with the sample collection and preservation requirement of the MECP *Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.I of the Environmental Protection Act*, July 1, 2011. Samples were collected directly into pre-cleaned, laboratory-supplied sample containers with the appropriate preservative for the analyte group. Upon collection, samples were placed in insulated coolers with ice for storage and transport to the analytical laboratory under chain-of-custody;
- Dedicated sampling equipment and clean disposable Nitrile™ gloves were used at each sampling location to prevent cross-contamination. Non-dedicated sampling equipment (e.g., split spoons, trowels) was decontaminated between sampling locations in general accordance with Golder's SOP #11: Equipment Decontamination;
- Detailed field records documenting the methods and circumstances of collection for each field sample were prepared at the time of sample collection. Each sample was assigned a unique sample identification number recorded in the field notes, along with the date and time of sample collection, the sample matrix, and the requested analyses; and,
- The submission of samples to the analytical laboratory in accordance with standard chain of custody procedures.

Below is a summary of the primary and duplicate samples collected over the course of the Phase Two ESA investigations:

Date	Soil Samples Submitted	Duplicates	Trip Blanks
June 9 to July 15, 2015	MW15-3 SA1B, MW15-3 SA3, MW15-18 SA1B, MW15-19 SA1B, BH15-8 SA1, BH15-9 SA1, TP15-7 SA2, TP15-8 SA2, TP15-9 SA1, TP15-11 SA2, TP15-11 SA3, TP15-12 SA2, TP15-16 SA1, TP15-17 SA2, TP15-18 SA2, TP15-20 SA1, TP15-22 SA2, TP15-24 SA2, TP15-25 SA1, TP 15-26 SA2	Dup 6 (MW15-18 SA1B)	NA
November 30, 2015	HS100, HS101, HS102, HS103, HS104, HS105, HS106, HS107	DUP 3 (HS100)	N/A

Date	Soil Samples Submitted	Duplicates	Trip Blanks
December 18, 2015	HS108A, HS109, HS110A, HS110B, HS111, HS119, HS120, HS121, HS122	DUP 1 (HS111), DUP 3 (HS122)	N/A
February 12, 2016	HS123A, HS123B, HS124A, HS125A, HS126A, HS126B, HS127A, HS128A, HS129A, HS130A, HS131A, HS132A, HS132B, HS133A, HS134A, HS135A, HS136A, HS137A, HS138A, HS139A, HS140A, HS140B, HS141A, HS142A, HS143A	DUP1A (HS125A), DUP2A (HS128A), DUP3A (HS139A),	N/A
July 12 to August 19, 2016	TP201-SA1, TP202-SA1, TP203-SA1, TP204-SA1, TP205-SA1, TP206-SA1, TP207-SA1, TP208-SA1, TP209-SA1, TP210-SA1, TP211-SA1, TP212-SA1, TP212-SA2, TP212-SA3, TP212-SA4, TP213-SA1, TP214-SA1, TP215-SA1, TP216-SA1, TP217-SA1, TP218-SA1, TP218-SA2, TP218-SA3, TP218-SA4, TP219-SA1, TP220-SA1, TP221-SA1, TP222-SA1, TP223-SA1, TP224-SA1, TP225-SA1, TP226-SA1, TP227-SA1, TP228-SA1, TP229-SA1, TP230-SA1, TP231-SA1, TP232-SA1, TP233-SA1, TP234-SA1, TP235-SA1, TP236-SA1, TP237-SA1, TP239-SA1, TP240-SA1, TP241-SA1, TP242-SA1, TP243-SA1, TP244-SA1, TP245-SA1, TP246-SA1, TP300, TP301, TP302, TP303, TP304, TP305, TP306, TP307, TP309, TP313, TP314, TP315, TP400, TP401, TP402, TP403, TP405, TP407, TP409	DUP5 (TP201-SA1), DUP4 (TP207-SA1), DUP3 (TP211-SA1), DUP2 (TP213-SA1), DUP1 (TP219-SA1), DUP 1 (TP400)	N/A
November 20, 2017	TP17-1 SA1, TP17-1 SA2, TP17-2 SA1, TP17-2 SA2, TP17-3 SA1, TP17-3 SA2, TP17-4 SA1, TP17-4 SA2, TP17-5 SA1, TP17-5 SA2, TP17-6 SA1, TP17-6 SA2, TP17-7 SA1, TP17-7 SA2, TP17-8 SA1, TP17-8 SA2, TP17-9 SA1, TP17-9 SA2, TP17-10 SA1, TP17-10 SA2, TP17-11 SA1, TP17-11 SA2, TP17-12 SA1, TP17-12 SA2		N/A

Date	Soil Samples Submitted	Duplicates	Trip Blanks
July 16, 2019	BH19-1 SA3, BH19-2 SA3, BH19-3 SA4	DUP1 SA3 (BH19-2 SA3)	N/A

Date	Groundwater Samples Submitted	Duplicates	Trip Blanks
June 16, 2015	MW15-3	Dup 1 (MW15-3)	Trip Blank (BTEX)
July 4, 2019	MW15-3	Dup 1 (MW15-3)	Trip Blank (BTEX)
August 7, 2019	MW15-3, MW19-1, MW19-2, MW19-3	Dup 1 (MW19-2)	Trip Blank (BTEX)

The RKI Eagle used to screen soil samples for combustible vapours was calibrated prior to initial use by Golder. Regular calibration checks were performed on the RKI Eagle using hexane gas and recalibrated as necessary.

6.0 REVIEW AND EVALUATION

This section of the report presents a review and evaluation of the results of the drilling, monitoring and sampling activities conducted as part of the Phase Two ESA.

6.1 Geology

The soil conditions encountered during the borehole drilling and test pitting activities are presented in the Record of Borehole and Record of Test Pit sheets, provided in Appendix A(ii), as well as in the cross sections presented in Figures 6A, 6B and 6C and Figures 7A, 7B and 7C, with the cross-section lines shown on Figure 3. The following presents a summary of the subsurface soil conditions encountered during the investigation.

Boreholes were advanced to a maximum depth of 6.71 m bgs in borehole BH15-18, and test pits were excavated to a maximum depth of 2.50 m bgs. In general, the subsurface soil conditions consisted of a layer of topsoil underlain by silty clay to clayey silt and/or sand till, underlain at depth by silt till or silty sand/sandy silt till. No indications of organic chemical impacts (odours, staining or elevated headspace measurements) were noted during borehole or test pitting activities. The native overburden thickness was observed to be at least 6.71 m at the Site but is anticipated to extend beyond the maximum depth of drilling. Bedrock was not encountered during drilling or test pit activities. Based on the 2015 Phase One ESA, the Site reportedly lies in the physiographic region of Southern Ontario known as the South Slope, composed generally of glacial till with a predominant silt matrix, bordering on glacial deposits of sands. Underlying bedrock is anticipated to be shale of the Collingwood, Blue Mountain formation. Based on the 2019 Phase One ESA Update, the reported depth to bedrock is approximately 53 m bgs.

Based on the soil conditions encountered in the boreholes and test pits, the native clayey silt to silty clay is not considered a significant water bearing formation at the Phase Two Property.

6.2 Groundwater Elevations and Flow Direction

All monitoring wells were used in the interpretation of shallow groundwater contours and shallow groundwater flow direction. Any temporary fluctuation in water levels on the Phase Two Property is not anticipated to affect the conclusions of the Phase Two ESA.

The base of shallow groundwater monitoring well-screens were installed at elevations ranging from approximately 178.97 m asl to 186.38 m asl. The location and depth of the screens were selected based on the issues being investigated, and where petroleum hydrocarbons were being investigated, the screen was installed to straddle the inferred position of the water table. A summary of the monitoring well construction details is presented in Table 1.

Static groundwater levels were measured in the monitoring wells located across the Site on June 16, 2015 and on August 7, 2019. Phase Two ESA Figures 4A and 4B show groundwater elevations and the interpreted groundwater flow direction. Groundwater elevations at the Site ranged from 177.82 m asl (MW15-18) to 186.32 m asl (MW15-3) on June 16, 2015 and 184.70 m asl (MW19-1) to 185.09 m asl (MW19-3) on August 7, 2019. Based on the interpreted groundwater elevation contours presented in Figure 4A, the inferred direction of groundwater flow is in a southerly direction; however, based on the interpreted groundwater elevation contours presented in Figure 4B, which relies on information from a group of monitoring wells installed very closely together, the inferred direction of groundwater flow is in a westerly direction, which may indicate a localized influence in this area.

Seasonal fluctuation in water levels on the Site should be expected. Given the limited number of monitoring events seasonal trends could not be identified, however shallow groundwater levels are typically highest following the spring recharge and decline throughout the summer and fall months into the winter.

Underground utility locates conducted for the Phase Two Property indicated that no subsurface utilities or structures were identified to be present at the Site, with the exception of pipelines associated with Enbridge Gas and Trans-Canada Pipelines, which cross the Site from the northwest to the southeast (see Phase Two ESA Figures 2A and 2B). House 46 (formerly located in the northeastern area of the Phase Two Property) was reported to have historically been serviced by septic tanks. It also appears that Barn 17 (formerly in the same area) was historically serviced by a septic tank. On-Site water was historically provided by on-site supply wells; however, these are no longer in use. No other underground utilities were reported at the Site.

6.3 Groundwater Hydraulic Gradients

The average horizontal hydraulic gradient was estimated for shallow groundwater conditions based on water levels collected on June 16, 2015 and August 7, 2019, and the inferred groundwater contours as plotted on Figure 4A and Figure 4B. The average horizontal hydraulic gradient for shallow groundwater conditions was calculated to be 0.02 m/m.

Vertical hydraulic gradients were not calculated as no COCs were identified in groundwater exceeding the site condition standards and as such, no nested monitoring well pairs were installed at the Site.

6.4 Soil: Texture

Three representative soil samples were collected from native overburden and submitted to Golder's geotechnical laboratory in Whitby, Ontario for a 75 µm sieve wash test. The test results are provided in Appendix A(iii). The three samples were considered to be sufficient, given that the native soil encountered during the Phase Two ESA was reasonably consistent across the tested locations at the Site.

Based on fieldwork observations, borehole and test pit stratigraphy and the sieve wash test results, more than 50% of particles (by mass) in the soil were equal to or smaller than 75 µm in mean diameter. Accordingly, the Site soil is considered to be medium- to fine-textured.

6.5 Soil: Field Screening

Headspace vapour measurements were conducted on the soil samples collected from the boreholes and test pits. Combustible gas vapour ranged from non-detect to 390 ppm (highest reading measured at TP15-18) and organic vapour measurements ranged from non-detect to 3 ppm (highest reading measured in BH19-3).

The results of headspace vapour measurements are presented on the Record of Borehole and Record of Test Pit sheets in Appendix A(ii).

6.6 Soil: Quality

Table 3 provides a summary of the soil samples submitted for analysis and the associated test parameters. The analytical results of soil samples are presented in Tables 5A and 5B. Laboratory Certificates of Analysis for the soil samples are included in Appendix A(iii).

Golder completed soil sampling at the Site during borehole advancement between June 9 to July 15, 2015 and on July 17, 2019 and during test pit excavations between June 10 to June 12, 2015, November 30, 2015 to December 18, 2015 February 12 to August 19, 2016, November 20, 2017 and July 16, 2019. The soil samples were submitted to BV Labs for analysis of Metals, Hydride-Forming Metals, Other Regulated Parameters ("ORPs"), and/or PHCs and BTEX.

A summary of the number of soil samples analysed (including duplicates) and the number of soil samples exceeding the Table 8 Standards is provided below:

Parameter	Number of soil samples analysed	Number of soil samples exceeding the Table 1 Standards
Metals	192	86
Hydride Forming Metals	192	86
ORP Cyanide	153	7
PHCs, BTEX	7	0

As noted above, of the 192 soil samples submitted for analysis, 86 soil samples were identified to exceed the Table 1 Standard for either one or more of Antimony or Lead, and out of the 153 Samples submitted for analysis of Cyanide, 7 samples (including one duplicate) exceeded the Table 1 Standard.

The reported concentration of Antimony exceeded the MECP Table 1 Standard of 1.3 µg/g at 68 locations (see Table 3 and Figure 5) with concentrations ranging from 1.4 µg/g to 27 µg/g. Exceedances of antimony were identified in topsoil materials and generally ranged from 0.0 m to 0.46 m in depth.

The reported concentration of lead exceeded the MECP Table 1 Standard of 120 µg/g at 32 locations (see Table 3 and Figure 5) with concentrations ranging from 130 µg/g to 360 µg/g. Exceedances of lead were identified in topsoil materials and generally ranged from 0.0 m to 0.38 m in depth.

The reported concentration of cyanide exceeded the MECP Table 1 Standard of 0.051 µg/g at 7 locations (see Table 3 and Figure 5) with concentrations of 0.06 µg/g. Exceedances of cyanide were identified in topsoil materials and generally ranged from 0.0 m to 0.15 m in depth.

6.7 Groundwater: Quality

Monitoring well construction details are summarized in Table 1 and a list of groundwater samples submitted for laboratory analysis is provided in Table 4. The analytical results for groundwater samples are summarized in Tables 6A and 6B, along with the applicable Table 1 Standards. Laboratory Certificates of Analysis for groundwater are provided in Appendix A(iii).

Golder completed sampling of monitoring wells at the Site on June 16, 2015, July 4, 2019 and August 7, 2019. Groundwater samples were submitted to BV Labs for analysis for the following parameters; PHC F1-F4 and BTEX.

A summary of the number of groundwater samples analysed and number of samples exceeding the MECP Table 1 Standards is provided below:

Parameter	Number of groundwater samples analysed	Number of groundwater samples exceeding the Table 1 Standards
PHC F2-F4	10	0
PHC F1	13 (including Trip Blank)	0
BTEX	13 (including Trip Blank)	0*

*see discussion below

All groundwater samples submitted for analysis met the applicable Site condition standards for the parameters tested, with the exception of the duplicate sample from MW15-3 originally collected on July 16, 2015 which exceeded the Table 1 Standard for toluene (0.8 µg/L) with a concentration of 0.85 µg/L (parent sample concentration from sample MW15-3 from the July 16, 2015 sampling event (0.73 µg/L) was below the Table 1 Standard. After the redevelopment of MW15-3 and resampling of MW15-3 on July 4, 2019 and again on August 7, 2019 using low-flow sampling methods, the re-samples resulted in a toluene concentration below the laboratory detection limit. It is assumed that the previous exceedance can be attributed to sediment contained within the initial groundwater sample duplicate.

In addition to numerical standards, the Table 1 Standard sets out non-numerical (aesthetic) standards relating to the presence of free phase product and hydrocarbon sheen. Specifically, a property does not meet the site condition standards if there is evidence of free product, including but not limited to, visible petroleum hydrocarbon film or sheen present on groundwater, surface water or in any groundwater or surface water samples. No evidence of free product or sheen in groundwater was observed.

6.8 Sediment: Quality

No sediment samples were collected as part of this investigation.

6.9 Quality Assurance and Quality Control Results

The quality assurance assessment of the field duplicate sample results was conducted according to 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 in July 2009 and effective as of July 1, 2011) ("Analytical Protocol").

To determine the precision of the analytical methods and field sampling procedures, blind duplicate samples were collected during soil and groundwater sampling. Precision is determined by the relative percent difference ("RPD") between the duplicate and original samples and was calculated as follows:

$$RPD = \frac{|x_1 - x_2|}{x_m}$$

Where
x_1 initial sample results
x_2 duplicate sample results
x_m mean of x_1, x_2

The analytical results of the primary and duplicate soil and groundwater samples indicated a satisfactory correlation between the primary and duplicate samples, and were within the 30% recommended control limit in the Analytical Protocol. As noted above, the duplicate groundwater sample collected from MW15-3 in 2015 exhibited a higher concentration of toluene (0.85 µg/L) than the parent sample (0.73 µg/L); however, these concentrations from 2015 have been attributed to sediment likely contained within the initial groundwater sample and duplicate, as there were no detectible concentrations for toluene when the monitoring well was resampled in 2019 using low-flow sampling methods, which reduced the possibility of sediment within the samples.

It is noted that the trip blank samples were found to have no detectable concentrations. The quality of the analytical results is further supported by BV Lab's internal quality assurance program that includes laboratory blanks, spikes, surrogates and duplicate samples.

All certificates of analysis or analytical reports received pursuant to clause 47 (2) (b) of the regulation comply with subsection 47(3). A certificate of analysis or analytical report has been received for each sample submitted for analysis and is provided in Appendix A(iii). The analytical laboratory did not qualify any of the analytical results.

Accordingly, the analytical data generated during the investigation are valid and representative and may be used in this Phase Two ESA without further qualification.

6.10 Phase Two Conceptual Site Model

The Phase Two conceptual site model is presented in the following sections.

6.10.1 Potential Sources of Contamination

6.10.1.1 Potentially Contaminating Activities

Based on the information obtained as part of the Golder 2019 Phase One Update, the following potentially contaminating activities ("PCAs") on the Phase Two Property and in the Phase Two Study Area were identified. The location of each PCA is provided on the Phase Two ESA Figure 2A:

PCA ID	Location	Description of Potentially Contaminating Activity	Information Source	Status and Rationale
1	**Phase One Property**	***#30 Importation of Fill Material of Unknown Quality*** **–** Fill is reportedly present on Site, as identified in the 2008 Golder Geotechnical Report. Fill materials were generally observed to be composed of loose dark brown sandy silt/silty sand/clayey silt with some reported trace organics, trace clay and trace gravel. No debris, odours or staining was reported in any of the fill encountered on-Site.	The 2008 Golder Geotechnical Report, Site Observations	The PCA is located on the Phase One Property and must be identified as an APEC.
2	**Phase One Property**	***#28 Gasoline and Associated Products Storage in Fixed Tanks*** **–** It is considered likely that a heating oil AST was formerly present at House 46.	The 2015 Phase One Environmental Site Assessment	The PCA is located on the Phase One Property and must be identified as an APEC.
3	**Phase One Property**	***#21 Explosives and Firing Range*** **–** Debris fragments from what appeared to be clay pigeons, suggesting the historical use of the Site as a shooting range by the former site occupants. The size of the former area on-Site which was used as a firing range is unknown.	Site Observations	The PCA is located on the Phase One Property and must be identified as an APEC.
4	**Phase One Study Area** (Excluding the Phase One Property)	***#28 Gasoline and Associated Products Storage in Fixed Tanks*** **–** The Site Representative reported that an AST used for fuelling farm vehicles was formerly at Barn 16, located approximately 150 m south of the west side of the Site.	Site Representative	Based on the down-gradient location of this PCA to the Phase One Property, this PCA is not anticipated to present an APEC to the Phase One Property.
5	**Phase One Study Area** (Excluding the Phase One Property)	***#28 Gasoline and Associated Products Storage in Fixed Tanks*** **–** It is considered likely that a heating oil AST was formerly present at House 44, located approximately 225 m southwest of the southwestern corner of the Site.	Site Observations, Previous Reports	Based on the down-gradient location of this PCA to the Site, this PCA is not anticipated to present an APEC to the Phase One Property.

PCA ID	Location	Description of Potentially Contaminating Activity	Information Source	Status and Rationale
6	**Phase One Study Area** (Excluding the Phase One Property)	***#40 Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Application –*** Based on a review of aerial photography, an orchard was formerly present in the vicinity of House 44 and Barn 21. The orchard is visible in the 1927 aerial photograph, and appears to have been removed sometime prior to 1954. The orchard was located approximately 200 m southwest of the southwestern corner of the Site.	Aerial Photographs	Based on the inferred cross- to down-gradient location of this PCA to the Site, this PCA is not anticipated to present an APEC to the Phase One Property.
7	**Phase One Study Area** (Excluding the Phase One Property)	***Other*** – A concentration higher than the Ministry of the Environment's *Soil Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*, April 15, 2011, Table 8 Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition (the "Table 8 Standards") for cobalt was identified in the groundwater at BH22, drilled in 2008. No obvious source of cobalt in groundwater was identified. BH22 was located approximately 300 m southwest of the southwest corner of the Site.	The 2008 Golder Phase II ESA Report, Site Observations	Based on the down-gradient location of this PCA to the Site, this PCA is not anticipated to present an APEC to the Phase One Property.
8	**Phase One Study Area** (Excluding the Phase One Property)	***#55 Transformer Manufacturing, Processing and Use –*** Based on observations within the Phase One Study Area, a pole mounted transformer is present on the east side of Simcoe Street near the corner of Simcoe Street and Windfields Farm Drive.	Site visit observations	Based on the nature of the contaminants of concern associated with this PCA and the intervening distance between this PCA and the Site, this PCA is not anticipated to present an APEC to the Phase One Property.
9	**Phase One Study Area** (Excluding the Phase One Property)	***#55 Transformer Manufacturing, Processing and Use –*** Based on observations within the Phase One Study Area, a pole mounted transformer is present on the west side of Simcoe Street near the corner of Simcoe Street and Windfields Farm Drive.	Site visit observations	Based on the nature of the contaminants of concern associated with this PCA and the intervening distance between this PCA and the Site, this PCA is not anticipated to present an APEC to the Phase One Property.

PCA ID	Location	Description of Potentially Contaminating Activity	Information Source	Status and Rationale
10	**Phase One Study Area** (Excluding the Phase One Property)	***#55 Transformer Manufacturing, Processing and Use –*** Based on observations within the Phase One Study Area, a pad mounted transformer is present on the south side of Windfields Farm Drive, west of the intersection of Simcoe Street and Windfields Farm Drive.	Site visit observations	Based on the nature of the contaminants of concern associated with this PCA and the intervening distance between this PCA and the Site, this PCA is not anticipated to present an APEC to the Phase One Property.
11	**Phase One Study Area** (Excluding the Phase One Property)	***#55 Transformer Manufacturing, Processing and Use –*** Based on observations within the Phase One Study Area, a pole mounted transformer is present on the west side of Simcoe Street approximately 200 m north of Winchester Road East.	Site visit observations	Based on the nature of the contaminants of concern associated with this PCA and the intervening distance between this PCA and the Site, this PCA is not anticipated to present an APEC to the Phase One Property.
12	**Phase One Study Area** (Excluding the Phase One Property)	***#55 Transformer Manufacturing, Processing and Use –*** Based on observations within the Phase One Study Area, a pole mounted transformer is present on the east side of Bridle Road, near the intersection of Bridle Road and Winchester Road East.	Site visit observations	Based on the nature of the contaminants of concern associated with this PCA and the intervening distance between this PCA and the Site, this PCA is not anticipated to present an APEC to the Phase One Property.
13	**Phase One Study Area** (Excluding the Phase One Property)	***#55 Transformer Manufacturing, Processing and Use –*** Based on observations within the Phase One Study Area, a pad mounted transformer is present on the east side of Bridle Road to the north of the intersection of Bridle Road and Windfields Farm Drive.	Site visit observations	Based on the nature of the contaminants of concern associated with this PCA and the intervening distance between this PCA and the Site, this PCA is not anticipated to present an APEC to the Phase One Property.
14	**Phase One Study Area** (Excluding the Phase One Property)	***#55 Transformer Manufacturing, Processing and Use –*** Based on observations within the Phase One Study Area, a pad mounted transformer is present on the east side of Bridle Road, approximately 200 m south of Windfields Farm Drive.	Site visit observations	Based on the nature of the contaminants of concern associated with this PCA and the intervening distance between this PCA and the Site, this PCA is not anticipated to present an APEC to the Phase One Property.

6.10.1.2 Areas of Potential Environmental Concern

The Golder 2019 Phase One Update identified a total of three APECs associated with the Phase One Property. The APECs are shown on the Phase Two ESA Figure 2B and are summarized below:

Area Of Potential Environmental Concern	Location of APEC on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-Site or off-Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
APEC 1 Based on previous investigations, fill is reportedly present on Site	Entire Site	***#30. Importation of Fill Material of Unknown Quality***	On-Site	Metals, Hydride-Forming Metals and Other Regulated Parameters (Cyanide, Mercury, Electrical Conductivity, Sodium Adsorption Ratio)	Soil
APEC 2 It is likely that a heating oil AST was formerly present at House 46	The area in the vicinity of the former House 46, located in the north-central portion of the Site.	***#28. Gasoline and Associated Products Storage in Fixed Tanks***	On-Site	PHCs, BTEX	Soil and Groundwater
APEC 3 Inferred former use of the property as a private shooting range	South central portion of the Site.	***#21. Explosives and Firing Range***	On-Site	Metals, Hydride-Forming Metals	Soil

6.10.1.3 Subsurface Structures and Utilities

Underground utility locates conducted for the Phase Two Property indicated that no subsurface utilities or structures were identified to be present at the Site, with the exception of pipelines associated with Enbridge Gas and Trans-Canada Pipelines, which cross the Site from the northwest to the southeast (see Phase Two ESA Figures 2A and 2B). House 46 (formerly located in the northeastern area of the Phase Two Property) was reported to have historically been serviced by septic tanks. It also appears that Barn 17 (formerly in the same area) was historically serviced by a septic tank. On-Site water was historically provided by on-site supply wells; however, these are no longer in use. No other underground utilities were reported at the Site.

6.10.2 Physical Setting

6.10.2.1 Stratigraphy

Representative geologic cross-sections of the Site based on the data collected are presented in Phase Two ESA Figures 6A, 6B and 6C. Boreholes were advanced to a maximum depth of 6.71 m bgs and test pits were excavated to a maximum depth of 2.5 m bgs. In general, the subsurface soil conditions consisted of a layer of topsoil underlain by silty clay to clayey silt till, underlain at depth by silt till or silty sand/sandy silt and/or sand till.

Based on a review of grain size analyses completed as part of previous geotechnical investigations[4] completed on the Phase Two Property, the majority of the subsurface soils appear to be coarse-grained.

No indications of organic chemical impacts (odours, staining or elevated headspace measurements) were noted during borehole or test pitting activities. No indications of organic chemical impacts (odours, staining or elevated headspace measurements) were noted during borehole or test pitting activities.

6.10.2.2 Depth to Bedrock

The native overburden thickness was observed to be at least 6.71 m at the Site but is anticipated to extend beyond the maximum depth of drilling. Bedrock was not encountered during drilling or test pit activities. The reported depth to bedrock in the Phase One ESA is approximately 53 m bgs.

6.10.3 Hydrogeological Characteristics

Regional groundwater flow is expected to be towards Lake Ontario, located approximately 12.2 kilometres to the south. The direction of local groundwater flow in the vicinity of the Phase Two Property is expected to be southerly based on recorded groundwater elevations.

Static groundwater levels were measured in the monitoring wells located across the Site on June 16, 2015 and on August 7, 2019. Phase Two ESA Figures 4A and 4B show groundwater elevations and the interpreted groundwater flow direction. Groundwater elevations at the Site ranged from 177.82 m asl (MW15-18) to 186.32 m asl (MW15-3) on June 16, 2015 and 184.70 m asl (MW19-1) to 185.09 m asl (MW19-3) on August 7, 2019. Based on the interpreted groundwater elevation contours presented in Figure 4A, the inferred direction of groundwater flow is in a southerly direction; however, based on the interpreted groundwater elevation contours presented in Figure 4B, which relies on information from a group of monitoring wells installed very closely together, the inferred direction of groundwater flow is in a westerly direction, which may indicate a localized influence in this area.

The average horizontal hydraulic gradient was estimated for shallow groundwater conditions based on water levels collected on June 16, 2015 and August 7, 2019, and the inferred groundwater contours as plotted on Figure 4A and Figure 4B. The average horizontal hydraulic gradient for shallow groundwater conditions was calculated to be 0.02 m/m.

Vertical hydraulic gradients were not calculated as no COCs were identified in groundwater exceeding the site condition standards and as such, no nested monitoring well pairs were installed at the Site.

6.10.3.1 Depth to Groundwater

As noted above, static groundwater levels were measured in the monitoring wells located across the Site on June 16, 2015 and on August 7, 2019. Figures 4A and 4B show groundwater elevations and the interpreted groundwater flow directions. Groundwater elevations at the Site ranged from 177.82 m asl (MW15-18) to 186.32 m asl (MW15-3) on June 16, 2015 and from 184.70 m asl (MW19-1) to 185.09 m asl (MW19-3) on August 7, 2019. The depth to the water table ranges from 0.46 m in the northern portion of the Site (measured in 2019), to 5.78 m bgs in the southern portion of the Site (measured in 2015), which is within the native clayey silt to silty clay or the silty sand to sand or silt layers. It is noted that these wells are located up to 400 metres apart

[4] *"Geotechnical Investigation, Main Roadway for Proposed Windfields Farm Commercial / Residential Development, South of Winchester Road, between Thornton Road N and Bridle Road S, Oshawa, Ontario"* prepared for RioCan Real Estate Investment Trust by Golder Associates Ltd. dated July 19, 2016 (File No. 14-1182-0003 (9000))

north to south, with a difference of up to 4 metres in ground surface elevation north to south, which exacerbates the variations observed in groundwater depths below ground surface.

6.10.4 Site Condition Standards

6.10.4.1 Environmentally Sensitive Areas

Golder conducted an Areas of Natural Significance ("ANS") and Species at Risk ("SAR") study at the Site in 2018[5]. The ANS/SAR study concluded that two areas within the study area were identified as meeting the criteria for an ANS, as defined under O.Reg. 153/04; habitat for threatened or endangered species.

At the time of the assessment, the abandoned house and barn and compensation structures on the Site provide nesting habitats for barn swallow (the house and barn have since been removed (2016) but the compensation structures remain). The eastern agricultural farmland and field grasses on the Site (within a 200 m radius of the nesting locations, excluding the forest) also provide suitable foraging habitat for barn swallow.

Additionally, the deciduous forest in the northwest corner of the Site was observed to provide potential maternity roost habitat for little brown myotis, northern myotis and tri-coloured bat. The defined habitat for endangered bat species on the Site consists of the deciduous forest unit.

Based on the two above-noted observations, this Site would be considered an Environmentally Sensitive Area as per Section 41 of the Regulation.

6.10.4.2 Shallow Soil Property or Water Body

Bedrock was not encountered during drilling activities, and as indicated above, is expected to be greater than 50 m bgs at the Phase Two Property. Groundwater was present within 2 m of ground surface at some monitored locations within the Site; therefore, in the opinion of the QP it may be appropriate to apply Section 43.1(a) of the Regulation to the Phase Two Property, however, it is noted that for the purposes of determining the appropriate site condition standards, the application of Section 41 as per above supersedes.

An intermittent tributary to Oshawa Creek traverses the Phase Two Property from north to south. However, based on the ANS/SAR Study noted above, the surface water feature on the Site is not considered to be a permanent watercourse according to the *Conservation Authorities act* (Government of Ontario 1990), the OSAP (Stanfield 2010) and the Regulation, as it lacked a defined bed and banks, and was limited in flow and lacked connection to East Oshawa Creek, and no fish habitat was identified on the Site; therefore, in the opinion of the QP's Section 43.1(b) of the Regulation does not apply to the Phase Two Property.

6.10.5 Imported Soil

No soil was imported to the RSC Property as part of the remedial works in accordance with Section 55 and Schedule F of the Regulation. The Site was graded to minimize standing water due to precipitation and left for future development, and construction stone was imported to provide a temporary road-base for trucks during the remedial works.

[5] "*Areas of Natural Significance and Species at Risk Screening, Windfields Farm Development, Oshawa, Ontario*" which was prepared for RioCan by Golder and dated July 6, 2018 (Draft Report; Golder No. 1791121)

6.10.6 Proposed Buildings and Other Structures

The Phase Two Property currently consists of a parcel of vacant agricultural and rural residential land, which was previously developed with one house, one barn, and two sheds. The remainder of the Subject Property was occupied by agricultural fields formerly utilized for horse farming, and a 5-hectare wooded area. An easement for underground natural gas pipelines crosses the Site from northwest to southeast. Golder understands that the majority of the Phase Two Property is to be redeveloped with a commercial development, possibly including some residential use, and a portion of the Phase Two Property will be dedicated as parkland. The pipeline easement will remain.

6.10.7 Delineation of Contaminant Impacts

A summary of the investigations conducted related to the identified APECs is provided below. Test locations are shown on Phase Two ESA Figure 3.

APEC Description	Soil Investigations	Groundwater Investigations
APEC 1 – Suspected Fill Material	MW15-3 SA1B, MW15-18 SA1B, MW15-19 SA1B, , TP15-7 SA2, TP15-8 SA2, TP15-9 SA1, TP15-11 SA2, TP15-11 SA3, TP15-12 SA2, TP15-16 SA1, TP15-17 SA2, TP15-18 SA2, TP15-20 SA1, TP15-22 SA2, TP15-24 SA2, TP15-25 SA1, TP15-26 SA2	N/A
APEC 2 – Suspected Former Heating Oil AST	MW15-3 SA3, BH15-8 SA1, BH15-9 SA1, BH19-1 SA3, BH19-2 SA3, BH19-3 SA4	MW15-3 (June 16, 2015) MW15-3 (July 4, 2019) MW15-3, MW19-1, MW19-2, MW19-3 (August 7, 2019)
APEC 3 – Inferred Former Private Shooting Range	**June/July 2015:** TP15-11 SA2, TP15-11 SA3	N/A
	November 2015 – February 2016: HS100 through HS111; HS119 through HS143	
	July/August 2016: TP200 series; TP300 series; TP 400 series	
	November 2017: TP17-1 through TP17-12	

6.10.7.1 APECs Where Contaminants are Present at a Concentration Above the Applicable Site Condition Standard

APEC locations are provided on the Phase Two ESA Figure 2B. The APECs where a contaminant was present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard, along with the contaminants present in each environmental medium, are summarized below:

APEC Description	Contaminants of Concern Exceeding Table 1 Standards
APEC 1 – Suspected Fill Material	Soil – ORPs (cyanide) Groundwater – N/A Sediment – N/A
APEC 2 – Suspected Former Heating Oil AST	Soil – None Groundwater – None* Sediment – N/A
APEC 3 – Inferred Former Private Shooting Range	Soil – Metals (lead), Hydride Metals (antimony) Groundwater – N/A Sediment – N/A

** See discussion below*

During the 2015 Phase Two ESA activities completed related to the investigation of APEC 2, all groundwater samples submitted for analysis met the applicable Site condition standards for the parameters tested, with the exception of the duplicate sample from MW15-3. Originally collected on July 16, 2015, the sample collected from monitoring well MW15-3 had a toluene concentration of 0.73 ug/L (below the Table 1 Standard for toluene of 0.8 µg/L), however the duplicate sample from this location slightly exceeded the Table 1 Standard, with a concentration of 0.85 µg/L.

To verify groundwater quality at this location, monitoring well MW15-3 was resampled during supplemental Phase Two ESA activities on July 4, 2019, and again on August 7, 2019, using low-flow sampling methods. On both of these subsequent occasions, the samples resulted in a toluene concentration below the laboratory method detection limit. As such, the July 16, 2015 duplicate sample result is considered to be anomalous (possibly attributable to sediment interference) and not representative of groundwater quality at this location. In the opinion of the QP, no groundwater impacts have been identified related to APEC 2.

6.10.7.2 Contaminant Distribution

The inferred lateral extent of each contaminant present in soil at a concentration greater than the applicable Site Condition Standard prior to the remedial work is presented on the Phase Two ESA Figure 5. The inferred vertical distribution is depicted on the cross sections presented on Phase Two ESA Figures 6A, 6B and 6C.

In general, the contaminants identified in soil are associated with either the former use of a portion of the Site as a private firing range (lead, antimony) or unknown fill materials (cyanide). The contaminants extend to depths ranging from ground surface to 0.46 m bgs at the locations investigated. It is noted that this material was all removed from the Phase Two property through the course of remedial activities. The analytical results from samples collected and submitted as part of this investigation indicate that all parameters tested in the soil meet the Table 1 Standards with the exception of antimony, lead, and cyanide which were found to exceed the Table 1 Standards for soil from one centralized sampling area in the approximate center of the Site.

Metals & Hydride Metals

Based on the testing completed as part of the Phase Two ESA, the extent of the metals (lead) and hydride metals (antimony) impacts identified at the Site are inferred to extend from approximately 10m south of the northern property boundary to approximately 80 m north of the southern property boundary, and from approximately 140 m west of the eastern property boundary to approximately 265 m east of the western property boundary, as shown on Figure 5. The underlying native soil was tested during the 2017 test pitting program, and was found to meet the applicable site condition standards where tested. As such the depth of impact was inferred to be generally coincident with the depth of the topsoil (up to 0.46 m bgs), although some penetration into the surface of the underlying native soil was considered possible due to tilling activities.

ORPs

Based on the testing completed as part of the Phase Two ESA, the extent of the ORP impacts (cyanide) identified at the Site were inferred to be very limited in extent, with only 7 out of 120 tested samples containing cyanide above the Table 1 Standard. The 7 samples were clustered in one area slightly south and east of the centre of the Phase Two Property, on the east side of the former lane that traverses the middle of the Site from north to south (see Figure 5).

The shallow metals, hydride metals, and ORP soil impacts are not anticipated to contribute to groundwater impacts on the Site, given the nature of these parameters (i.e. relatively low leachate capabilities), the generally low concentrations, the low permeability of the native soils, and that the observed exceedances are located above the water table. A summary of the reported concentrations in soil and groundwater are provided in the Phase Two ESA Tables 5A, 5B and 6; Phase Two ESA Figure 5 provides a summary of the locations at which soil standard exceedances were detected; and cross-sections of the Site with the area of soil impact are presented in Phase Two ESA Figures 6A, 6B and 6C. Subsequently, all exceedances have been since removed as outlined in the Remedial Report included in Appendix B of the Phase Two ESA Report.

No exceedances of the site condition standards for groundwater have been identified at the Site.

No surface sediment is present at the Phase Two Property.

6.10.7.3 Potential Reason for Discharge into the Environment at the Site

The presence of lead and antimony impacts observed in soil at concentrations exceeding the applicable site condition standards are inferred to be related to the use of this portion of the Site as a private firing range. During our investigations, fragments of clay pigeons and shot casings were identified in the topsoil materials. Lead and antimony are known contaminants of concern associated with firing ranges. As the impacted area was also used for general agricultural activities, the impacted material was tilled over time to extend to the entire depth of topsoil in this area of the Site.

While lead and antimony were identified across a wide area, cyanide impacts in shallow soil were localized in one area slightly south and east of the centre of the Phase Two Property, as discussed above. No specific cyanide source was identified in this area in the Phase One ESA, and although the Phase Two Property was under agricultural use, the cyanide exceedances were not widespread across the fields and as such are not inferred to be related to general pesticide application. It is therefore inferred that the localized cyanide exceedances may be associated imported materials (i.e. APEC 1). As noted above, the impacted area was tilled over time which likely redistributed the soil impacts within the topsoil in this area of the Site.

6.10.7.4 Contaminant Migration

No impacts were identified in groundwater sampled from the monitoring wells advanced at the Site, therefore, migration of contaminants within the Site or off-Site is considered unlikely. We also note that the impacted soils were subsequently remediated and therefore are unlikely to contribute to groundwater impacts in the future.

6.10.7.5 Meteorological and Climatic Considerations

No evidence suggesting any effect of the climatic or meteorological conditions on the migration of the contaminants were found. None of the contaminants found were volatile.

Seasonal fluctuation in water levels on the Site should be expected. Given the limited number of monitoring events seasonal trends could not be identified, however shallow groundwater water levels are typically highest following the spring recharge and decline throughout the summer and fall months into the winter.

6.10.7.6 Soil Vapour Intrusion Pathways

Antimony and lead are not volatile and are not considered to represent a vapour intrusion risk. There were no volatile contaminants identified in soil or groundwater at the Site, therefore there are no relevant soil vapour intrusion pathways.

6.10.8 Cross-Sections

6.10.8.1 Lateral and Vertical Distribution of Contaminants

Representative cross-sections of the Site with soil analytical results and inferred extend of impact prior to remedial activities are presented in Figures 6A, 6B, and 6C. Phase Two ESA Figures 7A, 7B and 7C show the inferred extent of impact compared to the actual limits of the remedial excavation, as well as the soil verification samples.

6.10.9 Potential Exposure Pathways and Receptors

As discussed previously, antimony and lead-impacted shallow soil was identified at the Site across a large area near the middle of the Phase Two Property, and cyanide impacted soil was located in a much smaller area, also within the footprint of the lead and antimony impacts. In general, pathways associated with both human (i.e. ingestion & dermal contact, and inhalation via wind erosion) and ecological receptors (i.e. plant/root update, ingestion & dermal contact by birds and mammals, and folicular deposition via wind erosion) were possible given that the areas of soil impact consist of grassed covered areas or agricultural areas. The impacts were removed from the Site (i.e. remediated) prior to redevelopment of the Site and therefore there are currently no relevant exposure pathways.

Pre- and post-remediation pathways and receptors are depicted graphically on Figures 8A and 8B.

6.10.10 Remediation

As a follow-up to the Phase Two ESA investigation, a remedial action plan (“RAP”) was prepared for the Site, and subsequent remediation was carried out in two stages. Between July and September of 2018, remediation of the Trans-Canada Pipelines (“TCPL”) easement was completed by TCPL in conjunction with pipe-upgrading activities and monitored by Golder. During this time, approximately 11,400 cubic metres of impacted topsoil was excavated and removed from the easement, and relocated and temporarily stockpiled elsewhere on the Phase Two property, but still within the inferred impacted zone.

A total of 139 floor samples (including 13 duplicate samples) were collected from the TCPL easement, and were submitted for analysis of one or more of Metals, Hydride Metals and ORPs. The results of the final confirmation samples analysed for the TCPL easement satisfied the Table 1 Standards for the parameters tested. Note that no north or south wall samples were collected from the final excavation as part of this work, as the limits of the excavation extended beyond the boundaries of the easement and were open to a construction excavation beyond the impacted areas.

Between December 2018 and July 2019, following the completion of the TCPL work, soil excavation of the impacted zones north and south of the TCPL easement was completed by Ground Force Environmental, under Golder supervision. During this time, a total of approximately 38,112 cubic metres of topsoil was excavated and removed from the Site, including the stockpiled material previously excavated from the TCPL Easement.

228 floor samples and 85 wall samples (including 34 duplicate samples) were submitted for analysis of Metals and Hydride Forming Metals. Four floor samples and four wall samples were also submitted for analysis of cyanide. The results of the final confirmation samples analysed satisfied the Table 1 Standards for the parameters tested. Refer to the Remediation Appendix B of the Phase Two ESA Report for a more detailed summary of the remedial program.

Figures B1, B2 and B3 indicated the lateral and vertical extent of the remedial excavation and the verification sample locations in plan view. Figures 7A, 7B and 7C show the lateral and vertical limits of the excavation and verification samples in cross-section

7.0 CONCLUSIONS

The Phase Two ESA investigated the APECs identified in the 2015 Phase One ESA and the 2019 Phase One ESA Update. The reported concentrations of the contaminants of potential concern in all soil and groundwater samples were below the applicable site condition standards, with the exception of antimony, lead and cyanide in the surficial soil distributed through the general central portion of the Site in the approximate middle of the Site. The completion of a shallow remediation of the impacted area was completed and is presented in Appendix B.

All floor and wall verification samples collected from the limits of the final excavation satisfied the Table 1 Standards for the parameters tested. Based on the findings of this Phase Two ESA, including the information within the Remediation Appendix, it is the QP's opinion that a RSC can be filed for the Site.

The data presented in this report have been collected and presented in accordance with our present understanding and interpretation of the O. Reg. 153/04 requirements for Phase Two ESAs.

8.0 REFERENCES

The following is a list of references reviewed for the purposes of preparing this report:

Source	Date
Ministry of the Environment and Climate Change, *Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*, April 2011.	2011
Ontario Ministry of Development and Mines, Map No. 2544, "*Bedrock Geology of Ontario, Southern Sheet*", 1991.	1991

Source	Date
Ministry of the Environment and Climate Change, *Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*, April 2011.	2011
Previous Environmental Reports (refer to Section 2.2)	2008 - 2018

9.0 LIMITATIONS

This report was prepared for the exclusive use of RioCan Realty Inv Partner 11LP. The report, which specifically includes all tables, figures and appendices, is based on data and information, collected during conducting the Phase Two ESA, and is based solely on the conditions of the property at the time of conducting investigations, supplemented by historical information and data obtained by Golder Associates Ltd. as described in this report.

The assessment of environmental conditions at this Site has been made using the results of field screening techniques and chemical analysis of soil samples at a limited number of locations. The Site conditions between sampling locations have been inferred based on conditions observed at the sampling locations. Conditions may vary from these sample locations. Additional study, including further investigation, can reduce the inherent uncertainties associated with this type of study. However, it is never possible, even with exhaustive sampling and testing, to dismiss the possibility that part of a Site may be contaminated and remain undetected.

The services performed as described in this report were conducted in a manner consistent with that level of care and skill normally exercised by other members of the engineering and science professions currently practicing under similar conditions, subject to the time limits and financial and physical constraints applicable to the services.

Any use which a third party makes of this report, or any reliance on, or decisions to be made based on it, are the responsibilities of such third parties. Golder Associates Ltd. accepts no responsibility for damages, if any, suffered by any third party (other than as noted above) as a result of decisions made or actions based on this report.

The content of this report is based on information collected during the drilling, test pitting and soil sampling activities, our present understanding of the Site conditions, and our professional judgement in light of such information at the time of this report. This report provides a professional opinion and therefore no warranty is expressed, implied, or made as to the conclusions, advice and recommendations offered in this report. This report does not provide a legal opinion regarding compliance with applicable laws. With respect to regulatory compliance issues, it should be noted that regulatory statutes and the interpretation of regulatory statutes are subject to change.

The findings and conclusions of this report are valid only as of the date of this report. If new information is discovered in future work, including excavations, borings or other studies, Golder Associates Ltd. should be requested to re-evaluate the conclusions of this report, and to provide amendments as required.

The monitoring wells installed as part of this project have been constructed using licensed drilling/well contractors employing licensed well technicians. It is owner's responsibility to have a licensed well technician properly abandon all monitoring wells, if required.

10.0 SIGNATURES

The undersigned Qualified Person confirms that he/she was responsible for conducting and/or supervising this Phase Two ESA and the associated findings and conclusions.

We trust that you will find the contents of this report satisfactory for your current needs. Should you require clarification of the information provided, please do not hesitate to contact the undersigned.

Signature Page

Golder Associates Ltd.

Kevan Browne, B.A.
Project Manager, Contaminated Sites

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https://golderassociates.sharepoint.com/sites/20914g/deliverables/06. phase two esa/1791121 rep 2019'11'09 phase two esa - windfields parcel d (final).docx

TABLES

Table 1
Groundwater Monitoring Well Construction Details
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Well ID	Depth (m bgs)	Ground Surface Elevation (m asl)	Screen Length (m)	Screen Elevation (m asl)	Unit Screened	Date Installed
MW15-3	6.10	186.78	3.0	185.78 - 180.66	(SP-SM) SAND to SILTY SAND	12-Jun-15
MW15-11	6.10	182.56	3.0	179.46 - 176.46	(SP-SM-SP) SAND to SILTY SAND to SAND	10-Jun-15
MW15-18	6.71	183.60	3.0	180.00 - 176.89	(SP - SM) SAND to SILTY SAND	12-Jun-15
MW15-19	6.10	182.32	3.0	178.97 - 176.22	(CL - ML - SM) SILTY CLAY to SILT to SILTY SAND	11-Jun-15
MW19-1	3.96	186.22	3.0	185.26 - 182.26	(SM - ML) SILTY SAND to SILT	16-Jul-19
MW19-2	3.96	186.84	3.0	185.88 - 182.88	(SM - ML) SILTY SAND to SILT	16-Jul-19
MW19-3	3.96	187.34	3.0	186.38 - 183.38	(ML) CLAYEY SILT to SILT	16-Jul-19

Notes:

1. m asl = meters above sea level
2. m bgs = meters below ground surface
3. Table to be read in conjunction with accompyaning report

Prepared by: AVR

Checked by:

Table 2A and 2B
Groundwater Monitoring Well Construction Details
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Well ID	Ground Surface Elevation (m asl)	Depth to Groundwater (m bgs)	Groundwater Elevation (m asl)	Ground Surface Elevation (m asl)	Depth to Groundwater (m bgs)	Groundwater Elevation (m asl)
	June-16-15			August-07-19		
MW15-3	186.78	0.46	186.32	186.78	1.97	184.81
MW15-11	182.56	1.17	181.39	-damaged/destroyed, unable to collect water levels		
MW15-18	183.60	5.78	177.82	-damaged/destroyed, unable to collect water levels		
MW15-19	182.32	1.42	180.90	-damaged/destroyed, unable to collect water levels		
MW19-1	-	-	-	186.22	1.518	184.70
MW19-2	-	-	-	186.84	1.958	184.88
MW19-3	-	-	-	187.34	2.251	185.09

Notes:

1. - = no data available
2. m asl = meters above sea level
3. m bgs = meters below ground surface
4. Table to be read in conjunction with accompanying report

Prepared by: AVR
Checked by:

Table 3
Summary of Soil Samples Submitted for Laboratory Analysis
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Sample Location	Sample ID	Sampling Date	Sample Depth (mbgs)	Soil Type	Parameters Analyzed
MW15-3	MW15-3 SA1B	12-Jun-15	0.2 - 0.6	(CL) SILTY CLAY	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
	MW15-3 SA3	12-Jun-15	3.0 - 3.7	(SM) SILTY SAND, trace to some gravel	PHCs F1 to F4, BTEX
MW15-11	MW15-11 SA2	10-Jun-15	0.8 - 1.4	(SP) SAND	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
MW15-18	MW15-18 SA1B	12-Jun-15	0.31 - 0.61	(CH) CLAY, some silt	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
	Dup 6	12-Jun-15	0.31 - 0.61	(CH) CLAY, some silt	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
MW15-19	MW15-19 SA1B	11-Jun-15	0.08 - 0.61	(ML) CLAYEY SILT, some sand, trace gravel	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
BH15-8	BH15-8 SA1	15-Jul-15	0.1 - 0.7	(CL) SILTY CLAY, trace gravel	PHCs F1 to F4, BTEX
BH15-9	BH15-9 SA1	15-Jul-15	0.1 - 0.7	(CL) SILTY CLAY, some gravel	PHCs F1 to F4, BTEX
TP15-7	TP15-7 SA2	10-Jun-15	0.42 - 0.52	(CL) SILTY CLAY	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-8	TP15-8 SA2	10-Jun-15	0.30 - 0.40	(ML) CLAYEY SILT, trace sand	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-9	TP15-9 SA1	10-Jun-15	0.10 - 0.20	Topsoil	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-11	TP15 -11 SA2	10-Jun-15	0.25 - 0.35	(SP) SAND, some silt, trace clay	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
	TP15 -11 SA3	12-Jun-15	0.75 - 0.85	(SP) SAND, some silt, trace clay	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-12	TP15-12 SA2	12-Jun-15	0.45 - 0.55	(SP) SAND, some clay, trace silt	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-16	TP15-16 SA1	12-Jun-15	0.10 - 1.20	Topsoil	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-17	TP15-17 SA2	12-Jun-15	0.35 - 0.45	(ML) CLAYEY SILT	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-18	TP15-18 SA2	10-Jun-15	0.35 - 0.45	(ML) CLAYEY SILT	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-20	TP15-20 SA1	10-Jun-15	1.25 - 1.35	Topsoil	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-22	TP15-22 SA2	11-Jun-15	0.45 - 0.55	(ML) CLAYEY SILT	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-24	TP15-24 SA2	12-Jun-15	0.40 - 0.50	(ML) SILT, some clay and sand	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-25	TP15-25 SA1	12-Jun-15	0.05 - 0.15	Topsoil	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
TP15-26	TP 15-26 SA2	12-Jun-15	0.55 - 0.65	(SP) SAND, trace silt	Metals, Hydride forming metals, pH, EC, SAR, CN, CrVI, Hg
HS100	HS100	30-Nov-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	DUP3	30-Nov-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS101	HS101	30-Nov-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS102	HS102	30-Nov-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS103	HS103	30-Nov-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS104	HS104	30-Nov-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS105	HS105	30-Nov-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS106	HS106	30-Nov-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS107	HS107	30-Nov-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS108	HS108A	18-Dec-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS109	HS109	18-Dec-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS110	HS110A	18-Dec-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	HS110B	18-Dec-15	0.15 - 0.30	Topsoil	Metals, Hydride forming metals, CN
HS111	HS111	18-Dec-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	DUP1	18-Dec-15	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS119	HS119	14-Jan-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS120	HS120	14-Jan-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS121	HS121	14-Jan-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS122	HS122	14-Jan-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	DUP3	14-Jan-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
HS123	HS123A	12-Feb-16	0.0 - 0.41	Topsoil	Metals, Hydride forming metals, CN
	HS123B	12-Feb-16	0.41 - 1.22	(CL) SILTY CLAY	Metals, Hydride forming metals, CN
HS124	HS124A	12-Feb-16	0.0 - 0.2	Topsoil	Metals, Hydride forming metals, CN
HS125	HS125A	12-Feb-16	0.0 - 0.36	Topsoil	Metals, Hydride forming metals, CN
	DUP1A	12-Feb-16	0.0 - 0.36	Topsoil	Metals, Hydride forming metals, CN
HS126	HS126A	12-Feb-16	0.0 - 0.43	Topsoil	Metals, Hydride forming metals, CN

Table 3
Summary of Soil Samples Submitted for Laboratory Analysis
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Sample Location	Sample ID	Sampling Date	Sample Depth (mbgs)	Soil Type	Parameters Analyzed
HS126	HS126B	12-Feb-16	0.43 - 0.66	(ML) CLAYEY SILT	Metals, Hydride forming metals, CN
HS127	HS127A	12-Feb-16	0.0 - 0.28	Topsoil	Metals, Hydride forming metals, CN
HS128	HS128A	12-Feb-16	0.0 - 0.3	Topsoil	Metals, Hydride forming metals, CN
	DUP2A	12-Feb-16	0.0 - 0.3	Topsoil	Metals, Hydride forming metals, CN
HS129	HS129A	12-Feb-16	0.0 - 0.3	Topsoil	Metals, Hydride forming metals, CN
HS130	HS130A	12-Feb-16	0.0 - 0.3	Topsoil	Metals, Hydride forming metals, CN
HS131	HS131A	12-Feb-16	0.0 - 0.3	Topsoil	Metals, Hydride forming metals, CN
HS132	HS132A	12-Feb-16	0.0 - 0.3	Topsoil	Metals, Hydride forming metals, CN
	HS132B	12-Feb-16	0.3 - 0.56	(ML) CLAYEY SILT	Metals, Hydride forming metals, CN
HS133	HS133A	12-Feb-16	0.0 - 0.3	Topsoil	Metals, Hydride forming metals, CN
HS134	HS134A	12-Feb-16	0.0 - 0.33	Topsoil	Metals, Hydride forming metals, CN
HS135	HS135A	12-Feb-16	0.0 - 0.33	Topsoil	Metals, Hydride forming metals, CN
HS136	HS136A	12-Feb-16	0.0 - 0.25	Topsoil	Metals, Hydride forming metals, CN
HS137	HS137A	12-Feb-16	0.0 - 0.3	Topsoil	Metals, Hydride forming metals, CN
HS138	HS138A	12-Feb-16	0.0 - 0.28	Topsoil	Metals, Hydride forming metals, CN
HS139	HS139A	12-Feb-16	0.0 - 0.36	Topsoil	Metals, Hydride forming metals, CN
	DUP3A	12-Feb-16	0.0 - 0.36	Topsoil	Metals, Hydride forming metals, CN
HS140	HS140A	12-Feb-16	0.0 - 0.38	Topsoil	Metals, Hydride forming metals, CN
	HS140B		0.38 - 0.71	(ML) CLAYEY SILT	Metals, Hydride forming metals, CN
HS141	HS141A		0.0 - 0.28	Topsoil	Metals, Hydride forming metals, CN
HS142	HS142A		0.0 - 0.28	Topsoil	Metals, Hydride forming metals, CN
HS143	HS143A		0.0 - 0.3	Topsoil	Metals, Hydride forming metals, CN
TP201	TP201-SA1	14-Jul-16	0.15 - 0.3	Topsoil	Metals, Hydride forming metals, CN
	DUP5	14-Jul-16	0.15 - 0.3	Topsoil	Metals, Hydride forming metals, CN
TP202	TP202-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP203	TP203-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP204	TP204-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP205	TP205-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP206	TP206-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP207	TP207-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	DUP4	14-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP208	TP208-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP209	TP209-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP210	TP210-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP211	TP211-SA1	14-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	DUP3	14-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP212	TP212-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	TP212-SA2	12-Jul-16	0.18 - 0.28	(SM) SILTY SAND, trace gravel	Metals, Hydride forming metals, CN
	TP212-SA3	03-Aug-16	0.3 - 0.46	(SM) SILTY SAND, trace gravel	Metals, Hydride forming metals, CN
	TP212-SA4	19-Aug-16	0.86	(SM) SILTY SAND, trace gravel	Metals, Hydride forming metals, CN
TP213	TP213-SA1	14-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	DUP2	14-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP214	TP214-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP215	TP215-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP216	TP216-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP217	TP217-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP218	TP218-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	TP218-SA2	12-Jul-16	0.15 - 0.3	Topsoil	Metals, Hydride forming metals, CN
	TP218-SA3	03-Aug-16	0.3 - 0.46	(SM) SILTY SAND, trace gravel and clay	Metals, Hydride forming metals, CN
	TP218-SA4	19-Aug-16	0.91	(SM) SILTY SAND, trace gravel and clay	Metals, Hydride forming metals, CN
TP219	TP219-SA1	14-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
	DUP1	14-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP220	TP220-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP221	TP221-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP222	TP222-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP223	TP223-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP224	TP224-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP225	TP225-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP226	TP226-SA1	12-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP227	TP227-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN

Table 3
Summary of Soil Samples Submitted for Laboratory Analysis
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Sample Location	Sample ID	Sampling Date	Sample Depth (mbgs)	Soil Type	Parameters Analyzed
TP228	TP228-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP229	TP229-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP230	TP230-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP231	TP231-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP232	TP232-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP233	TP233-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP234	TP234-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP235	TP235-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP236	TP236-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP237	TP237-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP239	TP239-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP240	TP240-SA1	13-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP241	TP241-SA1	15-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP242	TP242-SA1	15-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP243	TP243-SA1	15-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP244	TP244-SA1	15-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP245	TP245-SA1	15-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP246	TP246-SA1	15-Jul-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP300	TP300	03-Aug-16	0.0 - 0.13	Topsoil	Metals, Hydride forming metals, CN
TP301	TP301	03-Aug-16	0.0 - 0.1	Topsoil	Metals, Hydride forming metals, CN
TP302	TP302	03-Aug-16	0.0 - 0.13	Topsoil	Metals, Hydride forming metals, CN
TP303	TP303	03-Aug-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP304	TP304	03-Aug-16	0.0 - 0.13	Topsoil	Metals, Hydride forming metals, CN
TP305	TP305	03-Aug-16	0.0 - 0.13	Topsoil	Metals, Hydride forming metals, CN
TP306	TP306	03-Aug-16	0.0 - 0.13	Topsoil	Metals, Hydride forming metals, CN
TP307	TP307	03-Aug-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP309	TP309	03-Aug-16	0.0 - 0.15	Topsoil	Metals, Hydride forming metals, CN
TP313	TP313	03-Aug-16	0.0 - 0.18	Topsoil	Metals, Hydride forming metals, CN
TP314	TP314	03-Aug-16	0.0 - 0.13	Topsoil	Metals, Hydride forming metals, CN
TP315	TP315	03-Aug-16	0.0 - 0.1	Topsoil	Metals, Hydride forming metals, CN
TP400	TP400	19-Aug-16	0.0 - 0.08	Topsoil	Metals, Hydride forming metals, CN
	DUP 1	19-Aug-16	0.0 - 0.08	Topsoil	Metals, Hydride forming metals, CN
TP401	TP401	19-Aug-16	0.0 - 0.08	Topsoil	Metals, Hydride forming metals, CN
TP402	TP402	19-Aug-16	0.0 - 0.08	Topsoil	Metals, Hydride forming metals, CN
TP403	TP403	19-Aug-16	0.0 - 0.08	Topsoil	Metals, Hydride forming metals, CN
TP405	TP405	19-Aug-16	0.0 - 0.08	Topsoil	Metals, Hydride forming metals, CN
TP407	TP407	19-Aug-16	0.0 - 0.08	Topsoil	Metals, Hydride forming metals, CN
TP409	TP409	19-Aug-16	0.0 - 0.1	Topsoil	Metals, Hydride forming metals, CN
TP17-1	TP17-1 SA1	20-Nov-17	0.11	Topsoil	Metals, Hydride forming metals
	TP17-1 SA2	20-Nov-17	0.34	(SP) SAND, some silt and gravel	Metals, Hydride forming metals
TP17-2	TP17-2 SA1	20-Nov-17	0.10	Topsoil	Metals, Hydride forming metals
	TP17-2 SA2	20-Nov-17	0.35	(SP) SAND, some gravel, trace silt	Metals, Hydride forming metals
TP17-3	TP17-3 SA1	20-Nov-17	0.09	Topsoil	Metals, Hydride forming metals
	TP17-3 SA2	20-Nov-17	0.33	(ML) sandy SILT, some clay, trace gravel	Metals, Hydride forming metals
TP17-4	TP17-4 SA1	20-Nov-17	0.10	Topsoil	Metals, Hydride forming metals
	TP17-4 SA2	20-Nov-17	0.39	(SP) SAND, some gravel, trace silt	Metals, Hydride forming metals
TP17-5	TP17-5 SA1	20-Nov-17	0.14	Topsoil	Metals, Hydride forming metals
	TP17-5 SA2	20-Nov-17	0.40	(ML) CLAYEY SILT, some gravel	Metals, Hydride forming metals
TP17-6	TP17-6 SA1	20-Nov-17	0.10	Topsoil	Metals, Hydride forming metals
	TP17-6 SA2	20-Nov-17	0.38	(ML) sandy SILT, some clay, trace gravel	Metals, Hydride forming metals
TP17-7	TP17-7 SA1	20-Nov-17	0.15	Topsoil	Metals, Hydride forming metals
	TP17-7 SA2	20-Nov-17	0.40	(ML) sandy SILT, some clay, trace gravel	Metals, Hydride forming metals
TP17-8	TP17-8 SA1	20-Nov-17	0.08	Topsoil	Metals, Hydride forming metals
	TP17-8 SA2	20-Nov-17	0.28	(ML) SILT, some sand and clay, trace gravel	Metals, Hydride forming metals
TP17-9	TP17-9 SA1	20-Nov-17	0.15	Topsoil	Metals, Hydride forming metals
	TP17-9 SA2	20-Nov-17	0.48	(ML) CLAYEY SILT, trace gravel	Metals, Hydride forming metals
TP17-10	TP17-10 SA1	20-Nov-17	0.25	Topsoil	Metals, Hydride forming metals
	TP17-10 SA2	20-Nov-17	0.50	(ML) SILT, some sand, trace clay and gravel	Metals, Hydride forming metals
TP17-11	TP17-11 SA1	20-Nov-17	0.15	Topsoil	Metals, Hydride forming metals
	TP17-11 SA2	20-Nov-17	0.40	(ML) CLAYEY SILT, trace gravel	Metals, Hydride forming metals

Table 3
Summary of Soil Samples Submitted for Laboratory Analysis
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Sample Location	Sample ID	Sampling Date	Sample Depth (mbgs)	Soil Type	Parameters Analyzed
TP17-12	TP17-12 SA1	20-Nov-17	0.10	Topsoil	Metals, Hydride forming metals
	TP17-12 SA2	20-Nov-17	0.46	(ML) sandy SILT, some clay and gravel	Metals, Hydride forming metals
BH19-1	BH19-1 SA3	16-Jul-19	1.22 - 1.83	(SM) SILTY SAND	PHCs F1 to F4, BTEX
BH19-2	BH19-2 SA3	16-Jul-19	1.22 - 1.83	(SM) SILTY SAND, some clay & gravel	PHCs F1 to F4, BTEX
	DUP1 SA3	16-Jul-19	1.22 - 1.83	(SM) SILTY SAND, some clay & gravel	PHCs F1 to F4, BTEX
BH19-3	BH19-3 SA4	16-Jul-19	1.83 - 2.44	(ML) CLAYEY SILT, trace sand and gravel	PHCs F1 to F4, BTEX
HS19-500	HS19-500	04-Sep-19	0.5 - 0.6	(ML) CLAYEY SILT, some sand	CN
HS19-501	HS19-501	04-Sep-19	0.5 - 0.6	(ML) CLAYEY SILT, some sand	CN
HS19-502	HS19-502	04-Sep-19	0.45 - 0.55	(ML) CLAYEY SILT, some sand	CN
HS19-503	HS19-503	04-Sep-19	0.45 - 0.55	(ML) CLAYEY SILT, some sand	CN
HS19-504	HS19-504	04-Sep-19	0.0 - 0.15	Topsoil	CN
	DUP1	04-Sep-19	0.0 - 0.15	Topsoil	CN
HS19-505	HS19-505	04-Sep-19	0.0 - 0.15	Topsoil	CN
HS19-506	HS19-506	04-Sep-19	0.0 - 0.15	Topsoil	CN
HS19-507	HS19-507	04-Sep-19	0.0 - 0.15	Topsoil	CN

Notes:

1. mbgs = meters below ground surface
2. PHCs = Petroleum Hydrocarbons (F1 - F4)
3. BTEX = Benzene, Toluene, Ethylbenzene & Xylene Mixture
4. EC = Electrical Conductivity
5. SAR = Sodium Adsorption Rate
6. CN = Cyanide
7. CrVI = Hexavalent Chromium
8. Hg = Mercury
9. Table to be read in conjunction with accompanying report

Prepared by: AVR
Checked by:

Table 4
Summary of Groundwater Samples Submitted for Laboratory Analysis
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Location	Sample ID	Sampling Date	Parameters Analyzed
MW15-1	MW15-1	16-Jun-15	PHCs F1 to F4, BTEX
MW15-3	MW15-3	16-Jun-15	PHCs F1 to F4, BTEX
	DUP 1	16-Jun-15	PHCs F1 to F4, BTEX
	MW15-3	04-Jul-19	PHCs F1 to F4, BTEX
	DUP 1	04-Jul-19	PHCs F1 to F4, BTEX
	MW15-3	07-Aug-19	PHCs F1 to F4, BTEX
MW15-11	No Sample Submitted		
MW15-18	No sample Submitted		
MW15-19	No Sample Submitted		
MW19-1	MW19-1	07-Aug-19	PHCs F1 to F4, BTEX
MW19-2	MW19-2	07-Aug-19	PHCs F1 to F4, BTEX
	DUP 1	07-Aug-19	PHCs F1 to F4, BTEX
MW19-3	MW19-3	07-Aug-19	PHCs F1 to F4, BTEX

Notes:

1. BTEX = Benzene, Toluene, Ethylbenzene & Xylene Mixture
2. PHCs = Petroleum Hydrocarbons (f1 - F4)
4. Table to be read in conjunction with accompanying report

Prepared by: AVR

Checked by:

Table 5A
Soil Analytical Results - PHCs and BTEX
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Sampling Location ID			MW 15-3	BH15-8	BH15-9	BH19-1	BH19-2		BH19-3
Sample ID			MW15-3 SA5	BH15-8 SA1	BH15-9 SA1	BH19-1 SA3	BH19-2 SA3	DUP1 SA3	BH19-3 SA4
Sample Depth (mbgs)			3.0 - 3.7	0.1 - 0.7	0.1 - 0.7	1.22 - 1.83	1.22 - 1.83		1.83 - 2.44
Combustible Headspace Screening (ppm)			220	60	20	30	0		0
Combustible Headspace Screening (ppm)			-	-	-	1	1		3
Date			6/12/15	7/15/15	7/14/15	7/16/19	7/16/19		7/16/19
Parameter	**Unit**	**Table 1 Standards**							
Petroleum Hydrocarbons & BTEX									
Benzene	µg/g	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Toluene	µg/g	0.2	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	µg/g	0.05	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Xylene Mixture	µg/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
F1 (C6 to C10)	µg/g	25	<10	<10	<10	<10	<10	<10	<10
F1 (C6 to C10) minus BTEX	µg/g	25	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16)	µg/g	10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	<50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	<50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
7. "N/A" = not applicable
8. " - " = no analytical data available
9. ppm = parts per million

500 Exceeds MOECC Table 1 Standards

Prepared By: AVR
Checked By:

Table 5B
Soil Analytical Results - Metals and Inorganics
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Sampling Location	MW 15-3	MW 15-11	MW15-18		MW15-19	TP15-7	TP15-8	TP15-9	TP15-11		TP15-12	TP15-15	TP15-16	TP 15-17
		Sample ID	MW15-3 SA1B	MW15-11 SA2	MW15-18 SA1B	Dup 6 SA1B	MW15-19 SA1 B	TP15-7 SA2	TP15-8 SA2	TP15-9 SA1	TP15-11 SA2	TP15-11 SA3	TP15-12 SA2	TP15-15 SA2	TP15-16 SA1	TP15-17 SA2
		Sample Depth (mbgs)	0.2 - 0.6	0.8 - 1.4	0.31 - 0.61		0.08 - 0.6	0.42 - 0.52	0.30 - 0.40	0.10 - 0.20	0.25 - 0.35	0.82 - 0.92	0.45 - 0.55	0.45 - 0.55	0.10 - 0.20	0.35 - 0.45
		Date	2015/06/12	2015/06/12	2015/06/12		2015/06/12	2015/06/10	2015/06/11	2015/06/11	2015/06/12		2015/06/12	2015/06/12	2015/06/12	2015/06/12
Parameter	Unit	Table 1 Standards														
Metals, Hydride Forming Metals, & ORPs																
Antimony	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	**1.7**	<0.20	<0.20	1.1	<0.20	<0.20
Arsenic	ug/g	18	1.6	<1.0	1.5	1.4	1.7	1.7	2.4	2.1	1.8	<1.0	<1.0	2.6	1.7	2.0
Barium	ug/g	220	46	6.4	34	35	37	63	81	70	28	6.8	21	54	32	51
Beryllium	ug/g	2.5	0.36	<0.20	0.32	0.32	0.34	-	0.59	0.54	0.35	<0.20	0.21	0.49	0.32	0.48
Boron (Hot Water Soluble)	ug/g	NV	0.3	<0.050	0.11	0.093	0.35	0.28	0.2	0.66	0.16	<0.050	0.13	0.22	0.45	0.15
Cadmium	ug/g	1.2	0.1	<0.10	<0.10	0.1	0.13	0.14	0.17	0.34	<0.10	<0.10	<0.10	0.16	0.13	0.13
Chromium	ug/g	70	12	4.1	11	11	11	17	20	18	11	2.2	6.6	14	10	15
Chromium VI	ug/g	0.66	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cobalt	ug/g	21	4	1.4	3.7	4	4.2	5.6	7.1	5.5	4	0.79	2.2	4.9	3.6	5.5
Copper	ug/g	92	7.7	2.3	8.4	8.6	6.6	8.1	12	10	4.9	1.7	4.7	8	7	10
Lead	ug/g	120	6.5	1.5	5.8	6	8.3	9.4	9.5	14	12	1.1	2.9	15	8.4	8
Mercury	ug/g	0.27	<0.050	<0.050	<0.050	<0.050	<0.050	0.056	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Molybdenum	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	ug/g	82	8.8	2	8.4	9.6	7.8	11	15	11	7.7	1.5	5.5	9.9	8.1	12
Selenium	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	ug/g	1	0.1	<0.050	0.11	0.1	0.087	0.12	0.18	0.12	0.085	<0.050	0.06	0.13	0.088	0.14
Vanadium	ug/g	86	19	10	17	19	22	28	33	27	20	<5.0	13	24	19	26
Zinc	ug/g	290	30	8.7	24	26	30	42	40	47	18	6.2	14	34	28	30
pH (pH Units)	pH	NV	7.64	7.8	7.67	7.67	7.61	7.44	7.51	7.35	7.46	7.93	7.54	7.49	7.33	7.51
Conductivity (ms/cm)	mS/cm	0.57	0.32	0.1	0.15	0.14	0.15	0.19	0.24	0.38	0.22	0.14	0.14	0.18	0.2	0.18
Sodium Adsorption Ratio	N/A	2.4	1.4	0.44	0.26	0.27	0.25	0.22	0.21	0.53	0.22	1.0	0.26	0.24	0.22	0.23
Cyanide, Free	ug/g	0.051	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.01	0.05	0.02	<0.01	<0.01	0.01	0.04	0.01
Chloride	-	NV	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boron (Total)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Uranium	ug/g	2.5	0.43	0.36	0.48	0.49	0.43	0.53	0.61	0.6	0.38	0.23	0.3	0.58	0.4	0.54

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. mS/cm = millisiemens per centimeter
5. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
6. Table to be read in conjunction with accompanying report
7. "NV" = no value
8. "N/A" = not applicable
9. " - " = no analytical data available
10. ORPs = Other Regulated Parameters

500 Exceeds MOECC Table 1 Standards

Prepared By: AVR

Checked By:

Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	HS100		HS101	HS102	HS103	HS104	HS105	HS106	HS107	HS108	HS109	HS110	
		Sample ID	HS100	DUP3	HS101	HS102	HS103	HS104	HS105	HS106	HS107	HS108A	HS109	HS110A	HS110B
		Date	2015-11-30		2015-11-30	2015-11-30	2015-11-30	2015-11-30	2015-11-30	2015-11-30	2015-11-30	42356.5	42356.5	42356.5	42356.5
		Sample Depth (mbgs)	0.0 - 0.15		0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.15 - 0.30
Parameter	**Table 1 Standards**	**Unit**													
ORPs															
Cyanide (free)	0.051	ug/g	**0.06**	**0.06**	**0.06**	0.05	0.04	**0.06**	0.05	**0.06**	**0.06**	0.02	0.02	0.02	< 0.01
Moisture, Percent		%	24	22	22	21	18	22	23	22	21	22	24	22	15
Metals & Hydride Forming Metals															
Antimony	1.3	ug/g	**9.5**	**11**	**8.2**	**7.2**	**6.6**	**13**	**9.9**	**7.4**	**8.7**	**14**	**11**	**6.8**	0.52
Arsenic	18	ug/g	3.7	3.7	3.5	3.3	2.9	4.6	3.7	3.7	3.4	4.6	4.5	3.8	1.8
Barium	220	ug/g	39	38	37	34	40	44	52	43	39	46	65	44	38
Beryllium	2.5	ug/g	0.33	0.33	0.32	0.32	0.35	0.38	0.41	0.40	0.39	0.39	0.54	0.39	0.38
Boron	36	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.3	<5.0	<5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	1.2	ug/g	0.19	0.19	0.16	0.20	0.15	0.22	0.22	0.22	0.23	0.2	0.29	0.19	0.14
Chromium	70	ug/g	11	11	11	11	11	13	14	13	12	12	16	13	13
Cobalt	21	ug/g	3.7	3.8	3.6	3.7	3.7	4.3	4.2	4.2	4.1	3.9	5.1	4.1	4.3
Copper	92	ug/g	6.7	6.7	6.1	5.9	6.2	7.8	8.2	7.3	7.2	6.7	9.5	6.7	5.7
Lead	120	ug/g	110	120	**140**	80	78	**210**	100	90	100	**150**	**150**	**240**	8.7
Mercury	0.27	ug/g	-	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	2	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	7.8	7.8	7.4	7.2	7.8	9.1	9.2	9.3	8.1	8.2	11	8.5	8.9
Selenium	1.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	0.5	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.12	0.11	0.12	0.098	0.12	0.14	0.13	0.11	0.13	0.1	0.14	0.12	0.1
Uranium	2.5	ug/g	0.44	0.45	0.45	0.46	0.45	0.51	0.53	0.52	0.50	0.5	0.58	0.52	0.42
Vanadium	86	ug/g	21	20	20	20	21	23	24	23	23	21	26	23	22
Zinc	290	ug/g	31	33	32	30	30	39	40	36	36	35	47	38	30
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
7. "N/A" = not applicable
8. " - " = no analytical data available

500

Prepared By: AVR

Checked By:

Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	HS111	
		Sample ID	HS111	DUP1
		Date	42356.5	
		Sample Depth (mbgs)	0.0 - 0.15	
Parameter	**Table 1 Standards**	**Unit**		
ORPs				
Cyanide (free)	0.051	ug/g	0.03	0.02
Moisture, Percent		%	24	24
Metals & Hydride Forming Metals				
Antimony	1.3	ug/g	**8.2**	**8.5**
Arsenic	18	ug/g	3.7	4.1
Barium	220	ug/g	40	40
Beryllium	2.5	ug/g	0.36	0.36
Boron	36	ug/g	< 5.0	<5.0
Cadmium	1.2	ug/g	0.2	0.17
Chromium	70	ug/g	13	12
Cobalt	21	ug/g	4.1	3.9
Copper	92	ug/g	6.7	6.5
Lead	120	ug/g	**130**	**130**
Mercury	0.27	ug/g	-	-
Molybdenum	2	ug/g	< 0.50	<0.50
Nickel	82	ug/g	7.9	8.0
Selenium	1.5	ug/g	< 0.50	<0.50
Silver	0.5	ug/g	< 0.20	<0.20
Thallium	1	ug/g	0.12	0.12
Uranium	2.5	ug/g	0.51	0.50
Vanadium	86	ug/g	24	23
Zinc	290	ug/g	36	37
Hexavalent Chromium	0.66	ug/g	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
7. "N/A" = not applicable
8. " - " = no analytical data available

500

Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	HS119	HS120	HS121	HS122		HS123		HS124	HS125		HS126
		Sample ID	HS119	HS120	HS121	HS122	DUP3	HS123A	HS123B	HS124A	HS125A	DUP1A	HS126A
		Date	42383.5417	42383.5417	42383.5417	42383.5417		42412	42412	42412	42412		42412
		Sample Depth (mbgs)	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15	0.0 - 0.15		0-0.41	0.41-1.22	0-0.2	0-0.36		0-0.43
Parameter	**Table 1 Standards**	**Unit**											
ORPs													
Cyanide (free)	0.051	ug/g	**0.06**	<0.01	<0.01	0.04	0.02	0.01	< 0.01	0.01	0.01	0.02	0.02
Moisture, Percent		%	29	34	28	37	30	28	13	23	25	25	37
Metals & Hydride Forming Metals													
Antimony	1.3	ug/g	**5.0**	**26**	**6.7**	**2.2**	**1.9**	0.37	< 0.20	1.1	**6.8**	**5.3**	**3.5**
Arsenic	18	ug/g	3.1	7.7	3.2	2.7	2.1	2.1	1.5	2.2	3.2	2.6	2.4
Barium	220	ug/g	38	57	57	60	55	92	51	70	44	46	52
Beryllium	2.5	ug/g	0.33	0.45	0.46	0.45	0.42	0.64	0.27	0.48	0.42	0.42	0.4
Boron	36	ug/g	< 5.0	<5.0	<5.0	5.4	<5.0	< 5.0	5.5	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	1.2	ug/g	0.18	0.27	0.18	0.21	0.28	0.31	< 0.10	0.22	0.27	0.26	0.2
Chromium	70	ug/g	12	15	15	16	14	20	11	16	14	14	13
Cobalt	21	ug/g	3.7	4.6	4.6	4.8	4.5	6.1	3.8	5	4	4	4.1
Copper	92	ug/g	6.9	8.5	7.9	8.0	7.4	16	6.8	8.5	6.7	6.8	6.4
Lead	120	ug/g	99	300	85	36	29	12	4.6	26	82	49	52
Mercury	0.27	ug/g	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	2	ug/g	< 0.50	<0.50	<0.50	<0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	8	9.6	9.5	9.5	8.7	13	8.6	10	7.3	7.2	8
Selenium	1.5	ug/g	< 0.50	<0.50	<0.50	<0.50	<0.50	0.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	0.5	ug/g	< 0.20	<0.20	<0.20	<0.20	<0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.1	0.17	0.10	0.12	0.095	0.13	0.097	0.11	0.12	0.11	0.12
Uranium	2.5	ug/g	0.49	0.60	0.55	0.58	0.52	0.78	0.47	0.52	0.65	0.63	0.52
Vanadium	86	ug/g	23	26	27	27	25	31	18	26	26	26	24
Zinc	290	ug/g	44	40	39	47	39	43	21	42	33	33	38
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
7. "N/A" = not applicable
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location		HS127
		Sample ID	HS126B	HS127A
		Date	42412	42412
		Sample Depth (mbgs)	0.43-0.66	0-0.28
Parameter	**Table 1 Standards**	**Unit**		
ORPs				
Cyanide (free)	0.051	ug/g	< 0.01	0.01
Moisture, Percent		%	20	31
Metals & Hydride Forming Metals				
Antimony	1.3	ug/g	0.39	0.41
Arsenic	18	ug/g	1.7	2.3
Barium	220	ug/g	55	66
Beryllium	2.5	ug/g	0.39	0.44
Boron	36	ug/g	< 5.0	5.3
Cadmium	1.2	ug/g	0.17	0.22
Chromium	70	ug/g	14	16
Cobalt	21	ug/g	4.6	4.4
Copper	92	ug/g	6.1	7
Lead	120	ug/g	9.4	15
Mercury	0.27	ug/g	-	-
Molybdenum	2	ug/g	< 0.50	< 0.50
Nickel	82	ug/g	9.8	9
Selenium	1.5	ug/g	< 0.50	< 0.50
Silver	0.5	ug/g	< 0.20	< 0.20
Thallium	1	ug/g	0.1	0.1
Uranium	2.5	ug/g	0.52	0.48
Vanadium	86	ug/g	25	24
Zinc	290	ug/g	27	43
Hexavalent Chromium	0.66	ug/g	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	HS128		HS129	HS130	HS131	HS132		HS133	HS134	HS135
		Sample ID	HS128A	DUP2A	HS129A	HS130A	HS131A	HS132A	HS132B	HS133A	HS134A	HS135A
		Date	42412		42412	42412	42412	42412	42412	42412	42412	42412
		Sample Depth (mbgs)	0-0.3		0-0.3	0-0.3	0-0.3	0-0.3	0.3-0.56	0-0.3	0-0.33	0-0.33
Parameter	**Table 1 Standards**	**Unit**										
ORPs												
Cyanide (free)	0.051	ug/g	0.01	0.01	0.02	0.02	0.01	0.01	< 0.01	< 0.01	0.01	0.01
Moisture, Percent		%	22	22	26	22	25	22	22	21	20	23
Metals & Hydride Forming Metals												
Antimony	1.3	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.23	< 0.20	< 0.20	0.66	0.53
Arsenic	18	ug/g	1.8	1.6	1.9	1.6	1.9	1.6	2.1	2.2	1.8	1.6
Barium	220	ug/g	57	61	43	47	53	55	83	78	46	52
Beryllium	2.5	ug/g	0.41	0.43	0.39	0.37	0.44	0.39	0.5	0.54	0.4	0.4
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	5.2	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	1.2	ug/g	0.23	0.26	0.22	0.18	0.29	0.21	0.19	0.27	0.19	0.2
Chromium	70	ug/g	13	14	13	12	15	13	18	18	13	13
Cobalt	21	ug/g	4.2	4.3	3.9	3.9	4.1	4.1	5.7	5	4.1	4.1
Copper	92	ug/g	8	8	6.8	6.7	12	6.9	7.1	8.7	6.1	6.5
Lead	120	ug/g	9	8.9	9.8	8.9	11	10	7	9.2	16	12
Mercury	0.27	ug/g	-	-	-	-	-	-	-	-	-	-
Molybdenum	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	8.9	9.2	8.3	8	9.1	8.5	12	11	8.1	7.6
Selenium	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	0.69	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.12	0.1	0.1	0.092	0.1	0.084	0.15	0.13	0.091	0.092
Uranium	2.5	ug/g	0.68	0.66	0.56	0.5	0.69	0.5	0.49	0.58	0.55	0.63
Vanadium	86	ug/g	23	23	22	23	25	23	30	28	24	25
Zinc	290	ug/g	34	37	34	30	47	39	38	38	35	39
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

			Location	HS136	HS137	HS138	HS139		HS140
			Sample ID	HS136A	HS137A	HS138A	HS139A	DUP3A	HS140A
			Date	42412	42412	42412	42412		42412
			Sample Depth (mbgs)	0-0.25	0-0.3	0-0.28	0-0.36		0-0.38
Parameter	**Table 1 Standards**	**Unit**							
ORPs									
Cyanide (free)	0.051	ug/g		0.01	0.02	0.02	0.02	0.02	0.02
Moisture, Percent		%		36	25	23	29	40	32
Metals & Hydride Forming Metals									
Antimony	1.3	ug/g		1.1	0.42	**2.4**	**15**	**15**	**15**
Arsenic	18	ug/g		1.8	1.9	2	5	4.9	4.8
Barium	220	ug/g		64	37	42	55	55	47
Beryllium	2.5	ug/g		0.49	0.34	0.37	0.47	0.46	0.41
Boron	36	ug/g		< 5.0	< 5.0	< 5.0	5.8	5.9	< 5.0
Cadmium	1.2	ug/g		0.19	0.25	0.18	0.27	0.31	0.2
Chromium	70	ug/g		16	12	13	16	16	13
Cobalt	21	ug/g		4.9	3.4	3.7	4.5	4.6	4.1
Copper	92	ug/g		8.7	7	6.9	11	11	5.7
Lead	120	ug/g		17	12	29	**180**	**170**	**170**
Mercury	0.27	ug/g		-	-	-	-	-	-
Molybdenum	2	ug/g		< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g		9.7	6.6	7.5	10	12	8.1
Selenium	1.5	ug/g		< 0.50	< 0.50	< 0.50	0.53	0.53	< 0.50
Silver	0.5	ug/g		< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g		0.1	0.087	0.1	0.14	0.13	0.12
Uranium	2.5	ug/g		0.53	0.58	0.57	0.58	0.56	0.44
Vanadium	86	ug/g		25	22	23	26	24	25
Zinc	290	ug/g		34	34	33	47	48	32
Hexavalent Chromium	0.66	ug/g		-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location		HS141	HS142	HS143	TP201		TP202	TP203	TP204	TP205
		Sample ID	HS140B	HS141A	HS142A	HS143A	TP201-SA1	DUP5	TP202-SA1	TP203-SA1	TP204-SA1	TP205-SA1
		Date	42412	42412	42412	42412	42565.55208		42563.48958	42563.46875	42563.41667	42563.45486
		Sample Depth (mbgs)	0.38-0.71	0-0.28	0-0.28	0-0.3	0.15-0.3		0-0.15	0-0.15	0-0.15	0-0.15
Parameter	**Table 1 Standards**	**Unit**										
ORPs												
Cyanide (free)	0.051	ug/g	< 0.01	< 0.01	0.01	0.01	0.02	0.02	0.03	0.03	0.03	0.02
Moisture, Percent		%	18	32	31	20	19	20	19	25	27	20
Metals & Hydride Forming Metals												
Antimony	1.3	ug/g	0.26	**11**	**17**	**18**	**2**	**2**	0.95	**8.3**	**16**	**12**
Arsenic	18	ug/g	1.8	3.3	5.4	5.6	2.3	2.4	2.1	4.4	8.2	5
Barium	220	ug/g	65	61	43	41	51	47	46	46	47	42
Beryllium	2.5	ug/g	0.54	0.46	0.38	0.38	0.39	0.41	0.35	0.38	0.35	0.35
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	1.2	ug/g	< 0.10	0.15	0.2	0.17	0.27	0.22	0.22	0.27	0.25	0.23
Chromium	70	ug/g	16	15	12	13	13	13	14	15	20	12
Cobalt	21	ug/g	4.8	4.8	3.8	4	4.1	4	3.8	4.1	3.6	3.6
Copper	92	ug/g	8.3	9.5	6.3	6.5	7.2	7.2	7.1	8.4	9.1	6.3
Lead	120	ug/g	6.9	88	**180**	**210**	39	39	21	120	**240**	**200**
Mercury	0.27	ug/g	-	-	-	-	< 0.50	< 0.50	-	-	-	-
Molybdenum	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	7.9	7.7	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	11	9.7	8	8.2	< 0.50	< 0.50	6.9	7	6	6.6
Selenium	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.20	< 0.20	< 0.50	< 0.50	0.61	< 0.50
Silver	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	0.081	0.096	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.13	0.13	0.13	0.14	0.61	0.56	0.098	0.11	0.14	0.12
Uranium	2.5	ug/g	0.5	0.44	0.44	0.48	24	24	0.57	0.76	0.58	0.65
Vanadium	86	ug/g	28	24	22	24	36	37	23	26	21	22
Zinc	290	ug/g	31	39	33	38			31	34	35	31
Hexavalent Chromium	0.66	ug/g	-	-	-	-			-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	TP206	TP207		TP208	TP209	TP210	TP211
		Sample ID	TP206-SA1	TP207-SA1	DUP4	TP208-SA1	TP209-SA1	TP210-SA1	TP211-SA1
		Date	42563.4375	42565.54861		42564.60417	42564.61111	42564.61806	42565.55556
		Sample Depth (mbgs)	0-0.15	0-0.15		0-0.15	0-0.15	0-0.15	0-0.15
Parameter	**Table 1 Standards**	**Unit**							
ORPs									
Cyanide (free)	0.051	ug/g	0.02	0.02	0.03	0.03	0.04	0.02	0.02
Moisture, Percent		%	25	21	22	10	19	11	19
Metals & Hydride Forming Metals									
Antimony	1.3	ug/g	**18**	**13**	**12**	**2.4**	**1.7**	**2.9**	**2.5**
Arsenic	18	ug/g	5.6	4.9	4.7	2.1	2.4	2.4	2.7
Barium	220	ug/g	41	40	41	30	44	39	54
Beryllium	2.5	ug/g	0.33	0.35	0.35	0.31	0.43	0.34	0.38
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	1.2	ug/g	0.33	0.23	0.19	0.2	0.24	0.15	0.18
Chromium	70	ug/g	13	12	12	11	14	12	15
Cobalt	21	ug/g	3.7	3.6	3.7	3.4	3.9	3.5	4.2
Copper	92	ug/g	6.7	6.4	6.4	5.3	7.7	6.2	7
Lead	120	ug/g	**260**	**180**	**190**	48	36	46	55
Mercury	0.27	ug/g	-	-	-	-	-	-	-
Molybdenum	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	6.3	6.7	7.1	6	7.3	7.2	7.8
Selenium	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.15	0.12	0.1	0.078	0.1	0.094	0.1
Uranium	2.5	ug/g	0.68	0.59	0.58	0.52	0.75	0.51	0.42
Vanadium	86	ug/g	24	23	24	22	24	21	24
Zinc	290	ug/g	32	34	35	30	35	30	35
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
7. "N/A" = not applicable
8. " - " = no analytical data available

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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

Location				TP212				TP213		TP214	TP215	TP216	TP217
Sample ID			DUP3	TP212-SA1	TP212-SA2	TP212-SA3	TP212-SA4	TP213-SA1	DUP2	TP214-SA1	TP215-SA1	TP216-SA1	TP217-SA1
Date				42563.39583	42563.40278	42585	42601	42565.55903		42563.38542	42563.40625	42563.375	42563.35417
Sample Depth (mbgs)				0-0.15	0.18-0.28	0.3-0.46	0.86	0-0.15		0-0.15	0-0.15	0-0.15	0-0.15
Parameter	**Table 1 Standards**	**Unit**											
ORPs													
Cyanide (free)	0.051	ug/g	0.03	0.02	< 0.02	< 0.01	< 0.01	0.02	0.02	0.01	0.02	0.03	0.02
Moisture, Percent		%	19	16	15	14	7.4	18	18	18	19	22	17
Metals & Hydride Forming Metals													
Antimony	1.3	ug/g	**2.4**	**9.3**	**4.9**	**3.3**	0.36	0.7	0.94	**5.3**	**1.8**	0.97	1.3
Arsenic	18	ug/g	2.8	4.2	2.7	2.7	< 1.0	2.2	2.4	3.5	2.3	2.6	2.3
Barium	220	ug/g	57	52	68	80	22	42	45	57	47	70	56
Beryllium	2.5	ug/g	0.41	0.44	0.5	0.6	< 0.20	0.37	0.37	0.43	0.4	0.55	0.43
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.5	< 5.0
Cadmium	1.2	ug/g	0.21	0.21	0.18	0.14	< 0.10	0.19	0.19	0.23	0.25	0.39	0.22
Chromium	70	ug/g	16	15	18	20	6.3	12	13	14	14	20	15
Cobalt	21	ug/g	4.1	4.3	5	6.3	2.1	3.9	4	4.5	4.1	5.6	4.6
Copper	92	ug/g	7.6	8.2	7.8	11	4.3	6.8	7.1	9.8	8.8	19	8.1
Lead	120	ug/g	57	**210**	100	78	4.3	22	27	120	37	40	29
Mercury	0.27	ug/g	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	8.2	8.2	10	14	3.7	7.5	7.7	9.4	8.8	12	9
Selenium	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.51	< 0.50
Silver	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.099	0.12	0.12	0.15	< 0.050	0.082	0.08	0.12	0.11	0.13	0.11
Uranium	2.5	ug/g	0.43	0.42	0.49	0.58	0.39	0.44	0.46	0.46	0.53	0.49	0.52
Vanadium	86	ug/g	23	23	30	32	15	23	23	24	25	29	25
Zinc	290	ug/g	38	49	42	43	13	35	37	51	35	110	36
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
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7. "N/A" = not applicable
8. " - " = no analytical data available

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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	TP218				TP219		TP220	TP221	TP222	TP223
		Sample ID	TP218-SA1	TP218-SA2	TP218-SA3	TP218SA4	TP219-SA1	DUP1	TP220-SA1	TP221-SA1	TP222-SA1	TP223-SA1
		Date	42563.33333	42563.33333	42585	42601	42565.54167		42563.5	42563.52083	42563.58333	42563.5625
		Sample Depth (mbgs)	0-0.15	0.15-0.3	0.3-0.46	0.91	0-0.15		0-0.15	0-0.15	0-0.15	0-0.15
Parameter	**Table 1 Standards**	**Unit**										
ORPs												
Cyanide (free)	0.051	ug/g	0.02	< 0.01	0.02	< 0.01	0.01	0.02	0.01	0.02	0.02	0.02
Moisture, Percent		%	17	18	15	8.2	17	18	13	13	14	21
Metals & Hydride Forming Metals												
Antimony	1.3	ug/g	**7.6**	**3.7**	**5.1**	< 0.20	**10**	**9.2**	0.47	0.2	0.21	0.3
Arsenic	18	ug/g	3.4	2.5	2.4	1.4	5.5	4.8	2	2.3	2	2.4
Barium	220	ug/g	47	55	44	18	52	50	51	68	61	72
Beryllium	2.5	ug/g	0.39	0.44	0.34	< 0.20	0.43	0.4	0.42	0.49	0.45	0.55
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	5.3	5	5.4	5.9	< 5.0	7
Cadmium	1.2	ug/g	0.19	0.2	0.19	< 0.10	0.24	0.2	0.26	0.3	0.25	0.44
Chromium	70	ug/g	13	14	12	6.5	14	14	14	16	15	20
Cobalt	21	ug/g	3.9	4.6	4.4	4.5	4.3	4.2	4.4	5.1	4.6	5.8
Copper	92	ug/g	7.6	8.6	7.4	7.3	9.6	9	7.8	9.4	8.8	14
Lead	120	ug/g	110	52	72	3.3	**150**	**130**	16	16	13	21
Mercury	0.27	ug/g	-	-	-	-	-	-	-	-	-	-
Molybdenum	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	8.2	9.7	8.3	5.8	9	9	8.3	10	9.8	13
Selenium	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.51
Silver	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.13	0.11	0.12	0.071	0.13	0.13	0.1	0.14	0.12	0.15
Uranium	2.5	ug/g	0.52	0.52	0.48	0.38	0.51	0.47	0.47	0.56	0.51	0.54
Vanadium	86	ug/g	24	25	23	16	25	24	25	27	25	31
Zinc	290	ug/g	39	37	34	17	46	47	38	46	42	94
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
7. "N/A" = not applicable
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	TP224	TP225	TP226	TP227	TP228	TP229	TP230	TP231	TP232	TP233
		Sample ID	TP224-SA1	TP225-SA1	TP226-SA1	TP227-SA1	TP228-SA1	TP229-SA1	TP230-SA1	TP231-SA1	TP232-SA1	TP233-SA1
		Date	42563.54167	42563.60417	42563.625	42564.625	42564.63194	42564.52083	42564.52431	42564.58333	42564.59375	42564.41667
		Sample Depth (mbgs)	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15
Parameter	**Table 1 Standards**	**Unit**										
ORPs												
Cyanide (free)	0.051	ug/g	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.02
Moisture, Percent		%	20	13	12	16	5.4	16	12	12	12	12
Metals & Hydride Forming Metals												
Antimony	1.3	ug/g	< 0.20	0.26	< 0.20	**20**	**6.4**	**11**	**23**	0.47	0.24	1.2
Arsenic	18	ug/g	2.4	2.3	1.1	6.5	3.3	4.3	8	2.6	2.7	2.6
Barium	220	ug/g	66	55	39	54	61	56	46	48	50	69
Beryllium	2.5	ug/g	0.5	0.43	0.34	0.46	0.47	0.44	0.41	0.43	0.44	0.51
Boron	36	ug/g	6.6	< 5.0	< 5.0	5.9	5.4	< 5.0	< 5.0	5.1	5.3	5.5
Cadmium	1.2	ug/g	0.38	0.15	0.13	0.23	0.29	0.25	0.21	0.26	0.24	0.24
Chromium	70	ug/g	19	15	13	15	16	16	14	14	14	17
Cobalt	21	ug/g	5.4	4.7	4.4	4.6	5.3	4.8	4.3	4.5	4.7	5.3
Copper	92	ug/g	13	7.8	4.8	8.2	9.5	8.3	7.3	8.1	8	9.7
Lead	120	ug/g	21	14	6.6	**260**	95	**140**	**260**	17	14	28
Mercury	0.27	ug/g	-	-	-	-	-	-	-	-	-	-
Molybdenum	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	12	9.5	7.3	8.9	9.5	9.3	9.2	9.5	9.3	12
Selenium	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.13	0.1	0.08	0.16	0.11	0.12	0.15	0.12	0.11	0.11
Uranium	2.5	ug/g	0.52	0.42	0.47	0.53	0.66	0.55	0.5	0.58	0.66	0.56
Vanadium	86	ug/g	29	25	24	26	27	25	24	25	24	27
Zinc	290	ug/g	100	37	30	51	46	39	36	41	44	44
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	TP234	TP235	TP236	TP237	TP239	TP240	TP241	TP242	TP243	TP244
		Sample ID	TP234-SA1	TP235-SA1	TP236-SA1	TP237-SA1	TP239-SA1	TP240-SA1	TP241-SA1	TP242-SA1	TP243-SA1	TP244-SA1
		Date	42564.42708	42564.44792	42564.45833	42564.46875	42564.49306	42564.49653	42566.375	42566.38194	42566.38542	42566.39583
		Sample Depth (mbgs)	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15	0-0.15
Parameter	**Table 1 Standards**	**Unit**										
ORPs												
Cyanide (free)	0.051	ug/g	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Moisture, Percent		%	21	10	12	9.2	13	17	12	16	13	13
Metals & Hydride Forming Metals												
Antimony	1.3	ug/g	**2.4**	**21**	**16**	**17**	**6.3**	0.57	**1.6**	**3.7**	**13**	**27**
Arsenic	18	ug/g	2.1	6.5	5.2	5.5	3.3	2.1	2.1	2.6	4.6	8
Barium	220	ug/g	54	55	54	44	46	45	55	69	46	55
Beryllium	2.5	ug/g	0.4	0.41	0.41	0.39	0.38	0.45	0.42	0.46	0.34	0.45
Boron	36	ug/g	5.4	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	8.8	9.5	10	8.8
Cadmium	1.2	ug/g	0.33	0.18	0.29	0.18	0.23	0.24	0.21	0.25	0.17	0.24
Chromium	70	ug/g	15	15	14	13	13	13	14	16	13	16
Cobalt	21	ug/g	4.1	4.3	4.1	4.1	4.2	4.2	4.3	4.8	3.9	4.5
Copper	92	ug/g	9.8	7.6	8	7.1	8	8.4	7.7	8.8	7.4	10
Lead	120	ug/g	45	**220**	**190**	**200**	76	15	27	53	**140**	**330**
Mercury	0.27	ug/g	-	-	-	-	-	-	< 0.050	< 0.050	< 0.050	0.054
Molybdenum	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	9.2	8.9	8.4	8.5	8.6	9.3	8.8	10	8.1	8.6
Selenium	1.5	ug/g	0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.11	0.15	0.14	0.14	0.11	0.099	0.11	0.14	0.12	0.19
Uranium	2.5	ug/g	0.48	0.55	0.51	0.48	0.51	0.53	0.51	0.52	0.47	0.56
Vanadium	86	ug/g	23	26	24	24	21	23	24	26	24	28
Zinc	290	ug/g	57	37	40	31	40	39	36	38	29	41
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	< 0.2	< 0.2	< 0.2	< 0.2

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	TP245	TP246	TP300	TP301	TP302	TP303	TP304	TP305	TP306
		Sample ID	TP245-SA1	TP246-SA1	TP300	TP301	TP302	TP303	TP304	TP305	TP306
		Date	42566.40625	42566.41667	42585	42585	42585	42585	42585	42585	42585
		Sample Depth (mbgs)	0-0.15	0-0.15	0-0.13	0-0.1	0-0.13	0-0.15	0-0.13	0-0.13	0-0.13
Parameter	**Table 1 Standards**	**Unit**									
ORPs											
Cyanide (free)	0.051	ug/g	0.02	0.03	0.01	< 0.02	< 0.02	-	0.02	-	0.03
Moisture, Percent		%	11	10	3.8	12	9.7	-	14	-	9.7
Metals & Hydride Forming Metals											
Antimony	1.3	ug/g	**18**	**2.8**	0.99	**2.9**	**12**	**2.4**	**12**	1	0.42
Arsenic	18	ug/g	6.1	2.7	1.8	4.7	5	2.5	4.4	2.2	1.9
Barium	220	ug/g	53	41	29	45	49	37	45	40	34
Beryllium	2.5	ug/g	0.39	0.36	0.22	0.36	0.38	0.35	0.38	0.38	0.32
Boron	36	ug/g	8.5	7.2	5.4	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Cadmium	1.2	ug/g	0.22	0.2	0.18	0.18	0.25	0.21	0.3	0.23	0.16
Chromium	70	ug/g	13	12	8.4	13	13	13	14	13	12
Cobalt	21	ug/g	4.2	3.7	3.3	4.2	4.2	3.7	4.1	4.2	3.5
Copper	92	ug/g	8.1	6.6	9.9	9.3	10	6.4	8.7	7.4	5.8
Lead	120	ug/g	**200**	40	33	77	**170**	39	**160**	22	17
Mercury	0.27	ug/g	< 0.050	< 0.050	-	-	-	-	-	-	-
Molybdenum	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	8.3	7.1	8.6	8.9	8.6	11	8.8	8	7
Selenium	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.15	0.095	0.096	0.11	0.11	0.094	0.14	0.1	0.084
Uranium	2.5	ug/g	0.54	0.52	0.43	0.38	0.44	0.41	0.55	0.54	0.39
Vanadium	86	ug/g	24	25	17	23	23	23	23	23	24
Zinc	290	ug/g	37	31	38	42	58	37	47	38	34
Hexavalent Chromium	0.66	ug/g	< 0.2	< 0.2	-	-	-	-	-	-	-

Notes:

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2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

		Location	TP307	TP309	TP313	TP314	TP315	TP400		TP401	TP402	TP403
		Sample ID	TP307	TP309	TP313	TP314	TP315	TP400	DUP 1	TP401	TP402	TP403
		Date	42585	42585	42585	42585	42585	42601		42601	42601	42601
		Sample Depth (mbgs)	0-0.15	0-0.15	0-0.18	0-0.13	0-0.1	0-0.08		0-0.08	0-0.08	0-0.08
Parameter	**Table 1 Standards**	**Unit**										
ORPs												
Cyanide (free)	0.051	ug/g	0.04	0.03	0.02	0.02	0.02	-	0.03	-	0.03	0.03
Moisture, Percent		%	13	9.4	9.8	11	31	-	17	-	19	16
Metals & Hydride Forming Metals												
Antimony	1.3	ug/g	< 0.20	< 0.20	0.28	< 0.20	**1.4**	< 0.20	0.32	< 0.20	**3.9**	0.26
Arsenic	18	ug/g	1.9	1.1	1.9	2.1	2.2	3	3.5	2.2	3.7	1.9
Barium	220	ug/g	38	30	55	64	33	48	53	53	58	48
Beryllium	2.5	ug/g	0.36	0.27	0.44	0.53	0.32	0.4	0.42	0.48	0.47	0.43
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	5	< 5.0	7.4	5.8	7.3	5.4	< 5.0
Cadmium	1.2	ug/g	0.26	0.17	0.26	0.22	0.16	0.24	0.29	0.22	0.31	0.22
Chromium	70	ug/g	13	10	16	17	12	14	14	16	16	14
Cobalt	21	ug/g	4.1	3.3	5.2	5.8	3.7	4.5	4.4	5.4	5.4	4.7
Copper	92	ug/g	6.1	5.2	8.6	9.6	6.8	10	10	8.9	11	7.6
Lead	120	ug/g	15	9.1	14	13	23	18	17	13	68	14
Mercury	0.27	ug/g	-	-	-	-	-	-	-	-	-	-
Molybdenum	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel	82	ug/g	8.2	5.7	10	11	8.1	8.8	9	9.9	10	8.9
Selenium	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Silver	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Thallium	1	ug/g	0.1	0.065	0.11	0.13	0.11	0.13	0.11	0.11	0.13	0.12
Uranium	2.5	ug/g	0.48	0.44	0.59	0.64	0.5	0.55	0.51	0.51	0.54	0.5
Vanadium	86	ug/g	25	21	27	29	22	23	24	27	24	25
Zinc	290	ug/g	39	32	41	46	30	50	50	42	54	39
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
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Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

			Location	TP405	TP407	TP409	TP17-1		TP17-2		TP17-3		TP17-4	
			Sample ID	TP405	TP407	TP409	TP17-1SA1	TP17-1SA2	TP17-2SA1	TP17-2SA2	TP17-3SA1	TP17-3SA2	TP17-4SA1	TP17-4SA2
			Date	42601	42601	42601	43059	43059	43059	43059	43059	43059	43059	43059
			Sample Depth (mbgs)	0-0.08	0-0.08	0-0.1	0.11	0.34	0.1	0.35	0.09	0.33	0.1	0.39
Parameter	**Table 1 Standards**	**Unit**												
ORPs														
Cyanide (free)	0.051	ug/g		0.03	0.03	0.03	-	-	-	-	-	-	-	-
Moisture, Percent		%		19	16	16	-	-	-	-	-	-	-	-
Metals & Hydride Forming Metals														
Antimony	1.3	ug/g		0.5	0.27	0.21	**14**	0.91	**1.8**	<0.20	**22**	**3.4**	**6.1**	0.34
Arsenic	18	ug/g		2.4	2.1	2.4	5.1	1.4	2.1	1.4	6.2	2.1	3.0	<1.0
Barium	220	ug/g		51	42	40	34	21	58	22	48	46	47	18
Beryllium	2.5	ug/g		0.44	0.38	0.41	0.33	0.22	0.46	0.21	0.39	0.44	0.41	<0.20
Boron	36	ug/g		< 5.0	< 5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cadmium	1.2	ug/g		0.29	0.22	0.22	0.20	<0.10	0.22	<0.10	0.22	0.15	0.20	<0.10
Chromium	70	ug/g		14	12	13	12	8.7	14	8.4	12	13	14	6.5
Cobalt	21	ug/g		4.8	4.3	4.6	3.5	3.3	4.5	3.1	4.2	4.4	4.3	2.2
Copper	92	ug/g		9.4	8.1	8.9	5.8	4.6	7.3	4.2	7.4	5.5	7.4	2.9
Lead	120	ug/g		17	13	12	**210**	7.1	34	3.9	**260**	22	96	3.9
Mercury	0.27	ug/g		-	-	-	-	-	-	-	-	-	-	-
Molybdenum	2	ug/g		< 0.50	< 0.50	< 0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	ug/g		10	9.2	9.9	6.0	6.6	9.0	5.2	8.5	9.0	8.6	4.1
Selenium	1.5	ug/g		< 0.50	< 0.50	< 0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	ug/g		< 0.20	< 0.20	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	ug/g		0.12	0.11	0.12	0.094	0.067	0.12	<0.050	0.13	0.090	0.13	<0.050
Uranium	2.5	ug/g		0.52	0.56	0.54	0.63	0.45	0.59	0.40	0.50	0.52	0.52	0.37
Vanadium	86	ug/g		24	22	23	23	22	25	22	23	24	24	15
Zinc	290	ug/g		45	34	37	27	16	40	14	36	30	31	11
Hexavalent Chromium	0.66	ug/g		-	-	-	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
7. "N/A" = not applicable
8. " - " = no analytical data available

500

Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

Location			TP17-5		TP17-6		TP17-7		TP17-8		TP17-9		TP17-10	
Sample ID			TP17-5SA1	TP17-5SA2	TP17-6SA1	TP17-6SA2	TP17-7SA1	TP17-7SA2	TP17-8SA1	TP17-8SA2	TP17-9SA1	TP17-9SA2	TP17-10SA1	TP17-10SA2
Date			43059	43059	43059	43059	43059	43059	43059	43059	43059	43059	43059	43059
Sample Depth (mbgs)			0.14	0.4	0.1	0.38	0.15	0.4	0.08	0.28	0.15	0.48	0.25	0.5
Parameter	**Table 1 Standards**	**Unit**												
ORPs														
Cyanide (free)	0.051	ug/g	-	-	-	-	-	-	-	-	-	-	-	-
Moisture, Percent		%		-	-	-	-	-	-	-	-	-	-	-
Metals & Hydride Forming Metals														
Antimony	1.3	ug/g	**1.7**	<0.20	**9.7**	0.97	**20**	0.53	**1.7**	0.21	**18**	0.90	**12**	0.55
Arsenic	18	ug/g	2.7	1.4	4.2	1.5	6.7	1.8	2.5	1.5	6.0	1.6	5.7	1.8
Barium	220	ug/g	59	55	53	29	47	40	61	35	53	50	45	35
Beryllium	2.5	ug/g	0.44	0.33	0.46	0.24	0.42	0.29	0.48	0.33	0.42	0.35	0.38	0.31
Boron	36	ug/g	<5.0	6.1	<5.0	<5.0	<5.0	5.2	6.2	<5.0	5.4	<5.0	<5.0	<5.0
Cadmium	1.2	ug/g	0.20	<0.10	0.19	<0.10	0.25	0.10	0.31	0.15	0.32	0.12	0.21	0.12
Chromium	70	ug/g	16	12	14	8.3	13	10	16	13	14	12	13	10
Cobalt	21	ug/g	4.8	4.3	4.4	3.0	4.2	3.6	4.8	4.1	4.4	3.8	4.0	3.8
Copper	92	ug/g	7.1	7.7	8.0	5.2	7.8	7.0	9.9	4.7	7.9	7.1	7.1	6.5
Lead	120	ug/g	38	5.2	**130**	12	**250**	7.9	33	7.4	**240**	17	**200**	8.2
Mercury	0.27	ug/g	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	2	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Nickel	82	ug/g	8.9	9.9	9.2	6.7	8.6	8.4	9.4	7.6	8.6	8.5	8.0	8.2
Selenium	1.5	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Silver	0.5	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	ug/g	0.097	0.099	0.13	0.066	0.14	0.089	0.11	0.078	0.14	0.084	0.14	0.072
Uranium	2.5	ug/g	0.49	0.46	0.53	0.46	0.50	0.47	0.60	0.45	0.54	0.47	0.45	0.44
Vanadium	86	ug/g	27	19	24	16	23	18	26	24	24	20	23	19
Zinc	290	ug/g	42	63	41	17	38	22	47	23	46	26	39	20
Hexavalent Chromium	0.66	ug/g	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
7. "N/A" = not applicable
8. " - " = no analytical data available

500

Table 5C
Soil Analytical Results - Metals, Hydride Metals and ORP - Cyanide
Southeast Corner of Winchester Road West and Simcoe Steet North, Oshawa, Ontario

			Location	TP17-11		TP17-12	
			Sample ID	TP17-11SA1	TP17-11SA2	TP17-12SA1	TP17-12SA2
			Date	43059	43059	43059	43059
			Sample Depth (mbgs)	0.15	0.4	0.1	0.46
Parameter	**Table 1 Standards**	**Unit**					
ORPs							
Cyanide (free)	0.051	ug/g	-	-	-	-
Moisture, Percent		%	-	-	-	-
Metals & Hydride Forming Metals							
Antimony	1.3	ug/g	**8.2**	<0.20	**27**	0.43
Arsenic	18	ug/g	6.8	1.7	8.2	1.5
Barium	220	ug/g	43	38	57	32
Beryllium	2.5	ug/g	0.44	0.28	0.47	0.27
Boron	36	ug/g	<5.0	<5.0	<5.0	<5.0
Cadmium	1.2	ug/g	0.17	<0.10	0.26	<0.10
Chromium	70	ug/g	13	10	15	9.2
Cobalt	21	ug/g	4.0	3.8	4.7	3.5
Copper	92	ug/g	7.5	7.5	8.4	7.4
Lead	120	ug/g	94	6.1	**360**	6.3
Mercury	0.27	ug/g	-	-	-	-
Molybdenum	2	ug/g	<0.50	<0.50	<0.50	<0.50
Nickel	82	ug/g	8.3	8.9	10	7.7
Selenium	1.5	ug/g	<0.50	<0.50	<0.50	<0.50
Silver	0.5	ug/g	<0.20	<0.20	<0.20	<0.20
Thallium	1	ug/g	0.11	0.090	0.14	0.083
Uranium	2.5	ug/g	0.41	0.45	0.51	0.45
Vanadium	86	ug/g	24	18	25	17
Zinc	290	ug/g	36	21	41	19
Hexavalent Chromium	0.66	ug/g	-	-	-	-

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. *µg/g* = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report
6. "NV" = no value
7. "N/A" = not applicable
8. " - " = no analytical data available

500

Table 6
Groundwater Analytical Results - PHCs and BTEX Compounds
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

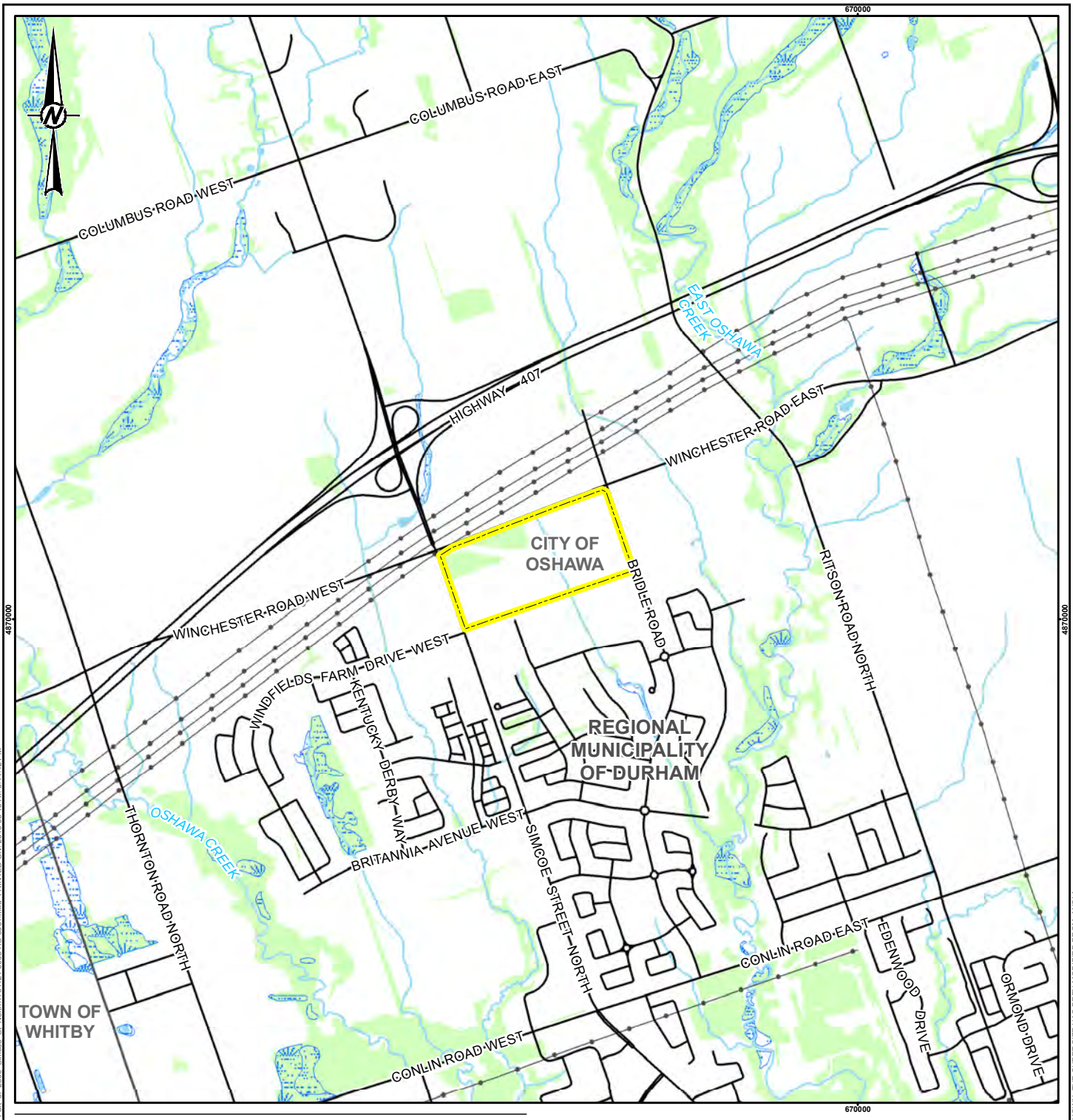
Sample Location			MW15-3					MW19-1	MW19-2		MW19-3
Sample ID			MW15-3	Dup 1	MW15-3	DUP1	MW15-3	MW19-1	MW19-2	DUP1	MW19-3
Sampling Date			2015/06/16		2019/07/04		2019/08/07	2019/08/07	2019/08/07		2019/08/07
Parameter	**Units**	**Table 1 Standards**									
Benzene	µg/L	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L	0.8	0.73	**0.85**	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene	µg/L	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Xylene Mixture	µg/L	72	0.99	1.1	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
F1 (C6-C10)	µg/L	420	<25	<25	<25	<25	<25	<25	<25	<25	<25
F1 (C6-C10) - BTEX	µg/L	420	<25	<25	<25	<25	<25	<25	<25	<25	<25
F2 (C10-C16)	µg/L	150	<100	<100	<100	<100	<100	<100	<100	<100	<100
F3 (C16-C34)	µg/L	500	<200	<200	<200	<200	<200	<200	<200	<200	<200
F4 (C34-C50)	µg/L	500	<200	<200	<200	<200	<200	<200	<200	<200	<200
Gravimetric Heavy Hydrocarbons	µg/L	500	-	-	-	-	-	-	-	-	-

Notes:
1. < = Not detected above method detection limit
2. *µg/L* = microgram per litre
3. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/commu
4. Table to be read in conjunction with accompanying report
5. NV = no value
6. na = not applicable
7. - = no data available
8. PHCs = Petroleum Hydrocarbons
9. BTEX = Benzene, Toluene, Ethylbenzene, & Xylene Mixture

500 Exceeds MOECC Table 1 Standards

Prepared By: AVR
Checked By:

FIGURES



LEGEND

- ROAD
- UTILITY LINE
- WATERCOURSE
- SITE BOUNDARY
- WATERBODY
- MUNICIPAL BOUNDARY
- WETLAND
- WOODED AREA

0 500 1,000

1:25,000 METRES

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2019
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 17N

CLIENT
RIOCAN REALTY INV PARTNER 11LP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-08-19
DESIGNED	JT
PREPARED	JT
REVIEWED	AVR
APPROVED	

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, PART OF 2300 SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
KEY PLAN

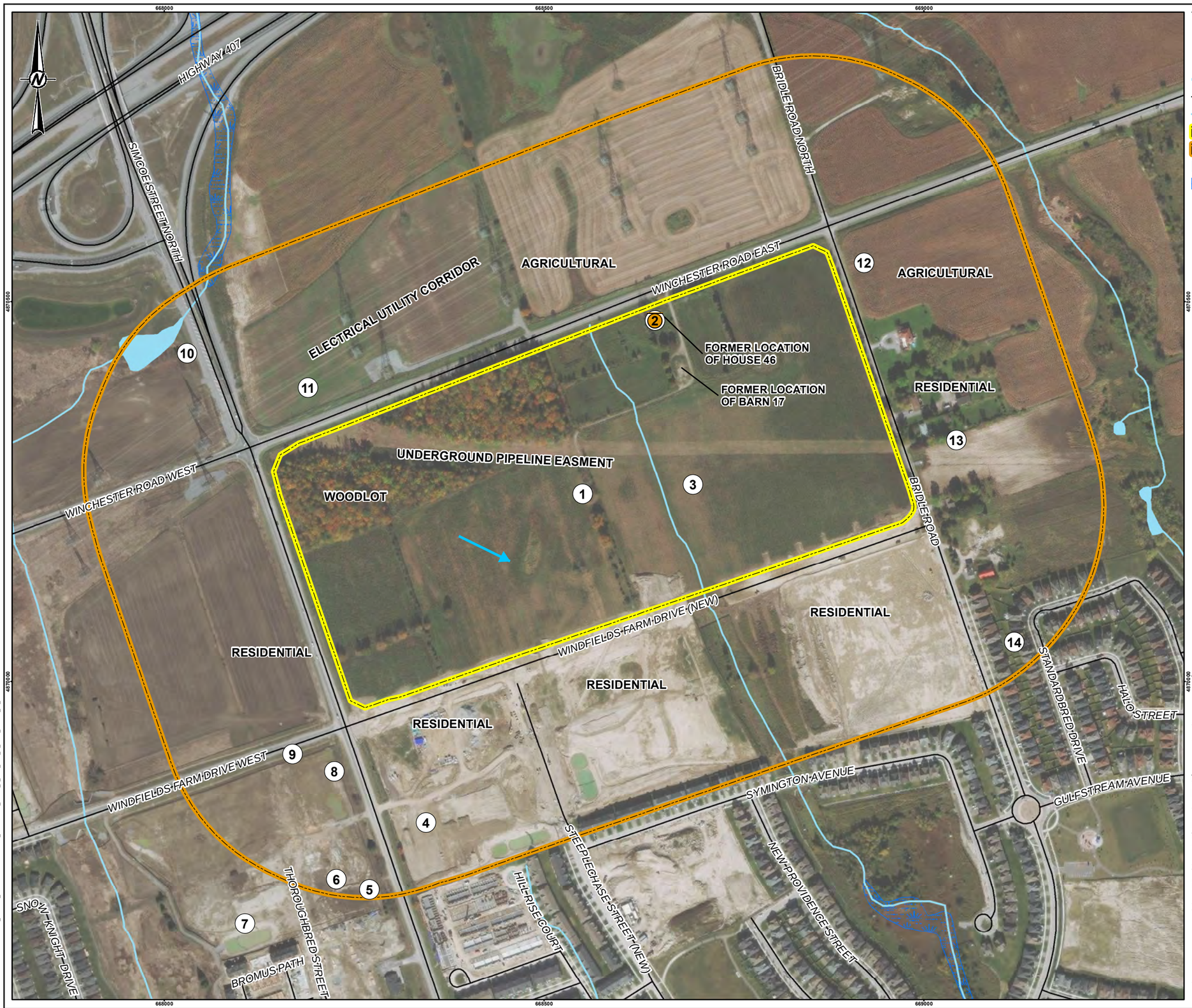
PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0005	-	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI A

25mm

0

PATH: S:\Clients\RIOCAN\Windfields Farm\99 PROJECTS\1791121\40 PRODUCTION\05 Phase II ESA Part of 2300 Simcoe St North\1791121-0005-HS-001.mxd PRINTED ON: 2019-08-19 AT: 3:44:42 PM



LEGEND

- FORMER AST LOCATION
- POTENTIALLY CONTAMINATING ACTIVITY (PCA)
- INFERRED GROUNDWATER FLOW DIRECTION
- ROAD
- INTERMITTENT WATERCOURSE
- PHASE ONE PROPERTY
- PHASE ONE STUDY AREA (250 METRES RADIUS)
- WATERBODY
- WETLAND

ID	Description	PCA Location	Potentially Contaminating Activity
1	Fill of unknown quality	On-Site	30
2	Former heating oil AST	On-Site	28
3	Former firing range	On-Site	21
4	Former fuel AST	Off-Site	28
5	Former heating oil AST	Off-Site	28
6	Former orchard	Off-Site	40
7	Colbalt exceedance in GW in 2008	Off-Site	Other
8	Pole-mounted transformer	Off-Site	55
9	Pole-mounted transformer	Off-Site	55
10	Pad-mounted transformer	Off-Site	55
11	Pole-mounted transformer	Off-Site	55
12	Pole-mounted transformer	Off-Site	55
13	Pad-mounted transformer	Off-Site	55
14	Pad-mounted transformer	Off-Site	55

0 200 400
1:5,000 METRES

REFERENCE(S)
BASE DATA - MNR LIO, OBTAINED 2019
PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2019
BASE IMAGERY SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 17N

CLIENT
RIOCAN REALTY INV PARTNER 11LP

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
SITE PLAN, PCAS AND CONCEPTUAL SITE MODEL

CONSULTANT
GOLDER

YYYY-MM-DD	2020-01-21
DESIGNED	JT
PREPARED	JT
REVIEWED	KB
APPROVED	RS

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0005	-	2A

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25mm
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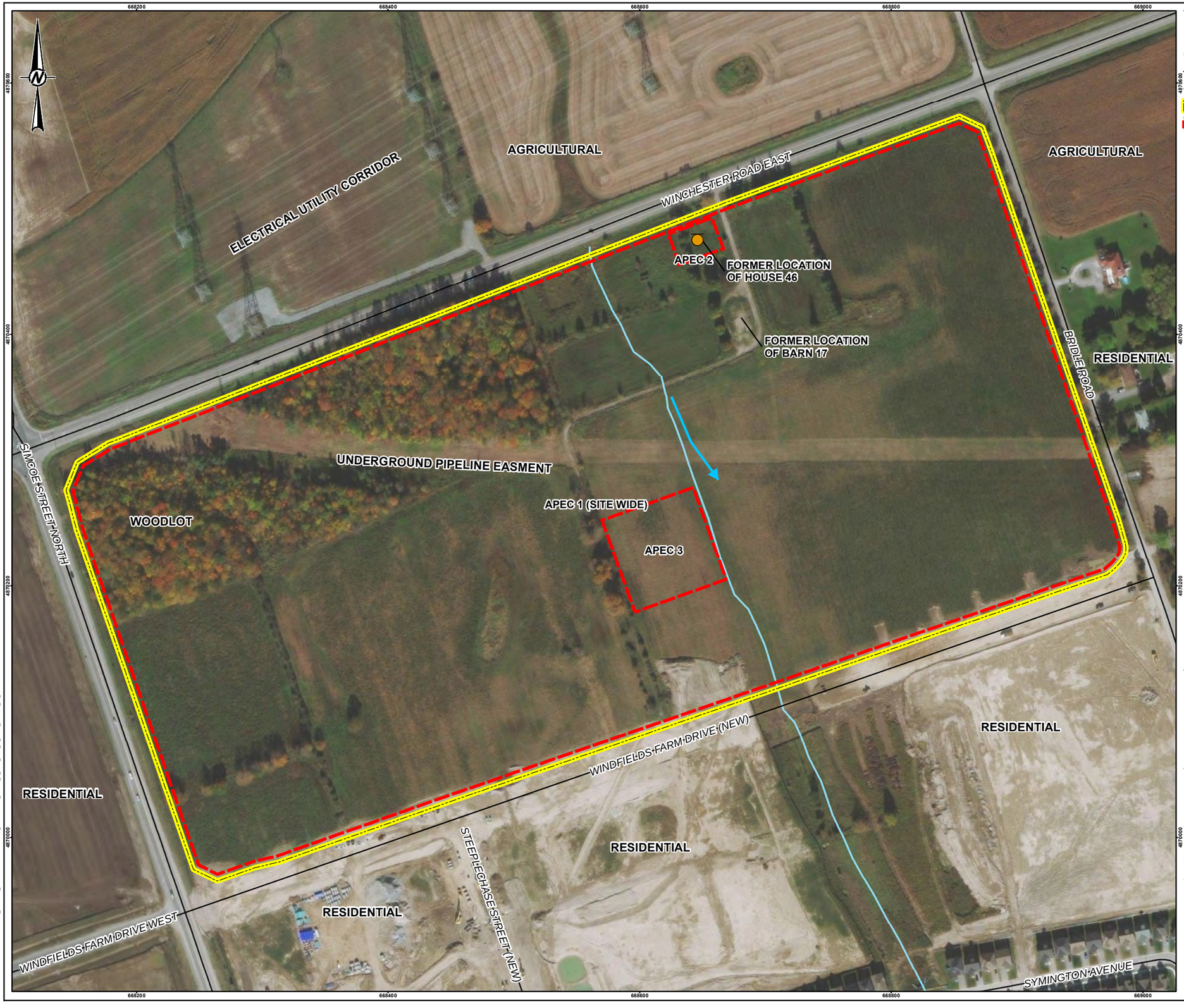
PATH: S:\Clients\RIOCAN\Windfields_Farm99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\1791121-0005-HS-0015.mxd PRINTED ON: 2020-01-24 AT: 1:56:07 PM



LEGEND

- FORMER AST LOCATION
- INFERRED GROUNDWATER FLOW DIRECTION
- ROAD
- INTERMITTENT WATERCOURSE
- SITE BOUNDARY
- AREA OF POTENTIAL ENVIRONMENTAL CONCERN (APEC)

Areas of Environmental Concern ("APEC")		
Location	**Detail**	**PCA #**
1	Fill (site-wide)	30
2	Suspected location of former heating oil AST	28
3	Former Private Firing Range	21

0 100 200

1:3,000 METRES

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
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BASE IMAGERY SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 17N

CLIENT
RIOCAN REALTY INV PARTNER 11LP

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
AREAS OF POTENTIAL ENVIRONMENTAL CONCERN

CONSULTANT

GOLDER

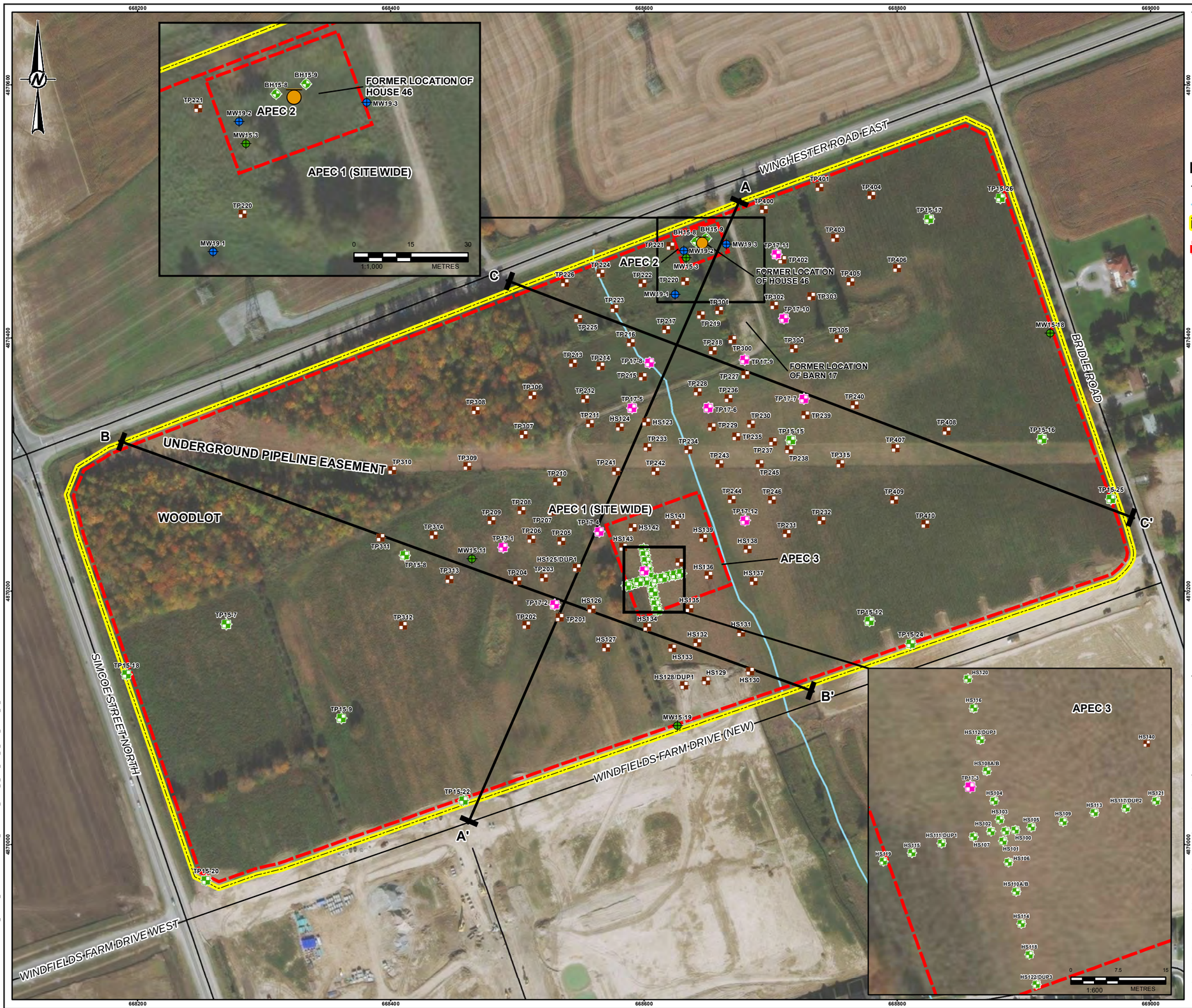
YYYY-MM-DD	2020-01-21
DESIGNED	JT
PREPARED	JT
REVIEWED	AVR
APPROVED	KB

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0005	-	2B

PATH: S:\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\4b_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\1791121-0005-HS-0002.mxd PRINTED ON: 2020-01-24 AT: 2:02:48 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

0 25mm



LEGEND

- FORMER AST LOCATION
- BOREHOLE LOCATION (2015)
- MONITORING WELL LOCATION (2015)
- MONITORING WELL LOCATION (2019)
- TEST PIT LOCATION (2017)
- TEST PIT LOCATION (2016)
- TEST PIT LOCATION (2015)
- GEOLOGICAL CROSS SECTION LINE
- ROAD
- INTERMITTENT WATERCOURSE
- SITE BOUNDARY
- AREA OF POTENTIAL ENVIRONMENTAL CONCERN (APEC)

Areas of Environmental Concern ("APEC")		
Location	**Detail**	**PCA #**
1	Fill (site-wide)	30
2	Suspected location of former heating oil AST	28
3	Former Private Firing Range	21

0 100 200
1:3,000 METRES

REFERENCE(S)
BASE DATA - MNR LIO, OBTAINED 2019
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BASE IMAGERY SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 17N

CLIENT
RIOCAN REALTY INV PARTNER 11LP

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
PROPERTY PLAN

CONSULTANT
GOLDER

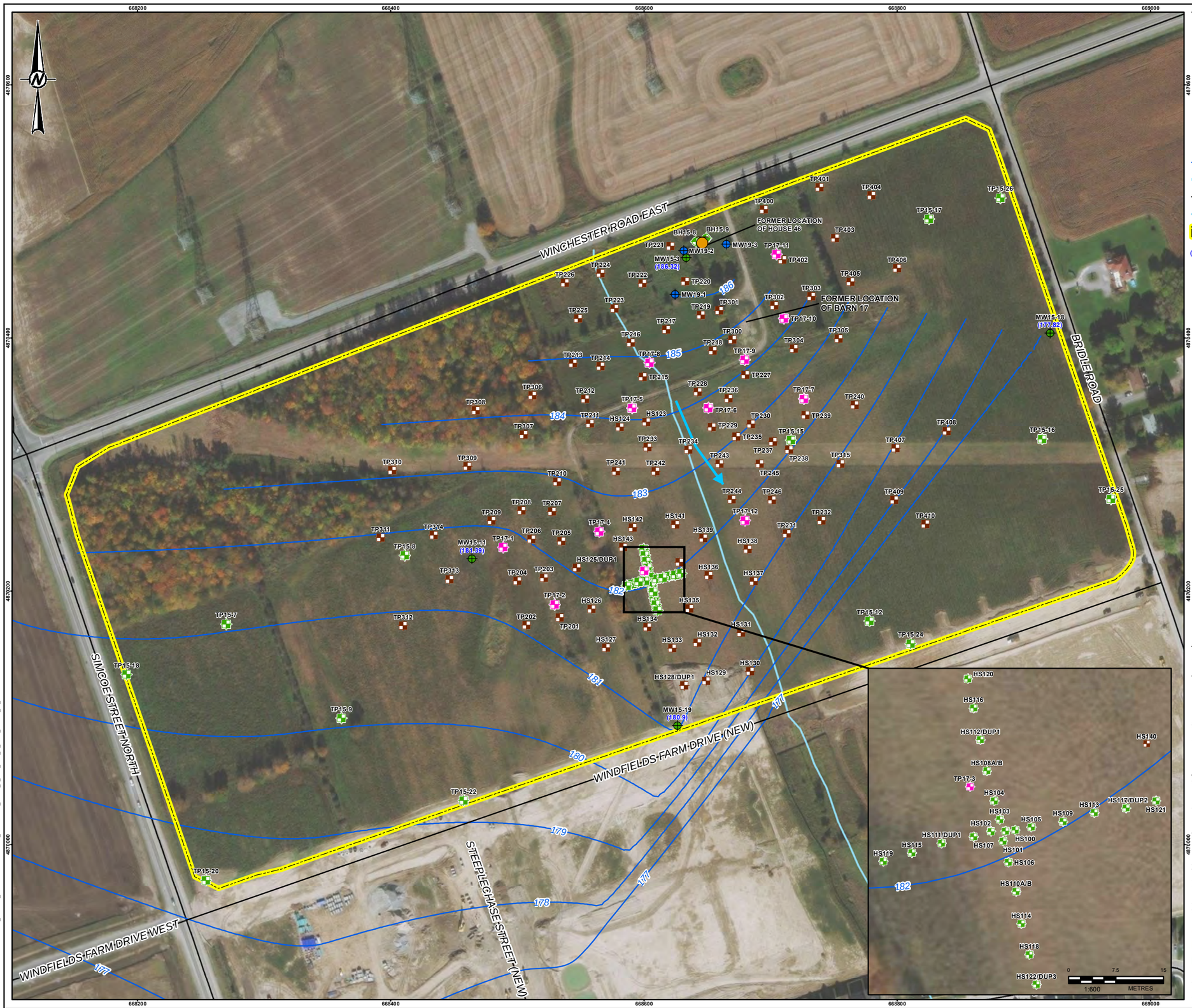
YYYY-MM-DD	2020-01-21
DESIGNED	JT
PREPARED	JT
REVIEWED	AVR
APPROVED	KB

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0005	-	3

PATH: S:\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\1791121-0005-HS-0003.mxd PRINTED ON: 2020-01-27 AT: 12:54:14 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

0 25mm



LEGEND

- FORMER AST LOCATION
- BOREHOLE LOCATION (2015)
- MONITORING WELL LOCATION (2015)
- MONITORING WELL LOCATION (2019)
- TEST PIT LOCATION (2017)
- TEST PIT LOCATION (2016)
- TEST PIT LOCATION (2015)
- –180– GROUNDWATER ELEVATION CONTOURS (M)
- INFERRED GROUNDWATER FLOW DIRECTION
- ROAD
- INTERMITTENT WATERCOURSE
- SITE BOUNDARY
- (175.69) GROUNDWATER ELEVATION (MEASURED JUNE 16, 2015)

0 100 200

1:3,000 METRES

NOTE(S)

1. GROUNDWATER ELEVATION CONTOURS WERE BASED OFF GROUNDWATER ELEVATIONS FROM WELLS ON-SITE AND WELLS ON ADJACENT CLIENT PROPERTIES.

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
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BASE IMAGERY SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 17N

CLIENT
RIOCAN REALTY INV PARTNER 11LP

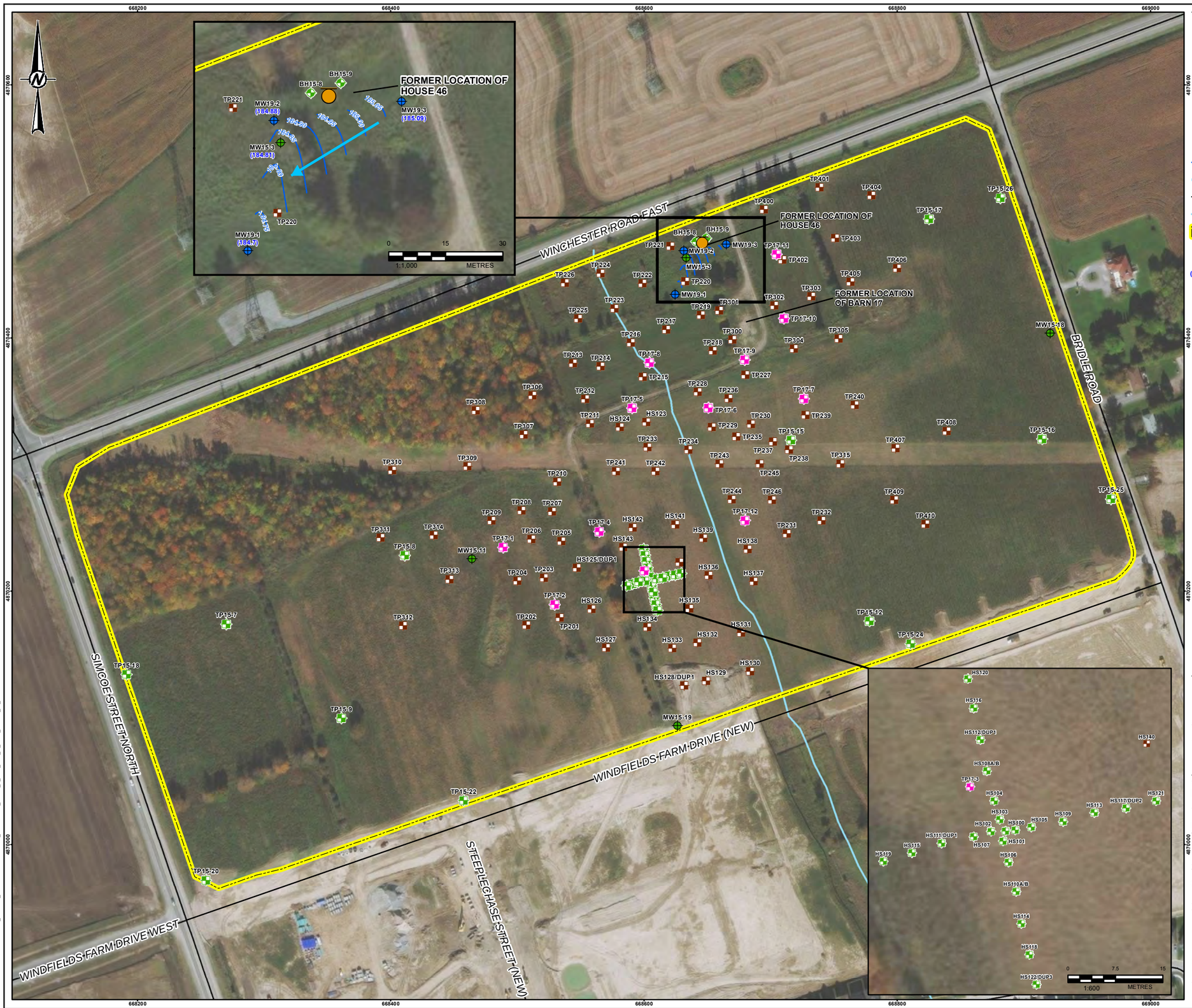
PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
GROUNDWATER ELEVATIONS - JUNE 16, 2015

CONSULTANT
GOLDER

YYYY-MM-DD	2020-01-21
DESIGNED	JT
PREPARED	JT
REVIEWED	AVR
APPROVED	KB

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0005	-	4A



LEGEND

- FORMER AST LOCATION
- BOREHOLE LOCATION (2015)
- MONITORING WELL LOCATION (2015)
- MONITORING WELL LOCATION (2019)
- TEST PIT LOCATION (2017)
- TEST PIT LOCATION (2016)
- TEST PIT LOCATION (2015)
- GROUNDWATER ELEVATION CONTOURS (M)
- 180 INFERRED GROUNDWATER FLOW DIRECTION
- ROAD
- INTERMITTENT WATERCOURSE
- SITE BOUNDARY

(184.81) GROUNDWATER ELEVATION (MEASURED AUGUST 7, 2019)

0 100 200
1:3,000 METRES

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
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BASE IMAGERY SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 17N

CLIENT
RIOCAN REALTY INV PARTNER 11LP

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
GROUNDWATER ELEVATIONS - AUGUST 7, 2019

CONSULTANT
GOLDER

YYYY-MM-DD	2020-01-21
DESIGNED	JT
PREPARED	JT
REVIEWED	AVR
APPROVED	KB

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0005	-	4B

PATH: S:\Clients\RIOCAN\Windfields_Farm\99_PRO\JECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\1791121-0005-HS-0006.mxd PRINTED ON: 2020-01-24 AT: 2:28:52 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

0 25mm

TP212					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP212-SA1	0.0 - 0.15	2016-07-12	2.5	1.3
Lead	TP212-SA1	0.0 - 0.15	2016-07-12	212	120
Antimony	TP212-SA1	0.15 - 0.28	2016-07-12	1.9	1.3
Lead	TP212-SA2	0.18 - 0.28	2016-07-12	100	120
Antimony	TP212-SA3	0.30 - 0.46	2016-08-03	1.3	1.3
Antimony	TP212-SA4	0.86	2016-08-19	0.56	1.3

TP211					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP211-SA1	0.0 - 0.15	2016-07-14	1.4	1.3
Antimony	DUP3	0.0 - 0.15	2016-07-14	2.4	1.3

TP242					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP242-SA1	0.0 - 0.15	2016-07-15	1.4	1.3

TP241					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP241-SA1	0.0 - 0.15	2016-07-15	1.6	1.3

TP210					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP210-SA1	0.0 - 0.15	2016-07-13	1.3	1.3

HS142					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS142A	0.0 - 0.28	2016-02-12	17	1.3
Lead	HS142A	0.0 - 0.28	2016-02-12	182	120

TP207					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP207-SA1	0.0 - 0.15	2016-07-14	13	1.3
Lead	TP207-SA1	0.0 - 0.15	2016-07-14	155	120
Antimony	DUP4	0.0 - 0.15	2016-07-14	12	1.3
Lead	DUP4	0.0 - 0.15	2016-07-14	135	120

TP17-4					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-4 SA1	0.1	2017-11-20	1.6	1.3
Antimony	TP17-4 SA3	0.39	2017-11-20	0.34	1.3

TP208					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP208-SA1	0.0 - 0.15	2016-07-13	1.3	1.3

HS143					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS143A	0.0 - 0.3	2016-02-12	1.3	1.3
Lead	HS143A	0.0 - 0.3	2016-02-12	210	120

TP209					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP209-SA1	0.0 - 0.15	2016-07-13	1.3	1.3

TP205					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP205-SA1	0.0 - 0.15	2016-07-13	1.3	1.3
Lead	TP205-SA1	0.0 - 0.15	2016-07-12	205	120

TP206					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP206-SA1	0.0 - 0.15	2016-07-12	1.3	1.3
Lead	TP206-SA1	0.0 - 0.15	2016-07-12	203	120

TP17-1					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-1 SA1	0.11	2017-11-20	1.5	1.3
Lead	TP17-1 SA1	0.11	2017-11-20	225	120
Antimony	TP17-1 SA2	0.34	2017-11-20	0.91	1.3
Antimony	TP17-1 SA3	0.34	2017-11-20	7.1	1.3

HS125					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS125	0.0 - 0.36	2016-02-12	5.5	1.3
Antimony	DUP1	0.0 - 0.36	2016-02-12	5.7	1.3

HS104					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Cyanide	HS104	0.0 - 0.15	2015-11-30	0.06	0.051
Antimony	HS104	0.0 - 0.15	2015-11-30	13	1.3
Lead	HS104	0.0 - 0.15	2015-11-30	210	120

HS105					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS105	0.0 - 0.15	2015-11-30	8.9	1.3

TP203					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP203-SA1	0.0 - 0.15	2016-07-12	6.3	1.3

TP204					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP204-SA1	0.0 - 0.15	2016-07-12	1.4	1.3
Lead	TP204-SA1	0.0 - 0.15	2016-07-12	220	120

HS101					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Cyanide	HS101	0.0 - 0.15	2015-11-30	0.08	0.051
Antimony	HS101	0.0 - 0.15	2015-11-30	8.7	1.3
Lead	HS101	0.0 - 0.15	2015-11-30	182	120

HS100					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Cyanide	HS100	0.0 - 0.15	2015-11-30	0.06	0.051
Antimony	HS100	0.0 - 0.15	2015-11-30	9.6	1.3
Cyanide	DUP3	0.0 - 0.15	2015-11-30	0.08	0.051
Antimony	DUP3	0.0 - 0.15	2015-11-30	11	1.3

HS119					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Cyanide	HS119	0.0 - 0.15	2016-01-14	0.06	0.051
Antimony	HS119	0.0 - 0.15	2016-01-14	6	1.3

HS109					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS109	0.0 - 0.15	2015-12-18	11	1.3
Lead	HS109	0.0 - 0.15	2015-12-18	182	120

HS107					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Cyanide	HS107	0.0 - 0.15	2015-11-30	0.06	0.051
Antimony	HS107	0.0 - 0.15	2015-11-30	8.7	1.3

HS102					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS102	0.0 - 0.15	2015-11-30	7.2	1.3

HS103					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS103	0.0 - 0.15	2015-11-30	6.6	1.3

HS111					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS111	0.0 - 0.15	2015-12-18	1.3	1.3
Lead	HS111	0.0 - 0.15	2015-12-18	130	120
Antimony	DUP1	0.0 - 0.15	2015-12-18	8.5	1.3
Lead	DUP1	0.0 - 0.15	2015-12-18	135	120

TP17-2					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-2 SA1	0.1	2017-11-20	1.3	1.3
Antimony	TP17-2 SA2	0.35	2017-11-20	<0.20	1.3

TP15-11					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP15-11 SA2	0.25 - 0.35	2015-06-12	1.5	1.3
Antimony	TP15-11 SA3	0.82 - 0.92	2015-06-12	<0.20	1.3

TP201					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP201-SA1	0.15 - 0.3	2016-07-15	1.4	1.3
Antimony	DUP5	0.15 - 0.3	2016-07-15	2	1.3

HS126					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS126A	0.0 - 0.43	2016-02-12	3.5	1.3
Antimony	HS126B	0.43 - 0.66	2016-02-12	2.3	1.3

TP17-6					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-6 SA1	0.1	2017-11-20	1.3	1.3
Antimony	TP17-6 SA1	0.1	2017-11-20	1.5	120
Antimony	TP17-6 SA2	0.38	2017-11-20	<0.97	1.3
Lead	TP17-6 SA2	0.38	2017-11-20	12	120

TP17-8					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-8 SA1	0.08	2017-11-20	1.7	1.3
Antimony	TP17-8 SA2	0.28	2017-11-20	0.21	1.3

TP215					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP215-SA1	0.0 - 0.15	2016-07-12	1.8	1.3

TP214					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP214-SA1	0.0 - 0.15	2016-07-12	6.3	1.3

TP16-7					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-5 SA1	0.14	2017-11-20	1.7	1.3
Antimony	TP17-5 SA2	0.4	2017-11-20	<0.20	1.3

TP234					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP234-SA1	0.0 - 0.15	2016-07-13	2.4	1.3

TP17-9					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-9 SA1	0.15	2017-11-20	1.5	1.3
Lead	TP17-9 SA1	0.15	2017-11-20	120	120
Antimony	TP17-9 SA2	0.48	2017-11-20	0.9	1.3
Lead	TP17-9 SA2	0.48	2017-11-20	17	120

TP301					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP301	0.0 - 0.1	2016-08-03	2.1	1.3

TP218					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP218-SA1	0.0 - 0.15	2016-07-12	1.5	1.3
Antimony	TP218-SA2	0.15 - 0.3	2016-07-12	1.7	1.3
Antimony	TP218-SA3	0.3 - 0.46	2016-08-03	1.3	1.3
Antimony	TP218-SA4	0.91	2016-08-19	<0.20	1.3

TP219					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP219-SA1	0.0 - 0.15	2016-07-14	1.5	1.3
Lead	TP219-SA1	0.0 - 0.15	2016-07-14	105	120
Antimony	DUP1	0.0 - 0.15	2016-07-14	1.3	1.3
Lead	DUP1	0.0 - 0.15	2016-07-14	120	120

TP238					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP238-SA1	0.0 - 0.15	2016-07-13	1.4	1.3

HS106					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Cyanide	HS106	0.0 - 0.15	2015-11-30	0.06	0.051
Antimony	HS106	0.0 - 0.15	2015-11-30	7.4	1.3

HS110					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS110A	0.0 - 0.15	2015-12-18	6.8	1.3
Lead	HS110A	0.0 - 0.15	2015-12-18	208	120
Antimony	HS110B	0.15 - 0.30	2015-12-18	0.52	1.3
Lead	HS110B	0.15 - 0.30	2015-12-18	8.7	120

HS122					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS122	0.0 - 0.15	2016-01-14	2.2	1.3
Antimony	DUP3	0.0 - 0.15	2016-01-14	1.5	1.3

TP227					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP227-SA1	0.0 - 0.15	2016-07-13	20	1.3
Lead	TP227-SA1	0.0 - 0.15	2016-07-13	267	120

TP17-11					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-11 SA1	0.15	2017-11-20	2.3	1.3
Antimony	TP17-11 SA2	0.4	2017-11-20	<0.20	1.3

TP402					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP402	0.0 - 0.08	2016-08-19	1.3	1.3

TP302					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP302	0.0 - 0.13	2016-08-03	1.2	1.3
Lead	TP302	0.0 - 0.13	2016-08-03	119	120

TP303					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP303	0.0 - 0.15	2016-08-03	2.4	1.3

TP17-10					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-10 SA1	0.25	2017-11-20	1.7	1.3
Lead	TP17-10 SA1	0.25	2017-11-20	203	120
Antimony	TP17-10 SA2	0.5	2017-11-20	0.65	1.3
Lead	TP17-10 SA2	0.5	2017-11-20	8.2	120

TP304					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP304	0.0 - 0.13	2016-08-03	1.7	1.3
Lead	TP304	0.0 - 0.13	2016-08-03	160	120

TP236					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP236-SA1	0.0 - 0.15	2016-07-13	1.6	1.3
Lead	TP236-SA1	0.0 - 0.15	2016-07-13	190	120

TP229					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP229-SA1	0.0 - 0.15	2016-07-13	1.1	1.3
Lead	TP229-SA1	0.0 - 0.15	2016-07-13	140	120

TP17-7					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-7 SA1	0.15	2017-11-20	2.5	1.3
Lead	TP17-7 SA1	0.15	2017-11-20	240	120
Antimony	TP17-7 SA2	0.4	2017-11-20	0.53	1.3
Lead	TP17-7 SA2	0.4	2017-11-20	7.9	120

TP230					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP230-SA1	0.0 - 0.15	2016-07-13	2.3	1.3
Lead	TP230-SA1	0.0 - 0.15	2016-07-13	203	120

TP239					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP239-SA1	0.0 - 0.15	2016-07-13	1.3	1.3

TP235					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP235-SA1	0.0 - 0.15	2016-07-13	2.1	1.3
Lead	TP235-SA1	0.0 - 0.15	2016-07-13	220	120

TP237					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP237-SA1	0.0 - 0.15	2016-07-13	1.3	1.3
Lead	TP237-SA1	0.0 - 0.15	2016-07-13	205	120

TP245					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP245-SA1	0.0 - 0.15	2016-07-15	1.3	1.3
Lead	TP245-SA1	0.0 - 0.15	2016-07-15	200	120

TP315					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP315	0.0 - 0.1	2016-08-03	1.4	1.3

TP243					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP243-SA1	0.0 - 0.15	2016-07-15	1.3	1.3
Lead	TP243-SA1	0.0 - 0.15	2016-07-15	140	120

TP246					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP246-SA1	0.0 - 0.15	2016-07-15	2.3	1.3

TP244					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP244-SA1	0.0 - 0.15	2016-07-15	27	1.3
Lead	TP244-SA1	0.0 - 0.15	2016-07-15	330	120

TP17-12					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-12 SA1	0.1	2017-11-20	2.2	1.3
Lead	TP17-12 SA1	0.1	2017-11-20	260	120
Antimony	TP17-12 SA2	0.46	2017-11-20	0.43	1.3
Lead	TP17-12 SA2	0.46	2017-11-20	8.3	120

HS141					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS141	0.0 - 0.23	2016-02-12	1.6	1.3

HS138					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS138A	0.0 - 0.28	2016-02-12	2.4	1.3

HS139					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS138A	0.0 - 0.36	2016-02-12	1.5	1.3
Lead	HS138A	0.0 - 0.36	2016-02-12	160	120
Antimony	DUP3A	0.0 - 0.36	2016-02-12	1.5	1.3
Lead	DUP3A	0.0 - 0.36	2016-02-12	174	120

HS140					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS140A	0.0 - 0.38	2016-02-12	1.5	1.3
Lead	HS140A	0.0 - 0.38	2016-02-12	139	120
Antimony	HS140B	0.38 - 0.71	2016-02-12	0.26	1.3
Lead	HS140B	0.38 - 0.71	2016-02-12	8.9	120

HS120					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS120	0.0 - 0.13	2016-01-14	1.4	1.3

HS121					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS121	0.0 - 0.15	2016-01-14	4.7	1.3

HS108					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	HS108A	0.0 - 0.15	2015-12-18	1.4	1.3
Lead	HS108A	0.0 - 0.15	2015-12-18	120	120

TP17-3					
Parameter	Sample ID	Depth (m bgs)	Date	Result (µg/g)	Table 1 Standards (µg/g)
Antimony	TP17-3 SA1	0.09	2017-11-20	1.7	1.3
Lead	TP17-3 SA1	0.09	2017-11-20	202	120
Antimony	TP17-3 SA2	0.33	2017-11-20	0.4	1.3
Lead	TP17-3 SA2	0.33	2017-11-20	22	120

LEGEND

- BOREHOLE LOCATION (2015)
- MONITORING WELL LOCATION (2019)
- MONITORING WELL LOCATION (2015)
- TEST PIT LOCATION (2017)
- TEST PIT LOCATION (2016)
- TEST PIT LOCATION (2015)
- SOIL SAMPLE TESTED AND MEETS TABLE 1 STANDARDS
- SOIL SAMPLE TESTED AND EXCEEDS TABLE 1 STANDARDS
- INTERMITTENT WATERCOURSE
- SITE BOUNDARY
- INFERRED LIMITS OF IMPACT
- LIMITS OF REMEDIAL EXCAVATION AREA
- WATERBODY
- WETLAND

0 100 200

1:2,000 METRES

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
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PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 17N

CLIENT
RIOCAN REALTY INV PARTNER 11LP

CONSULTANT
GOLDER

YYYY-MM-DD	2020-01-21
DESIGNED	JT
PREPARED	JT
REVIEWED	AVR
APPROVED	KB

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

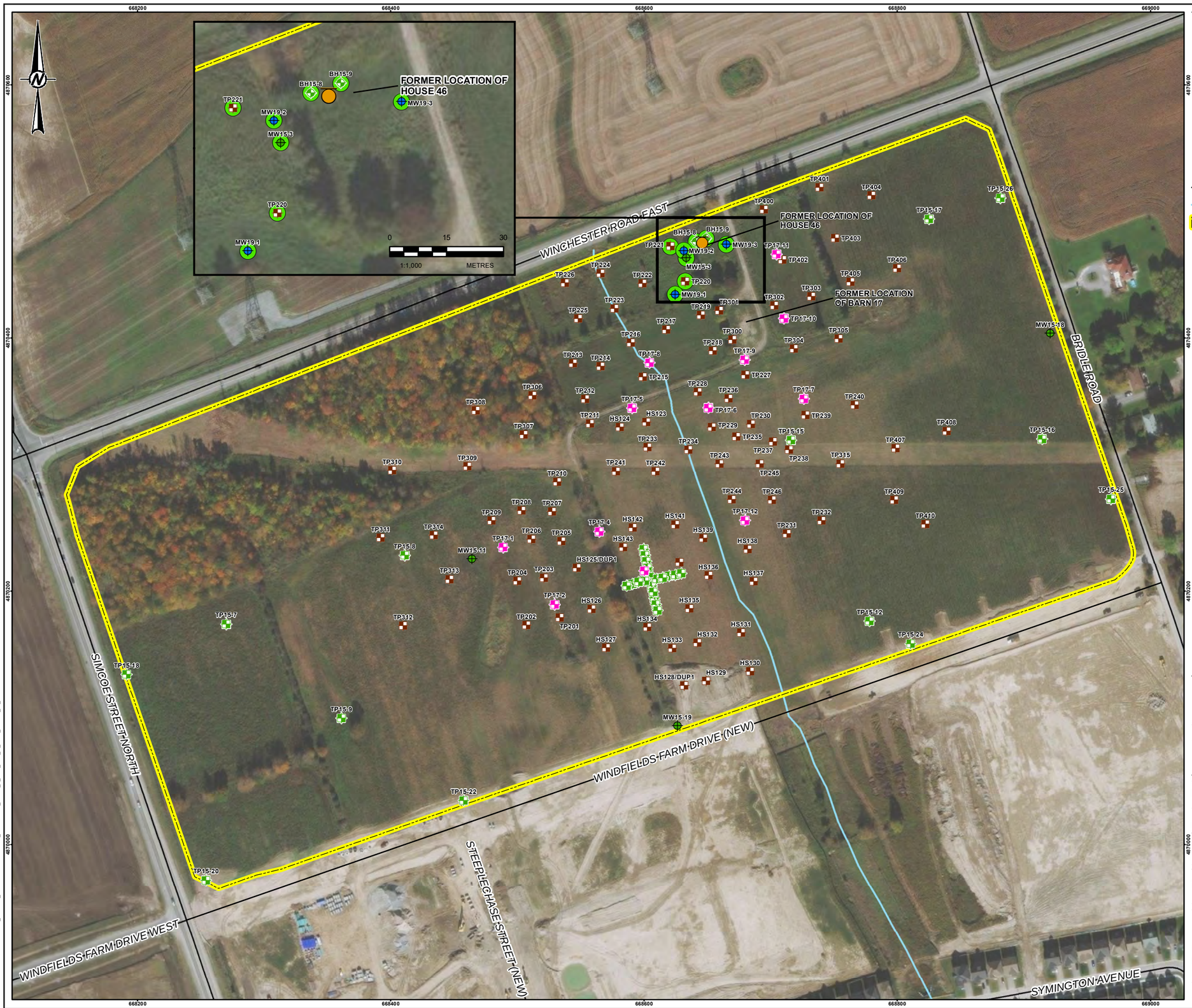
TITLE
SOIL EXCEEDANCES - METALS, HYDRIDE FORMING METALS AND ORPS

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0005	-	5A

PATH: S:\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\1791121-0005-HS-0006.mxd PRINTED ON: 2020-01-22 AT: 11:01:11 AM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

0 25mm



LEGEND

- FORMER AST LOCATION
- BOREHOLE LOCATION (2015)
- MONITORING WELL LOCATION (2015)
- MONITORING WELL LOCATION (2019)
- TEST PIT LOCATION (2017)
- TEST PIT LOCATION (2016)
- TEST PIT LOCATION (2015)
- SOIL SAMPLE TESTED AND MEETS TABLE 1 STANDARDS
- ROAD
- INTERMITTENT WATERCOURSE
- SITE BOUNDARY

0 100 200
1:3,000 METRES

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2019
BASE IMAGERY SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 17N

CLIENT
RIOCAN REALTY INV PARTNER 11LP

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
SOIL ANALYSIS- PHC & BTEX

CONSULTANT
GOLDER

YYYY-MM-DD	2020-01-21
DESIGNED	JT
PREPARED	JT
REVIEWED	AVR
APPROVED	KB

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0005	-	5B

PATH: S:\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\1791121-0005-HS-0016.mxd PRINTED ON: 2020-01-27 AT: 4:36:18 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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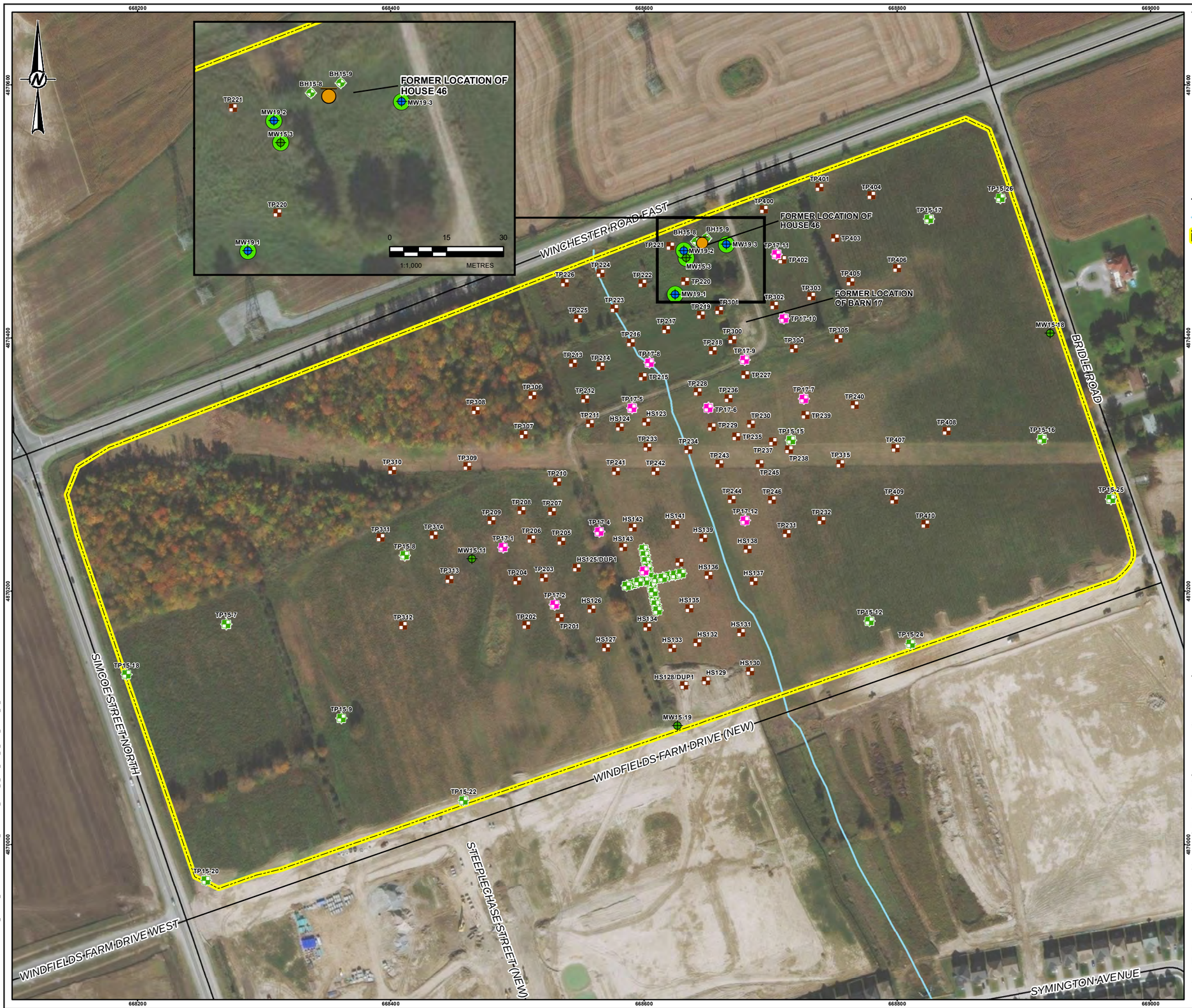


LEGEND

- FORMER AST LOCATION
- BOREHOLE LOCATION (2015)
- MONITORING WELL LOCATION (2015)
- MONITORING WELL LOCATION (2019)
- TEST PIT LOCATION (2017)
- TEST PIT LOCATION (2016)
- TEST PIT LOCATION (2015)
- GROUNDWATER SAMPLE TESTED AND MEETS TABLE 1 STANDARDS
- ROAD
- INTERMITTENT WATERCOURSE
- SITE BOUNDARY

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2019
BASE IMAGERY SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 17N

CLIENT
RIOCAN REALTY INV PARTNER 11LP

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
GROUNDWATER ANALYSIS- PHC & BTEX

CONSULTANT
GOLDER

YYYY-MM-DD	2020-01-21
DESIGNED	JT
PREPARED	JT
REVIEWED	AVR
APPROVED	KB

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0005	-	5C

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

0 25mm

PATH: S:\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\1791121-0005-HS-0017.mxd PRINTED ON: 2020-01-27 AT: 4:38:40 PM

A

A'

TP219

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP219-SA1	0.0 - 0.15	7/14/2016	10	1.3
Antimony	DUP1	0.0 - 0.15	7/14/2016	9.2	1.3
Lead	TP219-SA1	0.0 - 0.15	7/14/2016	150	120
Lead	DUP1	0.0 - 0.15	7/14/2016	130	120

TP17-8

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP17-8 SA1	0.0-0.08	11/20/2017	1.7	1.3
Antimony	TP17-8 SA2	0.08-0.28	11/20/2017	0.21	1.3

TP241

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP241-SA1	0.0 - 0.15	7/15/2016	1.6	1.3

TP17-4

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP17-4 SA1	0.0-0.1	11/20/2017	4.1	1.3
Antimony	TP17-4 SA2	0.1-0.39	11/20/2017	0.34	1.3

TP17-2

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP17-2 SA1	0.0-0.1	11/20/2017	1.8	1.3
Antimony	TP17-2 SA2	0.1-0.35	11/20/2017	<0.20	1.3

TP215

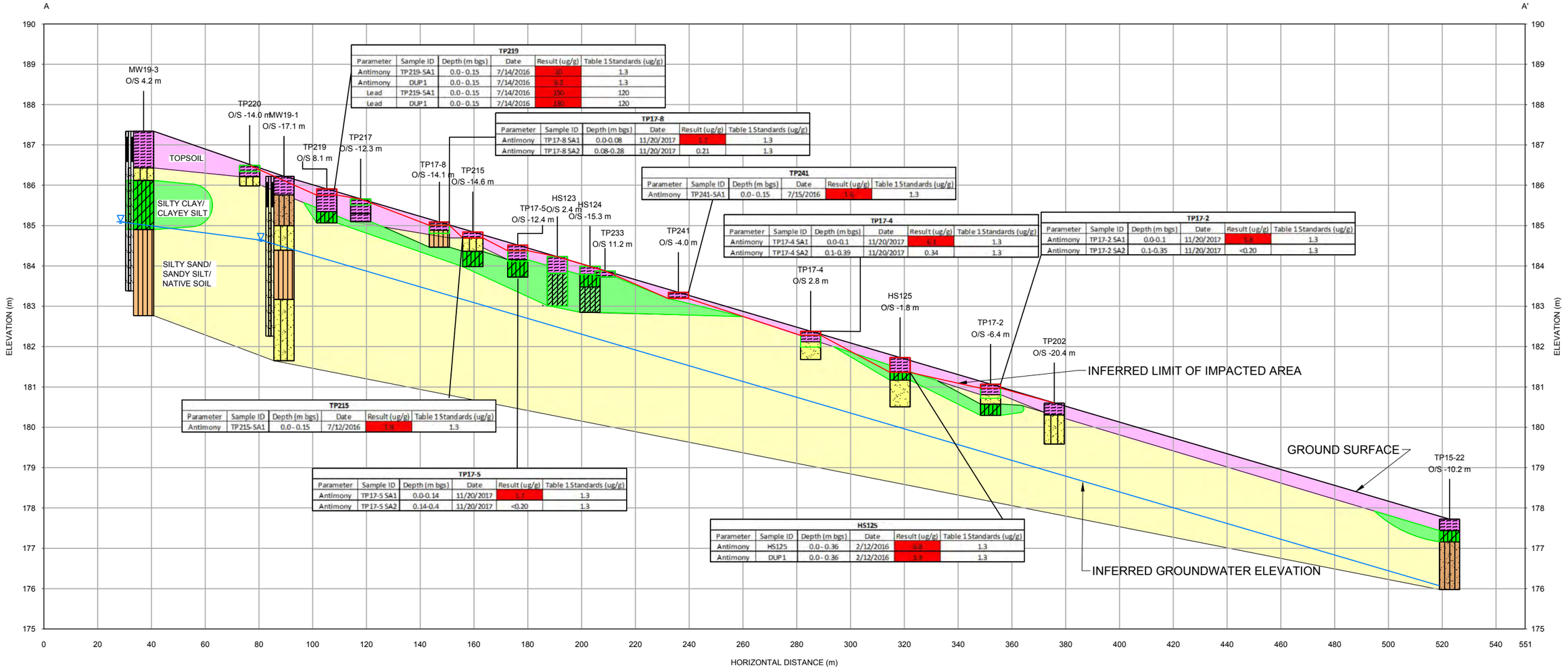
Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP215-SA1	0.0 - 0.15	7/12/2016	1.8	1.3

TP17-5

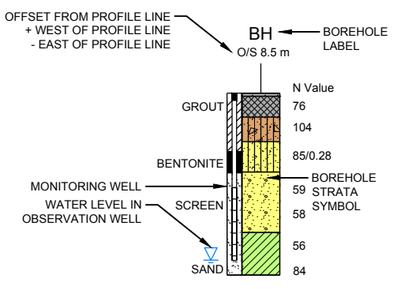
Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP17-5 SA1	0.0-0.14	11/20/2017	1.3	1.3
Antimony	TP17-5 SA2	0.14-0.4	11/20/2017	<0.20	1.3

HS125

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	HS125	0.0 - 0.36	2/12/2016	6.8	1.3
Antimony	DUP1	0.0 - 0.36	2/12/2016	3.3	1.3



LEGEND



SOIL SAMPLE DOES NOT EXCEED THE APPLICABLE SITE CONDITION STANDARDS

SOIL SAMPLE EXCEEDS THE APPLICABLE SITE CONDITION STANDARDS

SOIL STRATIGRAPHY

CLAY
FILL
SAND
SILTY CLAY
ORGANICS / TOPSOIL
CLAYEY SILT
SILTY SAND AND GRAVEL
SAND TILL
SILT
SANDY SILT
GRAVELLY SAND
SAND AND GRAVEL

0 2.5 5
1:100 VERTICAL SCALE METRES

0 25 50
1:1,500 HORIZONTAL SCALE METRES

CLIENT
RIOCAN REALTY INV PARTNER 11LP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-09-19
PREPARED	HJL
DESIGN	
REVIEW	
APPROVED	

PROJECT
WINDFIELDS FARM REMEDIATION
WINDFIELDS FARM, SIMCOE STREET NORTH,
OSHAWA, ONTARIO

TITLE
CROSS SECTION A-A' - METALS, HYDRIDE FORMING METALS, ORPS IN SOIL

PROJECT No.	CONTROL	Rev.	FIGURE
1791121	0005	----	6A

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

Path: \\golder.gds\ca\mississauga\env\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\ | File Name: 1791121-0005-HS-0011.dwg

B

B'

ELEVATION (m)

HORIZONTAL DISTANCE (m)

HS126

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	HS126A	0.0 - 0.43	2/12/2016	3.5	1.3
Antimony	HS126B	0.43 - 0.66	2/12/2016	0.39	1.3

TP17-2

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP17-2 SA1	0.0-0.1	11/20/2017	1.9	1.3
Antimony	TP17-2 SA2	0.1-0.35	11/20/2017	<0.20	1.3

TP15-11

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP15-11 SA2	0.25 - 0.35	6/12/2015	1.7	1.3
Antimony	TP15-11 SA3	0.82 - 0.92	6/12/2015	<0.20	1.3

TP203

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP203-SA1	0.0 - 0.15	7/12/2016	4.3	1.3

TP204

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP204-SA1	0.0 - 0.15	7/12/2016	16	1.3
Lead	TP204-SA1	0.0 - 0.15	7/12/2016	240	120

HS122

Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	HS122	0.0 - 0.15	1/14/2016	2.8	1.3
Antimony	DUP3	0.0 - 0.15	1/14/2016	1.7	1.3

GROUND SURFACE

INFERRED GROUNDWATER ELEVATION

INFERRED LIMIT OF IMPACTED AREA

TOPSOIL

SILTY CLAY/ CLAYEY SILT

SILTY SAND/ SANDY SILT/ NATIVE SOIL

TP15-18 O/S -172.4 m
TP311 O/S -1.7 m
TP314 O/S 14.4 m
HS19-505 O/S 0.4 m
TP313 O/S -14.0 m
MW15-11 O/S 8.4 m
TP204 O/S 2.8 m
TP203 O/S 12.4 m
TP17-2 O/S -4.8 m
HS126 O/S 1.9 m
TP15-11 O/S 39.5 m
HS19-504 O/S 9.1 m
HS122 O/S 18.4 m
HS134 O/S 3.1 m
HS133 O/S -5.8 m
HS132 O/S 5.2 m
MW15-19 O/S -61.8 m
HS130 O/S -2.0 m

LEGEND

OFFSET FROM PROFILE LINE
+ WEST OF PROFILE LINE
- EAST OF PROFILE LINE

BH — BOREHOLE LABEL
O/S 8.5 m

GROUT
BENTONITE
MONITORING WELL
WATER LEVEL IN OBSERVATION WELL
SCREEN
SAND

N Value
76
104
85/0.28
59
58
56
84

BOREHOLE STRATA SYMBOL

SOIL SAMPLE DOES NOT EXCEED THE APPLICABLE SITE CONDITION STANDARDS

SOIL SAMPLE EXCEEDS THE APPLICABLE SITE CONDITION STANDARDS

SOIL STRATIGRAPHY

- CLAY
- FILL
- SAND
- SILTY CLAY
- ORGANICS / TOPSOIL
- CLAYEY SILT
- SILTY SAND AND GRAVEL
- SAND TILL
- SILT
- SANDY SILT
- GRAVELLY SAND
- SAND AND GRAVEL

1:100 VERTICAL SCALE 0 2.5 5 METRES

1:1,500 HORIZONTAL SCALE 0 25 50 METRES

CLIENT
RIOCAN REALTY INV PARTNER 11LP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-09-19
PREPARED	HJL
DESIGN	
REVIEW	
APPROVED	

PROJECT
WINDFIELDS FARM REMEDIATION
WINDFIELDS FARM, SIMCOE STREET NORTH,
OSHAWA, ONTARIO

TITLE
CROSS SECTION B-B' - METALS, HYDRIDE FORMING METALS, ORPS IN SOIL

PROJECT No.	CONTROL	Rev.	FIGURE
1791121	0005	----	6B

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25 mm

Path: \\golder.gds\gal\mississauga\sm\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\ | File Name: 1791121-0005-HS-0010.dwg

C

C'

TP17-9					
Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP17-9 SA1	0.0-0.15	11/20/2017	18	1.3
Antimony	TP17-9 SA2	0.15-0.48	11/20/2017	0.9	1.3
Lead	TP17-9 SA1	0.0-0.15	11/20/2017	240	120
Lead	TP17-9 SA2	0.15-0.48	11/20/2017	17	120

TP17-7					
Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP17-7 SA1	0.0-0.15	11/20/2017	20	1.3
Antimony	TP17-7 SA2	0.15-0.4	11/20/2017	0.53	1.3
Lead	TP17-7 SA1	0.0-0.15	11/20/2017	250	120
Lead	TP17-7 SA2	0.15-0.4	11/20/2017	7.9	120

TP239					
Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP239-SA1	0.0 - 0.15	7/13/2016	5.1	1.3

TP218					
Parameter	Sample ID	Depth (m bgs)	Date	Result (ug/g)	Table 1 Standards (ug/g)
Antimony	TP218-SA1	0.0 - 0.15	7/12/2016	7.6	1.3
Antimony	TP218-SA2	0.15 - 0.3	7/12/2016	3.7	1.3
Antimony	TP218-SA3	0.3 - 0.46	8/3/2016	5.1	1.3
Antimony	TP218-SA4	0.46-0.91	8/19/2016	<0.20	1.3

TP226 O/S 14.3 m; TP225 O/S -8.2 m; TP223 O/S 9.6 m; TP216 O/S -11.2 m; MW19-1 O/S 37.1 m; TP217 O/S 8.3 m; TP218 O/S 5.6 m; TP300 O/S 19.6 m; TP17-9 O/S 8.0 m; TP227 O/S -2.9 m; TP17-7 O/S -4.2 m; TP239 O/S -15.9 m; TP240 O/S 5.4 m; HS19-507 O/S -0.9 m; TP407 O/S -15.3 m; TP408 O/S 12.1 m; MW15-18 O/S 109.5 m; TP15-25 O/S 19.3 m

INFERRED LIMIT OF IMPACTED AREA

GROUND SURFACE

TOPSOIL

SILTY CLAY/ CLAYEY SILT

SILTY SAND/ SANDY SILT/ TOPSOIL

INFERRED GROUNDWATER ELEVATION

ELEVATION (m)

HORIZONTAL DISTANCE (m)

LEGEND

OFFSET FROM PROFILE LINE
+ WEST OF PROFILE LINE
- EAST OF PROFILE LINE

BH O/S 8.5 m — BOREHOLE LABEL

GROUT; BENTONITE; MONITORING WELL; WATER LEVEL IN OBSERVATION WELL; SCREEN; SAND

N Value: 76; 104; 85/0.28; 59; 58; 56; 84

BOREHOLE STRATA SYMBOL

SOIL SAMPLE DOES NOT EXCEED THE APPLICABLE SITE CONDITION STANDARDS

SOIL SAMPLE EXCEEDS THE APPLICABLE SITE CONDITION STANDARDS

SOIL STRATIGRAPHY

CLAY; FILL; SAND; SILTY CLAY; ORGANICS / TOPSOIL; CLAYEY SILT; SILTY SAND AND GRAVEL; SAND TILL; SILT; SANDY SILT; GRAVELLY SAND; SAND AND GRAVEL

1:100 VERTICAL SCALE 0 2.5 5 METRES

1:1,500 HORIZONTAL SCALE 0 25 50 METRES

CLIENT
RIOCAN REALTY INV PARTNER 11LP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-09-19
PREPARED	HJL
DESIGN	
REVIEW	
APPROVED	

PROJECT
WINDFIELDS FARM REMEDIATION
WINDFIELDS FARM, SIMCOE STREET NORTH,
OSHAWA, ONTARIO

TITLE
CROSS SECTION C-C' - METALS, HYDRIDE FORMING METALS, ORPS IN SOIL

PROJECT No.	CONTROL	Rev.	FIGURE
1791121	0005	----	6C

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25 mm

Path: \\golder.gd\gal\mississauga\skm\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\ | File Name: 1791121-0005-HS-0009.dwg

A

A'

ELEVATION (m)

HORIZONTAL DISTANCE (m)

MW19-3
O/S 4.2 m

CD16-CD17
O/S 1.3 m

DE16-D17
O/S 8.2 m

D16-D17
O/S 5.2 m

D15
O/S 8.0 m

D15-D16
O/S -5.8 m

DE15-DE16
O/S -1.8 m

MW19-1
O/S -17.1 m

E14
O/S -0.2 m

F13
O/S 1.1 m

G12
O/S -1.1 m

H11
O/S -0.9 m

I10
O/S -1.1 m

J9
O/S -1.6 m

K8
O/S -1.3 m

L8
O/S 9.0 m

L7
O/S 1.0 m

M6
O/S -0.9 m

N5
O/S -1.5 m

O4
O/S -0.5 m

P3
O/S -0.9 m

P2.5-Q3.5
O/S -7.6 m

TP15-22
O/S -10.2 m

INFERRED LIMIT OF IMPACTED AREA

EXTENT OF EXCAVATION

GROUND SURFACE

INFERRED GROUNDWATER ELEVATION

LEGEND

OFFSET FROM PROFILE LINE
+ WEST OF PROFILE LINE
- EAST OF PROFILE LINE

BH
O/S 8.5 m

BOREHOLE LABEL

N Value
GROUT 76
104
BENTONITE 85/0.28
MONITORING WELL
WATER LEVEL IN OBSERVATION WELL
SCREEN
BOREHOLE STRATA SYMBOL
59
58
56
SAND 84

FLOOR VERIFICATION SAMPLE DOES NOT EXCEED THE APPLICABLE SITE CONDITION STANDARDS

WALL VERIFICATION SAMPLE DOES NOT EXCEED THE APPLICABLE SITE CONDITION STANDARDS

SOIL STRATIGRAPHY

- CLAY
- FILL
- SAND
- SILTY CLAY
- ORGANICS / TOPSOIL
- CLAYEY SILT
- SILTY SAND AND GRAVEL
- SAND TILL
- SILT
- SANDY SILT
- GRAVELLY SAND
- SAND AND GRAVEL

0 2.5 5
1:100 VERTICAL SCALE METRES

0 25 50
1:1,500 HORIZONTAL SCALE METRES

CLIENT
RIOCAN REALITY INV PARTNER 11LP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-10-15
PREPARED	HJL
DESIGN	
REVIEW	
APPROVED	

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, PART OF 2300 SIMCOE STREET NORTH, OSHAWA, TORONTO

TITLE
CROSS SECTION A-A' - REMEDIAL EXCAVATION AND VERIFICATION SAMPLE LOCATIONS FOR METALS, HYDRIDE FORMING METALS, ORPS IN SOIL

PROJECT No.	CONTROL	Rev.	FIGURE
1791121	0005	----	7A

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25 mm

0

Path: \\golder.gds\ga\Mississauga\SIMClients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\ | File Name: 1791121-0005-HS-0012.dwg

B

B'

ELEVATION (m)

HORIZONTAL DISTANCE (m)

GROUND SURFACE

EXTENT OF EXCAVATION

INFERRED LIMITED OF IMPACTED AREA

INFERRED GROUNDWATER ELEVATION

TP15-18
O/S -172.4 m

MW15-11
O/S 8.4 m

MW15-19
O/S -61.8 m

L1-M1
O/S -6.5 m

L1
O/S 1.8 m

M2
O/S -3.7 m

M3
O/S 7.9 m

N3
O/S -3.4 m

N4
O/S 6.8 m

O4
O/S -6.3 m

Q5
O/S 5.6 m

P5
O/S -9.7 m

P6
O/S 2.5 m

Q6
O/S -3.7 m

Q7
O/S 6.0 m

QR6-QR7
O/S -8.4 m

Q7.5-R7.5
O/S 10.0 m

QR7-QR8
O/S 4.9 m

LEGEND

OFFSET FROM PROFILE LINE
+ WEST OF PROFILE LINE
- EAST OF PROFILE LINE

BH — BOREHOLE LABEL
O/S 8.5 m

GROUT
BENTONITE
MONITORING WELL
WATER LEVEL IN OBSERVATION WELL
SCREEN
SAND

N Value
76
104
85/0.28
59
58
56
84

BOREHOLE STRATA SYMBOL

FLOOR VERIFICATION SAMPLE DOES NOT EXCEED THE APPLICABLE SITE CONDITION STANDARDS

WALL VERIFICATION SAMPLE DOES NOT EXCEED THE APPLICABLE SITE CONDITION STANDARDS

SOIL STRATIGRAPHY

- CLAY
- FILL
- SAND
- SILTY CLAY
- ORGANICS / TOPSOIL
- CLAYEY SILT
- SILTY SAND AND GRAVEL
- SAND TILL
- SILT
- SANDY SILT
- GRAVELLY SAND
- SAND AND GRAVEL

1:100 VERTICAL SCALE 0 2.5 5 METRES

1:1,500 HORIZONTAL SCALE 0 25 50 METRES

CLIENT
RIOCAN REALITY INV PARTNER 11LP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-10-15
PREPARED	HJL
DESIGN	
REVIEW	
APPROVED	

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, PART OF 2300 SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
CROSS SECTION B-B' - REMEDIAL EXCAVATION AND VERIFICATION SAMPLE LOCATIONS FOR METALS, HYDRIDE FORMING METALS, ORPS IN SOIL

PROJECT No.	CONTROL	Rev.	FIGURE
1791121	0005	----	7B

25 mm IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

Path: \\golder.gds\gal\Mississauga\SIM\Client\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\ | File Name: 1791121-0005-HS-0013.dwg

C

C'

ELEVATION (m)

HORIZONTAL DISTANCE (m)

MW19-1
O/S 37.1 m

E12
O/S 2.0 m

F12-EF13
O/S 0.8 m

F13
O/S 0.9 m

G14
O/S -0.6 m

H15
O/S -2.2 m

I16
O/S -3.0 m

I17
O/S -4.2 m

J17-2
O/S -5.6 m

J18
O/S 7.8 m

K18
O/S -4.2 m

K19
O/S 7.4 m

L19
O/S -6.6 m

L20-M20
O/S -3.4 m

MW15-18
O/S 109.5 m

TP15-25
O/S 19.3 m

INFERRED LIMIT OF IMPACTED AREA

EXTENT OF EVCAVATION

GROUND SURFACE

INFERRED GROUNDWATER ELEVATION

LEGEND

OFFSET FROM PROFILE LINE
+ WEST OF PROFILE LINE
- EAST OF PROFILE LINE

BH — BOREHOLE LABEL
O/S 8.5 m

GROUT
BENTONITE
MONITORING WELL
WATER LEVEL IN OBSERVATION WELL
SCREEN
SAND

N Value
76
104
85/0.28
59
58
56
84

BOREHOLE STRATA SYMBOL

FLOOR VERIFICATION SAMPLE DOES NOT EXCEED THE APPLICABLE SITE CONDITION STANDARDS

WALL VERIFICATION SAMPLE DOES NOT EXCEED THE APPLICABLE SITE CONDITION STANDARDS

SOIL STRATIGRAPHY

- CLAY
- FILL
- SAND
- SILTY CLAY
- ORGANICS / TOPSOIL
- CLAYEY SILT
- SILTY SAND AND GRAVEL
- SAND TILL
- SILT
- SANDY SILT
- GRAVELLY SAND
- SAND AND GRAVEL

0 2.5 5
1:100 VERTICAL SCALE METRES

0 25 50
1:1,500 HORIZONTAL SCALE METRES

CLIENT
RIOCAN REALITY INV PARTNER 11LP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-10-15
PREPARED	HJL
DESIGN	
REVIEW	
APPROVED	

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM, PART OF 2300 SIMCOE STREET NORTH, OSHAWA, ONTARIO

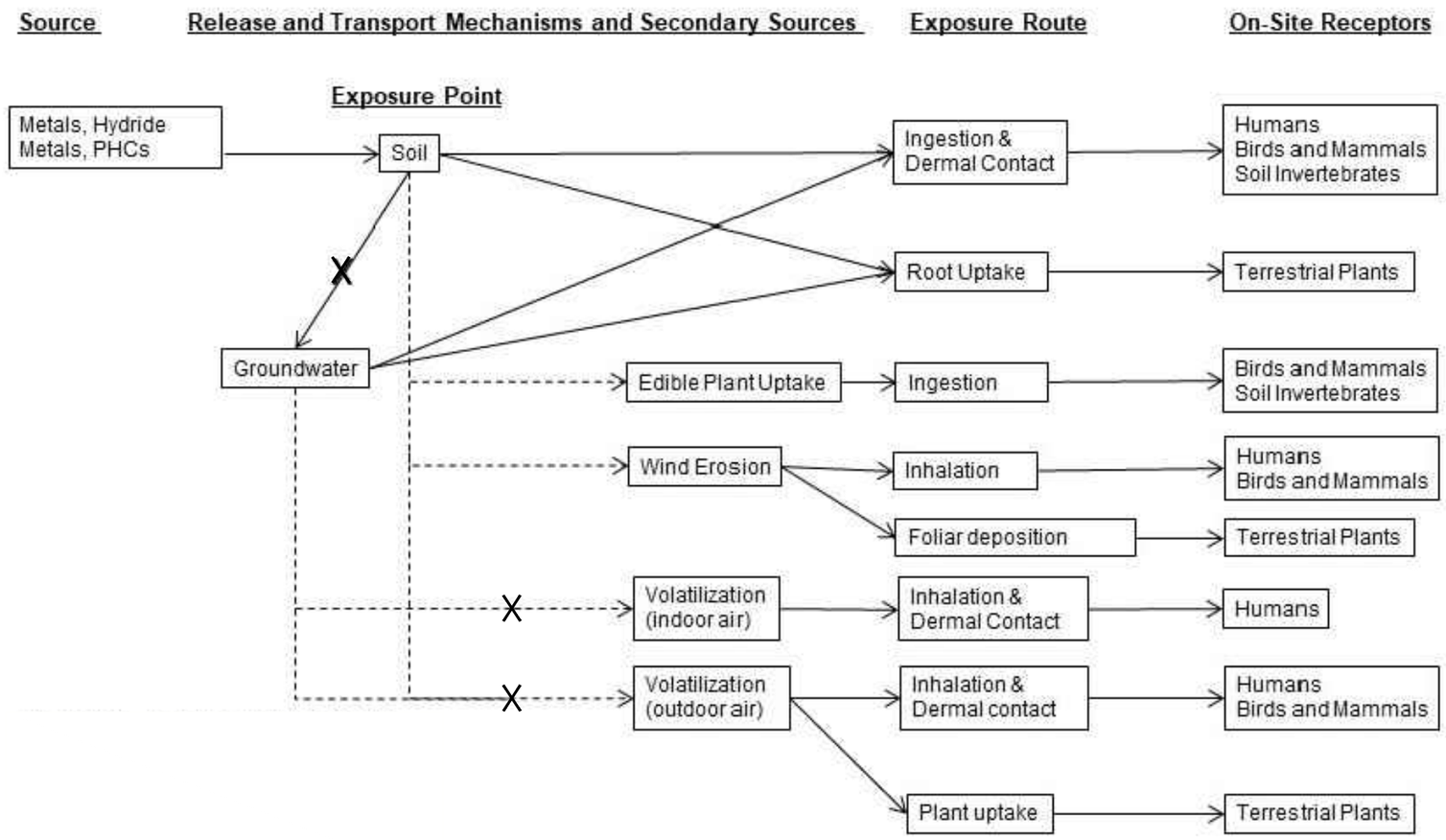
TITLE
CROSS SECTION C-C' - REMEDIAL EXCAVATION AND VERIFICATION SAMPLE LOCATIONS FOR METALS, HYDRIDE FORMING METALS, ORPS IN SOIL

PROJECT No.	CONTROL	Rev.	FIGURE
1791121	0005	----	7C

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25 mm 0

Path: \\golder.gd\gal\Mississauga\SIM\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\1791121\40_PROD\0005_Phase_II_ESA_Part_of_2300_Simcoe_St_North\ | File Name: 1791121-0005-HS-0014.dwg



Legend

- Pathway

- Pathway to secondary source

Notes:

- X - pathway incomplete.
- There are no indicators of groundwater impact and therefore associated pathways are considered incomplete.
- No volatile COCs identified in soil or groundwater.

CLIENT
RIOCAN REALTY INV PARTNER 11LP

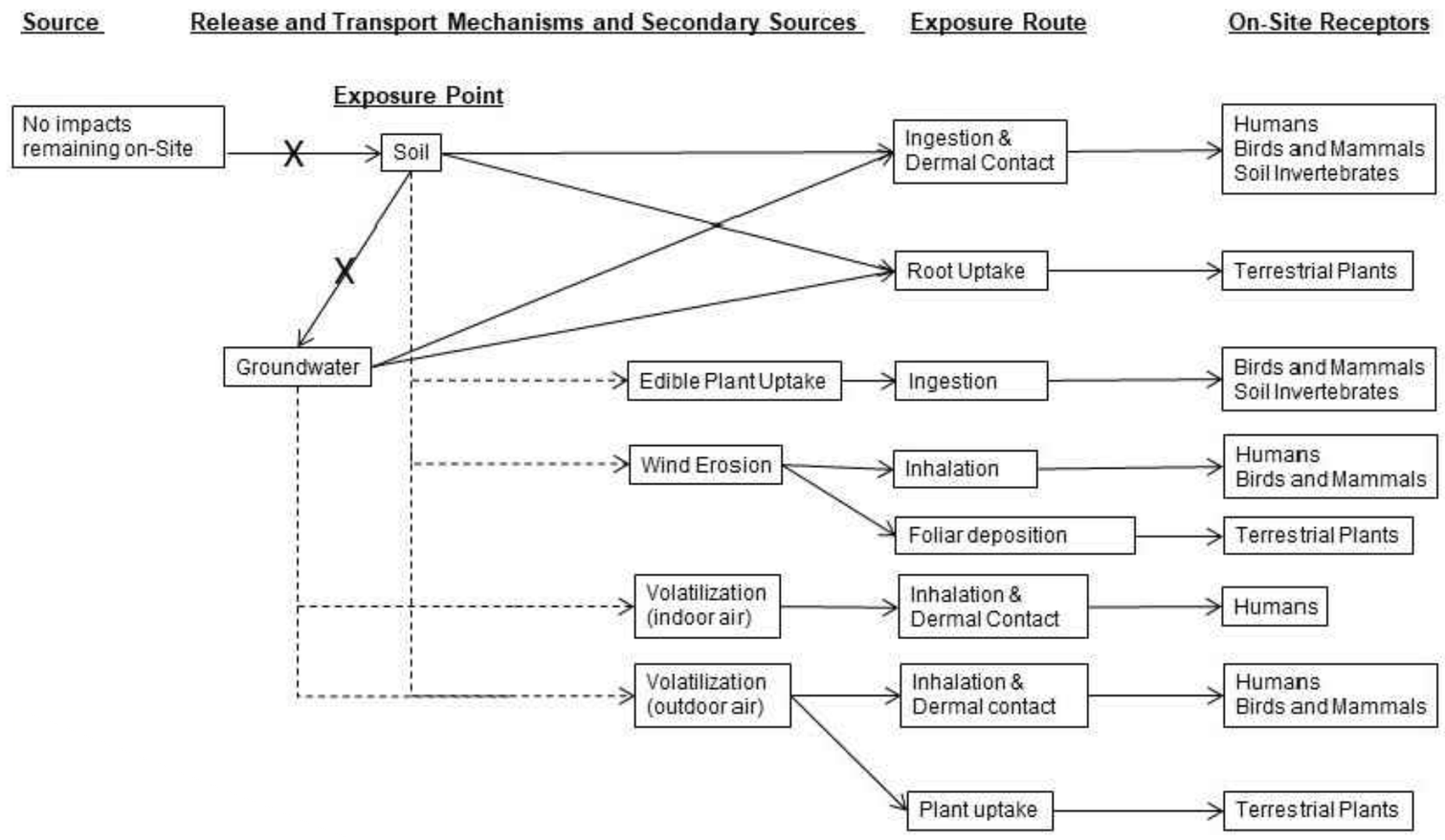
CONSULTANT
GOLDER

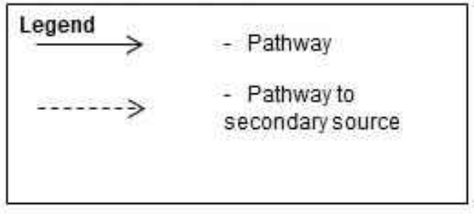
YYYY-MM-DD	2019-11-06
DESIGNED	
PREPARED	NP
REVIEWED	KDB
APPROVED	RJS

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM DEVELOPMENT PROPERTY
OSHAWA, ONTARIO

TITLE
CONCEPTUAL EXPOSURE MODEL
PRE-REMEDIATION

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0008	----	8A





Notes:
- X – pathway incomplete
- There are no indications of groundwater impact and therefore this pathway is considered incomplete.

CLIENT
RIOCAN REALTY INV PARTNER 11LP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-11-06
DESIGNED	
PREPARED	NP
REVIEWED	KDB
APPROVED	RJS

PROJECT
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
WINDFIELDS FARM DEVELOPMENT PROPERTY
OSHAWA, ONTARIO

TITLE
CONCEPTUAL EXPOSURE MODEL
POST-REMEDIATION

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0008	----	8B

APPENDIX A (i)

Sampling and Analysis Plan

TECHNICAL MEMORANDUM

DATE June 5, 2015 **PROJECT No.** 14-1182-0003 (2001/2002)

TO Field Crew
Golder Associates Ltd.

FROM Sarah Robinson **EMAIL** srobinson@golder.com

SAMPLING & ANALYSIS PLAN, PHASE II ENVIRONMENTAL SITE ASSESSMENT, WINDFIELDS FARM AREA, PORTIONS OF 2300 AND 2425 SIMCOE STREET NORTH, OSHAWA, ONTARIO

OBJECTIVE

The objective of this Phase II ESA is to investigate the presence or absence of environmental impacts to soil, and groundwater associated with the areas of potential environmental concern ("APECs") that have been identified in association with the Subject Property, as listed below. APECS that are applicable to the current Site (Proposed Region Dedicated Lands) have been bolded in the Table below. The investigation outline is described in Table 1, attached.

APEC	Location of APEC on Phase One Property	Potentially Contaminating Activity	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
1. Fill (Site-wide)	**Fill is reportedly present on Site, as identified in the 2008 Golder Geotechnical Report.**	***#30 Importation of Fill Material of Unknown Quality***	**On-Site**	**Metals & Inorganics***	**Soil**
2. On-Site Groundwater (southwestern portion of the Site, west of Barn 21)	Groundwater at one previous monitoring well location (BH22) contained a cobalt concentration which was higher than the Table 8 Standard.	*Other*	On-Site	Cobalt	Groundwater
3. Former on-Site fuel storage tank	**The Site Representative reported that an AST used for fuelling farm vehicles was formerly present on-Site at Barn 16.**	***#28 Gasoline and Associated Products and Storage in Fixed Tanks***	**On-Site**	**PHCs F1-F4, BTEX**	**Soil, Groundwater**

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Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

APEC	Location of APEC on Phase One Property	Potentially Contaminating Activity	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
4. Former on-Site heating oil storage tank at House 44	**It is considered likely that a heating oil AST was formerly present at House 44 and used as a fuel source for the heating system for the residence.**	***#28 Gasoline and Associated Products and Storage in Fixed Tanks***	**On-Site**	**PHCs F1-F4, BTEX**	**Soil, Groundwater**
5. Former on-Site heating oil storage tank at House 46	It is considered likely that a heating oil AST was formerly present at House 46 and used as a fuel source for the heating system for the residence.	*#28 Gasoline and Associated Products and Storage in Fixed Tanks*	On-Site	PHCs F1-F4, BTEX	Soil, Groundwater
6. Former on-Site orchard	**An orchard was formerly present on-Site in the vicinity of House 44 and Barn 21. The orchard is visible in the 1927 aerial photograph, and appears to have been removed sometime prior to 1954.**	**#40 Pesticides Manufacturing, Processing, Bulk Storage and Large-Scale Application**	**On-Site**	**Metals, OC Pesticides**	**Soil**

*Metals and inorganics are proposed as baseline analyses as these impacts (if present) are not typically evident based on field observation. Should evidence of other potential contaminants impacts be identified during sampling (e.g. staining or odours), SAP is to be modified accordingly.

*Note- The bold text indicates the APECs that affect the Phase Two ESA Property.

CONCEPTUAL SITE MODEL

The Site consists of a 63.65 hectare (157.29 acres) parcel of agricultural and residential land. The Site was developed with three houses, four barns, four sheds, and two model home show rooms at the time of the Phase One Site visit. The remainder of the Site was occupied by agricultural fields formerly utilized for horse farming, and a five hectare wooded area. The interiors of all on-Site buildings were observed with the exception of House 45 which was partially collapsed at the time of the Site visit;

- The on-Site buildings were observed to be present in three clusters including the following:
  - House 44, Shed 1, Shed 2, House 45, Barn 21 and Barn 8 located in the southern portion of the Site, west of Simcoe Street with associated driveways extending east to Simcoe Street;
  - Barn 16, Model Home Showroom 1, and Model Home Showroom 2 located in the southern portion of the Site to the east of Simcoe Street with driveways extending west towards Simcoe Street; and,
  - House 46, Shed 1, Shed 2, and Barn 17 located in the northeastern portion of the Site, east of Simcoe Street with associated driveway extending north to Winchester Road.

- The Site was historically occupied by Windfields Farm, an equestrian farm with associated residential dwellings which included lands located to the south in addition to the Phase One Property. The Site Representative reported that the Site was utilized as a horse farm for 70 years, ending in 2008;
- At the time of the Site visit all residential and agricultural activities had ceased at the Site. The only Site operation which was observed at the time of the Site visit was the operation of two real estate show rooms, which functioned as sales centres for a planned residential subdivision;
- A tributary to Oshawa Creek is located on-Site, crossing the western portion of the Site and flowing south. A tributary to East Oshawa Creek is also located on the Site, crossing the eastern portion of the Site and flowing south. East Oshawa Creek is located approximately 60 m east of the Site, and Oshawa Creek is located approximately 900 m west of the Site;
- Potable water in the vicinity of the Site is provided by bottled water. Two supply wells were observed on-Site at the time of the Site visit, one associated with House 45, and one associated with Barn 16 however it was reported that these wells are no longer used for potable water supply;
- There are no indications that the Phase One Property was used for an industrial use or any of the following commercial uses: vehicle garage, bulk liquid dispensing facility, or dry cleaning facility;
- At the time of the Phase One ESA, the neighbouring properties within the Phase One Study Area consisted of residential and agricultural land uses. There are no indications that neighbouring properties in the Phase One Study Area were used for an industrial use or any of the following commercial uses: vehicle garage, bulk liquid dispensing facility, or dry cleaning facility;
- No underground utility details were provided for the Phase One Property;
- Soil at the Site consists primarily of glacial tills ranging in gradation from silty sand till to clayey silt till, overlain by fill and/or topsoil. The tills were reportedly also overlain by and/or contained discontinuous, sporadic deposits of sand and gravel, fine to medium sand, silty sand, sandy silt and/or clayey silt (as reported in the 2008 Golder Geotechnical Report); and,
- Local groundwater flow is anticipated to be generally in a southeastern direction, following ground elevation towards East Oshawa Creek, located approximately 600 m east of the Site. Variation in local groundwater flow is anticipated across the Site, as a tributary to East Oshawa Creek and a tributary to Oshawa Creek cross the east and west portions of the Site, respectively. Groundwater in the vicinity of each of the tributaries is anticipated to slow towards the tributary, and then off-Site to the south. Regional groundwater flow is anticipated to be in a southerly direction towards Lake Ontario, located approximately 12.2 kilometers south of the Site.

Contaminants of potential environmental concern associated with the on-Site areas of potentially contaminating activities and areas of potential environmental concern include metals and inorganic compounds, petroleum hydrocarbons F1 to F4 (“PHCs”) including benzene, toluene, ethylbenzene and xylenes (“BTEX”) parameters, and organochlorine pesticides (“OC pesticides”).

APPLICABLE SITE CONDITION STANDARDS

The soil and groundwater results will be compared to the Ministry of the Environment and Climate Change ("MOECC") O. Reg. 153/04 "S*oil, Groundwater, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*" Table 8 Generic Site Condition Standards for use within 30 m of a Water Body in a Potable Ground Water Condition for a residential / parkland / institutional / industrial / commercial / community property use (hereafter referred to as "MOECC Table 8 Standards"). The laboratory will be notified of the use of MOECC Table 8 Standards on this project, to achieve reportable detection limits that meet the project objectives.

BOREHOLE DRILLING, TEST PITTING AND SOIL SAMPLING

All proposed borehole and test pit locations are shown on Figure 1, attached. The rationale for the proposed borehole and test pit locations is provided in Table 1, attached. Drill boreholes and collect soil samples following SOP3 - BH Drilling and Sampling. Excavate test pits following SOP13 - Test Pit Excavation. Screen soil samples in the field using a duel gas monitor following SOP4 - Headspace Screening. The soil sampling plan per test location is summarized in Table 1, attached.

It is noted that for the purpose of with work program, the Site is divided into the following three sections/parcels consisting of:

- The City of Oshawa ("City") Dedicated Lands – consisting of the proposed roadways within the Site (Windfields Farm Drive, Parkville Road and Regent Road) and a strip of the Site property located on the eastern property boundary along Bridle Road South be dedicated to the City (the "City Dedicated Lands");
- The Region of Durham ("Region") Dedicated Lands – consisting of strips of land on either side of Simcoe Street North be dedicated to the Region (the "Region Dedicated Lands"); and,
- The Site Lands – consisting of the balance of the Site.

Sample Screening

- During test pit / borehole advancement, soil samples will be collected for field screening, including visual inspection, textural characterization, and headspace screening. Soil samples will be field screened using a dual gas Eagle II (Eagle) calibrated to isobutylene and hexane in the PPM range; and,
- Calibrate the Eagle II once daily and bump test at least twice (midday and end of day). Record the calibrations on the calibration sheet. Scan and save these forms on the server and keep the hard copies in the field folder.

Test Pitting

- Excavate the test pits through topsoil and fill materials (if present), and about 0.5 m to 1 m into the underlying native soil material. Collect samples of the fill and the underlying native material (note the underlying samples may not be submitted for analysis, but will be retained until results of the upper fill samples are received; based on the results of the upper samples, additional samples may be submitted);
- Collect samples for analysis of metals and inorganics within the fill and native material. If distinct layers/zones are identified in the test pits, sample each distinct layer separately. Collect additional soil samples if warranted based on field observations;
- Samples collected in association with the former on-Site orchard should be collected in 6" horizon intervals, consisting of 0-6", 6-12", 12-18" in topsoil for arsenic, cyanide and OC Pesticides;

- A summary of soil samples including Quality Assurance/Quality Control ("QA/QC") samples is summarized in Table 1, attached. The duplicate soil samples should be labelled in a manner in which the laboratory cannot identify the sample as a duplicate.

Borehole Drilling

- With the exception of the interior boreholes, the boreholes to be advanced until groundwater encountered or the end of observed contamination is observed (if any), plus 1 m depth. Modify borehole depth in discussion with the QP if warranted by field observations. Collect additional soil samples if warranted by field observations;
- All interior boreholes are to be advanced to a depth of approximately 1.0 m below the concrete floor of the buildings in which they are being advanced, or to the end of observed contamination (if any), plus a 1 m depth;
- Sample collection:
  - Collect samples for analysis of metals & inorganics within the fill and the first native materials sample in 2' intervals;
  - Collect samples for analysis of PHCs and metals & inorganics within the native materials in 2' intervals. If no signs of impacts are observed, sample collection and the advancement of the borehole for environmental purposes will end at 2' below the groundwater table;
  - At each borehole location, one "worst-case" (to be determined based on field screening) soil sample will be selected by the QP and submitted for the analyses indicated in Table 2, below;
  - A summary of soil samples including QA/QC samples is summarized in Table 1, attached. The duplicate soil samples should be labelled in a manner in which the laboratory cannot identify the sample as a duplicate.

A summary of the number of soil samples (including QA/CQ samples) is provided in the table below.

Summary of Soil samples Including QA/QC Samples

Parameter	Soil samples	Duplicate samples
PHCs/BTEX	13	2 (one for RD and CD)
Metals and inorganics	42	5 (two for Site, one for RD, two for CD)
OC Pesticides	8	1 (one for Site)
Grain size	6	(four for Site, three for CD, two for RD)

Notes:
PHCs/BTEX = petroleum hydrocarbon fractions F1 to F4, benzene, toluene, ethylbenzene, xylenes.
Metals & Inorganics = Ont. Reg. 153/04 Metals & Inorganics.
OC Pesticides = organochlorine pesticides.
Grain size samples to be collected from different representative stratigraphic units across site. Submit additional samples for grain size as necessary based on site observations.
RD = Region Dedicated Lands.
CD = City Dedicated Lands.
Collect additional soil samples for chemical analysis if warranted by field observations

GROUNDWATER MONITORING WELLS

Install monitoring wells in the boreholes as identified in Table 1, attached, following SOP1- Monitoring Well Installation.

- Screen should intersect inferred shallow groundwater table by at least 1 m. Modify well design in discussion with project manager if warranted by field observations. Well screen should not be installed within fill material and should not intersect more than one geological unit, if practical. Well screen length can be reduced below 3 m to achieve this objective if necessary; and,
- Ensure wells are installed with no more than a 1.5 m to 3.0 m (5' to 10') screen, and size 0 sand.

GROUNDWATER SAMPLING

Develop selected existing monitoring wells (if present/accessible) and new wells installed by Golder following SOP5 - Monitoring Well Development. Measure water levels (at all accessible wells), and sample existing and new monitoring wells following SOP2 - Water Level Measurements, and SOP9 - Conventional Groundwater Sample Collection for the locations and analytical parameters as listed in Tables 1, attached. A summary of the number of groundwater samples (including QA/CQ samples) is provided in the Table below.

Summary of groundwater samples including QA/QC samples

Parameter	Groundwater sample	Duplicate samples	Trip blank samples
PHCs/BTEX	6	3 (one each for Site, RD, CD)	3 (one each for the Site, RD, CD)
Metals and inorganics	7	1 (for CD)	

RD = Region Dedicated Lands
CD = City Dedicated Lands

Attachments: Figure 1 – Proposed Borehole and Test Pit Location Plan
Table 1 – Rational for Test Locations and Sampling & Analysis Plan

SMR/RJS/lb

\\golder.gds\gal\markham\active\2014\1182 edd 2014\2014\14-1182-0003 riocan windfields farm\p2000 - phii esa\reports\draft\rd phs ii\appendix a (i) sampling and analysis plan\14-1182-0003 sa plan entire subject property.docx

667750 668000 668250 668500 668750 669000

4870500 4870250 4870000 4869750 4869500

N

AGRICULTUAL

HYDRO CORRIDOR

SIMCOE STREET NORTH

WINCHESTER ROAD EAST

WINCHESTER ROAD WEST

House 46

APEC 5

DW 1

DW 2

Barn 17

MW15-3

MW15-13

RESIDENTIAL/ AGRICULTURAL

BRIDLE ROAD SOUTH

TP15-26 TP15-17 TP15-16 TP15-25 TP15-15 TP15-11 TP15-12 TP15-24 TP15-14

MW15-14 MW15-11 TP15-8 TP15-7 BH6 MMM BH21 TP15-5 TP15-18 TP15-4 TP15-6

APEC 1 (Site-Wide)

TP15-9 MW15-19 TP15-22 TP15-13

PROPOSED WINDFIELDS FARM DRIVE 26M ROW

TP15-20 TP15-19 TP15-10 Model Home 2 Model Home 1 TP15-23

Unnamed Tributaries of Oshawa Creek

STEEPLECHASE STREET

MW15-17

Barn X (no longer standing)

MW15-10 MW15-16 TP15-21 DW 5 Barn 8 House 45 DW 3 APEC 3 MW15-1 MW15-12 House 44 Barn 16 Barn 21 DW 4

MW15-13 TP15-2 TP15-27 MW15-2 TP15-29 TP15-1 MW15-15 TP15-28 BH22 BH23 TP15-3

APEC 2 APEC 4 APEC 6

THOROUGHBRED STREET

AGRICULTUAL

RESIDENTIAL DEVELOPMENT

LEGEND

- Phase One Property
- Proposed Monitoring Well, Within City Designated Lands
- Proposed Monitoring Well, Within Region Designated Lands
- Proposed Monitoring Well, Within Site
- Proposed Test Pit, Within City Designated Lands
- Proposed Test Pit, Within Region Designated Lands
- Proposed Test Pit, Within Site
- Existing Supply Well Sample
- Monitoring Well Location (former investigation, Golder, 2008)
- Area of Environmental Concern (APEC)
- Utility Line
- Watercourse, Permanent
- Watercourse, Intermittent
- Water Area, Permanent

Areas of Environmental Concern ("APEC")		
Location	Detail	PCA #
1	Fill (site-wide)	30
2	Location of elevated cobalt in groundwater (2008)	
3	Location of fuelling AST	28
4	Suspect location of former heating oil AST	28
5	Suspect location of former heating oil AST	28
6	Former location of orchard	40

NOTES:

All locations are approximate.

REFERENCE

DRAFT

Base Data - MNR LIO, obtained 2009
Produced by Golder Associates Ltd under licence from Ontario Ministry of Natural Resources, © Queens Printer 2015
Base Imagery - ESRI, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community
Base Drawing provided by Turner Fleischer, Entitled "Windfields Farm Mixed Use Plan", Dated March 3, 2015
Projection: Transverse Mercator Datum: NAD 83. Coordinate System: UTM Zone 17N

75 37.5 0 75 150 225 300
SCALE 1:5,000 METRES

PROJECT
PHASE II ENVIRONMENTAL SITE ASSESSMENT
WINDFIELD FARMS, 2300 SIMCOE STREET NORTH
OSHAWA, ONTARIO

TITLE
PROPOSED TEST LOCATIONS

Golder Associates
Whitby, Ontario

PROJECT NO. P4-1182-0003			SCALE AS SHOWN	REV. 0.0
DESIGN				
GIS	JO/JT	1 May. 2014		
CHECK				
REVIEW				

FIGURE: 1

S:\Clients\RIOCAN\Windfields_Farm\99_PROJECTS\P4-1182-0003\40_PRODUCTION\0002_Phase_II_ESA\P411820003-0002-HS-0001.mxd

Areas of Potential Environmental Concern / Test Location Rationale	Test Location ID	Purpose/Location	Soil Parameters for Analysis	Well Installed	Groundwater Parameters for Analysis
APEC 1: Fill (Site Wide) - Fill is reportedly present on Site, as identified in the 2008 Golder Geotechnical Report. Investigation chemical quality of the fill.	**MW15-10**	**On western end of Site (coverage & fill)**	**M&I**	**Yes**	**gw level only**
	MW15-11	On central portion of site (coverage & fill)	M&ORPs	Yes	gw level only
	TP15-4	Assess fill quality	M&ORPs	n/a	n/a
	TP15-5	Assess fill quality	M&ORPs	n/a	n/a
	TP15-6	Assess fill quality	M&ORPs (plus 1 dup for M&ORPs)	n/a	n/a
	TP15-7	**Assess fill quality**	**M&I**	**n/a**	**n/a**
	TP15-8	**Assess fill quality**	**M&I**	**n/a**	**n/a**
	TP15-9	**Assess fill quality**	**M&I**	**n/a**	**n/a**
	TP15-10	Assess fill quality	M&ORPs	n/a	n/a
	TP15-11	**Assess fill quality**	**M&I**	**n/a**	**n/a**
	TP15-12	**Assess fill quality**	**M&I**	**n/a**	**n/a**
	TP15-13	Assess fill quality	M&ORPs (plus 1 dup for M&ORPs)	n/a	n/a
	TP15-14	Assess fill quality	M&ORPs	n/a	n/a
	TP15-15	**Assess fill quality**	**M&I**	**n/a**	**n/a**
	TP15-16	**Assess fill quality**	**M&I**	**n/a**	**n/a**
	TP15-17	**Assess fill quality**	**M&I**	**n/a**	**n/a**
	MW15-14	On northern portion of Region Dedication (coverage & fill)	M&ORPs (plus 1 dup for M&ORPs)	Yes	gw level only
	TP15-18	**Assess fill quality on Region Dedication**	**M&I**	**n/a**	**n/a**
	TP15-19	Assess fill quality on Region Dedication	M&ORPs	n/a	n/a
	TP15-20	**Assess fill quality on Region Dedication**	**M&I**	**n/a**	**n/a**
	MW15-16 (already advanced as part of Geotech program)	Within City Dedication/western portion of proposed Windfields Farm Dr. To assess fill/Site coverage	M&ORPs	Yes	gw level only
	MW15-17	Within City Dedication / proposed Steeplechase St. To assess fill, and nearby APEC 3	M&ORPs, PHCs/BTEX	Yes	PHCs/BTEX
	MW15-18	**Within City Dedication / near Bridle Road South to assess fill**	**M&I (plus 1 dup for M&I)**	**Yes**	**gw level only**
	MW15-19	**Within City Dedication / eastern portion of propsed Windfields Farm Dr. To assess fill quality and site coverage**	**M&I**	**Yes**	**gw level only**
	TP15-21	Assess fill quality on City dedication	M&ORPs	n/a	n/a
	TP15-22	**Assess fill quality on City dedication**	**M&I**	**n/a**	**n/a**
	TP15-23	Assess fill quality on City dedication	M&ORPs (plus 1 dup for M&ORPs)	n/a	n/a
	TP15-24	**Assess fill quality on City dedication**	**M&I**	**n/a**	**n/a**
	TP15-25	**Assess fill quality on City dedication**	**M&I**	**n/a**	**n/a**
	TP15-26	**Assess fill quality on City dedication**	**M&I**	**n/a**	**n/a**
	BH/MW21	Existing monitoring well on the northwestern portion of the Site (site coverage)		n/a	M&ORPs
APEC 2: On-Site Groundwater (southwestern portion of the Site, west of Barn 21)	BH/MW 22	Existing monitoring well on the southwestern portion of the Site (to assess current cobalt concentrations in groundwater in existing monitoring wells)	n/a	Existing Well	M&ORPs
	BH/MW 23	Existing monitoring well on the southwestern portion of the Site (to assess current cobalt concentrations in groundwater in existing monitoring wells)	n/a	Existing Well	M&ORPs
APEC 3: Former on-Site fuel storage tank - the Site Representative reported that an AST used for fuelling farm vehicles was formerly present on-Site at Barn 16.	MW15-1	Adjacent to Barn 16	M&ORPs, PHCs/BTEX	Yes	PHCs/BTEX
	BH15-4	In floor slab of Barn 16	PHCs/BTEX	No	n/a
	BH15-5	In floor slab of Barn 16	PHCs/BTEX	No	n/a
	MW15-12	In Region Dedication, nearest to Barn 16	M&ORPs, PHCs/BTEX	Yes	M&ORPs, PHC/BTEX
	MW15-17	Within City Dedication / proposed Steeplechase St. To assess fill, and nearby APEC 3	already indicated above	Yes	already indicated above
APEC 4: Former on-Site heating oil storage tank at House 44 - It is considered likely that a heating oil AST was formerly present at House 44 and used as a fuel source for the heating system for the residence.	MW15-2	Adjacent to House 44 (also near historical cobalt exceedance in GW)	M&ORPs, PHCs/BTEX	Yes	M&ORPs, PHC/BTEX (plus 1 duplicate and trip blank for PHC/BTEX)
	BH15-6	In basement/floor slab of House 44	PHCS/BTEX	No	n/a
	BH15-7	In basement/floor slab of House 44	PHCS/BTEX	No	n/a
	MW15-13	In Regional Dedication, nearest to House 44 (also near historical cobalt GW exceedance, and in vicinity of former orchard)	M&ORPs, PHCs/BTEX, OC Pest (plus 1 dup for PHCs/BTEX)	Yes	M&ORPs, PHC/BTEX (plus 1 duplicate and trip blank for PHC/BTEX)
	MW15-15	Within City Dedication/proposed Thoroughbred St. To assess nearby former orchard, APEC 4, to assess fill	M&ORPs, PHCs/BTEX, OC Pest (plus dup for PHCs/BTEX)	Yes	M&ORPs , PHC/BTEX (plus 1 duplicate and trip blank for PHC/BTEX, and 1 dup for M&ORPs)
APEC 5: Former on-Site heating oil storage tank at House 46 - It is considered likely that a heating oil AST was formerly present at House 46 and used as a fuel source for the heating system for the residence.	**MW15-3**	**Adjacent to House 46**	**M&ORPs, PHCs/BTEX**	**Yes**	**PHC/BTEX (plus 1 dup for PHC/BTEX)**
	BH15-8	**In basement/floor slab of House 46**	**PHCs/BTEX**	**n/a**	**n/a**
	BH15-9	**In basement/floor slab of House 46**	**PHCs/BTEX**	**n/a**	**n/a**
APEC 6: Former on-Site orchard - An orchard was formerly present on-Site in the vicinity of House 44 and Barn 21. The orchard is visible in the 1927 aerial photograph, and appears to have been removed sometime prior to 1954.	TP15-1	Investigate shallow soil impacts due to orchard and fill quality	OC Pest, M&ORPs (plus 1 dup for OC Pest)	n/a	
	TP15-2	Investigate shallow soil impacts due to orchard and fill quality	OC Pest, M&ORPs	n/a	
	TP15-2	Investigate shallow soil impacts due to orchard and fill quality	OC Pest, M&ORPs	n/a	
	TP15-27	Investigate shallow soil impacts due to orchard and fill quality	OC Pest, M&ORPs	n/a	
	TP15-28	Investigate shallow soil impacts due to orchard and fill quality	OC Pest, M&ORPs	n/a	
	TP15-29	Investigate shallow soil impacts due to orchard and fill quality	OC Pest, M&ORPs	n/a	
	MW15-15	Within City Dedication/proposed Thoroubred St. To assess nearby former orchard, APEC 4, to assess fill	already indicated above	Yes	already indicated above

Notes:

TP = proposed test pit location

MW = proposed borehole/monitoring well location

BH = proposed borehole location

PHC/BTEX = petroleum hydrocarbon fractions F1 to F4, benzene, toluene, ethylbenzene, xylenes

M & I = Metals, hydride-forming metals, and other regulated parameters

OC Pest = organochlorine pesticides

Collect additional soil samples if warranted by field observations. Actual sample depths may vary depending on conditions encountered at the time of drilling

Bold - Sample locations located on the current Phase Two Property

TECHNICAL MEMORANDUM

DATE June 25, 2019 **Project No.** 1791121 (5000)

TO Field Crew
Golder Associates Ltd.

FROM Kevan Browne/
Ryan Smith

**EMAIL kbrowne@golder.com/
rsmith@golder.com**

SAMPLING AND ANALYSIS PLAN, PHII DRILLING UPDATE, WINDFIELDS FARM

Objective

As required by Ontario Regulation (O.Reg.) 153/04, this site-specific sampling and analysis plan ("SAP") is to be addressed during the upcoming drilling and soil/groundwater sampling program at the above referenced site (the "Site").

The objective of this drilling program is to re-investigate the presence or absence of any possible impacts from APEC 5 (PCA #28) at the Site.

APEC	Location of APEC on Site	Potentially Contaminating Activity	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
5. Former on-Site heating oil storage tank at House 46	**It is considered likely that a heating oil AST was formerly present at House 46 and used as a fuel source for the heating system for the residence.**	***#28 Gasoline and Associated Products and Storage in Fixed Tanks***	**On-Site**	**PHCs F1-F4, BTEX**	**Soil, Groundwater**

*Should evidence of other potential contaminants impacts be identified during sampling (e.g. staining or odours), SAP is to be modified accordingly.

GENERAL PROJECT INFORMATION AND REQUIREMENTS

- **Contact:**
  - General project questions – Kevan Browne 905-723-2727 (ext. 6677) (office) / 905-409-1650 (cell)
  - General project questions/environmental senior support – Ryan Smith (905) 903-6102 (Cell)
- Follow standard operating procedures, as a Record of Site Condition will be required.
- Complete a Daily Log for every day of fieldwork. Use standard field forms.

- Survey borehole and well location with GPS and elevations with a local survey using theodolite/laser level method.
- Initial calibration of field equipment should be performed at the start of each field program.
  - Clean disposable Nitrile™ gloves will be used at each sampling location to prevent cross-contamination.

BOREHOLE DRILLING AND SOIL SAMPLING

All proposed boreholes are shown on Figure 1, attached and staked in the field. The rationale for the proposed boreholes is to assess soil downgradient from tank location and additional boreholes are to provide coverage and background data. Drill boreholes and collect soil samples following SOP3 - BH Drilling and Sampling. Screen soil samples in the field using a duel gas monitor following SOP4 - Headspace Screening.

1.0 *Sample Screening*

- During borehole advancement, soil samples will be collected for field screening, including visual inspection, textural characterization, and headspace screening. Soil samples will be field screened using a dual gas Eagle II (Eagle) calibrated to isobutylene and hexane in the PPM range; and,
- Calibrate the Eagle II once daily and bump test at least twice (midday and end of day). Record the calibrations on the calibration sheet. Scan and save these forms on the server and keep the hard copies in the field folder.

2.0 *Borehole Drilling*

- The boreholes to be advanced until groundwater encountered or the end of observed contamination is observed (if any), plus 1 m depth. Modify borehole depth in discussion with the QP if warranted by field observations. Collect additional soil samples if warranted by field observations;
- Sample collection:
  - Collect samples for analysis of PHCs and BTEX within the fill/native materials in 2' intervals. If no signs of impacts are observed, sample collection and the advancement of the borehole for environmental purposes will end at 2' below the groundwater table;
  - At each borehole location, one "worst-case" (to be determined based on field screening) soil sample will be selected by the QP and submitted for the analyses indicated in Table below;
  - A summary of soil samples including QA/QC samples is summarized below. The duplicate soil samples should be labelled in a manner in which the laboratory cannot identify the sample as a duplicate.

A summary of the number of soil samples (including QA/CQ samples) is provided in the table below.

Summary of Soil samples Including QA/QC Samples

Parameter	Soil Samples	Duplicate Samples
PHCs/BTEX	3 worst-case (one from each borehole)	1

Notes:
PHCs/BTEX = petroleum hydrocarbon fractions F1 to F4, benzene, toluene, ethylbenzene, xylenes.
Collect additional soil samples for chemical analysis if warranted by field observations

GROUNDWATER MONITORING WELLS

Install monitoring wells in all three of the boreholes, following SOP1- Monitoring Well Installation.

Screen should intersect inferred shallow groundwater table by at least 1 m. Modify well design in discussion with project manager if warranted by field observations. Well screen should not be installed within fill material and should not intersect more than one geological unit, if practical. Well screen length can be reduced below 3 m to achieve this objective if necessary;

Ensure wells are installed with no more than a 1.5 m to 3.0 m (5' to 10') screen, and size 0 sand.

GROUNDWATER SAMPLING

Develop selected existing monitoring wells (if present/accessible) and new wells installed by Golder following SOP5 - Monitoring Well Development. Measure water levels (at all accessible wells), and sample existing (downgradient well – MW15-3) and new monitoring wells following SOP2 - Water Level Measurements, and SOP9 - Conventional Groundwater Sample Collection for the locations see attached figure and analytical parameters as listed below. A summary of the number of groundwater samples (including QA/CQ samples) is provided in the Table below.

Summary of groundwater samples including QA/QC samples

Parameter	Groundwater Sample	Duplicate Samples	Trip Blank Samples
PHCs/BTEX	3	1	1

Attachments: Figure 1 – Proposed Borehole and Existing Monitoring Well Location Plan

Kevan Browne, B.A.
Project Manager, Contaminated Sites

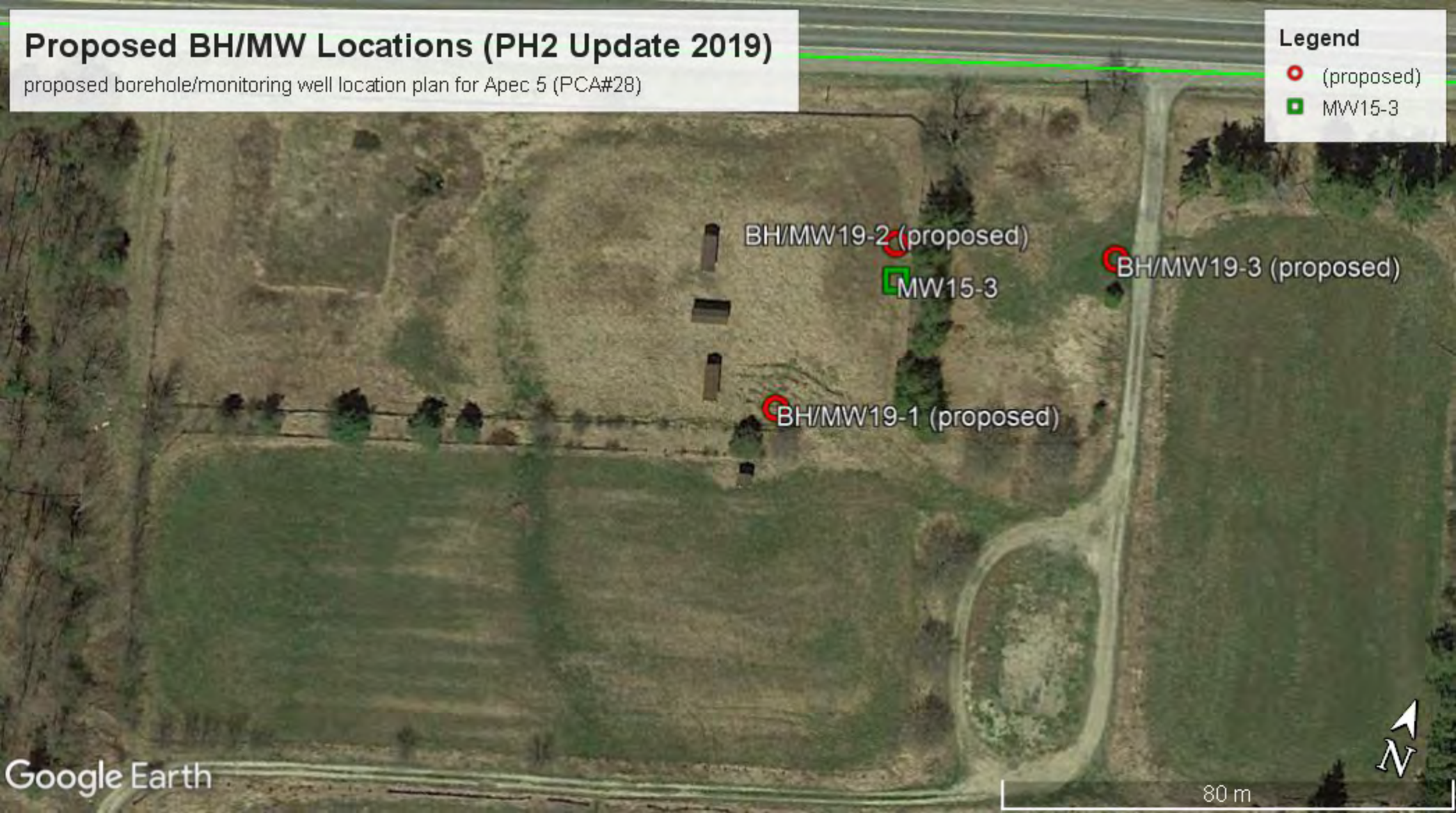
R.J. Smith, P.Eng., QP_{ESA}
Associate, Contaminated Sites

AVR/KDB/RJS/ksb;lb

https://golderassociates.sharepoint.com/sites/20914g/deliverables/06. phase two esa/appendix a/(i) sap/ph two 2019/1791121 (5000) tmem 2019'06'25 sample and analysis plan - ph2 drilling update - windfields.docx

Proposed BH/MW Locations (PH2 Update 2019)

proposed borehole/monitoring well location plan for Apec 5 (PCA#28)



TECHNICAL MEMORANDUM

DATE November 15, 2018 **Project No.** 1791121 (5000)

TO Field Crew
Golder Associates Ltd.

FROM Kevan Browne/
Ryan Smith

**EMAIL kbrowne@golder.com/
rsmith@golder.com**

SAMPLING AND ANALYSIS PLAN, RIOCAN WINDFIELDS FARM DEVELOPMENT SITE - REMEDIATION

Objective

As required by Ontario Regulation (O.Reg.) 153/04, this site-specific sampling and analysis plan ("SAP") is to be addressed during the upcoming remediation and confirmation sampling program at the above referenced site (the "Site").

The objective of this remediation confirmation sampling program is to investigate the presence or absence of remaining environmental impacts to soil associated with the previously identified lead and antimony impacts in Topsoil at the Site, following the removal of the impacted topsoil by Ground Force Environmental Inc ("GFEI")

APEC	Location of APEC on Site	Potentially Contaminating Activity	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
APEC 1 Lead and Antimony impacted Topsoil	**Field south of the former residential dwelling, east/central portion of the Site, north of proposed Windfields Farm Drive and southeast of the forested area.**	***#30 Importation of Fill Material of Unknown Quality***	**On-Site**	**Metals, Hydride-Forming Metals**	**Soil**
APEC 3 Inferred former use of the property as a private shooting range	**South central portion of the Site.**	***#21 Explosives and Firing Range***	**On-Site**	**Metals, Hydride-Forming Metals**	**Soil**

*Metals and inorganics are proposed as baseline analyses as these impacts (if present) are not typically evident based on field observation. Should evidence of other potential contaminants impacts be identified during sampling (e.g. staining or odours), SAP is to be modified accordingly.

*Note- The bold text indicates the APECs that affect the Phase Two ESA Property.

GENERAL PROJECT INFORMATION AND REQUIREMENTS

- **Contact:**
  - General project questions – Kevan Browne 905-723-2727 (ext. 6677) (office) / 905-409-1650 (cell)
  - General project questions/environmental senior support – Ryan Smith (905) 903-6102 (Cell)
- Follow standard operating procedures, as a Record of Site Condition will be required.
- Complete a Daily Log for every day of fieldwork. Use standard field forms.
- Initial calibration of field equipment should be performed at the start of each field program.
  - Clean disposable Nitrile™ gloves will be used at each sampling location to prevent cross-contamination.
  - Any shared sampling equipment (shovels, trowels, etc.) shall be cleaned with a brush; washed with a laboratory-grade detergent solution (e.g., Alconox) and thoroughly rinsed with distilled water between each sample location.

Soil Sampling

It is understood that an approximately 70,000 m^2 area is to be excavated by GFEI. The entire area is to be over laid by a 25-metre by 25-metre grid. Testing locations are to be established within each cell. Wall samples to be collected from surrounding final walls of the excavation at an approximate 25-metre spacing.

All samples are to be collected from fresh face (approximately 0.006 to 0.015 m below existing grade. Samples are to be consolidated in a soil headspace bag and promptly placed into soil sampling jars and stored on ice, in a cooler, until delivery to MAXXAM Laboratories in Mississauga for analysis.

Headspace testing is not required unless obvious evidence of environmental impact is noted (objectionable odour, noticeable sheet or staining in the soil samples). Please contact Kevan or Ryan should this be encountered.

- A summary of soil samples including Quality Assurance/Quality Control ("QA/QC") samples is summarized in Table 1, below. The duplicate soil samples should be labelled in a manner in which the laboratory cannot identify the sample as a duplicate.

A summary of the number of soil samples (including QA/CQ samples) is provided in the table below.

Summary of Soil samples Including QA/QC Samples

Parameter	Sample Location	Soil samples	Duplicate samples
Metals, Hydride-Forming Metals	Floor of Excavation	250	25 Aerial coverage
Metals, Hydride-Forming Metals	Walls of Excavation	50	5 Aerial coverage

Notes: Metals = ICPMS Metals

Kevan Browne, B.A.
Project Manager, Contaminated Sites

Ryan J. Smith, P.Eng., QP_{ESA}
Senior Environmental Engineer, Associate

AVR/KDB/RJS;js

https://golderassociates.sharepoint.com/sites/20914g/deliverables/06. phase two esa/appendix a/(i) sap/remediation/1791121 (5000) tmem 2018'11'15 sample and analysis plan.docx

TECHNICAL MEMORANDUM

DATE July 18, 2018 **Project No.** 1791121 (4000)

TO Field Crew
Golder Associates Ltd.

FROM Kevan Browne/
Ryan Smith

**EMAIL kbrowne@golder.com/
rsmith@golder.com**

SAMPLING AND ANALYSIS PLAN, TRANSCANADA PIPELINE REMEDIATION, WINDFIELDS FARM

Objective

As required by Ontario Regulation (O.Reg.) 153/04, this site-specific sampling and analysis plan ("SAP") is to be addressed during the upcoming remediation and confirmation sampling program at the above referenced site (the "Site").

The objective of this remediation confirmation sampling program is to investigate the presence or absence of remaining environmental impacts to soil associated with the previously identified lead and antimony impacts in Topsoil at the Site, following the removal of the impacted topsoil by TransCanada Pipeline ("TCPL") and/or their contractor

APEC	Location of APEC on Site	Potentially Contaminating Activity	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
APEC 1 Lead and Antimony impacted Topsoil	**Field south of the former residential dwelling, east/central portion of the Site, north of proposed Windfields Farm Drive and southeast of the forested area.**	***#30 Importation of Fill Material of Unknown Quality***	**On-Site**	**ICPMS Metals**	**Soil**
APEC 3 Inferred former use of the property as a private shooting range	**South central portion of the Site.**	***#21 Explosives and Firing Range***	**On-Site**	**Metals, Hydride-Forming Metals**	**Soil**

*Metals and inorganics are proposed as baseline analyses as these impacts (if present) are not typically evident based on field observation. Should evidence of other potential contaminants impacts be identified during sampling (e.g. staining or odours), SAP is to be modified accordingly.

*Note- The bold text indicates the APECs that affect the Phase Two ESA Property.

GENERAL PROJECT INFORMATION AND REQUIREMENTS

- **Contact:**
  - General project questions – Kevan Browne 905-723-2727 (ext. 6677) (office) / 905-409-1650 (cell)
  - General project questions/environmental senior support – Ryan Smith (905) 903-6102 (Cell)
- Follow standard operating procedures, as a Record of Site Condition will be required.
- Complete a Daily Log for every day of fieldwork. Use standard field forms.
- Initial calibration of field equipment should be performed at the start of each field program.
  - Clean disposable Nitrile™ gloves will be used at each sampling location to prevent cross-contamination.
  - Any shared sampling equipment (shovels, trowels, etc.) shall be cleaned with a brush; washed with a laboratory-grade detergent solution (e.g., Alconox) and thoroughly rinsed with distilled waterbetween each sample location.

Soil Sampling

It is understood that an approximately 200 m (east to west) by 50 metre (north to south) excavation has been completed (by TCPL). Testing locations to be established at an approximate 14-metre spacing (east to west) by approximately 10-metre spacing (north to south). Wall samples to be collected from each of the east and west final walls of the excavation at an approximate 10-metre spacing (north to south).

All samples are to be collected from fresh face (approximately 0.006 to 0.015 m below existing grade) as a composite of material from within 2 metres of the sampling locations, from at least 3 discreet grab locations. Samples are to be consolidated in a soil headspace bag and promptly placed into soil sampling jars and stored on ice, in a cooler, until delivery to MAXXAM Laboratories in Mississauga for analysis.

Headspace testing is not required unless obvious evidence of environmental impact is noted (objectionable odour, noticeable sheet or staining in the soil samples). Please contact Kevan or Ryan should this be encountered.

- A summary of soil samples including Quality Assurance/Quality Control (“QA/QC”) samples is summarized in Table 1, below. The duplicate soil samples should be labelled in a manner in which the laboratory cannot identify the sample as a duplicate.

A summary of the number of soil samples (including QA/CQ samples) is provided in the table below.

Summary of Soil samples Including QA/QC Samples

Parameter	Sample Location	Soil samples	Duplicate samples
Metals, Hydride-Forming Metals	Floor of Excavation	56	6 Aerial coverage east to west
Metals, Hydride-Forming Metals	East and West Walls of Excavation	8	2 (one from each wall)

Kevan Browne, B.A.
Project Manager, Contaminated Sites

R.J. Smith, P.Eng., QP_{ESA}
Associate, Contaminated Sites

JS/KDB/RJS/js/ksb

https://golderassociates.sharepoint.com/sites/20914g/deliverables/04. remediation/02. report (site)/appendix c - tcpl report/1791121 (4000) sap tcpl july 2018.docx

APPENDIX A (ii)

Field Logs

PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: 19-1

BORING DATE: July 16, 2019

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		186.22						
0	AMS PowerProbe 9720 / 108 mm Solid Stem Augers (Direct Push 32 mm samples)	TOPSOIL		0.00 / 185.76	1	DO		ND		50 mm PVC Well Concrete
		(ML) sandy SILT, some clay, some gravel; brown, trace mottling; non-cohesive to cohesive, w~PL		0.46 / 185.00	2	DO		ND		Bentonite; Sand
1		(SM) SILTY SAND; brown; non-cohesive, wet		1.22 / 184.39	3	DO		□⊕		PHC BTEX; August 7, 2019
2		(ML) SILT, some to trace sand, some to trace gravel, some to trace clay; brown, trace iron staining; w~PL		1.83 / 183.17	4	DO		ND		Sand and Screen
					5	DO		ND		
3		(SM) SILTY SAND, trace gravel; brown; non-cohesive, wet		3.05 / 181.65	6	DO		ND		
					7	DO		ND		
4		END OF BOREHOLE		4.57						
5										
6										
7										
8										
9										
10										

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: AVR

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PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: 19-2

BORING DATE: July 16, 2019

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		186.84						
0	AMS PowerProbe 9720 / 108 mm Solid Stem Augers (Direct Push 32 mm samples)	TOPSOIL		0.00 / 186.23	1	DO		ND		50 mm PVC Well Concrete; Bentonite; Sand
1		(ML) CLAYEY SILT, trace sand, trace gravel; brown; cohesive, w~PL		0.61 / 185.62	2	DO		ND		
		(SM) SILTY SAND, some clay, some gravel; brown; non-cohesive, wet to moist		1.22 / 184.40	3	DO		ND	PHC BTEX	
2					4	DO		ND		August 7, 2019; Sand and Screen
		(ML) SILT, some sand, some gravel; brown/grey (mottled); non-cohesive, wet to moist		2.44 / 183.18	5	DO		ND		
3					6	DO		ND		
		(SM) SILTY SAND, trace gravel; brown/grey; non-cohesive, moist		3.66 / 182.57	7	DO		ND		
4		END OF BOREHOLE NOTE: 1. Refusal at 4.27 m due to large cobble		4.27						
5										
6										
7										
8										
9										
10										

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: AVR

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PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: 19-3

BORING DATE: July 16, 2019

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		187.34						
0	AMS PowerProbe 9720 / 108 mm Solid Stem Augers (Direct Push 32 mm samples)	TOPSOIL		0.00	1	DO		ND		50 mm PVC Well Concrete; Bentonite
				186.43						Sand
1		(SM) SILTY SAND, trace gravel; brown; non-cohesive, moist		0.91	2	DO		ND		
				186.12						
		(ML) CLAYEY SILT, trace sand, trace gravel; brown; cohesive, w~PL to w>PL		1.22	3	DO		ND		
2					4	DO		ND	PHC BTEX	August 7, 2019 Sand and Screen
				184.90						
		(ML) SILT, trace sand, trace clay, trace gravel; grey/brown; non-cohesive, moist to wet		2.44	5	DO		ND		
3					6	DO		ND		
4					7	DO		ND		
				182.77						
		END OF BOREHOLE		4.57						
5										
6										
7										
8										
9										
10										

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: AVR

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PROJECT: 1791121

RECORD OF BOREHOLE: BH15-8

SHEET 1 OF 1

LOCATION: N 4870476.30; E 668641.25

BORING DATE: July 15, 2015

DATUM: Geodetic

SPT/DCPT HAMMER: MASS, 64kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		184.65							
0	Pneumatic Plonjar 51 mm Split Spoon	Concrete		0.00							
		(CL) SILTY CLAY, trace gravel; brown; cohesive, w~PL, soft			1	SS		⊕		PHC BTEX	
				183.96							
1		(SP) SAND, some silt, trace gravel; brown; non-cohesive, dry, dense		0.69	2	SS		⊕			
				183.35							
		END OF BOREHOLE		1.30							
2											
3											
4											
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7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: GC

CHECKED:

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PROJECT: 1791121

RECORD OF BOREHOLE: BH15-9

SHEET 1 OF 1

LOCATION: N 4870478.91; E 668649.10

BORING DATE: July 15, 2015

DATUM: Geodetic

SPT/DCPT HAMMER: MASS, 64kg; DROP, 760mm

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected) 100 200 300 400 / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected) 100 200 300 400	HYDRAULIC CONDUCTIVITY, k, cm/s 10^{-6} 10^{-5} 10^{-4} 10^{-3} / WATER CONTENT PERCENT Wp W Wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		184.65						
0	Pneumatic Plonjar 51 mm Split Spoon	Concrete		0.00						
		(CL) SILTY CLAY, some gravel; brown; cohesive, w~PL, soft			1	SS		⊕		PHC BTEX
				183.94						
1		(SM) SILTY SAND, trace gravel; brown; non-cohesive, wet, very loose		0.71	2	SS		⊕		
				183.38						
		END OF BOREHOLE		1.27						
2										
3										
4										
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: GC

CHECKED:

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PROJECT: 1791121

LOCATION: N 4870463.27; E 668633.26

RECORD OF BOREHOLE: MW15-3

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

SPT/DCPT HAMMER: MASS, 64kg; DROP, 762mm

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp W Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		186.78						
0	TRACK MOUNTED CME 55 Split Spoon 203 mm Hollow Stem Auger	TOPSOIL		0.00	1A					
		(CL) SILTY CLAY; brown; cohesive, w~PL, very soft		186.17	1B	SS	2	ND		M+I
1		(SM) SILTY SAND, trace to some gravel, trace clay; brown; non-cohesive, moist to wet, compact to very dense		0.61	2	SS	12			Bentonite
2					3	SS	20			
					4	SS	36			Sand
3					5	SS	72			PHC BTEX
		(SP) SAND, some silt, trace gravel to gravelly sand, trace silt; brown to grey/brown; non-cohesive, moist, very dense		183.12 3.66	6	SS	50/0.15	ND		
4					7	SS	50/0.15	ND		Screen with sand
5				181.44						
		(SM) SILTY SAND, trace gravel; grey; non-cohesive, moist, very dense		5.34	8	SS	50/0.08	ND		
6				180.68						
		END OF BOREHOLE		6.10						1. Water level measured at a depth of 0.46 m below ground surface (Elev. 186.32 m asl), June 16/15
7										
8										
9										
10										

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870226.76; E 668465.28

RECORD OF BOREHOLE: MW15-11

BORING DATE: June 10, 2015

SHEET 1 OF 1

DATUM: Geodetic

SPT/DCPT HAMMER: MASS, 64kg; DROP, 762mm

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE		182.56						
	TRACK MOUNTED CME 55 Split Spoon 203 mm Hollow Stem Auger	TOPSOIL		0.00 / 182.33	1A					Bentonite
		(SM) SILTY SAND, trace gravel; brown; non-cohesive, moist, very loose		0.23 / 181.95	1B	SS	4			
1		(SP) SAND, coarse; brown; non-cohesive, wet, compact		0.61	2	SS	14			M+I
					3	SS	26			
2		(SM) SILTY SAND, trace gravel; brown; non-cohesive, wet, compact		180.42 / 2.14	4	SS	29			
		(SP) SAND, some gravel to gravelly sand; brown; non-cohesive, wet, dense		179.66 / 2.90	5	SS	31			Sand
3										
4					6	SS	47			
		(SM) SILTY SAND, some gravel; grey/brown; non-cohesive, wet, dense		178.14 / 4.42	7	SS	41			Screen with sand
5		(SP) SAND, some silt, some gravel; grey/brown; non-cohesive, wet, very dense		177.37 / 5.19	8	SS	50/0.15			
6		END OF BOREHOLE		176.46 / 6.10						
7										
8										
9										
10										

1. Water level measured at a depth of 1.17 m below ground surface (Elev. 181.39 m asl), June 16/15

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870402.21; E 668914.87

RECORD OF BOREHOLE: MW15-18

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

SPT/DCPT HAMMER: MASS, 64kg; DROP, 762mm

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE		183.60						
	TRACK MOUNTED CME 55 / Split Spoon 203 mm Hollow Stem Auger	TOPSOIL		0.00 / 183.29	1A	SS	5			
		(CH) CLAY, some silt; brown; cohesive, W~PL, firm		0.31 / 182.99	1B			ND		M+I
1		(ML) CLAYEY SILT, trace gravel; brown; cohesive, W>PL, firm		0.61 / 182.23	2	SS	6	ND		
2		(SM) SILTY SAND, trace gravel; brown/grey, mottled; non-cohesive, dry to moist, compact to dense		1.37	3	SS	41	ND		Bentonite
					4	SS	30			
3		(SP) SAND, some to trace silt; brown; non-cohesive, moist to dry, dense to compact		2.90	5	SS	31			Sand
4					6	SS	24	ND		
		(SM) SILTY SAND; brown to grey; non-cohesive, wet, compact to very dense		179.18 / 4.42	7	SS	11	ND		
5										Screen with sand
					8	SS	17	ND		
6					9	SS	53	ND		
		END OF BOREHOLE		176.89 / 6.71						
7										1. Water level measured at a depth of 5.78 m below ground surface (Elev. 177.82 m asl), June 16/15
8										
9										
10										

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870093.98; E 668626.45

RECORD OF BOREHOLE: MW15-19

BORING DATE: June 11, 2015

SHEET 1 OF 1

DATUM: Geodetic

SPT/DCPT HAMMER: MASS, 64kg; DROP, 762mm

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	NUMBER	TYPE	BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected) 100 200 300 400	HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected) 100 200 300 400	HYDRAULIC CONDUCTIVITY, k, cm/s 10^{-6} 10^{-5} 10^{-4} 10^{-3}	WATER CONTENT PERCENT Wp W Wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		182.32									
0	TRACK MOUNTED CME 55 Split Spoon 203 mm Hollow Stem Auger	TOPSOIL		0.00	1A			⊕					
		(ML) CLAYEY SILT, some sand, trace gravel; brown; cohesive, w~PL, soft		0.08	1B	SS	4	□	⊕			M+I	
				181.71									
		(SM) SILTY SAND, trace gravel; light brown; non-cohesive, dry, loose		0.61	2	SS	4	□	⊕				
1				180.95									
		(ML) CLAYEY SILT, trace gravel, trace sand; grey/ brown, mottled; non-cohesive to cohesive, dry to w>PL, compact to very stiff		1.37	3	SS	13	□	⊕				Bentonite
2					4	SS	39	□	⊕				
3					5	SS	29	□	⊕				Sand
				178.66									
		(CL) SILTY CLAY, trace gravel; grey; cohesive, w>PL, hard		3.66	6	SS	69	□	⊕				
4				177.90									
		(ML) SILT, some clay; grey; non-cohesive, moist, very dense		4.42	7	SS	64	□	⊕				Screen with sand
5				177.13									
		(SM) SILTY SAND, some gravel; grey; non-cohesive, wet, dense		5.19	8	SS	47	□	⊕				
6				176.22									
		END OF BOREHOLE		6.10									
7													
8													
9													
10													

1. Water level measured at a depth of 1.42 m below ground surface (Elev. 180.90 m asl), June 16/15

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870174.13; E 668270.10

RECORD OF BOREHOLE: TP15-7

BORING DATE: June 10, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		181.99							
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00	1			⊕			
				181.68							
		(CL) SILTY CLAY; brown; non-cohesive, w~PL		0.31							
				181.47	2			⊕		M+I	
		(MC) SILT, some clay, some gravel; grey/brown, mottled; non-cohesive, moist		0.52							
1		-Large boulder at 1 m									
				180.76	3			⊕			
		END OF TEST PIT		1.23							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870209.22; E 668360.02

RECORD OF BOREHOLE: TP15-8

BORING DATE: June 11, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		182.64						
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00	1			ND		
		(MC) CLAYEY SILT, trace sand; brown; cohesive, w~PL		0.28	2			ND		M+I
		(MC) SILT, some gravel, trace clay; grey/brown, mottled; non-cohesive, moist		181.97 0.67						
1		END OF TESTPIT		181.66 0.98	3			ND		
2										
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10										

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870108.34; E 668366.59

RECORD OF BOREHOLE: TP15-9

BORING DATE: June 11, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		179.53							
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00 / 179.29	1			ND		M+I	
		(SP) SAND, trace silt; brown; non-cohesive, moist		0.24 / 178.99	2			ND			
1		(ML) SILT, some gravel, trace clay; grey/brown, mottled; non-cohesive, moist		0.54 / 178.15	3			ND			
		END OF TEST PIT		1.38							
2											
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870209.22; E 668605.64

RECORD OF BOREHOLE: TP15-11

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE		183.63							
	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00 / 183.43	1			ND			
		(SP) SAND, some silt, trace clay; brown; non-cohesive, dry		0.20 / 183.14	2			ND			M+I
		(ML) CLAYEY SILT, trace gravel; light brown; cohesive, w~PL		0.49 / 182.53	3			ND			M+I
1		(ML) SILT, some gravel, trace clay; grey/brown, mottled; non-cohesive, moist		1.10 / 182.07	4			ND			
		END OF TEST PIT		1.56				ND			
2											
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10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870180.71; E 668776.70

RECORD OF BOREHOLE: TP15-12

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		183.32						
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00	1			ND		
				183.02						
		(SP) SAND, some clay, trace silt; brown; non-cohesive, moist		0.30						
				182.78	2			ND		M+I
		(ML) SILT, some clay, trace gravel; grey/brown, mottled; non-cohesive to cohesive, moist		0.54						
1					3			ND		
				182.15						
		(SP) SAND, trace gravel; light brown; non cohesive, dry		1.17	4			ND		
				181.76						
		END OF TEST PIT		1.56						
2										
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10										

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870318.87; E 668715.30

RECORD OF BOREHOLE: TP15-15

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		185.23						
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00	1			ND		
				184.92						
		(SP) CLAYEY SILT; brown; cohesive, w~PL		0.31	2			ND		M+I
				184.64						
		(ML) SILT, some clay, some gravel; brown/grey, mottled; non-cohesive, moist		0.59						
1					3			ND		
				183.99						
		(ML) SILT, some gravel, trace clay; grey/brown, mottled; non-cohesive, moist		1.24						
				183.70	4			ND		
		END OF TEST PIT		1.53						
2										
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8										
9										
10										

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870321.07; E 668912.67

RECORD OF BOREHOLE: TP15-16

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE		182.63							
	CAT420D Rubber Tire Backhoe -	TOPSOIL		0.00	1			ND		M+I	
				182.34	2			ND			
		(ML) CLAYEY SILT, trace sand; brown; cohesive, w<PL		0.29							
				182.02							
1		(SP) SAND; brown; non-cohesive, dry		0.61	3			ND			
2					4			ND			
				180.13							
		END OF TEST PIT		2.50							
3											
4											
5											
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9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870496.51; E 668822.76

RECORD OF BOREHOLE: TP15-17

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		184.65						
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00	1			ND		
				184.33						
		(ML) CLAYEY SILT; brown; cohesive, w~PL		0.32	2					M+I
				184.11						
		(ML) SILT, some clay, trace gravel; brown/grey, mottled; non-cohesive, moist		0.54						
1				183.50						
		(ML) SILT, trace gravel; trace clay; brown/grey; non-cohesive, moist		1.15	3			ND		
				183.23	4					
		END OF TEST PIT		1.42				ND		
2										
3										
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8										
9										
10										

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870134.87; E 668186.98

RECORD OF BOREHOLE: TP15-18

BORING DATE: June 10, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		182.12						
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00 / 181.81	1			⊕ □		
		(CL) SILTY CLAY; brown; cohesive, w~PL		0.31 / 181.56	2			⊕ □		M+I
		(ML) CLAYEY SILT, trace gravel; grey/brown, mottled; cohesive, w~PL		0.56 / 181.10	3			⊕ □		
1		(ML) SILT, some clay, trace gravel; grey/brown; non-cohesive, moist		1.02 / 180.82	4			⊕ □		
		END OF TEST PIT		1.30						
2										
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4869963.58; E 668247.64

RECORD OF BOREHOLE: TP15-20

BORING DATE: June 10, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		179.73							
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00	1			⊕ □		M+I	
				179.40							
		(CL) SILTY CLAY; brown; cohesive, w~PL		0.33 / 179.21	2			⊕ □			
		(ML) SILT, some clay, some gravel; grey/brown, mottled; non-cohesive, moist to wet		0.52							
1					3			⊕ □			
				178.28							
		END OF TEST PIT		1.45							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870034.72; E 668457.60

RECORD OF BOREHOLE: TP15-22

BORING DATE: June 11, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		177.72							
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00 / 177.44	1			ND			
		(ML) CLAYEY SILT; brown; cohesive, w~PL		0.28 / 177.16	2			ND		M+I	
1		(ML) Sandy SILT, some gravel, some clay; brown/grey, mottled; non-cohesive, moist		0.56	3			ND			
				175.98	4			ND			
		END OF TEST PIT		1.74							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870158.65; E 668810.58

RECORD OF BOREHOLE: TP15-24

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected) 100 200 300 400	HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected) 100 200 300 400	HYDRAULIC CONDUCTIVITY, k, cm/s 10^{-6} 10^{-5} 10^{-4} 10^{-3}	WATER CONTENT PERCENT Wp W Wl 10 20 30 40	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		182.74									
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00									
				182.49	1			ND					
		(ML) SILT, some clay, some sand; brown; non-cohesive to cohesive, moist		0.25									
				182.23	2			ND				M+I	
		(ML) CLAYEY SILT, some gravel, trace sand; grey/brown, mottled; cohesive, w<PL		0.51									
1					3			ND					
				181.12	4			ND					
		END OF TEST PIT		1.62									
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870287.47; E 668963.23

RECORD OF BOREHOLE: TP15-25

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		182.02						
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00 / 181.72	1			ND		M+I
		(ML) CLAYEY SILT, some sand; brown; cohesive, w<PL		0.30 / 181.43	2			ND		
		(ML) SILT, some clay, trace gravel and sand; light brown; cohesive, dry, w<PL		0.59 / 180.98	3			ND		
1		(ML) SILT, trace gravel, trace clay; light brown/grey, mottled; non-cohesive, dry		1.04 / 180.44	4			ND		
		END OF TESTPIT		1.58				ND		
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121

LOCATION: N 4870513.11; E 668879.13

RECORD OF BOREHOLE: TP15-26

BORING DATE: June 12, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	TYPE	BLOWS/0.3m	HEADSPACE COMBUSTIBLE VAPOUR CONCENTRATIONS [PPM] ⊕ (ND = Not Detected; 100 200 300 400) / HEADSPACE ORGANIC VAPOUR CONCENTRATIONS [PPM] □ (ND = Not Detected; 100 200 300 400)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		184.24						
0	CAT420D Rubber Tire Backhoe	TOPSOIL		0.00	1			ND		
				183.90						
		(SP) SAND, trace silt; brown; non-cohesive, dry		0.34	2			ND		M+I
				183.44						
1		(ML) CLAYEY SILT, some gravel; brown/light brown; cohesive, w~PL		0.80	3			ND		
				182.64						
		(ML) SILT, some gravel, trace clay; grey/brown; non-cohesive, moist		1.60	4			ND		
		END OF TEST PIT		1.75						
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED: KT

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PROJECT: 1791121 (5001)

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS19-500

BORING DATE: September 4, 2019

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	PREVIOUSLY EXCAVATED		0.00									
		(ML) CLAYEY SILT, some sand; light brown; cohesive, w~PL		0.50	1	GS						CN	
		END OF TEST PIT		0.60									
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121 (5001)

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS19-501

BORING DATE: September 4, 2019

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	PREVIOUSLY EXCAVATED		0.00									
		(ML) CLAYEY SILT, some sand; light brown; cohesive, w~PL		0.50	1	GS						CN	
		END OF TEST PIT		0.60									
1													
2													
3													
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8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

PROJECT: 1791121 (5001)

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS19-502

BORING DATE: September 4, 2019

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	PREVIOUSLY EXCAVATED		0.00									
		(ML) CLAYEY SILT, some sand; light brown; cohesive, w~PL		0.45	1	GS						CN	
		END OF TEST PIT		0.55									
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121 (5001)

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS19-503

BORING DATE: September 4, 2019

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	PREVIOUSLY EXCAVATED		0.00									
		(ML) CLAYEY SILT, some sand; light brown; cohesive, w~PL		0.45	1	GS						CN	
		END OF TEST PIT		0.55									
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121 (5001)

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS19-504

BORING DATE: September 4, 2019

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: STRATA PLOT	SOIL PROFILE: ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

PROJECT: 1791121 (5001)

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS19-505

BORING DATE: September 4, 2019

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE						SHEAR STRENGTH Cu, kPa — nat V. + Q - ● rem V. ⊕ U - ○ (20 40 60 80)	WATER CONTENT PERCENT Wp — W — Wl (10 20 30 40)		
0	HAND DUG	TOPSOIL		0.00	1	GS				CN	
		END OF TEST PIT		0.15							
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2											
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

PROJECT: 1791121 (5001)

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS19-506

BORING DATE: September 4, 2019

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL		0.00	1	GS						CN	
		END OF TEST PIT		0.15									
1													
2													
3													
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9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

PROJECT: 1791121 (5001)

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS19-507

BORING DATE: September 4, 2019

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				CN	
		END OF TEST PIT		0.15							
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2											
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10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS100

BORING DATE: November 30, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL		0.00	1	GS						Metals CN	
		END OF TEST PIT		0.15									
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS101

BORING DATE: November 30, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS102

BORING DATE: November 30, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS103

BORING DATE: November 30, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS104

BORING DATE: November 30, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS105

BORING DATE: November 30, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS106

BORING DATE: November 30, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS107

BORING DATE: November 30, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS108

BORING DATE: December 18, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	A	GS				Metals CN	
					B	GS					
		END OF TEST PIT		0.30							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS109

BORING DATE: December 18, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS110

BORING DATE: December 18, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	A	GS				Metals CN	
					B	GS				Metals CN	
		END OF TEST PIT		0.30							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS111

BORING DATE: December 18, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS112

BORING DATE: January 14, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0		TOP SOIL		0.00	1	GS					
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS113

BORING DATE: January 14, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0		TOP SOIL		0.00	1	GS					
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS114

BORING DATE: January 14, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0		TOP SOIL		0.00	1	GS					
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS115

BORING DATE: January 14, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0		TOP SOIL		0.00	1	GS					
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS116

BORING DATE: January 14, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	SOIL PROFILE: STRATA PLOT	SOIL PROFILE: ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0		TOP SOIL		0.00	1	GS					
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS117

BORING DATE: January 14, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp W Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0		TOP SOIL		0.00	1	GS					
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS118

BORING DATE: January 14, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0		TOP SOIL		0.00	1	GS					
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS119

BORING DATE: January 14, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

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GOLDER

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS120

BORING DATE: January 14, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS121

BORING DATE: January 14, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
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6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF BOREHOLE: HS122

BORING DATE: January 14, 2015

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				Metals CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
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7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS123

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (20 40 60 80) nat V. + Q - ● rem V. ⊕ U - ○	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT Wp W Wl (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		180.00									
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
				179.59									
		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.41	B	GS						METALS CN	
1				178.78									
		END OF TEST PIT		1.22									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS124

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		180.00				SHEAR STRENGTH Cu, kPa: nat V. + Q - ●; rem V. ⊕ U - ○ (20 40 60 80)	WATER CONTENT PERCENT: Wp — W — Wl (10 20 30 40)		
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00 / 179.80	A	GS				METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.20 / 179.49	B	GS					
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.51 / 178.86							
		END OF TEST PIT		1.14							
2											
3											
4											
5											
6											
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9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS125

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●, rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE		180.00									
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00 / 179.64	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.36 / 179.44	B	GS							
1		(SP) SAND, trace silt, trace gravel; grey/brown (mottled); non-cohesive, moist, reworked (NATIVE)		0.56 / 178.78									
		END OF TEST PIT		1.22									
2													
3													
4													
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8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS126

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.43	B	GS						METALS CN	
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.66									
		END OF TEST PIT		1.16									
2													
3													
4													
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9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS127

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS				METALS CN	
		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.28	B	GS					
1		END OF TEST PIT		1.02							
2											
3											
4											
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7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS128

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.30	B	GS							
		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.51									
1		END OF TEST PIT		0.97									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS129

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.30	B	GS							
		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.51									
1		END OF TEST PIT		1.02									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS130

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.30	B	GS							
		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.61									
1		END OF TEST PIT		0.99									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS131

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.30	B	GS							
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.53									
		END OF TEST PIT		1.14									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS132

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.30	B	GS						METALS CN	
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.56									
		END OF TEST PIT		1.22									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS133

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.30	B	GS							
1		(CL) CLAYEY SILT, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.51									
		END OF TEST PIT		1.12									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS134

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.33	B	GS							
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.61									
		END OF TEST PIT		1.30									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS135

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.33	B	GS							
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.53									
		END OF TEST PIT		1.12									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

GTA-BHS 001 S:\CLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-19

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS136

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.25	B	GS							
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.48									
		END OF TEST PIT		1.17									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS137

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.30	B	GS							
1		(CL) SILT, some gravel, some clay; grey/brown (mottled); non-cohesive, moist, reworked (NATIVE)		0.79									
		END OF TEST PIT		1.22									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS138

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.28	B	GS							
1		(CL) sandy SILT, trace gravel; grey/brown (mottled), trace cobbles; non-cohesive, moist, reworked (NATIVE)		0.69									
		END OF TEST PIT		1.19									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS139

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.36	B	GS							
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.66									
		END OF TEST PIT		1.27									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS140

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.38	B	GS						METALS CN	
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.71									
		END OF TEST PIT		1.24									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS141

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS				METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.28	B	GS					
		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.51							
1		END OF TEST PIT		1.04							
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS142

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS						METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.28	B	GS							
		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.51									
1		END OF TEST PIT		1.02									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: HS143

BORING DATE: February 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	CAT 420 RT	TOPSOIL - (ML) CLAYEY SILT; dark brown, some rootlets; cohesive, moist		0.00	A	GS				METALS CN	
		(ML) CLAYEY SILT; reddish brown; cohesive, moist, soft		0.30	B	GS					
1		(CL) SILTY CLAY, trace gravel; grey/brown (mottled); cohesive, moist, reworked (NATIVE)		0.58							
		END OF TEST PIT		1.19							
2											
3											
4											
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6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-1

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●; rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	310K RUBBER-TIRE DEERE	TOPSOIL		0.00	1	GS						METALS	
		(SP) SAND, some silt, some gravel; brown; non-cohesive, moist (NATIVE)		0.25	2	GS						METALS	
1		END OF TEST PIT		0.76									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-2

BORING DATE: November 20, 2017

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●; rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	DEERE 310K RUBBER-TIRE	TOPSOIL		0.00	1	GS						METALS	
		(SP) SAND, some gravel, trace silt; brown; non-cohesive, moist (NATIVE)		0.26	2	GS						METALS	
		(ML) CLAYEY SILT, some gravel; grey-brown (mottled); cohesive, w<PL		0.49									
1		END OF TEST PIT		0.77									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-3

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●; rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	10K RUBBER-TIRE DEERE 310	TOPSOIL		0.00	1	GS						METALS	
		(ML) sandy SILT, some clay, trace gravel; brown; cohesive, w~PL (NATIVE)		0.24	2	GS						METALS	
		(ML) CLAYEY SILT, some gravel; grey (TILL-LIKE); cohesive, w<PL		0.55									
1		END OF TEST PIT		0.75									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-4

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	DEERE 310K RUBBER-TIRE	TOPSOIL		0.00	1	GS						METALS	
		(SP) SAND, some gravel, trace silt; brown; non-cohesive, moist (NATIVE)		0.26	2	GS						METALS	
1		END OF TEST PIT		0.70									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-5

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	DEERE $10K RUBBER-TIRE	TOPSOIL		0.00	1	GS						METALS	
		(ML) CLAYEY SILT, some gravel; grey; cohesive, w~PL (NATIVE)		0.36	2	GS						METALS	
1		END OF TEST PIT		0.79									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-6

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	RUBBER-TIRE DEERE 310K	TOPSOIL		0.00	1	GS						METALS	
		(ML) sandy SILT, some clay, trace gravel; brown; cohesive, w~PL (NATIVE)		0.20	2	GS						METALS	
		END OF TEST PIT		0.60									
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-7

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	DEERE 310K RUBBER-TIRE	TOPSOIL		0.00	1	GS						METALS	
		(ML) sandy SILT, some clay, some gravel; grey/brown; cohesive, w~PL (NATIVE)		0.32	2	GS						METALS	
1		END OF TEST PIT		0.77									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-8

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	RUBBER-TIRE DEERE 310K	TOPSOIL		0.00	1	GS						METALS	
		(ML) SILT, some sand, some clay, trace gravel; brown; cohesive, w>PL (NATIVE)		0.20	2	GS						METALS	
1		END OF TEST PIT		0.62									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-9

BORING DATE: November 20, 2017

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●; rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	DEERE 310K RUBBER-TIRE	TOPSOIL		0.00	1	GS						METALS	
		(ML) CLAYEY SILT, trace gravel; grey/brown; cohesive, w~PL (NATIVE)		0.41	2	GS						METALS	
1		END OF TEST PIT		0.72									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-10

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	DEERE 310K RUBBER-TIRE	TOPSOIL		0.00	1	GS						METALS	
		(ML) SILT, some sand, trace gravel, trace clay; grey/brown; non-cohesive, moist (NATIVE)		0.40	2	GS						METALS	
1		END OF TEST PIT		0.70									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-11

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp ⊖ W I WI) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	DEERE 310K RUBBER-TIRE	TOPSOIL		0.00	1	GS				METALS	
		(ML) CLAYEY SILT, trace gravel; grey/brown; cohesive, w~PL (NATIVE)		0.34	2	GS				METALS	
1		END OF TEST PIT		0.66							
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 1791121

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP17-12

BORING DATE: November 20, 2017

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●; rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	DEERE 310K RUBBER-TIRE	TOPSOIL		0.00	1	GS						METALS	
		(ML) sandy SILT, some gravel, some clay; brown/grey (mottled); cohesive, w~PL (NATIVE)		0.34	2	GS						METALS	
1		END OF TEST PIT		0.90									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AVR

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP201

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace clay, trace gravel; grey to brown (NATIVE)		0.51	3	GS							
1		END OF TEST PIT		0.79									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP202

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace gravel; brown to grey		0.30	3	GS							
1					4	GS							
		END OF TEST PIT		1.02									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP203

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS				METALS CN	
					2	GS					
		(SM) SILTY SAND, trace gravel; brown to grey (NATIVE)		0.30							
					3	GS					
1		END OF TEST PIT		0.86							
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP204

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
		(SP) gravelly SAND, some cobbles; brown		0.15	2	GS							
		(ML) sandy SILT, trace gravel; brown to grey (NATIVE)		0.53	3	GS							
1		- Water at 0.91 m											
		END OF TEST PIT		1.27									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP205

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○; 20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace gravel; brown/grey (NATIVE)		0.30	3	GS							
1		END OF TEST PIT		0.81									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP206

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS				METALS CN	
					2	GS					
		(SM) SILTY SAND, trace gravel; brown/grey (NATIVE)		0.43	3	GS					
1		END OF TEST PIT		0.86							
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP207

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP208

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
5											
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9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP209

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP210

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP211

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP212

BORING DATE: July 12, 2016/ August 19, 2019

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE									
	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS				METALS CN	
		(SM) SILTY SAND, trace gravel; brown, some topsoil		0.15	2	GS				METALS CN	
		(SM) SILTY SAND, trace gravel; grey (NATIVE)		0.53	3	GS				METALS CN	
					4	GS				METALS CN	
1		END OF TEST PIT		0.86							
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP213

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	T BACKHOE CAT 420F	TOPSOIL		0.00	1	GS				METALS CN	
					2	GS					
		(SM) SILTY SAND, trace gravel; brown to grey (NATIVE)		0.25	3	GS					
		END OF TEST PIT		0.51							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP214

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace,gravel; grey/brown (NATIVE)		0.36	3	GS							
1		END OF TEST PIT		0.76									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP215

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○; 20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
		(SM) SILTY SAND, trace gravel; brown		0.15	2	GS							
		(ML) sandy CLAYEY SILT, trace gravel; grey to brown (NATIVE)		0.48	3	GS							
1		END OF TEST PIT		0.86									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP216

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS				METALS CN	
					2	GS					
		(SM) SILTY SAND, trace gravel; grey/brown (NATIVE)		0.30	3	GS					
1		END OF TEST PIT		0.86							
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP217

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace gravel; grey/brown (NATIVE)		0.36	3	GS							
		END OF TEST PIT		0.56									
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP218

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS				METALS CN	
					2	GS				METALS CN	
		(SM) SILTY SAND, trace gravel, trace clay; grey to brown (NATIVE)		0.46	3	GS				METALS CN	
					4	GS				METALS CN	
1		END OF TEST PIT		0.91							
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP219

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(ML) sandy CLAYEY SILT, trace gravel; grey (NATIVE)		0.56	3	GS							
1		END OF TEST PIT		0.84									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP220

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace gravel; brown to grey (NATIVE)		0.28	3	GS							
	CAT 420F IT	END OF TEST PIT		0.51									
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP221

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS				METALS CN	
					2	GS					
		(SM) SILTY SAND, trace gravel; brown to grey (NATIVE)		0.43	3	GS					
1		END OF TEST PIT		0.86							
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP222

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace gravel; brown to grey (NATIVE)		0.43	3	GS							
1		END OF TEST PIT		0.76									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP223

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS				METALS CN	
					2	GS					
		(SM) SILTY SAND, trace gravel; brown/grey (NATIVE)		0.30							
		END OF TEST PIT		0.69							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP224

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace gravel; brown/grey (NATIVE)		0.36	3	GS							
1		END OF TEST PIT		0.91									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP225

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●, rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT 420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace gravel; brown/grey (NATIVE)		0.25	3	GS							
		END OF TEST PIT		0.58									
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP226

BORING DATE: July 12, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	CAT420F IT BACKHOE	TOPSOIL		0.00	1	GS						METALS CN	
					2	GS							
		(SM) SILTY SAND, trace gravel; brown/grey (NATIVE)		0.46	3	GS							
1		END OF TEST PIT		0.76									
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP227

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP228

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

GTA-BHS 001 S:\CLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-19

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP229

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP230

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP231

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP232

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP233

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP234

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP235

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP236

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP237

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP238

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS					
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP239

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP240

BORING DATE: July 13, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP241

BORING DATE: July 15, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP242

BORING DATE: July 15, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp W Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP243

BORING DATE: July 15, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp W Wl; 10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP244

BORING DATE: July 15, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP245

BORING DATE: July 15, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP246

BORING DATE: July 15, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.15							
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: AS

CHECKED:

GTA-BHS 001 S:\CLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-19

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP300

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	(SM) SILTY SAND, some gravel; brown, rootlets, trace cobbles		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.13									
1													
2													
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6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP301

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (ML) CLAYEY SILT, trace sand; dark brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.10									
1													
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9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP302

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (ML) sandy SILT; brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.13									
1													
2													
3													
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9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP303

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (ML) sandy SILT; dark brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.15									
1													
2													
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP304

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (SM) SILTY SAND, trace gravel; dark brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.13									
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\SM\CLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP305

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (ML) sandy SILT; light brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.13									
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP306

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (ML) sandy SILT; brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.13									
1													
2													
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\SIM\CLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP307

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (ML) sandy SILT; brown, roots, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.15									
1													
2													
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP308

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●; rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (SP) SAND; dark brown, roots		0.00	1	GS							
		END OF TEST PIT		0.10									
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6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP309

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (SM) SILTY SAND; brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.15									
1													
2													
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4													
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7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP310

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (SM) SILTY SAND; brown, rootlets		0.00	1	GS							
	HAND	END OF TEST PIT		0.20									
1													
2													
3													
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9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP311

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	DUG / HAND	TOPSOIL - (SM) SILTY SAND; brown, roots		0.00	1	GS							
		END OF TEST PIT		0.18									
1													
2													
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4													
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6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP312

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (SM) SILTY SAND; brown, roots; dry		0.00	1	GS							
		END OF TEST PIT		0.15									
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2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP313

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	DUG	TOPSOIL - (SM) SILTY SAND; brown, roots		0.00	1	GS						METALS CN	
	HAND	END OF TEST PIT		0.18									
1													
2													
3													
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8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP314

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80) / SHEAR STRENGTH Cu, kPa (nat V. + Q - ● / rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3}) / WATER CONTENT PERCENT (Wp ⊖ W I WI) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE									
0	HAND DUG	TOPSOIL - (SM) SILTY SAND; brown, roots		0.00	1	GS				METALS CN	
		END OF TEST PIT		0.13							
1											
2											
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8											
9											
10											

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\SIM\CLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP315

BORING DATE: August 3, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - (SM) SILTY SAND; brown, roots		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.10									
1													
2													
3													
4													
5													
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7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\SIM\CLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP400

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. + Q - ●; rem V. ⊕ U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.08									
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP401

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - dark brown, rootlets, sticks		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.08									
1													
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3													
4													
5													
6													
7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP402

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - dark brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.08									
1													
2													
3													
4													
5													
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8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\S\MCLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP403

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
0		GROUND SURFACE											
	HAND DUG	TOPSOIL - dark brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.08									
1													
2													
3													
4													
5													
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7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP404

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - dark brown, rootlets, sticks		0.00	1	GS							
		END OF TEST PIT		0.08									
1													
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP405

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕, Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - dark brown, rootlets, sticks		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.08									
1													
2													
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DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP406

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - dark brown, rootlets, organics		0.00	1	GS							
		END OF TEST PIT		0.10									
1													
2													
3													
4													
5													
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7													
8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP407

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp — W — Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - dark brown, rootlets, roots		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.08									
1													
2													
3													
4													
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7													
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP408

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - dark brown, rootlets		0.00	1	GS							
		END OF TEST PIT		0.10									
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9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

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PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP409

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - dark brown, rootlets		0.00	1	GS						METALS CN	
		END OF TEST PIT		0.10									
1													
2													
3													
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5													
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8													
9													
10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

GTA-BHS 001 \\GOLDER.GDS\GAL\MISSISSAUGA\SIM\CLIENTS\RIOCAN\WINDFIELDS_FARM\02_DATA\GINT\WINDFIELD_OSHAWA.GPJ GAL-MIS.GDT 19-9-12

PROJECT: 14-1182-0003

LOCATION: SEE FIGURE

RECORD OF TEST PIT: TP410

BORING DATE: August 19, 2016

SHEET 1 OF 1

DATUM: Geodetic

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS/0.3m	DYNAMIC PENETRATION RESISTANCE, BLOWS/0.3m (20 40 60 80)	SHEAR STRENGTH Cu, kPa (nat V. +, rem V. ⊕; Q - ●, U - ○) (20 40 60 80)	HYDRAULIC CONDUCTIVITY, k, cm/s (10^{-6} 10^{-5} 10^{-4} 10^{-3})	WATER CONTENT PERCENT (Wp, W, Wl) (10 20 30 40)	ADDITIONAL LAB. TESTING	PIEZOMETER OR STANDPIPE INSTALLATION
		GROUND SURFACE											
0	HAND DUG	TOPSOIL - dark brown, rootlets		0.00	1	GS							
		END OF TEST PIT		0.08									
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10													

DEPTH SCALE

1 : 50

GOLDER

LOGGED: JK

CHECKED:

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APPENDIX A (iii)

Certificates of Analysis

Maxxam
A Bureau Veritas Group Company

Success Through Science®

Your Project #: 14-1182-0003 (2001-CD)
Site#: 14-1182-0003
Site Location: WINDFIELDS FARM
Your C.O.C. #: 516675-05-01

Attention:Sarah Robinson

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
L1N 8Y6

Report Date: 2015/06/23
Report #: R3481543
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5B6537
Received: 2015/06/17, 13:05

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Hot Water Extractable Boron	6	2015/06/19	2015/06/19	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	6	2015/06/18	2015/06/22	CAM SOP-00457	OMOE E3015 m
Conductivity	6	N/A	2015/06/22	CAM SOP-00414	OMOE E3138 v2 m
Hexavalent Chromium in Soil by IC (1)	6	2015/06/19	2015/06/22	CAM SOP-00436	EPA 3060/7199 m
Strong Acid Leachable Metals by ICPMS	6	2015/06/19	2015/06/19	CAM SOP-00447	EPA 6020A m
Moisture	6	N/A	2015/06/19	CAM SOP-00445	Carter 2nd ed 51.2 m
pH CaCl2 EXTRACT	6	2015/06/19	2015/06/19	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	6	2015/06/17	2015/06/23	CAM SOP-00102	EPA 6010

Remarks:

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.

The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following the 'Alberta Environment Draft Addenda to the CWS-PHC, Appendix 6, Validation of Alternate Methods'. Documentation is available upon request. Maxxam has made the following improvements to the CWS-PHC reference benchmark method: (i) Headspace for F1; and, (ii) Mechanical extraction for F2-F4. Note: F4G cannot be added to the C6 to C50 hydrocarbons. The extraction date for samples field preserved with methanol for F1 and Volatile Organic Compounds is considered to be the date sampled.

Maxxam Analytics is accredited for all specific parameters as required by Ontario Regulation 153/04. Maxxam Analytics is limited in liability to the actual cost of analysis unless otherwise agreed in writing. There is no other warranty expressed or implied. Samples will be retained at Maxxam Analytics for three weeks from receipt of data or as per contract.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) Soils are reported on a dry weight basis unless otherwise specified.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 14-1182-0003 (2001-CD)
Site#: 14-1182-0003
Site Location: WINDFIELDS FARM
Your C.O.C. #: 516675-05-01

Attention:Sarah Robinson

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
L1N 8Y6

Report Date: 2015/06/23
Report #: R3481543
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B5B6537
Received: 2015/06/17, 13:05

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Stephen McMillan, Project Manager
Email: smcmillan@maxxam.ca
Phone# (905)817-5700 Ext:5735

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B5B6537
Report Date: 2015/06/23

Golder Associates Ltd
Client Project #: 14-1182-0003 (2001-CD)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			ALS324	ALS325	ALS326	ALS327	ALS328		
Sampling Date			2015/06/12	2015/06/12	2015/06/12	2015/06/12	2015/06/12		
COC Number			516675-05-01	516675-05-01	516675-05-01	516675-05-01	516675-05-01		
	Units	Criteria	TP15-26 SA2	TP15-25 SA1	TP15-24 SA2	MW15-18 SA1B	DUP6 SA1B	RDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	**5.0**	0.24	0.22	0.24	0.26	0.27		4070485
Inorganics									
Chromium (VI)	ug/g	**0.66**	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	4073682
Conductivity	mS/cm	**0.7**	0.16	0.17	0.17	0.15	0.14	0.002	4074170
Free Cyanide	ug/g	**0.051**	0.02	0.04	0.01	<0.01	<0.01	0.01	4072124
Moisture	%	-	17	21	17	13	13	1.0	4073491
Available (CaCl2) pH	pH	-	7.50	7.36	7.40	7.67	7.67	N/A	4073512
Metals									
Hot Water Ext. Boron (B)	ug/g	**1.5**	0.13	0.44	0.16	0.11	0.093	0.050	4073454
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4073342
Acid Extractable Arsenic (As)	ug/g	**18**	<1.0	1.7	1.7	1.5	1.4	1.0	4073342
Acid Extractable Barium (Ba)	ug/g	**220**	23	41	37	34	35	0.50	4073342
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.29	0.36	0.43	0.32	0.32	0.20	4073342
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	4073342
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	0.23	0.12	<0.10	0.10	0.10	4073342
Acid Extractable Chromium (Cr)	ug/g	**70**	9.4	13	12	11	11	1.0	4073342
Acid Extractable Cobalt (Co)	ug/g	**22**	3.0	4.2	4.4	3.7	4.0	0.10	4073342
Acid Extractable Copper (Cu)	ug/g	**92**	3.9	7.7	6.8	8.4	8.6	0.50	4073342
Acid Extractable Lead (Pb)	ug/g	**120**	4.5	10	5.9	5.8	6.0	1.0	4073342
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4073342
Acid Extractable Nickel (Ni)	ug/g	**82**	5.7	8.3	8.5	8.4	9.6	0.50	4073342
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	4073342
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	4073342
Acid Extractable Thallium (Tl)	ug/g	**1**	0.056	0.11	0.096	0.11	0.10	0.050	4073342
Acid Extractable Uranium (U)	ug/g	**2.5**	0.40	0.49	0.49	0.48	0.49	0.050	4073342
Acid Extractable Vanadium (V)	ug/g	**86**	18	22	23	17	19	5.0	4073342
Acid Extractable Zinc (Zn)	ug/g	**290**	20	35	23	24	26	5.0	4073342
Acid Extractable Mercury (Hg)	ug/g	**0.27**	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	4073342

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B5B6537
Report Date: 2015/06/23

Golder Associates Ltd
Client Project #: 14-1182-0003 (2001-CD)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			ALS329	ALS329		
Sampling Date			2015/06/11	2015/06/11		
COC Number			516675-05-01	516675-05-01		
	Units	Criteria	MW15-19 SA1B	MW15-19 SA1B Lab-Dup	RDL	QC Batch
Calculated Parameters						
Sodium Adsorption Ratio	N/A	**5.0**	0.25			4070485
Inorganics						
Chromium (VI)	ug/g	**0.66**	<0.2		0.2	4073682
Conductivity	mS/cm	**0.7**	0.15	0.15	0.002	4074170
Free Cyanide	ug/g	**0.051**	0.01		0.01	4072124
Moisture	%	-	16		1.0	4073491
Available (CaCl2) pH	pH	-	7.61		N/A	4073512
Metals						
Hot Water Ext. Boron (B)	ug/g	**1.5**	0.35	0.34	0.050	4073454
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20		0.20	4073342
Acid Extractable Arsenic (As)	ug/g	**18**	1.7		1.0	4073342
Acid Extractable Barium (Ba)	ug/g	**220**	37		0.50	4073342
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.34		0.20	4073342
Acid Extractable Boron (B)	ug/g	**36**	<5.0		5.0	4073342
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.13		0.10	4073342
Acid Extractable Chromium (Cr)	ug/g	**70**	11		1.0	4073342
Acid Extractable Cobalt (Co)	ug/g	**22**	4.2		0.10	4073342
Acid Extractable Copper (Cu)	ug/g	**92**	6.6		0.50	4073342
Acid Extractable Lead (Pb)	ug/g	**120**	8.3		1.0	4073342
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50		0.50	4073342
Acid Extractable Nickel (Ni)	ug/g	**82**	7.8		0.50	4073342
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50		0.50	4073342
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20		0.20	4073342
Acid Extractable Thallium (Tl)	ug/g	**1**	0.087		0.050	4073342
Acid Extractable Uranium (U)	ug/g	**2.5**	0.43		0.050	4073342
Acid Extractable Vanadium (V)	ug/g	**86**	22		5.0	4073342
Acid Extractable Zinc (Zn)	ug/g	**290**	30		5.0	4073342
Acid Extractable Mercury (Hg)	ug/g	**0.27**	<0.050		0.050	4073342

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 8: Generic Site Condition Standards for Use within 30 m of a Water Body in a Potable Groundwater Condition
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B5B6537
Report Date: 2015/06/23

Golder Associates Ltd
Client Project #: 14-1182-0003 (2001-CD)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: ALS324
Sample ID: TP15-26 SA2
Matrix: Soil

Collected: 2015/06/12
Shipped:
Received: 2015/06/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	4073454	2015/06/19	2015/06/19	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	4072124	2015/06/18	2015/06/22	Xuanhong Qiu
Conductivity	AT	4074170	N/A	2015/06/22	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	4073682	2015/06/19	2015/06/22	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	4073342	2015/06/19	2015/06/19	Viviana Canzonieri
Moisture	BAL	4073491	N/A	2015/06/19	Chun Yan
pH CaCl2 EXTRACT	AT	4073512	2015/06/19	2015/06/19	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	4070485	2015/06/23	2015/06/23	Automated Statchk

Maxxam ID: ALS325
Sample ID: TP15-25 SA1
Matrix: Soil

Collected: 2015/06/12
Shipped:
Received: 2015/06/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	4073454	2015/06/19	2015/06/19	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	4072124	2015/06/18	2015/06/22	Xuanhong Qiu
Conductivity	AT	4074170	N/A	2015/06/22	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	4073682	2015/06/19	2015/06/22	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	4073342	2015/06/19	2015/06/19	Viviana Canzonieri
Moisture	BAL	4073491	N/A	2015/06/19	Chun Yan
pH CaCl2 EXTRACT	AT	4073512	2015/06/19	2015/06/19	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	4070485	2015/06/23	2015/06/23	Automated Statchk

Maxxam ID: ALS326
Sample ID: TP15-24 SA2
Matrix: Soil

Collected: 2015/06/12
Shipped:
Received: 2015/06/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	4073454	2015/06/19	2015/06/19	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	4072124	2015/06/18	2015/06/22	Xuanhong Qiu
Conductivity	AT	4074170	N/A	2015/06/22	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	4073682	2015/06/19	2015/06/22	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	4073342	2015/06/19	2015/06/19	Viviana Canzonieri
Moisture	BAL	4073491	N/A	2015/06/19	Chun Yan
pH CaCl2 EXTRACT	AT	4073512	2015/06/19	2015/06/19	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	4070485	2015/06/23	2015/06/23	Automated Statchk

Maxxam ID: ALS327
Sample ID: MW15-18 SA1B
Matrix: Soil

Collected: 2015/06/12
Shipped:
Received: 2015/06/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	4073454	2015/06/19	2015/06/19	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	4072124	2015/06/18	2015/06/22	Xuanhong Qiu

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Maxxam Job #: B5B6537
Report Date: 2015/06/23

Golder Associates Ltd
Client Project #: 14-1182-0003 (2001-CD)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: ALS327
Sample ID: MW15-18 SA1B
Matrix: Soil

Collected: 2015/06/12
Shipped:
Received: 2015/06/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	4074170	N/A	2015/06/22	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	4073682	2015/06/19	2015/06/22	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	4073342	2015/06/19	2015/06/19	Viviana Canzonieri
Moisture	BAL	4073491	N/A	2015/06/19	Chun Yan
pH CaCl2 EXTRACT	AT	4073512	2015/06/19	2015/06/19	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	4070485	2015/06/23	2015/06/23	Automated Statchk

Maxxam ID: ALS328
Sample ID: DUP6 SA1B
Matrix: Soil

Collected: 2015/06/12
Shipped:
Received: 2015/06/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	4073454	2015/06/19	2015/06/19	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	4072124	2015/06/18	2015/06/22	Xuanhong Qiu
Conductivity	AT	4074170	N/A	2015/06/22	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	4073682	2015/06/19	2015/06/22	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	4073342	2015/06/19	2015/06/19	Viviana Canzonieri
Moisture	BAL	4073491	N/A	2015/06/19	Chun Yan
pH CaCl2 EXTRACT	AT	4073512	2015/06/19	2015/06/19	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	4070485	2015/06/23	2015/06/23	Automated Statchk

Maxxam ID: ALS329
Sample ID: MW15-19 SA1B
Matrix: Soil

Collected: 2015/06/11
Shipped:
Received: 2015/06/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	4073454	2015/06/19	2015/06/19	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	4072124	2015/06/18	2015/06/22	Xuanhong Qiu
Conductivity	AT	4074170	N/A	2015/06/22	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	4073682	2015/06/19	2015/06/22	Sally Coughlin
Strong Acid Leachable Metals by ICPMS	ICP/MS	4073342	2015/06/19	2015/06/19	Viviana Canzonieri
Moisture	BAL	4073491	N/A	2015/06/19	Chun Yan
pH CaCl2 EXTRACT	AT	4073512	2015/06/19	2015/06/19	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	4070485	2015/06/23	2015/06/23	Automated Statchk

Maxxam ID: ALS329 Dup
Sample ID: MW15-19 SA1B
Matrix: Soil

Collected: 2015/06/11
Shipped:
Received: 2015/06/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	4073454	2015/06/19	2015/06/19	Suban Kanapathippllai
Conductivity	AT	4074170	N/A	2015/06/22	Lemeneh Addis

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GENERAL COMMENTS

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

Package 1	0.3°C

The cooler custody seal was present and intact.

Sample ALS324-01 : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample ALS325-01 : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample ALS326-01 : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample ALS327-01 : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample ALS328-01 : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample ALS329-01 : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Results relate only to the items tested.

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Golder Associates Ltd
Client Project #: 14-1182-0003 (2001-CD)
Site Location: WINDFIELDS FARM
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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
4072124	XQI	Matrix Spike	Free Cyanide	2015/06/22		98	%	75 - 125
4072124	XQI	Spiked Blank	Free Cyanide	2015/06/22		98	%	80 - 120
4072124	XQI	Method Blank	Free Cyanide	2015/06/22	<0.01		ug/g	
4072124	XQI	RPD	Free Cyanide	2015/06/22	NC		%	35
4073342	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2015/06/19		93	%	75 - 125
			Acid Extractable Arsenic (As)	2015/06/19		92	%	75 - 125
			Acid Extractable Barium (Ba)	2015/06/19		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2015/06/19		99	%	75 - 125
			Acid Extractable Boron (B)	2015/06/19		97	%	75 - 125
			Acid Extractable Cadmium (Cd)	2015/06/19		97	%	75 - 125
			Acid Extractable Chromium (Cr)	2015/06/19		NC	%	75 - 125
			Acid Extractable Cobalt (Co)	2015/06/19		94	%	75 - 125
			Acid Extractable Copper (Cu)	2015/06/19		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2015/06/19		97	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2015/06/19		99	%	75 - 125
			Acid Extractable Nickel (Ni)	2015/06/19		96	%	75 - 125
			Acid Extractable Selenium (Se)	2015/06/19		100	%	75 - 125
			Acid Extractable Silver (Ag)	2015/06/19		98	%	75 - 125
			Acid Extractable Thallium (Tl)	2015/06/19		97	%	75 - 125
			Acid Extractable Uranium (U)	2015/06/19		98	%	75 - 125
			Acid Extractable Vanadium (V)	2015/06/19		NC	%	75 - 125
			Acid Extractable Zinc (Zn)	2015/06/19		NC	%	75 - 125
			Acid Extractable Mercury (Hg)	2015/06/19		106	%	75 - 125
4073342	VIV	Spiked Blank	Acid Extractable Antimony (Sb)	2015/06/19		104	%	80 - 120
			Acid Extractable Arsenic (As)	2015/06/19		103	%	80 - 120
			Acid Extractable Barium (Ba)	2015/06/19		102	%	80 - 120
			Acid Extractable Beryllium (Be)	2015/06/19		98	%	80 - 120
			Acid Extractable Boron (B)	2015/06/19		95	%	80 - 120
			Acid Extractable Cadmium (Cd)	2015/06/19		102	%	80 - 120
			Acid Extractable Chromium (Cr)	2015/06/19		99	%	80 - 120
			Acid Extractable Cobalt (Co)	2015/06/19		102	%	80 - 120
			Acid Extractable Copper (Cu)	2015/06/19		103	%	80 - 120
			Acid Extractable Lead (Pb)	2015/06/19		103	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2015/06/19		108	%	80 - 120
			Acid Extractable Nickel (Ni)	2015/06/19		101	%	80 - 120
			Acid Extractable Selenium (Se)	2015/06/19		103	%	80 - 120
			Acid Extractable Silver (Ag)	2015/06/19		102	%	80 - 120
			Acid Extractable Thallium (Tl)	2015/06/19		103	%	80 - 120
			Acid Extractable Uranium (U)	2015/06/19		102	%	80 - 120
			Acid Extractable Vanadium (V)	2015/06/19		99	%	80 - 120
			Acid Extractable Zinc (Zn)	2015/06/19		98	%	80 - 120
			Acid Extractable Mercury (Hg)	2015/06/19		108	%	80 - 120
4073342	VIV	Method Blank	Acid Extractable Antimony (Sb)	2015/06/19	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2015/06/19	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2015/06/19	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2015/06/19	<0.20		ug/g	
			Acid Extractable Boron (B)	2015/06/19	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2015/06/19	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2015/06/19	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2015/06/19	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2015/06/19	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2015/06/19	<1.0		ug/g	

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Maxxam Job #: B5B6537
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Golder Associates Ltd
Client Project #: 14-1182-0003 (2001-CD)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
			Acid Extractable Molybdenum (Mo)	2015/06/19	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2015/06/19	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2015/06/19	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2015/06/19	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2015/06/19	<0.050		ug/g	
			Acid Extractable Uranium (U)	2015/06/19	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2015/06/19	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2015/06/19	<5.0		ug/g	
			Acid Extractable Mercury (Hg)	2015/06/19	<0.050		ug/g	
4073342	VIV	RPD	Acid Extractable Antimony (Sb)	2015/06/19	NC		%	30
			Acid Extractable Arsenic (As)	2015/06/19	NC		%	30
			Acid Extractable Barium (Ba)	2015/06/19	0.55		%	30
			Acid Extractable Beryllium (Be)	2015/06/19	NC		%	30
			Acid Extractable Boron (B)	2015/06/19	NC		%	30
			Acid Extractable Cadmium (Cd)	2015/06/19	NC		%	30
			Acid Extractable Chromium (Cr)	2015/06/19	4.6		%	30
			Acid Extractable Cobalt (Co)	2015/06/19	7.1		%	30
			Acid Extractable Copper (Cu)	2015/06/19	3.1		%	30
			Acid Extractable Lead (Pb)	2015/06/19	NC		%	30
			Acid Extractable Molybdenum (Mo)	2015/06/19	NC		%	30
			Acid Extractable Nickel (Ni)	2015/06/19	3.2		%	30
			Acid Extractable Selenium (Se)	2015/06/19	NC		%	30
			Acid Extractable Silver (Ag)	2015/06/19	NC		%	30
			Acid Extractable Thallium (Tl)	2015/06/19	NC		%	30
			Acid Extractable Uranium (U)	2015/06/19	0.057		%	30
			Acid Extractable Vanadium (V)	2015/06/19	3.3		%	30
			Acid Extractable Zinc (Zn)	2015/06/19	NC		%	30
4073454	SUK	Matrix Spike [ALS329-01]	Hot Water Ext. Boron (B)	2015/06/19		99	%	75 - 125
4073454	SUK	Spiked Blank	Hot Water Ext. Boron (B)	2015/06/19		101	%	75 - 125
4073454	SUK	Method Blank	Hot Water Ext. Boron (B)	2015/06/19	<0.050		ug/g	
4073454	SUK	RPD [ALS329-01]	Hot Water Ext. Boron (B)	2015/06/19	1.9		%	40
4073491	VGS	RPD	Moisture	2015/06/19	0.82		%	20
4073512	NYS	Spiked Blank	Available (CaCl2) pH	2015/06/19		99	%	97 - 103
4073512	NYS	RPD	Available (CaCl2) pH	2015/06/19	1.5		%	N/A
4073682	SAC	Matrix Spike	Chromium (VI)	2015/06/22		87	%	75 - 125
4073682	SAC	QC Standard	Chromium (VI)	2015/06/22		88	%	80 - 120
4073682	SAC	Spiked Blank	Chromium (VI)	2015/06/22		99	%	80 - 120
4073682	SAC	Method Blank	Chromium (VI)	2015/06/22	<0.2		ug/g	
4073682	SAC	RPD	Chromium (VI)	2015/06/22	NC		%	35
4074170	L_A	Spiked Blank	Conductivity	2015/06/22		99	%	90 - 110
4074170	L_A	Method Blank	Conductivity	2015/06/22	<0.002		mS/cm	

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Golder Associates Ltd
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Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
4074170	L_A	RPD [ALS329-01]	Conductivity	2015/06/22	0.47		%	10

N/A = Not Applicable

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

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

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Exceedence Summary Table – Reg153/04 T8-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1791121 (5001)
Your C.O.C. #: 726200-01-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/07/23
Report #: R5808987
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9J6555
Received: 2019/07/17, 15:12

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	3	N/A	2019/07/19	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	1	N/A	2019/07/20	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	4	2019/07/18	2019/07/19	CAM SOP-00316	CCME CWS m
Moisture	4	N/A	2019/07/18	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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

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

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

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

Your Project #: 1791121 (5001)
Your C.O.C. #: 726200-01-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/07/23
Report #: R5808987
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9J6555
Received: 2019/07/17, 15:12

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: Ema.Gitej@bvlabs.com
Phone# (905)817-5829

==========

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

BV Labs Job #: B9J6555
Report Date: 2019/07/23

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AV

O.REG 153 PETROLEUM HYDROCARBONS (SOIL)

BV Labs ID			KHE113	KHE115			KHE115		
Sampling Date			2019/07/16 10:00	2019/07/16 10:00			2019/07/16 10:00		
COC Number			726200-01-01	726200-01-01			726200-01-01		
	UNITS	Criteria	BH19-1 SA3	BH19-2 SA3	RDL	QC Batch	BH19-2 SA3 Lab-Dup	RDL	QC Batch
Inorganics									
Moisture	%	-	11	9.4	1.0	6234661	8.5	1.0	6234661
BTEX & F1 Hydrocarbons									
Benzene	ug/g	0.02	<0.020	<0.020	0.020	6238049			
Toluene	ug/g	0.2	<0.020	<0.020	0.020	6238049			
Ethylbenzene	ug/g	0.05	<0.020	<0.020	0.020	6238049			
o-Xylene	ug/g	-	<0.020	<0.020	0.020	6238049			
p+m-Xylene	ug/g	-	<0.040	<0.040	0.040	6238049			
Total Xylenes	ug/g	0.05	<0.040	<0.040	0.040	6238049			
F1 (C6-C10)	ug/g	25	<10	<10	10	6238049			
F1 (C6-C10) - BTEX	ug/g	25	<10	<10	10	6238049			
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	10	<10	<10	10	6234481			
F3 (C16-C34 Hydrocarbons)	ug/g	240	<50	<50	50	6234481			
F4 (C34-C50 Hydrocarbons)	ug/g	120	<50	<50	50	6234481			
Reached Baseline at C50	ug/g	-	Yes	Yes		6234481			
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	-	103	103		6238049			
4-Bromofluorobenzene	%	-	98	96		6238049			
D10-Ethylbenzene	%	-	85	86		6238049			
D4-1,2-Dichloroethane	%	-	95	96		6238049			
o-Terphenyl	%	-	96	95		6234481			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: B9J6555
Report Date: 2019/07/23

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AV

O.REG 153 PETROLEUM HYDROCARBONS (SOIL)

BV Labs ID			KHE117	KHE119		
Sampling Date			2019/07/16 10:00	2019/07/16 10:00		
COC Number			726200-01-01	726200-01-01		
	UNITS	Criteria	BH19-3 SA4	DUP1 SA3	RDL	QC Batch
Inorganics						
Moisture	%	-	15	9.1	1.0	6234661
BTEX & F1 Hydrocarbons						
Benzene	ug/g	0.02	<0.020	<0.020	0.020	6238049
Toluene	ug/g	0.2	<0.020	<0.020	0.020	6238049
Ethylbenzene	ug/g	0.05	<0.020	<0.020	0.020	6238049
o-Xylene	ug/g	-	<0.020	<0.020	0.020	6238049
p+m-Xylene	ug/g	-	<0.040	<0.040	0.040	6238049
Total Xylenes	ug/g	0.05	<0.040	<0.040	0.040	6238049
F1 (C6-C10)	ug/g	25	<10	<10	10	6238049
F1 (C6-C10) - BTEX	ug/g	25	<10	<10	10	6238049
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	10	<10	<10	10	6234481
F3 (C16-C34 Hydrocarbons)	ug/g	240	<50	<50	50	6234481
F4 (C34-C50 Hydrocarbons)	ug/g	120	<50	<50	50	6234481
Reached Baseline at C50	ug/g	-	Yes	Yes		6234481
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	-	103	103		6238049
4-Bromofluorobenzene	%	-	95	97		6238049
D10-Ethylbenzene	%	-	84	80		6238049
D4-1,2-Dichloroethane	%	-	95	98		6238049
o-Terphenyl	%	-	96	96		6234481

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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BV Labs Job #: B9J6555
Report Date: 2019/07/23

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AV

TEST SUMMARY

BV Labs ID: KHE113
Sample ID: BH19-1 SA3
Matrix: Soil

Collected: 2019/07/16
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	6238049	N/A	2019/07/19	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6234481	2019/07/18	2019/07/19	Dorina Popa
Moisture	BAL	6234661	N/A	2019/07/18	Min Yang

BV Labs ID: KHE115
Sample ID: BH19-2 SA3
Matrix: Soil

Collected: 2019/07/16
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	6238049	N/A	2019/07/19	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6234481	2019/07/18	2019/07/19	Dorina Popa
Moisture	BAL	6234661	N/A	2019/07/18	Min Yang

BV Labs ID: KHE115 Dup
Sample ID: BH19-2 SA3
Matrix: Soil

Collected: 2019/07/16
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	6234661	N/A	2019/07/18	Min Yang

BV Labs ID: KHE117
Sample ID: BH19-3 SA4
Matrix: Soil

Collected: 2019/07/16
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	6238049	N/A	2019/07/19	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6234481	2019/07/18	2019/07/19	Dorina Popa
Moisture	BAL	6234661	N/A	2019/07/18	Min Yang

BV Labs ID: KHE119
Sample ID: DUP1 SA3
Matrix: Soil

Collected: 2019/07/16
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	6238049	N/A	2019/07/20	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6234481	2019/07/18	2019/07/19	Dorina Popa
Moisture	BAL	6234661	N/A	2019/07/18	Min Yang

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GENERAL COMMENTS

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

Package 1	1.0°C

Results relate only to the items tested.

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BV Labs Job #: B9J6555
Report Date: 2019/07/23

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AV

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6234481	DPO	Matrix Spike	o-Terphenyl	2019/07/19		98	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/07/19		97	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2019/07/19		98	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2019/07/19		96	%	50 - 130
6234481	DPO	Spiked Blank	o-Terphenyl	2019/07/19		92	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/07/19		98	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2019/07/19		93	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2019/07/19		90	%	80 - 120
6234481	DPO	Method Blank	o-Terphenyl	2019/07/19		96	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/07/19	<10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2019/07/19	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2019/07/19	<50		ug/g	
6234481	DPO	RPD	F2 (C10-C16 Hydrocarbons)	2019/07/19	27		%	30
			F3 (C16-C34 Hydrocarbons)	2019/07/19	12		%	30
			F4 (C34-C50 Hydrocarbons)	2019/07/19	9.2		%	30
6234661	GYA	RPD [KHE115-01]	Moisture	2019/07/18	10		%	20
6238049	RGA	Matrix Spike	1,4-Difluorobenzene	2019/07/19		103	%	60 - 140
			4-Bromofluorobenzene	2019/07/19		96	%	60 - 140
			D10-Ethylbenzene	2019/07/19		89	%	60 - 140
			D4-1,2-Dichloroethane	2019/07/19		96	%	60 - 140
			Benzene	2019/07/19		93	%	60 - 140
			Toluene	2019/07/19		102	%	60 - 140
			Ethylbenzene	2019/07/19		101	%	60 - 140
			o-Xylene	2019/07/19		98	%	60 - 140
			p+m-Xylene	2019/07/19		99	%	60 - 140
			F1 (C6-C10)	2019/07/19		110	%	60 - 140
6238049	RGA	Spiked Blank	1,4-Difluorobenzene	2019/07/19		103	%	60 - 140
			4-Bromofluorobenzene	2019/07/19		96	%	60 - 140
			D10-Ethylbenzene	2019/07/19		86	%	60 - 140
			D4-1,2-Dichloroethane	2019/07/19		97	%	60 - 140
			Benzene	2019/07/19		95	%	60 - 140
			Toluene	2019/07/19		105	%	60 - 140
			Ethylbenzene	2019/07/19		102	%	60 - 140
			o-Xylene	2019/07/19		99	%	60 - 140
			p+m-Xylene	2019/07/19		102	%	60 - 140
			F1 (C6-C10)	2019/07/19		110	%	80 - 120
6238049	RGA	Method Blank	1,4-Difluorobenzene	2019/07/19		103	%	60 - 140
			4-Bromofluorobenzene	2019/07/19		96	%	60 - 140
			D10-Ethylbenzene	2019/07/19		84	%	60 - 140
			D4-1,2-Dichloroethane	2019/07/19		96	%	60 - 140
			Benzene	2019/07/19	<0.020		ug/g	
			Toluene	2019/07/19	<0.020		ug/g	
			Ethylbenzene	2019/07/19	<0.020		ug/g	
			o-Xylene	2019/07/19	<0.020		ug/g	
			p+m-Xylene	2019/07/19	<0.040		ug/g	
			Total Xylenes	2019/07/19	<0.040		ug/g	
			F1 (C6-C10)	2019/07/19	<10		ug/g	
			F1 (C6-C10) - BTEX	2019/07/19	<10		ug/g	
6238049	RGA	RPD	Benzene	2019/07/19	NC		%	50
			Toluene	2019/07/19	NC		%	50
			Ethylbenzene	2019/07/19	NC		%	50
			o-Xylene	2019/07/19	NC		%	50
			p+m-Xylene	2019/07/19	NC		%	50
			Total Xylenes	2019/07/19	NC		%	50

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			F1 (C6-C10)	2019/07/19	NC		%	30
			F1 (C6-C10) - BTEX	2019/07/19	NC		%	30

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

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

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

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

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

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

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BV Labs Job #: B9J6555
Report Date: 2019/07/23

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

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

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
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Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-10-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/09/09
Report #: R5872147
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9O7335
Received: 2019/09/05, 15:58

Sample Matrix: Soil
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Free (WAD) Cyanide	9	2019/09/05	2019/09/06	CAM SOP-00457	OMOE E3015 m
Moisture	9	N/A	2019/09/07	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-10-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/09/09
Report #: R5872147
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9O7335
Received: 2019/09/05, 15:58

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: Ema.Gitej@bvlabs.com
Phone# (905)817-5829

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

BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

RESULTS OF ANALYSES OF SOIL

BV Labs ID			KRV100	KRV101	KRV102	KRV103	KRV104		
Sampling Date			2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00		
COC Number			704923-10-01	704923-10-01	704923-10-01	704923-10-01	704923-10-01		
	UNITS	**Criteria**	**HS19-500**	**HS19-501**	**HS19-502**	**HS19-503**	**HS19-504**	**RDL**	**QC Batch**
Inorganics									
Moisture	%	-	11	12	17	9.3	11	1.0	6320565
WAD Cyanide (Free)	ug/g	**0.051**	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	6317101

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

BV Labs ID			KRV105	KRV106	KRV107	KRV108		
Sampling Date			2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00		
COC Number			704923-10-01	704923-10-01	704923-10-01	704923-10-01		
	UNITS	**Criteria**	**HS19-505**	**HS19-506**	**HS19-507**	**DUP1**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	-	22	8.3	13	12	1.0	6320565
WAD Cyanide (Free)	ug/g	**0.051**	<0.01	<0.01	<0.01	<0.01	0.01	6317101

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

TEST SUMMARY

BV Labs ID: KRV100
Sample ID: HS19-500
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV101
Sample ID: HS19-501
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV102
Sample ID: HS19-502
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV103
Sample ID: HS19-503
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV104
Sample ID: HS19-504
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV105
Sample ID: HS19-505
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

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BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

TEST SUMMARY

BV Labs ID: KRV106
Sample ID: HS19-506
Matrix: Soil

Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV107
Sample ID: HS19-507
Matrix: Soil

Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV108
Sample ID: DUP1
Matrix: Soil

Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

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BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

GENERAL COMMENTS

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

Package 1	2.7°C

Results relate only to the items tested.

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BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6317101	GTO	Matrix Spike	WAD Cyanide (Free)	2019/09/06		96	%	75 - 125
6317101	GTO	Spiked Blank	WAD Cyanide (Free)	2019/09/06		100	%	80 - 120
6317101	GTO	Method Blank	WAD Cyanide (Free)	2019/09/06	<0.01		ug/g	
6317101	GTO	RPD	WAD Cyanide (Free)	2019/09/06	NC		%	35
6320565	JMP	RPD	Moisture	2019/09/07	7.1		%	20

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

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

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

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

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

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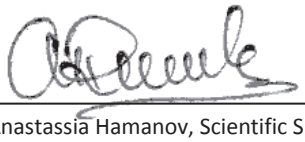
BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Brad Newman, Scientific Service Specialist

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

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BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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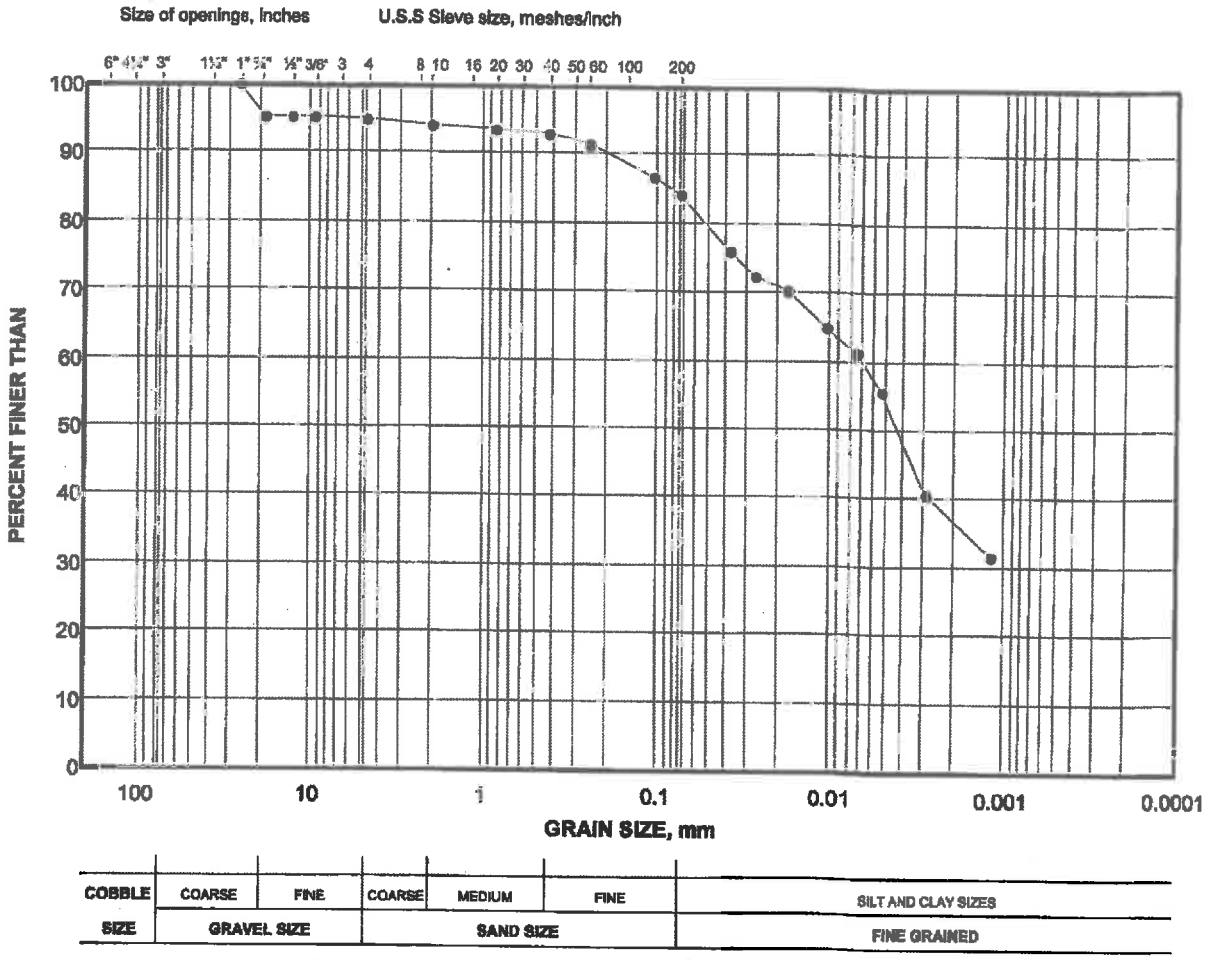
GRAIN SIZE DISTRIBUTION
MTO LS-702

FIGURE



LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH(m)
●	MW 15-19	4	

Project Number: 14-1182-0003 (2001)

Checked By: _____

Golder Associates

Date: 07-Jul-15

SOIL SIEVE AND HYDROMETER ANALYSIS

Initial weight of dry sample = 361.5(g)
Weight measured for back sieving = 50.3(g)
Weight of Sample for Hydrometer = 50.3(g)

COARSE SIEVING

SIEVE	CUM. MASS RETAINED (g)	% RETAINED	PARTICLE SIZE(mm)	% PASSING
63mm	0.00	0.00	63.00	100.0
53mm	0.00	0.00	53.00	100.0
37.5mm	0.00	0.00	37.50	100.0
26.5mm	0.00	0.00	26.50	100.0
19.0mm	17.74	4.91	19.00	95.1
13.2mm	17.74	0.00	13.20	95.1
9.5mm	17.74	0.00	9.50	95.1
4.75mm	18.63	0.25	4.75	94.8
2.00mm	20.79	0.60	2.00	94.2
PAN	340.32	94.24	0.00	0.0

HYDROMETER BACK SIEVING

SIEVE	CUM. MASS RETAINED (g)	% RETAINED	PARTICLE SIZE(mm)	% PASSING
850µm	0.46	0.86	0.85	93.4
425µm	0.73	0.51	0.43	92.9
250µm	1.39	1.24	0.25	91.6
106µm	4.05	4.98	0.11	86.7
75µm	5.34	2.42	0.08	84.2

HYDROMETER

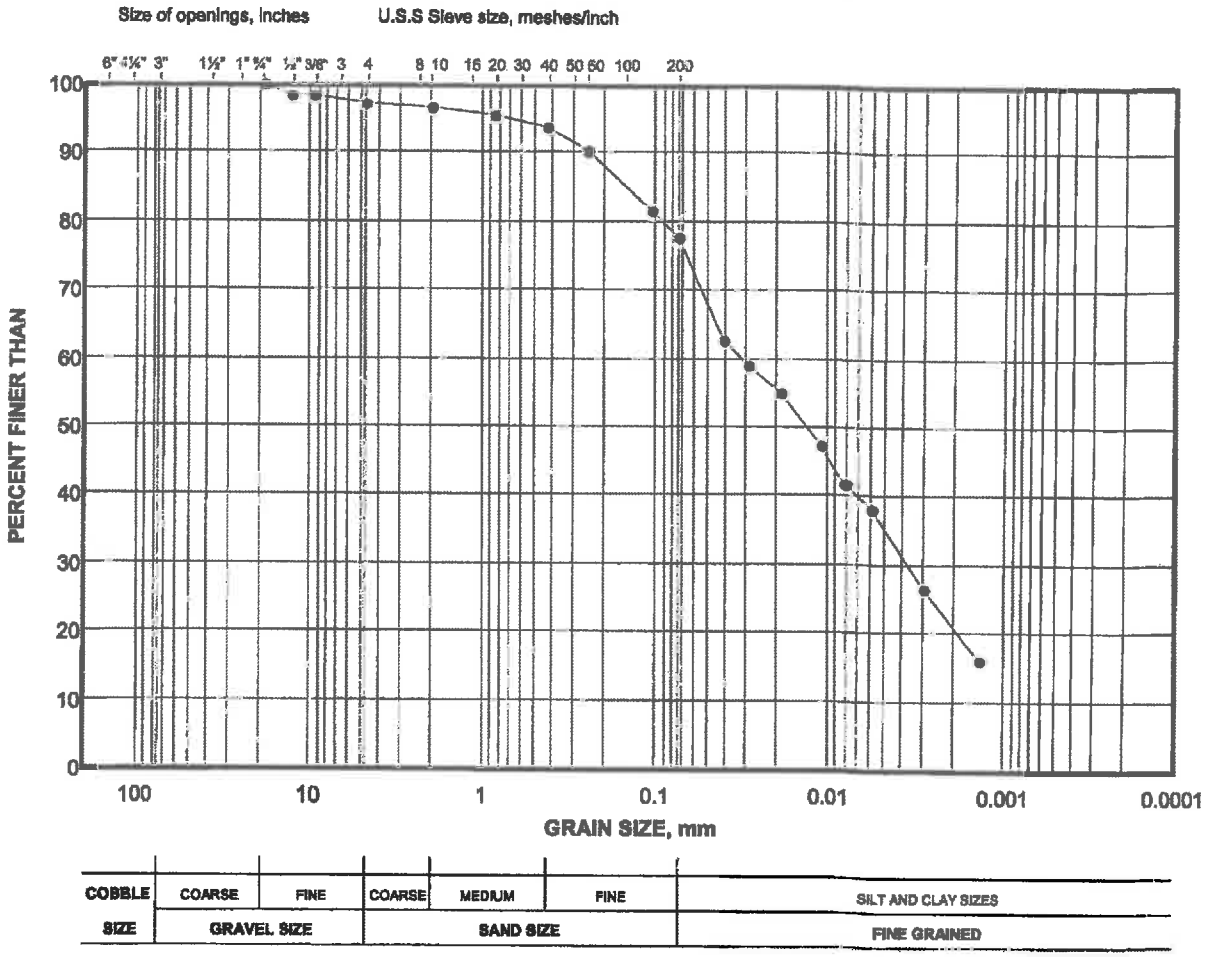
	DATE (MM\DD\YYYY)	TIME (HH:MM:SS)
Started :	7/2/2015	9:19:00 AM
Finished :	7/3/2015	7:55:00 AM

Elapsed Time (min)	HYDROMETER READING	DEFLOCCULANT CORRECTION	WATER TEMP (°C)	CORRECTED HYDROMETER READING	PARTICLE SIZE (mm)	% PASSING	PLOT
1.00	49.00	8.0	24.9	41.00	0.0381	76.0	True
2.00	47.00	8.0	24.9	39.00	0.0274	72.3	True
5.00	46.00	8.0	24.8	38.00	0.0175	70.5	True
15.00	43.00	8.0	24.6	35.00	0.0104	64.9	True
30.00	41.00	8.0	24.5	33.00	0.0075	61.2	True
60.00	38.00	8.0	24.1	30.00	0.0054	55.6	True
250.00	30.00	8.0	23.1	22.00	0.0029	40.8	True
1440.00	24.50	7.5	22.8	17.00	0.0012	31.5	True

Project Number	14-1182-0003 (2001)	Depth	
Project Task	1000	Units	Metric
Borehole Number	MW 15-19	Testing Date	7/7/2015 7:43:21 AM
Sample Number	4	Tested By	Sieve - LB, Hydrometer - LB
Checked By		LabID	15-1120

GRAIN SIZE DISTRIBUTION
MTO LS-702

FIGURE



LEGEND

SYMBOL	TEST PIT	SAMPLE	DEPTH(m)
●	15-25	4	

Project Number: 14-1182-0003 (2001)

Checked By: GD

Golder Associates

Date: 07-Jul-15

SOIL SIEVE AND HYDROMETER ANALYSIS

Initial weight of dry sample = 368.01(g)
Weight measured for back sieving = 50.3(g)
Weight of Sample for Hydrometer = 50.3(g)

COARSE SIEVING

SIEVE	CUM. MASS RETAINED (g)	% RETAINED	PARTICLE SIZE(mm)	% PASSING
63mm	0.00	0.00	63.00	100.0
53mm	0.00	0.00	53.00	100.0
37.5mm	0.00	0.00	37.50	100.0
26.5mm	0.00	0.00	26.50	100.0
19.0mm	0.00	0.00	19.00	100.0
13.2mm	6.53	1.77	13.20	98.2
9.5mm	6.53	0.00	9.50	98.2
4.75mm	9.90	0.92	4.75	97.3
2.00mm	12.43	0.69	2.00	96.6
PAN	355.17	96.62	0.00	0.0

HYDROMETER BACK SIEVING

SIEVE	CUM. MASS RETAINED (g)	% RETAINED	PARTICLE SIZE(mm)	% PASSING
850µm	0.63	1.21	0.85	95.4
425µm	1.51	1.69	0.43	93.7
250µm	3.17	3.18	0.25	90.5
106µm	7.81	8.91	0.11	81.6
75µm	9.89	4.00	0.08	77.6

HYDROMETER

	DATE (MM/DD/YYYY)	TIME (HH:MM:SS)
Started :	7/2/2015	10:13:00 AM
Finished :	7/3/2015	8:04:00 AM

Elapsed Time (min)	HYDROMETER READING	DEFLOCCULANT CORRECTION	WATER TEMP (°C)	CORRECTED HYDROMETER READING	PARTICLE SIZE (mm)	% PASSING	PLOT
1.00	40.00	7.0	24.9	33.00	0.0409	62.7	True
2.00	38.00	7.0	24.9	31.00	0.0294	58.9	True
5.00	36.00	7.0	24.8	29.00	0.0189	55.1	True
15.00	32.00	7.0	24.6	25.00	0.0112	47.5	True
30.00	29.00	7.0	24.3	22.00	0.0081	41.8	True
60.00	27.00	7.0	24.0	20.00	0.0059	38.0	True
250.00	21.00	7.0	23.1	14.00	0.0030	26.6	True
1311.00	15.50	7.0	22.8	8.50	0.0014	16.2	True

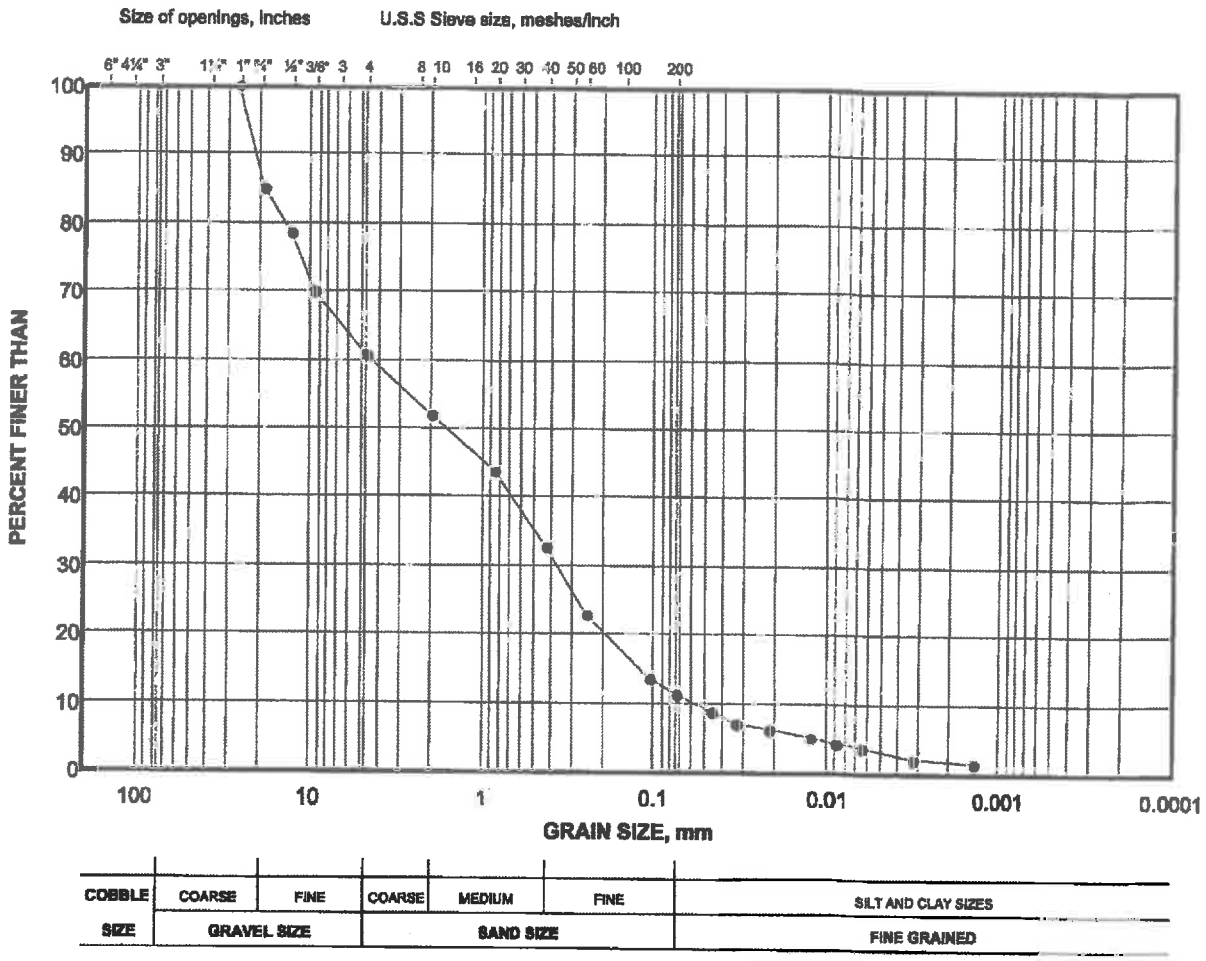
Project Number 14-1182-0003 (2001)
Project Task 1000
Test Pit Number 15-25
Sample Number 4
Checked By

Depth Units Metric
Testing Date 7/7/2015 7:48:47 AM
Tested By Sieve - LB, Hydrometer - LB
LabID 15-1121

Golder Associates

GRAIN SIZE DISTRIBUTION
MTO LS-702

FIGURE



LEGEND

SYMBOL	BOREHOLE	SAMPLE	DEPTH(m)
●	MW 15-3	3	

Project Number: 14-1182-0003 (2001)

Checked By: _____

Golder Associates

Date: 07-Jul-15

SOIL SIEVE AND HYDROMETER ANALYSIS

Initial weight of dry sample = 397.81(g)
Weight measured for back sieving = 100.6(g)
Weight of Sample for Hydrometer = 100.6(g)

COARSE SIEVING

SIEVE	CUM. MASS RETAINED (g)	% RETAINED	PARTICLE SIZE(mm)	% PASSING
63mm	0.00	0.00	63.00	100.0
53mm	0.00	0.00	53.00	100.0
37.5mm	0.00	0.00	37.50	100.0
26.5mm	0.00	0.00	26.50	100.0
19.0mm	60.21	15.14	19.00	84.9
13.2mm	86.12	6.51	13.20	78.4
9.5mm	119.26	8.33	9.50	70.0
4.75mm	156.45	9.35	4.75	60.7
2.00mm	190.72	8.61	2.00	52.1
PAN	206.87	52.06	0.00	0.0

HYDROMETER BACK SIEVING

SIEVE	CUM. MASS RETAINED (g)	% RETAINED	PARTICLE SIZE(mm)	% PASSING
850µm	15.91	8.23	0.85	43.8
425µm	37.42	11.13	0.43	32.7
250µm	56.12	9.68	0.25	23.0
106µm	74.59	9.56	0.11	13.5
75µm	78.63	2.09	0.08	11.4

HYDROMETER

	DATE (MM\DD\YYYY)	TIME (HH:MM:SS)
Started :	7/2/2015	10:28:00 AM
Finished :	7/3/2015	8:05:00 AM

Elapsed Time (min)	HYDROMETER READING	DEFLOCCULANT CORRECTION	WATER TEMP (°C)	CORRECTED HYDROMETER READING	PARTICLE SIZE (mm)	% PASSING	PLOT
1.00	22.00	5.0	24.0	17.00	0.0468	8.7	True
2.00	19.00	5.0	24.0	14.00	0.0337	7.2	True
5.00	17.00	5.0	24.0	12.00	0.0215	6.2	True
15.00	15.00	5.0	24.0	10.00	0.0126	5.1	True
30.00	13.00	5.0	24.0	8.00	0.0090	4.1	True
60.00	12.00	5.0	24.0	7.00	0.0064	3.6	True
250.00	9.00	5.0	24.0	4.00	0.0032	2.1	True
1297.00	8.00	5.0	24.0	3.00	0.0014	1.5	True

Project Number	14-1182-0003 (2001)	Depth	
Project Task	1000	Units	Metric
Borehole Number	MW 15-3	Testing Date	7/7/2015 7:52:33 AM
Sample Number	3	Tested By	Sieve - LB, Hydrometer - LB
Checked By		LabID	15-1122

Golder Associates

APPENDIX A (iv)

Plan of Survey

PLAN OF SURVEY OF

PART OF LOTS 11 AND 12 CONCESSION 5

(GEOGRAPHIC TOWNSHIP OF EAST WHITBY)
NOW IN THE
CITY OF OSHAWA
REGIONAL MUNICIPALITY OF DURHAM

SCALE 1 : 1000
20 0 10 20 40 60 metres

J. D. BARNES LIMITED

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

NOTES

BEARINGS ARE GRID, DERIVED FROM SPECIFIED CONTROL POINTS (SCPs) 071970010 AND 010890812, UTM ZONE 17, NAD83 (ORIGINAL).

DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.9999245.

INTEGRATION DATA

SPECIFIED CONTROL POINTS (SCPs): UTM ZONE 17, NAD83 (ORIGINAL),
COORDINATE VALUES ARE TO AN URBAN ACCURACY IN ACCORDANCE WITH SECTION 14 (2) OF O.REG 216/10.

POINT ID	EASTING	NORTHING
SCP 071970010	669 747.486	4 868 539.151
SCP 010890812	666 560.018	4 869 775.619

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

FOR BEARING COMPARISONS, A ROTATION OF 1°03'20" COUNTER-CLOCKWISE WAS APPLIED TO BEARINGS ON PLANS 40R-2305 AND 40R-20841.

SURVEY MONUMENTS FOUND ARE J.D. BARNES LIMITED UNLESS OTHERWISE NOTED.

Phase One Property,
Phase Two Property and
RSC Property

LEGEND

■	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT SET
SIB	DENOTES	STANDARD IRON BAR
SSIB	DENOTES	SHORT STANDARD IRON BAR
IB	DENOTES	IRON BAR
PB	DENOTES	PLASTIC BAR
WIT	DENOTES	WITNESS
MEAS	DENOTES	MEASURED
JDB	DENOTES	J.D. BARNES LIMITED
P1	DENOTES	REGISTERED PLAN 40M-2605
P2	DENOTES	PLAN 40R-28699
P3	DENOTES	PLAN 40R-20841
P4	DENOTES	PLAN 40R-2305
P5	DENOTES	PLAN 40R-25298

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

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

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

Nov. 4 2019
DATE

G.C. LAFRAMBOISE
O.L.S.
G.C. LAFRAMBOISE
ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2100393
THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR in accordance with Regulation 1026, Section 29(3).

J.D.BARNES LIMITED
SURVEYING MAPPING GIS
LAND INFORMATION SPECIALISTS
110 SCOTIA COURT, #36, WHITBY, ON L1N 8Y7
T: (905) 723-1212 F: (905) 723-4234 www.jdbarnes.com

DRAWN BY:	CHECKED BY:	REFERENCE NO.:
R.B.	G.C.L.	18-25-588-01

FILE: C:\18-25-588\21\18-25-588-01.dgn DATED: NOVEMBER 4, 2019
PLOTTED: 11/4/2019

APPENDIX B

Remediation Report

REPORT

Remediation Report, Windfields Farm Development Property, Southeast Corner of Winchester Road West and Simcoe Street North, Oshawa, Ontario

Submitted to:

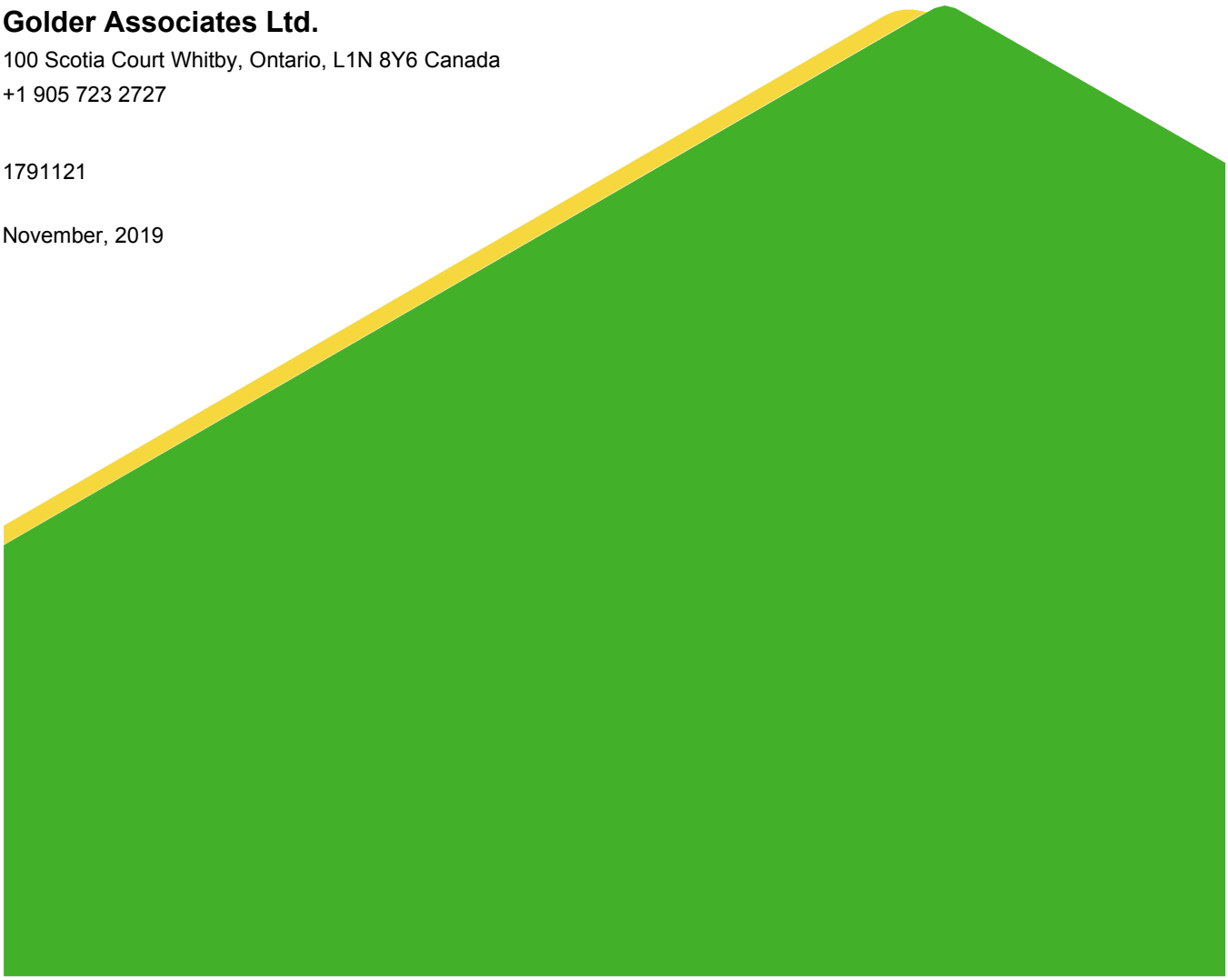
RioCan Realty Inv. Partner 11LP
2300 Yonge Street, Suite 500
Toronto, Ontario
M4P 1EP

Submitted by:

Golder Associates Ltd.
100 Scotia Court Whitby, Ontario, L1N 8Y6 Canada
+1 905 723 2727

1791121

November, 2019



Distribution List

electronic copy (.pdf) - RioCan Realty Inv. Partner 11LP

electronic copy (.pdf) - Golder Associates Ltd.

Table of Contents

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

Golder Associates Ltd. (“Golder”) was retained by RioCan Realty Inv. Partner 11LP (“RioCan”) to monitor the removal of shallow impacted soil from within the Windfields Farm Development property located at the southeast corner of the intersection of Simcoe Street North and Winchester Road West in Oshawa, Ontario (the “Site” or the “Phase Two Property”).

As part of the remedial program, Golder monitored the excavation of impacted soil. To confirm soil remediation, Golder collected soil samples from the walls and floors of the remedial excavation for field screening and analytical testing.

As of the publication of this report, the Site has been remediated to the applicable site condition standards and the intention is to file a Record of Site Condition (“RSC”) under Ontario Regulation (“O.Reg.”) 153/04. This report has been prepared to document the remedial activities and verification sample results and is to be used as the Remediation Appendix within the Phase Two Environmental Site Assessment (“ESA”) report for the Site.

1.1 Site Description

The Site is located south of Winchester Road West, east of Simcoe Road North in Oshawa, Ontario. The Phase Two Property is legally described as “PART LOTS 11&12 CONCESSION 5 EAST WHITBY, S/T EASEMENT OVER PARTS 4,6,10 & 14 40R20841 AS IN CO66935, S/T EASEMENT OVER PARTS 2, 3,4,5,9 & 13 40R20841 AS IN D21957; TOGETHER WITH AN EASEMENT OVER PART 1 40R28699 AS IN DR1473694; CITY OF OSHAWA" in Oshawa, Ontario. A Plan of Survey depicting the boundaries of the Phase Two Property is included in Appendix (iv) of the Phase Two ESA report.

1.2 Applicable Site Condition Standards

The soil and groundwater results were compared to the MECP “*Soil, Ground Water, and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*”, April 2011, Table 1 Full Depth Background Site Condition Standards for a residential / parkland / institutional / industrial / commercial / community property use (hereafter referred to as the “Table 1 Standards”). The laboratory was notified of the use of Table 1 Standards on this project, to achieve reportable detection limits that meet the project objectives. The following factors were considered in selecting the assessment criteria:

- At present, the Site is not serviced, therefore potable groundwater standards were deemed applicable to Site;
- The Site is not located in an area designated in a municipal official plan as a well-head protection area or other designation identified by the municipality for the protection of ground water; however, the Site is identified as a Sensitive Site, based on the findings of a Species At Risk[1] (“SAR”) study completed for the property in 2018.
- A tributary to East Oshawa Creek crosses the eastern portion of the Site; however, as part of the SAR, it was noted that the tributary is intermittent only, and would not be considered a water body as defined in the Regulation.

[1] “Areas of Natural Significance and Species at Risk Screening, Windfields Farm Development, Oshawa, Ontario”, prepared by Golder Associates for RioCan Realty Inv. Partner 11LP and dated July 6, 2018 (Report #1791121(1000))

- The intended land use for the Phase Two Property is parkland and commercial use; and,
- The average thickness of overburden at the Phase Two Property is greater than 2 m; however, groundwater is variable and was found to be relatively shallow (within 1m of ground surface) at some locations at the Site.

1.3 Areas of Remediation and Contaminants of Concern

Golder completed soil sampling within the Phase Two Property, the results of which were documented in the accompanying Phase Two ESA Report.

The sampling detailed in the Phase Two ESA Report determined that an approximately 0.5m deep topsoil layer in the central portion of the Site (area of approximately 68,000 m^2) contained concentrations of lead and antimony above the Table 1 Standards (see Remediation Figure B1).

Groundwater impacts were not identified at the Site.

1.4 Objectives

The objective for the remediation was to remove all soils known to contain exceedances of the Table 1 Standards from the Site.

Soil excavation and off-Site disposal was the remedial option selected based on the nature and distribution of the impacts as well as the intended use of the Site. In addition, the contaminants of concern were not considered amenable to treatment options that were likely to be effective within the proposed development schedule.

2.0 REMEDIAL ACTIONS

Activities completed at the Site included the excavation and off-Site disposal of impacted topsoil and removal of stockpiled impacted material previously removed from the TransCanada Pipelines (“TCPL”) Easement and from the Enbridge Gas Easement, both of which traverse the Phase Two Property in parallel from northwest to southeast. Given the shallow excavation depth and the proposed subsequent development of the Site, backfilling of the excavation was not required and therefore no soil was imported onto the Site. These activities are described in more detail in the following sections.

As noted above, and in addition to the remedial activities outlined below, which includes the removal of topsoil from within the Enbridge Easement, Golder also monitored the previous TCPL remediation work, the findings of which were included in a separate report titled “*Trans Canada Pipeline Easement, Confirmation Sampling Results, Windfields Farm Development, Oshawa, Ontario”* which was prepared for RioCan and completed by Golder (August 2019, Golder File 1791121) (the “2019 TCPL Easement Report”), which is appended to this report in Appendix C.

2.1 Remedial Preparation

Prior to the excavation works, Golder conducted necessary preparations to allow for effective and safe remediation activities. T he works conducted consisted of Site preparation, sampling and analysis planning, and health and safety planning and site meetings with the contractor. The work was done collaboratively with Golder and Ground Force Environmental Inc. (“GFEI”). GFEI was retained directly by RioCan to compete the remedial works.

As noted in the Phase Two ESA, with the exception of the TCPL and Enbridge pipelines there are no other active underground services in the area of impacts.

2.1.1 Permitting and Site Preparation

No Site preparation works were required in advance of soil excavation activities; however, after the initial windrowing/stockpile of impacted material on Site had begun, ¾" crusher run limestone material was imported from Lafarge Quarries to build temporary haul-roads to facilitate the removal of the material from the Site, due to the wet soil conditions encountered during the work. Filter cloth was placed under portions of the granular material, depending on the severity of the moisture content of the underlying soil.

GFEI was responsible for obtaining any permits or approvals required for the completion of the work.

2.1.2 Health and Safety

Prior to the work being conducted Golder and GFEI prepared Health and Safety Plans for their respective staff and subcontractors. These were reviewed with all staff prior to work commencing on-Site. A daily tail gate meeting was also held on each day of work to discuss work for the day, any changes to Site conditions, and associated risks.

2.1.3 Sampling and Analysis Plan

A Sampling and Analysis Plan ("SAP") was prepared to guide the confirmation sampling and to ensure compliance with the requirements of O. Reg. 153/04. This plan detailed the sampling and analysis requirements, the Golder SOPs to be implemented and the QA/QC requirements. A copy of the SAP is included in Appendix A.

2.2 Soil Excavation

Excavation and removal of impacted topsoil (including residual impacts within a transition zone identified immediately beneath the topsoil layer) occurred between December 4, 2018 and July 15, 2019. Excavated material was first consolidated into windrows and stockpiles on-Site. Golder provided monitoring, field screening, and verification sampling services throughout the remediation program. GFEI provided equipment and labour for the project. GFEI used one excavator and a bulldozer to remove material from the excavation areas.

Work was completed in two main stages: GFEI began the excavation work within the impacted area on the south side of the pipeline easements, then mobilized equipment to the north side and continued the same procedure. As noted above, after the initial windrowing/stockpiling process was completed, ¾" crusher run limestone material was imported from Lafarge Quarries to build temporary haul-roads to facilitate the removal of the material from the Site.

Due to the saturated nature of the material north of the pipeline easements and the higher water table, filter cloth was placed under portions of the granular material. The material from the windrows and stockpiles was then loaded and removed from the Site between January 1, 2019 and July 15, 2019. The exported material included the stockpiled material from the current remediation, as well as the material left on-Site following the TCPL Easement Remediation works. Golder continued to provide monitoring, field screening, and verification sampling services for the base as the stockpiles were removed.

Modifications to the excavation process occurred only during the removal of the contaminated topsoil within the Enbridge easement located immediately adjacent to the north of the TCPL Easement. GFEI was retained by RioCan to complete these remedial activities in conjunction with the wider area of remediation on Site.

Within the Enbridge easement, an Enbridge representative was always present while work was being completed. A “long arm” excavator was used to allow for the material to be removed from the easement while still allowing the equipment to sit a suitable distance from the pipeline. Once the material was excavated, Golder completed field screening and verification sampling of the base of the excavation and then clean topsoil from elsewhere on the Phase Two Property (i.e., outside of the impacted zone) was used to provide the required cover as per the requirements of Enbridge.

Horizontally, the excavation was extended to limits identified as “clean” by means of confirmation sampling. The confirmation sample results indicated no further impacts were present in excess of the Table 1 standards.

Vertically, the excavation was extended to limits identified as “clean” by means of confirmation sampling. The confirmation sample results indicated no further impacts were present in excess of the Table 1 standards.

The excavation limits are is shown in plan on Figure B1. The remedial excavation ceased below the transition layer below the topsoil, which ranged from approximately 0.35 (“m”) below ground surface (“bgs”) to 0.6 m bgs in total depth. The field screening and laboratory results of the sampling are discussed in Sections 4.0 and 4.1.

Excavated soil was removed from the Site and disposed of off-site by GFEI. In total, 76,223.52 tonnes (or approximately 38,112 m^3) of soil was excavated and removed from the Phase Two Property to a Waste Management facility located at 14304 Highway 48 in Stouffville, Ontario.

2.3 Groundwater Management

Based on the results of the Phase Two ESA, groundwater remediation was not required.

No free-flowing product (i.e. non-aqueous phase liquid) was identified in either soil or groundwater during the course of the Phase Two investigation or remediation programs.

3.0 CONFIRMATION SAMPLING AND ANALYSIS

The confirmation sampling and analysis program consisted of the collection of soil screening samples on a 25 m x 25 m grid pattern on the floor and walls of the excavations.

The confirmation samples were logged in terms of soil materials, texture and the presence of staining, odour and debris, if any. A portion of each sample was placed into laboratory-supplied sampling containers for possible subsequent chemical analysis.

Confirmation soil samples were submitted for chemical analysis of Metals and Hydride Forming Metals. A limited number of verification samples were also submitted for analysis of cyanide. Samples submitted for chemical analysis were stored in a cooler with ice and delivered under chain-of-custody procedures to Bureau Veritas Laboratories[2] (“BV Labs”) in Mississauga, Ontario.

The completed excavation totalled approximately 70,000 m^2 in area and ranged from approximately 0.35m to 0.6m in depth. Soil samples submitted for analysis were selected based on a 25 m x 25 m grid pattern on the walls and floor of the excavation. Sampling distribution and frequency was conducted in general accordance with O.Reg 153/04, Schedule E, Table 3. Although this table does not explicitly indicate the number of floor and

[2] Bureau Veritas Laboratories was previously named Maxxam Analytics, prior to January 2019.

sidewall samples for an excavation of this area, the requirements for a >750 m^2 to 1,000 m^2 excavation were extrapolated to calculate a conservative frequency of sampling given the contaminants of concern.

3.1 Soil Analysis

All confirmation soil samples submitted to BV Labs were analysed for Metals and Hydride Forming Metals. A limited number of verification samples were also submitted for analysis of cyanide. As mentioned in Section 1.2 the analytical results for the soil samples collected were compared to the Table 1 Standards.

All of the confirmation soil samples representative of the final limits of the excavation (as identified on Figures B2 and B3) were found to satisfy the Table 1 Standards for the parameters analysed. No exceedances were identified at any of the confirmation sampling locations representative of the final limits of the excavation. Where an exceedance was occasionally identified in soil during the remedial work, as identified through laboratory analysis, the contractor was directed back to that location (as all locations were surveyed by a Trimble GPS at the time of collection) and additional soil within that 25m x 25m block was removed; a re-sample was collected from the new depth at that location, and was subsequently submitted to the analytical laboratory for final verification.

A summary of the soil samples submitted for laboratory analysis, including quality assurance/quality control ("QA/QC") samples is included in Tables 1. A summary of all confirmatory analytical results is provided in Table 1. Laboratory certificates of analysis are provided in Appendix B.

4.0 SOIL EXCAVATED AT OR BROUGHT TO THE PHASE TWO PROPERTY

Approximately 38,112 m^3 of soil was excavated and removed from the Site (including materials previously excavated and stockpiled from the TCPL Easement). All soil excavated at the Phase Two property as part of the remediation program was shipped off-Site for disposal by GFEI at a Waste Management facility located at 14304 Highway 48 in Stouffville, Ontario. None of the excavated soils were segregated and no permanent stockpiles were created.

As previously noted, given the shallow depth of excavation and planned future development activities, no backfilling was required as part of this remedial program, with the exception of the soil cover required for the TCPL and Enbridge easements (which was sourced within the Phase Two Property). No soil was imported to the Phase Two property. Temporary haul roads were constructed using ¾" crusher run limestone; however, this is not considered to be "soil" under Reg. 153/04.

5.0 CONCLUSIONS

Golder monitored the excavation of impacted soil from the Site. A total of approximately 38,112 m^3 of soil was excavated from the inferred areas of impact based on the Phase Two ESA findings, and disposed of off-Site. Confirmatory soil sampling was conducted in accordance with Table 3, Schedule E of O.Reg. 153/04. A total of 228 floor samples and 85 wall samples (including 34 duplicate samples) were submitted for analysis of Metals and Hydride Forming Metals. Four floor samples and four wall samples were also submitted for analysis of cyanide, based on a very limited area (~100 m^2) where cyanide exceedances were originally identified. The results of all confirmation sample analyses from the final limits of the excavation satisfied the Table 1 Standards for the parameters tested.

On the basis of the above, in Golder's opinion remediation of the Phase Two Property is complete and a Record of Site Condition can be filed for the Phase Two Property.

6.0 LIMITATIONS

This report was prepared for the exclusive use of RioCan Realty Inv. Partner 11LP. This report is based on data and information collected during the excavation program and is based solely on Site conditions encountered at that time. In preparing this report, Golder evaluated only conditions on the Site, as noted above. Only limited chemical analyses of soil samples were completed. It should be noted that the verification sampling results should, in no way, be construed as a warranty that the Site is free from any and all contamination from past or current practices.

This document provides a professional opinion and, therefore, no warranty is either expressed, implied, or made as to the conclusions, advice and recommendations offered in this document. This document does not provide a legal opinion regarding compliance with applicable laws. With respect to regulatory compliance issues, it should be noted that regulatory statutes and the interpretation of regulatory statutes are subject to change.

Further this report considers the subsurface environmental conditions at the Site only in the context of the MOE "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*" dated April 15, 2011. Golder's professional services for this assignment addressed only the geo-environmental (chemical) aspects of the subsurface conditions at a limited number of locations at the Site. The potential environmental impact of Site development or local biological, hydrological and hydrogeological functions and the like has not been investigated or addressed. The geotechnical (physical) aspects, including engineering recommendations for the design and construction of building foundations, pavements, underground servicing and the like are outside the terms of reference for this report and are addressed under separate cover.

7.0 CLOSURE

We trust that this information is sufficient for your present purposes. If we can be of additional assistance in this regard, please contact the undersigned.

Signature Page

Golder Associates Ltd.

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AVR/KDB/RJS/js

https://golderassociates.sharepoint.com/sites/20914g/deliverables/04. remediation reports/02. report (site)/1791121 rep 2019'08'13 remediation report - windfields (final).docx

TABLES

Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	BC20-C21	C18-C19	C19-BC20		C21-D20.5	CD16-CD17	CD17-CD18	D14-D15	D14-E14
		Sample Name	BC20-C21	C18-C19	C19-BC20	DUP E	C21-D20.5	CD16-CD17	CD17-CD18	D14-D15	D14-E14
		Sample Date	14-Dec-2018	14-Dec-2018	14-Dec-2018		14-Dec-2018	4-Jul-2019	4-Jul-2019	3-Jan-2019	3-Jan-2019
		Sample Depth (mbgs)	0.15 m	0.15 m	0.15 m		0.15 m	0.15 m	0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.4	0.48	0.21	0.26	0.65	0.23	< 0.20	1	< 0.20
Total Arsenic (As)	18	µg/g	2.8	3.9	2.4	2.9	4.1	2.6	2.2	2.9	2.3
Total Barium (Ba)	220	µg/g	43	48	48	45	47	52	58	59	79
Total Beryllium (Be)	2.5	µg/g	0.38	0.47	0.44	0.41	0.41	0.42	0.5	0.5	0.66
Boron	36	µg/g	< 5.0	5	< 5.0	5.4	5.2	< 5.0	< 5.0	< 5.0	6.2
Total Cadmium (Cd)	1.2	µg/g	0.2	0.28	0.18	0.28	0.23	0.14	< 0.10	0.15	0.44
Total Chromium (Cr)	70	µg/g	14	15	14	15	15	15	18	17	22
Total Cobalt (Co)	21	µg/g	4.1	5	4.9	4.7	4.3	5	5.7	5.2	6.6
Total Copper (Cu)	92	µg/g	7.8	22	7.9	9.3	8.6	11	9.2	9.5	16
Total Lead (Pb)	120	µg/g	16	21	13	17	22	22	8.4	21	13
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.6	11	9.6	9.7	9.2	12	13	11	15
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.62
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.11	0.12	0.081	0.12	0.098	0.12	0.13	0.11	0.16
Total Uranium (U)	2.5	µg/g	0.44	0.45	0.44	0.42	0.45	0.45	0.76	0.53	0.78
Total Vanadium (V)	86	µg/g	24	26	26	25	24	24	28	28	34
Total Zinc (Zn)	290	µg/g	38	54	38	47	44	49	31	43	60

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed during additional wall excavation)

Prepared By: LL/AL
Checked By: AVR

Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Location			D15	D15-D16	D16-D17	D20.5-E20.5	DE15-DE16	DE16-D17	E14-DE15	E20.5-F20.5	E21-F21
Sample Name			D15	D15-D16	D16-D17	D20.5-E20.5	DE15-DE16	DE16-D17	E14-DE15	E20.5-F20.5	E21-F21
Sample Date			13-Dec-2018	3-Jan-2019	14-Jan-2019	14-Dec-2018	13-Dec-2018	13-Dec-2018	13-Dec-2018	14-Dec-2018	3-Jan-2019
Sample Depth (mbgs)			0.5 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	1.2	**3.5**	1	**3.2**	**3.3**	**2.2**	**1.5**	< 0.20
Total Arsenic (As)	18	µg/g	1.4	4.5	9.9	3.2	4	9.5	3.4	3.4	2.3
Total Barium (Ba)	220	µg/g	41	51	96	58	52	82	63	60	65
Total Beryllium (Be)	2.5	µg/g	0.29	0.45	0.47	0.4	0.42	0.4	0.47	0.49	0.53
Boron	36	µg/g	5.5	< 5.0	8.4	5.3	< 5.0	< 5.0	< 5.0	5.9	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	0.23	0.46	0.26	0.35	0.38	0.28	0.35	0.14
Total Chromium (Cr)	70	µg/g	11	14	19	15	15	18	17	16	19
Total Cobalt (Co)	21	µg/g	3.9	4.6	5.4	4.3	4.3	5.1	5.1	5.2	6.1
Total Copper (Cu)	92	µg/g	7.9	9.8	26	11	8.3	29	9.6	12	7.6
Total Lead (Pb)	120	µg/g	4.9	32	**150**	29	81	110	34	27	8.6
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.8	9.4	10	9.5	9.5	10	11	11	14
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	0.11	0.13	0.11	0.12	0.11	0.13	0.14	0.14
Total Uranium (U)	2.5	µg/g	0.47	0.5	0.51	0.43	0.38	0.47	0.48	0.62	0.56
Total Vanadium (V)	86	µg/g	18	24	27	24	26	25	29	27	30
Total Zinc (Zn)	290	µg/g	21	51	150	57	77	130	48	54	33

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed during additio

Prepared By: LL/AL
Checked By: AVR

Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	EF11-EF12	EF13-EF14	F10-F11	F11-F12	F12-EF13		F20.5-G20.5	F21.5-G21.5	F9-F10
		Sample Name	EF11-EF12	EF13-EF14	F10-F11	F11-F12	F12-EF13	DUP B	F20.5-G20.5	F21.5-G21.5	F9-F10
		Sample Date	17-Jan-2019	13-Dec-2018	13-Dec-2018	13-Dec-2018	13-Dec-2018		14-Dec-2018	3-Jan-2019	13-Dec-2018
		Sample Depth (mbgs)	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m		0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	1.2	0.72	1.3	**1.5**	0.95	0.74	**1.6**	0.55	1.1
Total Arsenic (As)	18	µg/g	2.8	2.6	3	2.7	2.4	2.7	3.1	2.4	2.6
Total Barium (Ba)	220	µg/g	66	60	73	75	59	59	40	59	55
Total Beryllium (Be)	2.5	µg/g	0.57	0.48	0.64	0.57	0.46	0.44	0.38	0.52	0.45
Boron	36	µg/g	5.7	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.5	< 5.0
Total Cadmium (Cd)	1.2	µg/g	0.32	0.23	0.15	0.33	0.21	0.2	0.28	0.27	0.29
Total Chromium (Cr)	70	µg/g	18	17	20	21	15	15	13	17	15
Total Cobalt (Co)	21	µg/g	5.6	4.9	5.9	6	4.6	4.8	4.1	5.6	4.6
Total Copper (Cu)	92	µg/g	18	8.8	11	24	7.7	8	7.8	12	8.3
Total Lead (Pb)	120	µg/g	43	19	28	47	27	24	30	22	30
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	13	10	14	13	10	10	8.5	13	9
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.14	0.1	0.16	0.13	0.1	0.12	0.11	0.14	0.1
Total Uranium (U)	2.5	µg/g	0.54	0.46	0.44	0.54	0.49	0.48	0.46	0.57	0.56
Total Vanadium (V)	86	µg/g	28	29	30	30	25	26	24	28	27
Total Zinc (Zn)	290	µg/g	100	44	53	150	36	35	40	57	47

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed during additio

Prepared By: LL/AL
Checked By: AVR

Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	FG8.5-F9	G20.5-H20.5	G21.5-H21.5	G7.5-FG8.5	G7.5-H7.5	G7-H7	H20-I20	H21-I21	H7.5-I7.5
		Sample Name	FG8.5-F9	G20.5-H20.5	G21.5-H21.5	G7.5-FG8.5	G7.5-H7.5	G7-H7	H20-I20	H21-I21	H7.5-I7.5
		Sample Date	13-Dec-2018	14-Dec-2018	3-Jan-2019	13-Dec-2018	13-Dec-2018	24-Jan-2019	18-Dec-2018	3-Jan-2019	20-Dec-2018
		Sample Depth (mbgs)	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.86	**1.7**	0.35	0.91	**6.1**	< 0.20	**3.5**	< 0.20	**3.4**
Total Arsenic (As)	18	µg/g	2.4	2.6	2.5	2.4	3.3	2.9	2.8	< 1.0	2.9
Total Barium (Ba)	220	µg/g	53	43	53	46	51	75	42	9.9	44
Total Beryllium (Be)	2.5	µg/g	0.45	0.41	0.49	0.4	0.47	0.55	0.36	< 0.20	0.38
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.5
Total Cadmium (Cd)	1.2	µg/g	0.23	0.27	0.18	0.2	0.17	0.25	0.21	< 0.10	0.28
Total Chromium (Cr)	70	µg/g	15	13	15	14	15	21	13	4.4	14
Total Cobalt (Co)	21	µg/g	4.6	4.3	4.9	4.4	4.5	5.7	4	2.1	4.1
Total Copper (Cu)	92	µg/g	7.2	9	8.7	8.3	7.4	11	7.5	3.3	18
Total Lead (Pb)	120	µg/g	22	71	16	26	120	8.5	41	2.1	110
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	9.4	9	11	8.7	8.6	13	8.2	3.7	8.3
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.092	0.12	0.11	0.096	0.092	0.15	0.1	< 0.050	0.089
Total Uranium (U)	2.5	µg/g	0.49	0.44	0.55	0.45	0.43	0.57	0.5	0.35	0.46
Total Vanadium (V)	86	µg/g	27	23	26	26	27	34	23	11	23
Total Zinc (Zn)	290	µg/g	38	44	40	45	39	35	42	10	160

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed during additio

Prepared By: LL/AL
Checked By: AVR

Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	H7-I7	HI6-HI7	I20-J20	I5-HI5.5	J1.5-K1.5	J20-K20	J20-K20 (2)	J2-J3	J3-I4
		Sample Name	H7-I7	HI6-HI7	I20-J20	I5-HI5.5	J1.5-K1.5	J20-K20	J20-K20 (2)	J2-J3	J3-I4
		Sample Date	24-Jan-2019	12-Jun-2019	18-Dec-2018	12-Jun-2019	6-Dec-2018	18-Jan-2019	30-Jan-2019	18-Dec-2018	18-Dec-2018
		Sample Depth (mbgs)	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	1.2	< 0.20	0.3	**1.5**	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	2.3	< 1.0	2.3	2	2.2	2.1	1.7	1.6	1.8
Total Barium (Ba)	220	µg/g	70	17	40	60	36	39	33	33	44
Total Beryllium (Be)	2.5	µg/g	0.57	< 0.20	0.41	0.54	0.35	0.42	0.34	0.34	0.41
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	0.18	< 0.10	0.23	0.15	0.22	0.25	< 0.10	0.1	0.21
Total Chromium (Cr)	70	µg/g	18	5.8	14	18	13	13	12	12	13
Total Cobalt (Co)	21	µg/g	5.5	2.1	4.4	5.4	3.8	4	4.4	4.3	4.4
Total Copper (Cu)	92	µg/g	8	3	6.7	6.6	6.1	6.4	8.6	4.4	5.8
Total Lead (Pb)	120	µg/g	9.3	2	20	6.4	10	17	5.6	5.1	5.9
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	12	3.9	9.1	11	6.7	8.4	9.8	7	7.6
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	< 0.050	0.11	0.12	0.081	0.085	0.12	0.083	0.09
Total Uranium (U)	2.5	µg/g	0.75	0.38	0.54	0.53	0.52	0.66	0.48	0.43	0.58
Total Vanadium (V)	86	µg/g	31	15	26	31	27	23	21	26	26
Total Zinc (Zn)	290	µg/g	37	13	35	30	28	35	22	23	29

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed during additio

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Checked By: AVR

Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	JK1.5-JK2	K1.5- L1.5	K20-L20	L1-M1	L20-M20	M1-N1	M20-N20	N1-O2	N20-O20
		Sample Name	JK1.5-JK2	K1.5- L1.5	K20-L20	L1-M1	L20-M20	M1-N1	M20-N20	N1-02	N20-020
		Sample Date	6-Dec-2018	6-Dec-2018	18-Jan-2019	6-Dec-2018	18-Jan-2019	6-Dec-2018	18-Jan-2019	6-Dec-2018	12-Jun-2019
		Sample Depth (mbgs)	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	0.71	< 0.20	0.23	< 0.20	0.25	0.78	< 0.20
Total Arsenic (As)	18	µg/g	2.5	1.4	2.4	1.7	2	2.6	2.4	2.2	2
Total Barium (Ba)	220	µg/g	37	45	45	46	52	97	57	46	40
Total Beryllium (Be)	2.5	µg/g	0.44	0.47	0.45	0.42	0.52	0.75	0.56	0.36	0.41
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.6	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	0.26	0.15	0.22	0.16	0.3	0.25	0.31	0.22	< 0.10
Total Chromium (Cr)	70	µg/g	16	14	14	13	17	22	18	17	14
Total Cobalt (Co)	21	µg/g	4.6	4.6	4.5	4.8	5.1	7.2	5.7	3.7	4.3
Total Copper (Cu)	92	µg/g	9.7	5.1	8.1	6.8	9.9	13	10	7.7	7.9
Total Lead (Pb)	120	µg/g	7.8	6.2	16	11	10	12	12	15	5.7
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	7.2	7.8	9.5	8.8	11	15	12	5.8	10
Total Selenium (Se)	1.5	µg/g	0.52	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.55	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	0.082	0.1	0.1	0.12	0.16	0.14	0.094	0.12
Total Uranium (U)	2.5	µg/g	0.56	0.46	0.51	0.52	0.64	0.54	0.65	0.55	0.5
Total Vanadium (V)	86	µg/g	28	27	24	26	25	35	28	23	25
Total Zinc (Zn)	290	µg/g	25	26	39	34	43	45	47	39	24

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed during additio

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Checked By: AVR

Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	N6.5-O6.5	N7.5-O7.5	O19-NO20.5	O2-P3	O6.5-P6.5	O7.5-P7.5	OP18-O19	P14-P15	P15-P16
		Sample Name	N6.5-06.5	N7.5-O7.5	O19-NO20.5	O2-P3	O6.5-P6.5	O7.5-P7.5	OP18-O19	P14-P15	P15-P16
		Sample Date	6-Dec-2018	5-Dec-2018	20-Dec-2018	6-Dec-2018	6-Dec-2018	5-Dec-2018	20-Dec-2018	19-Feb-2019	19-Feb-2019
		Sample Depth (mbgs)	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	**3.7**	**18**	< 0.20	0.77	**3.2**	**9.2**	< 0.20	< 0.20	0.36
Total Arsenic (As)	18	µg/g	2.7	5.4	1.5	2.5	3.5	4.3	1.7	3.2	1.8
Total Barium (Ba)	220	µg/g	35	43	34	52	42	41	36	66	49
Total Beryllium (Be)	2.5	µg/g	0.36	0.38	0.28	0.39	0.38	0.35	0.27	0.63	0.38
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.1	5.9	6.3
Total Cadmium (Cd)	1.2	µg/g	0.19	0.26	< 0.10	0.26	0.18	0.2	< 0.10	0.12	0.11
Total Chromium (Cr)	70	µg/g	12	13	10	19	14	12	10	19	13
Total Cobalt (Co)	21	µg/g	4.2	4	3.8	3.5	4	4	3.6	6.4	4.8
Total Copper (Cu)	92	µg/g	5.7	7.2	7.6	8.2	7.3	6.3	7.5	12	8.8
Total Lead (Pb)	120	µg/g	87	**220**	4.9	19	76	**130**	4.7	8.8	8.7
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	7.5	8	8.2	6.2	8.2	7.8	8	15	10
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	0.78	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.093	0.12	0.087	0.1	0.11	0.1	0.095	0.18	0.13
Total Uranium (U)	2.5	µg/g	0.49	0.47	0.46	0.55	0.46	0.46	0.46	0.54	0.49
Total Vanadium (V)	86	µg/g	23	24	18	22	24	23	18	32	23
Total Zinc (Zn)	290	µg/g	37	41	20	44	44	39	20	33	25

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed during additio

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Checked By: AVR

Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	P16-P17	P17-OP18	P2.5-Q3.5	P7.5-Q7.5	Q13.5-P14		Q3.5-QR4	Q7.5-R7.5	QR11-QR12
		Sample Name	P16-P17	P17-OP18	P2.5-Q3.5	P7.5-Q7.5	Q13.5-P14	DUP6	Q3.5-QR4	Q7.5-R7.5	QR11-QR12
		Sample Date	19-Feb-2019	20-Dec-2018	7-Dec-2018	5-Dec-2018	11-Dec-2018		7-Dec-2018	5-Dec-2018	24-Jan-2019
		Sample Depth (mbgs)	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m		0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.29	< 0.20	0.38	**2.9**	0.34	0.36	0.28	**1.6**	< 0.20
Total Arsenic (As)	18	µg/g	1.8	1.5	2	3.1	2.4	2.6	1.9	2.3	1.7
Total Barium (Ba)	220	µg/g	41	39	50	37	65	59	50	41	50
Total Beryllium (Be)	2.5	µg/g	0.32	0.29	0.43	0.38	0.49	0.47	0.43	0.37	0.31
Boron	36	µg/g	6	5.6	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.9
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	0.25	0.23	0.27	0.23	0.21	0.24	< 0.10
Total Chromium (Cr)	70	µg/g	11	10	15	13	15	15	15	12	11
Total Cobalt (Co)	21	µg/g	4.2	4	4.4	4.1	5.1	4.7	4.3	4	4.4
Total Copper (Cu)	92	µg/g	8	7.4	7.4	6.3	9	8.2	6.2	6	7.6
Total Lead (Pb)	120	µg/g	6.7	5	13	49	11	12	11	25	4.7
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	9.4	8.3	8	7.9	9.6	9.3	7.1	7.7	9.5
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.11	0.089	0.1	0.11	0.11	0.11	0.11	0.095	0.094
Total Uranium (U)	2.5	µg/g	0.45	0.47	0.67	0.52	0.57	0.54	0.58	0.45	0.45
Total Vanadium (V)	86	µg/g	21	18	26	24	27	26	26	24	19
Total Zinc (Zn)	290	µg/g	22	21	38	42	35	36	32	38	23

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
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Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Location			QR4-QR5		QR5-QR6	QR6-QR7	QR7-QR8	QR8-QR9	QR9-QR10	R10-R11	R12-R13
Sample Name			QR4-QR5	DUP5	QR5-QR6	QR6-QR7	QR7-QR8	QR8-QR9	QR9-QR10	R10-R11	R12-R13
Sample Date			7-Dec-2018		7-Dec-2018	7-Dec-2018	5-Dec-2018	5-Dec-2018	5-Dec-2018	17-Dec-2018	11-Dec-2018
Sample Depth (mbgs)			0.15 m		0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.73	0.57	0.45	0.65	**1.7**	0.86	**2.1**	0.64	0.53
Total Arsenic (As)	18	µg/g	1.8	1.9	2.1	1.9	2.3	2.3	3	2	2.2
Total Barium (Ba)	220	µg/g	62	74	59	58	54	68	59	50	43
Total Beryllium (Be)	2.5	µg/g	0.45	0.52	0.41	0.43	0.42	0.52	0.5	0.44	0.39
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.4	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	0.23	0.3	0.25	0.23	0.19	0.2	0.35	0.23	0.19
Total Chromium (Cr)	70	µg/g	17	21	18	16	15	17	15	15	13
Total Cobalt (Co)	21	µg/g	4.5	5.3	4.7	4.4	4.8	5.1	4.6	4.7	4
Total Copper (Cu)	92	µg/g	7.6	8.8	7.9	6.6	7.7	8.7	8.9	7.8	8.1
Total Lead (Pb)	120	µg/g	19	18	15	19	29	16	29	21	14
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.8	11	8.6	9.2	9.5	10	9.9	9.1	7.7
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	0.13	0.12	0.1	0.11	0.11	0.12	0.099	0.082
Total Uranium (U)	2.5	µg/g	0.49	0.48	0.41	0.46	0.52	0.45	0.6	0.55	0.57
Total Vanadium (V)	86	µg/g	26	28	25	27	27	27	26	26	25
Total Zinc (Zn)	290	µg/g	40	43	35	39	41	39	44	40	36

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
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Table 1A - Wall Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	R13-Q13.5	R7-R8	R8-R9	R9-R10
		Sample Name	R13-Q13.5	R7-R8	R8-R9	R9-R10
		Sample Date	11-Dec-2018	27-Feb-2019	17-Dec-2018	17-Dec-2018
		Sample Depth (mbgs)	0.15 m	0.15 m	0.15 m	0.15 m
Parameter	**Table 1**	**Unit**				
Total Antimony (Sb)	1.3	µg/g	< 0.20	0.48	0.33	0.72
Total Arsenic (As)	18	µg/g	1.8	2.1	2.1	2.1
Total Barium (Ba)	220	µg/g	48	58	63	56
Total Beryllium (Be)	2.5	µg/g	1.2	0.47	0.47	0.45
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	0.31	0.19	0.26	0.26
Total Chromium (Cr)	70	µg/g	13	16	16	15
Total Cobalt (Co)	21	µg/g	4	5	5	4.6
Total Copper (Cu)	92	µg/g	10	7.5	7.6	7.4
Total Lead (Pb)	120	µg/g	5.4	15	11	18
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	7.5	10	11	9.3
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.1	0.12	0.13	0.11
Total Uranium (U)	2.5	µg/g	0.82	0.55	0.6	0.58
Total Vanadium (V)	86	µg/g	24	29	28	26
Total Zinc (Zn)	290	µg/g	87	40	41	47

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed during additio

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	B19	C17	C18	C19	C20	D14		D15
		Sample Name	B19	C17	C18	C19	C20	D14	DUP M	D15
		Sample Date	14-Dec-2018	9-Jul-2019	14-Dec-2018	4-Jul-2019	14-Dec-2018	3-Jan-2019		13-Dec-2018
		Sample Depth (mbgs)	0.4 m	0.45 m	0.3 m	0.4 m	0.4 m	0.4 m		0.5 m
Parameter	**Table 1**	**Unit**								
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	1.8	1.6	1.7	1.7	1.2	1.2	1.6	1.4
Total Barium (Ba)	220	µg/g	34	45	31	32	26	36	36	41
Total Beryllium (Be)	2.5	µg/g	0.3	0.3	0.24	0.28	0.2	0.26	0.26	0.29
Boron	36	µg/g	< 5.0	6.1	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.5
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	11	12	10	10	8.2	10	9.3	11
Total Cobalt (Co)	21	µg/g	3.9	4	3.4	3.4	2.6	3.9	3.3	3.9
Total Copper (Cu)	92	µg/g	7.5	7	6.5	5.8	5.9	7.1	6.9	7.9
Total Lead (Pb)	120	µg/g	4.9	5	4.5	6	3.6	4.2	4.4	4.9
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.7	9.3	7.9	7.6	6.4	8.8	8	8.8
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.099	0.094	0.099	0.088	0.077	0.1	0.085	0.12
Total Uranium (U)	2.5	µg/g	0.44	0.49	0.52	0.43	0.46	0.45	0.45	0.47
Total Vanadium (V)	86	µg/g	19	20	21	19	15	18	16	18
Total Zinc (Zn)	290	µg/g	20	21	19	20	17	22	19	21

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	D16		D17	D18	D19	D20	E12	E13	E14
		Sample Name	D16	DUP C	D17	D18	D19	D20	E12	E13	E14
		Sample Date	13-Dec-2018		9-Jul-2019	9-Jul-2019	4-Jul-2019	14-Dec-2018	13-Dec-2018	13-Dec-2018	13-Dec-2018
		Sample Depth (mbgs)	0.5 m		0.4 m	0.35 m	0.4 m	0.45 m	0.5 m	0.4 m	0.4 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	0.23	< 0.20	< 0.20	< 0.20	< 0.20	0.24	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	1.6	1.6	1.4	1.4	1.9	1.4	1.7	1.7	1.4
Total Barium (Ba)	220	µg/g	50	54	33	40	43	36	48	43	34
Total Beryllium (Be)	2.5	µg/g	0.38	0.4	0.23	0.28	0.35	0.26	0.3	0.26	0.24
Boron	36	µg/g	7	6.4	< 5.0	6.8	5.1	< 5.0	5.3	5.4	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	0.13	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	14	14	8.9	10	14	10	11	10	9.4
Total Cobalt (Co)	21	µg/g	4.4	4.6	3	3.6	4.2	3.4	3.8	3.7	3.4
Total Copper (Cu)	92	µg/g	9.9	10	5.5	6.6	7.5	6.5	7.3	8.4	8
Total Lead (Pb)	120	µg/g	6.6	6.7	4	4.7	6.5	4.7	4.6	4.3	4.5
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	11	12	6.8	8.4	9.8	8.7	8.6	8.1	8.1
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	0.13	0.07	0.083	0.11	0.09	0.11	0.11	0.097
Total Uranium (U)	2.5	µg/g	0.51	0.49	0.41	0.46	0.51	0.45	0.48	0.47	0.46
Total Vanadium (V)	86	µg/g	20	20	16	18	22	18	19	17	18
Total Zinc (Zn)	290	µg/g	26	28	16	19	27	20	20	20	20

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

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Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	E15	E16	E17	E18	E19	E20	F10	F10-F11	F11
		Sample Name	E15	E16	E17	E18	E19	E20	F10	F10-F11	F11
		Sample Date	13-Dec-2018	13-Dec-2018	16-Jul-2019	9-Jul-2019	4-Jul-2019	14-Dec-2018	13-Dec-2018	13-Dec-2018	13-Dec-2018
		Sample Depth (mbgs)	0.45 m	0.45 m	0.35 m	0.35 m	0.4 m	0.45 m	0.5 m	0.15 m	0.65 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	0.22	< 0.20	0.28	0.22	< 0.20	< 0.20	1.3	< 0.20
Total Arsenic (As)	18	µg/g	1.4	2	1.6	1.6	1.6	1.9	1.9	3	1.6
Total Barium (Ba)	220	µg/g	42	44	43	41	38	48	88	73	62
Total Beryllium (Be)	2.5	µg/g	0.27	0.32	0.29	0.28	0.29	0.34	0.51	0.64	0.37
Boron	36	µg/g	5.9	5.2	< 5.0	5.1	5.3	5.3	8.2	< 5.0	6.5
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.15	< 0.10
Total Chromium (Cr)	70	µg/g	11	11	11	9.9	11	13	18	20	14
Total Cobalt (Co)	21	µg/g	3.7	4	3.8	3.7	3.6	4.8	6.7	5.9	4.9
Total Copper (Cu)	92	µg/g	7.5	7.9	7.5	6.9	6.8	9.1	13	11	9.3
Total Lead (Pb)	120	µg/g	5.4	5.3	5.4	9.9	6.7	5.6	7.9	28	5.2
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.7	9.3	8.7	8.2	8.4	11	16	14	11
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.1	0.094	0.093	0.091	0.095	0.11	0.15	0.16	0.13
Total Uranium (U)	2.5	µg/g	0.49	0.47	0.49	0.47	0.5	0.51	0.55	0.44	0.52
Total Vanadium (V)	86	µg/g	18	18	18	18	19	21	26	30	21
Total Zinc (Zn)	290	µg/g	21	22	20	21	21	23	35	53	22

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	F12	F13	F14	F15	F16	F17	F18	F19	F20
		Sample Name	F12	F13	F14	F15	F16	F17	F18	F19	F20
		Sample Date	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	17-Jan-2019	12-Jul-2019	9-Jul-2019	4-Jul-2019	14-Dec-2018
		Sample Depth (mbgs)	0.45 m	0.45 m	0.5 m	0.45 m	0.5 m	0.35 m	0.35 m	0.4 m	0.45 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	0.85	0.4	0.31	< 0.20	0.44	0.33	< 0.20
Total Arsenic (As)	18	µg/g	1.7	1.4	1.9	1.4	1.3	1.7	1.8	1.7	1.6
Total Barium (Ba)	220	µg/g	34	33	41	44	37	43	36	37	33
Total Beryllium (Be)	2.5	µg/g	0.26	0.25	0.32	0.28	0.25	0.29	0.27	0.32	0.26
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	5.1	< 5.0	5.2	< 5.0	5.2	5.4
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	12	9.2	12	11	9.9	10	10	11	9.9
Total Cobalt (Co)	21	µg/g	4	3.6	4.3	3.8	3.6	3.8	3.6	3.7	4
Total Copper (Cu)	92	µg/g	7.5	7.5	8.2	7.4	7.2	7.4	6.9	6.8	7.2
Total Lead (Pb)	120	µg/g	4.6	4.8	13	8.1	4.3	4.8	8.6	8.9	5
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.5	8	9.3	8.5	8.1	8.4	8.3	8.4	8.4
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.083	0.094	0.11	0.084	0.077	0.089	0.096	0.094	0.093
Total Uranium (U)	2.5	µg/g	0.5	0.47	0.52	0.45	0.46	0.48	0.46	0.47	0.43
Total Vanadium (V)	86	µg/g	20	18	21	18	16	17	18	20	18
Total Zinc (Zn)	290	µg/g	21	19	24	21	21	19	20	22	19

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	F21	F8		F9	G10	G11		G12	G13
		Sample Name	F21	F8	DUP A	F9	G10	G11	DUP D	G12	G13
		Sample Date	3-Jan-2019	13-Dec-2018		13-Dec-2018	13-Dec-2018	13-Dec-2018		13-Dec-2018	13-Dec-2018
		Sample Depth (mbgs)	0.4 m	0.4 m		0.45 m	0.45 m	0.5 m		0.4 m	0.4 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	1.3	< 1.0	1	1.1	1.7	1.6	2	1.6	1.1
Total Barium (Ba)	220	µg/g	33	27	30	29	74	51	49	53	26
Total Beryllium (Be)	2.5	µg/g	0.26	< 0.20	< 0.20	0.21	0.42	0.36	0.34	0.33	0.21
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	7.5	6.7	6.6	6.1	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.12	0.13	0.11	< 0.10
Total Chromium (Cr)	70	µg/g	9.3	6.8	7.1	9.3	16	14	13	14	8.5
Total Cobalt (Co)	21	µg/g	3.5	2.6	2.7	3	5	4.7	4.4	3.7	3.1
Total Copper (Cu)	92	µg/g	6.7	5.2	5.3	5.7	10	8.8	9	8.2	7.7
Total Lead (Pb)	120	µg/g	4.6	2.4	3	3.3	6.5	5.6	5.7	5	4.1
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	7.6	4.6	4.3	5.7	12	11	10	9.3	6.6
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.087	< 0.050	< 0.050	0.057	0.13	0.1	0.12	0.1	0.091
Total Uranium (U)	2.5	µg/g	0.46	0.39	0.38	0.44	0.5	0.51	0.45	0.55	0.45
Total Vanadium (V)	86	µg/g	17	17	17	19	23	22	21	20	17
Total Zinc (Zn)	290	µg/g	21	16	16	17	27	25	26	21	18

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	G14	G15	G16	G17		G18		G19
		Sample Name	G14	G15	G16	G17	DUP S	G18	DUP R	G19
		Sample Date	13-Dec-2018	13-Dec-2018	13-Dec-2018	12-Jul-2019		4-Jul-2019		4-Jul-2019
		Sample Depth (mbgs)	0.4 m	0.4 m	0.7 m	0.4 m		0.4 m		0.35 m
Parameter	**Table 1**	**Unit**								
Total Antimony (Sb)	1.3	µg/g	< 0.20	0.27	0.28	0.49	0.54	0.29	< 0.20	0.22
Total Arsenic (As)	18	µg/g	1.7	1.5	1.8	1.8	1.7	1.5	1.6	1.6
Total Barium (Ba)	220	µg/g	42	39	32	33	32	37	34	29
Total Beryllium (Be)	2.5	µg/g	0.28	0.25	0.28	0.29	0.28	0.3	0.26	0.33
Boron	36	µg/g	5.3	< 5.0	< 5.0	< 5.0	< 5.0	5	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	11	10	10	10	10	10	10	12
Total Cobalt (Co)	21	µg/g	4.1	4	3.6	3.5	3.5	3.7	3.7	4
Total Copper (Cu)	92	µg/g	8.4	7.7	6.4	6.5	6.4	7.1	7.1	4.3
Total Lead (Pb)	120	µg/g	5.2	5.9	5	5.8	8	8.4	5.2	5.8
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.4	9.3	8.4	8	8	8.3	8	8
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.099	0.1	0.084	0.091	0.086	0.098	0.091	0.078
Total Uranium (U)	2.5	µg/g	0.5	0.45	0.51	0.47	0.47	0.49	0.46	0.48
Total Vanadium (V)	86	µg/g	19	18	18	18	19	18	18	24
Total Zinc (Zn)	290	µg/g	22	21	21	21	20	22	19	19

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	G20		G21	G7	G8	G9	H10	H11	H12
		Sample Name	G20	DUP F	G21	G7	G8	G9	H10	H11	H12
		Sample Date	14-Dec-2018		3-Jan-2019	13-Dec-2018	13-Dec-2018	13-Dec-2018	24-Jan-2019	24-Jan-2019	24-Jan-2019
		Sample Depth (mbgs)	0.45 m		0.4 m	0.35 m	0.45 m	0.4 m	0.45 m	0.45 m	0.5 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	< 0.20	0.24	0.33	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	1.5	1.6	1.7	< 1.0	1.1	1.2	2.1	1.9	1.6
Total Barium (Ba)	220	µg/g	30	33	33	25	30	38	84	59	44
Total Beryllium (Be)	2.5	µg/g	0.23	0.26	0.29	< 0.20	< 0.20	0.24	0.53	0.32	0.3
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7.9	6.5	5.1
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.13	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	9.2	14	9.4	7.6	7.3	10	18	12	11
Total Cobalt (Co)	21	µg/g	3.4	4.7	4.1	2.8	2.5	3.2	5.7	4.5	3.9
Total Copper (Cu)	92	µg/g	6.7	6.9	8.9	5.8	4.8	6	12	7.8	6.6
Total Lead (Pb)	120	µg/g	4.1	4.2	5.3	5.1	6.5	4	7.3	5	4.7
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.1	9.9	9.5	4.4	4.3	6.1	13	9.8	9.2
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.086	0.1	0.11	< 0.050	0.052	0.08	0.12	0.12	0.089
Total Uranium (U)	2.5	µg/g	0.44	0.42	0.48	0.4	0.42	0.46	0.51	0.45	0.41
Total Vanadium (V)	86	µg/g	17	27	17	18	17	19	25	20	18
Total Zinc (Zn)	290	µg/g	19	21	21	16	18	18	32	23	22

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	H13	H14	H15	H16	H17		H18	H19	H20
		Sample Name	H13	H14	H15	H16	H17	DUP N	H18	H19	H20
		Sample Date	24-Jan-2019	24-Jan-2019	11-Jan-2019	11-Jan-2019	11-Jan-2019		4-Jul-2019	18-Dec-2018	18-Dec-2018
		Sample Depth (mbgs)	0.45 m	0.45 m	0.45 m	0.4 m	0.35 m		0.4 m	0.4 m	0.4 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	0.26	0.48	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	2	2.2	1.6	1.6	1.6	1.3	1.6	1.8	1.6
Total Barium (Ba)	220	µg/g	55	56	49	25	39	35	34	38	33
Total Beryllium (Be)	2.5	µg/g	0.33	0.41	0.27	0.23	0.3	0.27	0.29	0.38	0.29
Boron	36	µg/g	6	6.4	5.4	< 5.0	5.3	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	12	15	11	9.7	10	9.6	11	13	11
Total Cobalt (Co)	21	µg/g	4.9	5.2	4	3.2	3.8	3.8	3.7	4.4	3.4
Total Copper (Cu)	92	µg/g	8.1	8.9	7.6	5.4	7.8	7.4	7.2	8.6	7.1
Total Lead (Pb)	120	µg/g	5.4	6.6	6.1	7.1	5.3	4.5	5.1	6.6	5
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	10	13	8.9	6.1	8.8	8.9	8.3	9.8	8.5
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	0.15	0.11	0.075	0.087	0.1	0.1	0.13	0.094
Total Uranium (U)	2.5	µg/g	0.46	0.48	0.47	0.45	0.48	0.42	0.46	0.46	0.49
Total Vanadium (V)	86	µg/g	19	25	18	21	18	17	19	23	19
Total Zinc (Zn)	290	µg/g	23	28	21	22	23	20	21	27	22

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	H6	H7	H8	H9	I10	I11		I12	
		Sample Name	H6	H7	H8	H9	I10	I11	DUP 2	I12	DUP I
		Sample Date	12-Jun-2019	20-Dec-2018	18-Dec-2018	18-Dec-2018	18-Dec-2018	20-Dec-2018		18-Dec-2018	
		Sample Depth (mbgs)	0.35 m	0.35 m	0.4 m	0.45 m	0.4 m	0.45 m		0.35 m	
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	< 1.0	< 1.0	< 1.0	1.3	1.6	1.5	1.5	1	< 1.0
Total Barium (Ba)	220	µg/g	18	28	27	54	74	39	44	32	31
Total Beryllium (Be)	2.5	µg/g	< 0.20	< 0.20	< 0.20	0.31	0.4	0.23	0.27	0.22	0.21
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	5.6	7.1	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	6.8	8	8.1	11	16	9.4	11	9.3	8.5
Total Cobalt (Co)	21	µg/g	2.3	2.7	2.7	3.8	5.3	3.4	3.5	3.2	3.1
Total Copper (Cu)	92	µg/g	3.3	4.9	4.7	7.1	9.7	7.2	7.1	6.2	6
Total Lead (Pb)	120	µg/g	2.5	4.7	2.6	4.6	6.8	4.2	4.4	4.1	4
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	3.9	4.6	4.5	8.3	13	7.7	8.1	6.7	6.3
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	< 0.050	0.062	0.059	0.095	0.12	0.077	0.094	0.084	0.099
Total Uranium (U)	2.5	µg/g	0.42	0.41	0.43	0.48	0.49	0.44	0.41	0.43	0.44
Total Vanadium (V)	86	µg/g	17	18	18	20	23	17	17	18	18
Total Zinc (Zn)	290	µg/g	14	15	15	19	31	21	20	17	17

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	I13	I14	I15	I16	I17	I18		I19	
		Sample Name	I13	I14	I15	I16	I17	I18	DUP K	I19	DUP H
		Sample Date	18-Dec-2018	18-Dec-2018	18-Dec-2018	18-Dec-2018	18-Dec-2018	18-Dec-2018		18-Dec-2018	
		Sample Depth (mbgs)	0.35 m	0.45 m	0.45 m	0.45 m	0.45 m	0.5 m		0.4 m	
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	0.34	0.81	0.96	0.56	0.49	0.31	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	1.6	1.6	2.1	2.4	1.4	1.7	1.6	1.5	1.3
Total Barium (Ba)	220	µg/g	45	37	44	47	34	38	35	36	35
Total Beryllium (Be)	2.5	µg/g	0.3	0.26	0.32	0.37	0.29	0.31	0.31	0.32	0.28
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	5.4	5	< 5.0	< 5.0	5.3	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.11	< 0.10
Total Chromium (Cr)	70	µg/g	11	9.9	12	13	10	11	11	11	10
Total Cobalt (Co)	21	µg/g	3.6	3.6	4.1	4.5	3.9	4.2	3.9	3.8	4
Total Copper (Cu)	92	µg/g	7.3	7.2	8.6	8.2	7.9	8.6	8.7	7.6	7.5
Total Lead (Pb)	120	µg/g	5.7	5.9	7.8	14	7.8	7.6	6.5	5.1	5.1
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.5	7.7	9.5	10	8.8	9	9.2	8.8	8.5
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	0.09	0.13	0.12	0.11	0.12	0.11	0.11	0.09
Total Uranium (U)	2.5	µg/g	0.48	0.45	0.47	0.51	0.44	0.45	0.49	0.46	0.45
Total Vanadium (V)	86	µg/g	17	19	21	24	19	20	21	18	18
Total Zinc (Zn)	290	µg/g	20	19	24	26	23	24	22	22	19

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	I3		I4	I5	I7	I8		I9	J1
		Sample Name	I3	DUP8	I4	I5	I7	I8	DUP Q	I9	J1
		Sample Date	18-Dec-2018		24-Jan-2019	24-Jan-2019	12-Jun-2019	11-Jun-2019		18-Dec-2018	6-Dec-2018
		Sample Depth (mbgs)	0.35 m		0.4 m	0.4 m	0.35 m	0.35 m		0.4 m	0.35 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.6	1.1
Total Barium (Ba)	220	µg/g	19	21	14	14	20	16	18	79	18
Total Beryllium (Be)	2.5	µg/g	0.4	0.23	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.45	0.21
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7.6	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	7	8.2	6	6.3	6.1	6	6.1	17	7.6
Total Cobalt (Co)	21	µg/g	2.4	2.7	2.1	2.2	2	1.9	2.1	6.1	2.7
Total Copper (Cu)	92	µg/g	2.7	2.8	2.3	2.4	3.4	3.1	3.4	10	3.5
Total Lead (Pb)	120	µg/g	2.7	2.6	2.2	2	2.2	2	2.2	6.8	3.2
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	4.2	4.9	3.5	3.6	3.7	5.5	3.7	14	4.2
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.053	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.14	0.05
Total Uranium (U)	2.5	µg/g	0.48	0.46	0.36	0.35	0.37	0.4	0.42	0.52	0.41
Total Vanadium (V)	86	µg/g	19	20	15	17	15	14	15	23	19
Total Zinc (Zn)	290	µg/g	11	14	10	9.6	12	11	12	29	15

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	J10	J11	J12	J13	J14	J15		J16	
		Sample Name	J10	J11	J12	J13	J14	J15	DUP O	J16	DUP J
		Sample Date	11-Jun-2019	14-Jan-2019	14-Jan-2019	17-Dec-2018	17-Dec-2018	14-Jan-2019		18-Dec-2018	
		Sample Depth (mbgs)	0.35 m	0.4 m	0.45 m	0.35 m	0.45 m	0.45 m		0.5 m	
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.57	< 0.20	0.42	< 0.20	0.48	0.46	0.43	0.58	0.66
Total Arsenic (As)	18	µg/g	1.3	1.4	1.5	1.1	1.4	1.6	1.5	1.6	1.5
Total Barium (Ba)	220	µg/g	45	33	30	21	30	39	38	37	33
Total Beryllium (Be)	2.5	µg/g	0.29	0.22	0.22	< 0.20	0.23	0.23	0.23	0.27	0.27
Boron	36	µg/g	5.4	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.2	5.4
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	0.12	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	12	9	8.5	7	8.4	9.3	8.9	10	9.7
Total Cobalt (Co)	21	µg/g	3.2	3.5	3.5	3	3.3	3.6	3.5	3.7	3.7
Total Copper (Cu)	92	µg/g	6.7	6.8	7.3	5.8	6.7	8.1	7.6	8	7.6
Total Lead (Pb)	120	µg/g	8.3	3.8	5.9	3.2	8.1	7.1	6.6	7.2	6.7
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.6	6.9	7	5.7	6.7	7.5	7.4	8.9	9
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.095	0.09	0.081	0.071	0.096	0.095	0.077	0.097	0.092
Total Uranium (U)	2.5	µg/g	0.44	0.48	0.45	0.41	0.47	0.48	0.66	0.49	0.47
Total Vanadium (V)	86	µg/g	18	18	18	17	17	18	18	19	18
Total Zinc (Zn)	290	µg/g	22	20	18	23	21	20	19	20	19

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	J17		J18	J19	J2	J2-J3	J3	J3-I4	J4
		Sample Name	J17	J17-2	J18	J19	J2	J2-J3	J3	J3-I4	J4
		Sample Date	18-Dec-2018	15-Jan-2019	18-Dec-2018	18-Jan-2019	6-Dec-2018	18-Dec-2018	24-Jan-2019	18-Dec-2018	24-Jan-2019
		Sample Depth (mbgs)	0.45 m	0.5 m	0.4 m	0.35 m	0.35 m	0.15 m	0.45 m	0.15 m	0.45 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	**3.4**	0.37	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	3.5	1.6	1.9	1.5	1.2	1.6	< 1.0	1.8	< 1.0
Total Barium (Ba)	220	µg/g	69	39	37	33	20	33	14	44	11
Total Beryllium (Be)	2.5	µg/g	0.48	0.29	0.36	0.27	0.22	0.34	< 0.20	0.41	< 0.20
Boron	36	µg/g	5.9	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	0.11	0.1	< 0.10	< 0.10	< 0.10	0.1	< 0.10	0.21	< 0.10
Total Chromium (Cr)	70	µg/g	17	10	12	9.5	8.4	12	6.9	13	6.1
Total Cobalt (Co)	21	µg/g	5.5	3.6	4.9	3.4	2.5	4.3	2.3	4.4	2.2
Total Copper (Cu)	92	µg/g	12	7.2	9.9	7.2	4.1	4.4	2.2	5.8	2.3
Total Lead (Pb)	120	µg/g	**150**	6.8	7.8	4.6	3.4	5.1	2.1	5.9	2
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	13	9.2	11	8.6	4.5	7	3.4	7.6	3.5
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.14	0.091	0.13	0.095	0.057	0.083	< 0.050	0.09	< 0.050
Total Uranium (U)	2.5	µg/g	0.52	0.46	0.5	0.46	0.37	0.43	0.39	0.58	0.38
Total Vanadium (V)	86	µg/g	28	18	22	18	18	26	16	26	16
Total Zinc (Zn)	290	µg/g	29	21	26	19	15	23	10	29	11

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	J5	J6		J7	J8	J9	K1		K10
		Sample Name	J5	J6	DUP9	J7	J8	J9	K1	DUP 2	K10
		Sample Date	18-Dec-2018	18-Dec-2018		22-Jan-2019	22-Jan-2019	11-Jun-2019	6-Dec-2018		20-Dec-2018
		Sample Depth (mbgs)	0.35 m	0.35 m		0.5 m	0.35 m	0.35 m	0.3 m		0.3 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.23	0.29	0.23	< 0.20	< 0.20	0.22	< 0.20	< 0.20	0.3
Total Arsenic (As)	18	µg/g	1.5	1.2	< 1.0	< 1.0	1	1.6	< 1.0	1	1.6
Total Barium (Ba)	220	µg/g	45	16	15	16	24	64	14	14	81
Total Beryllium (Be)	2.5	µg/g	0.37	< 0.20	< 0.20	< 0.20	0.2	0.38	< 0.20	< 0.20	0.46
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7	< 5.0	< 5.0	7.7
Total Cadmium (Cd)	1.2	µg/g	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	12	5.9	5.4	5.8	7.3	15	5.9	6.2	17
Total Cobalt (Co)	21	µg/g	3.6	2	1.9	2.3	2.8	4.4	2.1	2.3	5.1
Total Copper (Cu)	92	µg/g	5.5	2.5	2.6	4	4.5	8.4	3	3	9.8
Total Lead (Pb)	120	µg/g	6.2	5.8	2.6	2	5.3	6.1	1.9	2	8.5
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.4	3.4	3.3	3.7	5	11	3.6	3.4	13
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.096	< 0.050	< 0.050	< 0.050	< 0.050	0.12	< 0.050	< 0.050	0.15
Total Uranium (U)	2.5	µg/g	0.46	0.44	0.36	0.32	0.36	0.48	0.38	0.4	0.5
Total Vanadium (V)	86	µg/g	23	16	14	15	18	24	17	16	24
Total Zinc (Zn)	290	µg/g	20	11	11	13	14	28	12	11	28

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	K11	K12	K13	K14		K15	K16	K17	K18
		Sample Name	K11	K12	K13	K14	DUP G	K15	K16	K17	K18
		Sample Date	24-Jan-2019	11-Jun-2019	11-Jun-2019	17-Dec-2018		17-Dec-2018	17-Dec-2018	17-Dec-2018	18-Dec-2018
		Sample Depth (mbgs)	0.35 m	0.35 m	0.35 m	0.35 m		0.35 m	0.4 m	0.35 m	0.4 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	0.91	0.72	0.44	0.56	0.58	0.36	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	1.9	1.4	1.6	1.6	1.5	1.3	1.6	1.6	1.5
Total Barium (Ba)	220	µg/g	43	35	52	45	49	36	39	37	33
Total Beryllium (Be)	2.5	µg/g	0.37	0.25	0.38	0.28	0.33	0.26	0.31	0.27	0.28
Boron	36	µg/g	5.2	< 5.0	5.4	5.4	5.8	< 5.0	5.1	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	12	13	15	12	12	9.5	11	9.9	11
Total Cobalt (Co)	21	µg/g	4.6	3.6	4.6	3.9	3.6	3.3	3.7	3.5	4.1
Total Copper (Cu)	92	µg/g	7	5.8	8.5	7.6	7.7	7	7.8	7.1	8.5
Total Lead (Pb)	120	µg/g	6.2	11	9	7.7	12	6.9	7	4.9	5.1
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	10	7.5	11	8.5	8.9	7.2	8.7	7.6	9.6
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.11	0.066	0.12	0.11	0.12	0.085	0.095	0.086	0.11
Total Uranium (U)	2.5	µg/g	0.48	0.46	0.43	0.48	0.48	0.43	0.45	0.46	0.5
Total Vanadium (V)	86	µg/g	23	20	23	18	20	17	18	17	20
Total Zinc (Zn)	290	µg/g	22	21	24	22	22	20	21	19	22

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	K19		K2	K3	K4	K5		K6	K7
		Sample Name	K19	DUP P	K2	K3	K4	K5	K5(2)	K6	K7
		Sample Date	18-Jan-2019		6-Dec-2018	24-Jan-2019	18-Dec-2018	18-Dec-2018	27-Feb-2019	18-Dec-2018	22-Jan-2019
		Sample Depth (mbgs)	0.35 m		0.35 m	0.5 m	0.35 m	0.35 m	0.45 m	0.3 m	0.45 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	0.94	**2.1**	0.27	0.55	< 0.20
Total Arsenic (As)	18	µg/g	2	1.7	1.4	< 1.0	1.2	1.9	1.1	1.6	< 1.0
Total Barium (Ba)	220	µg/g	33	33	23	12	35	41	15	33	14
Total Beryllium (Be)	2.5	µg/g	0.33	0.3	0.24	< 0.20	0.4	0.34	< 0.20	0.31	< 0.20
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	0.12	0.19	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	11	10	11	5.8	13	14	7.4	12	5.2
Total Cobalt (Co)	21	µg/g	4.3	4.4	3.4	2.2	4.1	4.2	2.2	3.7	2.2
Total Copper (Cu)	92	µg/g	9.4	9.4	5.8	2.6	4.3	5.5	2.9	5	3
Total Lead (Pb)	120	µg/g	5.9	5.6	3.6	2	13	21	3.4	9.8	1.9
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	10	11	6.1	3.7	7.3	8.2	3.9	7.1	3.3
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	0.12	0.079	< 0.050	0.072	0.093	< 0.050	0.1	< 0.050
Total Uranium (U)	2.5	µg/g	0.56	0.48	0.49	0.31	0.49	0.51	0.45	0.47	0.32
Total Vanadium (V)	86	µg/g	21	19	22	16	27	29	18	23	14
Total Zinc (Zn)	290	µg/g	21	23	16	9.7	27	28	12	22	12

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	K8	K9		L1	L10	L11	L12	L13	L14
		Sample Name	K8	K9	DUP12	L1	L10	L11	L12	L13	L14
		Sample Date	20-Dec-2018	20-Dec-2018		6-Dec-2018	20-Dec-2018	24-Jan-2019	24-Jan-2019	20-Dec-2018	11-Jun-2019
		Sample Depth (mbgs)	0.4 m	0.35 m		0.3 m	0.35 m	0.35 m	0.4 m	0.35 m	0.35 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.77	0.83	0.34	0.8
Total Arsenic (As)	18	µg/g	1.9	1.4	1.4	< 1.0	1.8	2	1.8	1.4	1.7
Total Barium (Ba)	220	µg/g	74	45	47	22	55	51	45	40	39
Total Beryllium (Be)	2.5	µg/g	0.46	0.31	0.32	< 0.20	0.35	0.39	0.34	0.26	0.33
Boron	36	µg/g	7.5	5.1	5.6	< 5.0	5	5.6	5.1	5.3	5.1
Total Cadmium (Cd)	1.2	µg/g	0.11	< 0.10	< 0.10	< 0.10	0.1	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	16	11	11	6.9	12	14	11	11	13
Total Cobalt (Co)	21	µg/g	5.9	3.8	3.9	2.6	4.5	5	5.3	3.4	4
Total Copper (Cu)	92	µg/g	12	7.3	7.5	3.4	9.1	7.9	6.5	6.7	7.2
Total Lead (Pb)	120	µg/g	7.5	5.6	5.3	2.5	6.6	15	7.5	5.5	9.2
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	14	8.9	9.6	4.4	10	11	11	7.8	9.2
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.16	0.089	0.097	0.055	0.11	0.11	0.1	0.11	0.11
Total Uranium (U)	2.5	µg/g	0.52	0.49	0.49	0.38	0.47	0.49	0.46	0.75	0.48
Total Vanadium (V)	86	µg/g	23	20	18	17	21	24	22	18	21
Total Zinc (Zn)	290	µg/g	29	21	23	15	25	27	21	18	23

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	L15	L16	L17	L18	L19	L1-M1	L2	L3	L4
		Sample Name	L15	L16	L17	L18	L19	L1-M1	L2	L3	L4
		Sample Date	12-Jun-2019	12-Jun-2019	17-Dec-2018	17-Dec-2018	17-Dec-2018	6-Dec-2018	6-Dec-2018	6-Dec-2018	6-Dec-2018
		Sample Depth (mbgs)	0.35 m	0.35 m	0.35 m	0.35 m	0.4 m	0.15 m	0.35 m	0.4 m	0.45 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.42	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.41	1.1	0.63
Total Arsenic (As)	18	µg/g	1.6	1.6	1.6	1.7	1.4	1.7	1.9	1.9	1.3
Total Barium (Ba)	220	µg/g	38	42	36	36	26	46	34	30	33
Total Beryllium (Be)	2.5	µg/g	0.31	0.34	0.24	0.28	0.22	0.42	0.34	0.3	0.21
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.16	0.11	0.1	0.17
Total Chromium (Cr)	70	µg/g	10	13	9	10	9.2	13	15	11	9.8
Total Cobalt (Co)	21	µg/g	3.7	3.8	3.6	4.1	3.4	4.8	3.6	3.2	3.6
Total Copper (Cu)	92	µg/g	7.7	4.7	7	9.5	7.2	6.8	6.9	4.7	3
Total Lead (Pb)	120	µg/g	6.8	5.9	4.4	5.7	4.4	11	8.1	14	7.5
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.9	8.1	7.8	10	7.9	8.8	6.4	6.4	8.1
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.095	0.084	0.095	0.12	0.089	0.1	0.11	0.08	0.068
Total Uranium (U)	2.5	µg/g	0.47	0.41	0.45	0.48	0.46	0.52	0.51	0.51	0.56
Total Vanadium (V)	86	µg/g	19	22	17	18	17	26	26	23	25
Total Zinc (Zn)	290	µg/g	21	21	22	23	18	34	21	20	17

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	L5		L6	L7	L8	L9	M1	M10	M11
		Sample Name	L5	L5-2	L6	L7	L8	L9	M1	M10	M11
		Sample Date	6-Dec-2018	17-Dec-2018	7-Mar-2019	7-Mar-2019	20-Dec-2018	20-Dec-2018	6-Dec-2018	20-Dec-2018	24-Jan-2019
		Sample Depth (mbgs)	0.35 m	0.4 m	0.5 m	0.45 m	0.35 m	0.35 m	0.3 m	0.35 m	0.35 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	**1.5**	0.52	< 0.20	0.24	< 0.20	0.74	< 0.20	0.45	< 0.20
Total Arsenic (As)	18	µg/g	1.6	1.1	1.6	< 1.0	1.5	1.7	1.1	1.8	2
Total Barium (Ba)	220	µg/g	41	15	70	15	32	47	23	73	46
Total Beryllium (Be)	2.5	µg/g	0.34	< 0.20	0.46	< 0.20	0.25	0.35	< 0.20	0.39	0.34
Boron	36	µg/g	< 5.0	< 5.0	7.6	< 5.0	< 5.0	5.2	< 5.0	7.1	5.8
Total Cadmium (Cd)	1.2	µg/g	0.13	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	12	6.4	16	6.2	8.7	12	7.5	15	12
Total Cobalt (Co)	21	µg/g	4.1	2.3	5.3	2.1	3.4	4.3	2.7	5.3	4.4
Total Copper (Cu)	92	µg/g	4.6	3.1	11	2.8	8	8	3.6	11	7.8
Total Lead (Pb)	120	µg/g	11	9.8	6.2	3	5.2	10	2.7	8	5.5
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	8.2	4.1	13	3.6	8.3	10	4.5	13	10
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.08	< 0.050	0.12	< 0.050	0.11	0.11	< 0.050	0.14	0.092
Total Uranium (U)	2.5	µg/g	0.51	0.36	0.51	0.45	0.46	0.47	0.38	0.48	0.48
Total Vanadium (V)	86	µg/g	25	17	22	17	16	21	17	22	20
Total Zinc (Zn)	290	µg/g	19	13	28	10	19	25	15	29	23

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	M12	M13		M14	M15	M16	M17	M18	M19
		Sample Name	M12	M13	DUP11	M14	M15	M16	M17	M18	M19
		Sample Date	20-Dec-2018	20-Dec-2018		20-Dec-2018	20-Dec-2018	20-Dec-2018	12-Jun-2019	12-Jun-2019	18-Jan-2019
		Sample Depth (mbgs)	0.3 m	0.35 m		0.35 m	0.3 m	0.3 m	0.35 m	0.35 m	0.45 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	1.3	0.95	0.68	0.5	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	2.9	1.8	1.8	1.2	1.7	1.5	1.3	1.5	1.6
Total Barium (Ba)	220	µg/g	69	45	46	31	39	45	29	27	26
Total Beryllium (Be)	2.5	µg/g	0.54	0.31	0.35	0.26	0.31	0.33	0.26	0.25	0.24
Boron	36	µg/g	6.3	< 5.0	5.1	< 5.0	5.6	5.7	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	0.28	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	23	14	15	9	11	12	9.2	8.9	8.2
Total Cobalt (Co)	21	µg/g	7.9	4.4	4.4	3.5	4	4.1	3.1	3.3	3.5
Total Copper (Cu)	92	µg/g	9.3	7.6	7.6	6.6	7.9	8.5	6	6.8	8.3
Total Lead (Pb)	120	µg/g	15	16	9.9	6.3	5	5.3	4.3	4.4	4.7
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	17	8.6	9.5	7.6	8.8	9.1	7.5	7.3	8.5
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.16	0.09	0.11	0.087	0.11	0.13	0.081	0.087	0.1
Total Uranium (U)	2.5	µg/g	0.71	0.44	0.53	0.43	0.46	0.51	0.48	0.47	0.52
Total Vanadium (V)	86	µg/g	35	23	25	17	20	19	17	16	17
Total Zinc (Zn)	290	µg/g	49	24	24	19	22	20	17	18	19

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	M1-N1	M2	M3	M4	M5	M6	M7	M8	
		Sample Name	M1-N1	M2	M3	M4	M5	M6	M7	M8	DUP13
		Sample Date	6-Dec-2018	6-Dec-2018	6-Dec-2018	6-Dec-2018	6-Dec-2018	22-Jan-2019	22-Jan-2019	22-Jan-2019	
		Sample Depth (mbgs)	0.15 m	0.4 m	0.45 m	0.4 m	0.4 m	0.5 m	0.5 m	0.4 m	
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	0.44	0.51	0.4	< 0.20	< 0.20	< 0.20	0.39	0.43
Total Arsenic (As)	18	µg/g	2.6	2.2	< 1.0	1.3	< 1.0	1.6	1.9	1.5	1.9
Total Barium (Ba)	220	µg/g	97	20	15	24	11	31	31	82	68
Total Beryllium (Be)	2.5	µg/g	0.75	0.21	< 0.20	0.22	< 0.20	0.28	0.28	0.5	0.44
Boron	36	µg/g	6.6	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	7.7	6.4
Total Cadmium (Cd)	1.2	µg/g	0.25	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.14
Total Chromium (Cr)	70	µg/g	22	11	5.7	9.2	5	9.6	9.4	17	15
Total Cobalt (Co)	21	µg/g	7.2	2.5	1.6	2.7	1.6	3.8	3.8	6.2	5.5
Total Copper (Cu)	92	µg/g	13	3.6	3.1	2.1	2.4	7.9	7.8	13	11
Total Lead (Pb)	120	µg/g	12	3.4	1.8	3.7	1.6	4.7	5.8	10	13
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	15	3.8	3.1	4.8	3.1	8.6	8.5	15	14
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.16	0.053	< 0.050	< 0.050	< 0.050	0.1	0.097	0.14	0.14
Total Uranium (U)	2.5	µg/g	0.54	0.39	0.41	0.51	0.36	0.46	0.45	0.52	0.47
Total Vanadium (V)	86	µg/g	35	20	15	25	12	18	17	24	22
Total Zinc (Zn)	290	µg/g	45	17	8.4	12	7.8	21	23	31	30

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	M9	N1	N10		N11	N12	N13	N14	N15
		Sample Name	M9	N1	N10	DUP15	N11	N12	N13	N14	N15
		Sample Date	22-Jan-2019	6-Dec-2018	14-Feb-2019		22-Jan-2019	22-Jan-2019	20-Dec-2018	20-Dec-2018	20-Dec-2018
		Sample Depth (mbgs)	0.45 m	0.45 m	0.45 m		0.4 m	0.4 m	0.35 m	0.35 m	0.3 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.95	< 0.20	0.67	0.25	0.27	< 0.20	0.45	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	1.7	1.2	1.7	1.7	1.3	2.3	1.8	1.4	1.7
Total Barium (Ba)	220	µg/g	71	17	76	77	51	43	37	36	45
Total Beryllium (Be)	2.5	µg/g	0.47	< 0.20	0.45	0.43	0.34	0.34	0.32	0.28	0.36
Boron	36	µg/g	7.4	< 5.0	8.4	8.5	5.6	5.8	< 5.0	5	5
Total Cadmium (Cd)	1.2	µg/g	0.12	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.12	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	16	8.2	16	15	13	12	12	10	12
Total Cobalt (Co)	21	µg/g	5.5	2.2	5.6	5.4	4.2	4	4.3	3.9	4.5
Total Copper (Cu)	92	µg/g	11	3.6	10	9.8	7.5	8.5	7.1	7.8	9
Total Lead (Pb)	120	µg/g	22	3.4	14	6.2	4.9	5	6.3	5.1	6.1
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	13	3.9	13	13	9.8	9.8	8.8	8.2	10
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.13	< 0.050	0.14	0.12	0.095	0.12	0.12	0.11	0.11
Total Uranium (U)	2.5	µg/g	0.48	0.44	0.48	0.5	0.43	0.47	0.54	0.47	0.47
Total Vanadium (V)	86	µg/g	23	20	23	22	22	20	23	18	20
Total Zinc (Zn)	290	µg/g	33	15	28	27	24	22	23	21	25

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	N16		N17	N18	N19	N19	N2		N3
		Sample Name	N16	DUP10	N17	N18	N19	N19	N2	DUP 3	N3
		Sample Date	20-Dec-2018		20-Dec-2018	20-Dec-2018	20-Dec-2018	12-Jun-2019	6-Dec-2018		5-Mar-2019
		Sample Depth (mbgs)	0.3 m		0.3 m	0.3 m	0.3 m	0.3 m	0.45 m		0.45 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.69
Total Arsenic (As)	18	µg/g	1.6	1.6	1.5	1.9	1.9	1.6	3.2	1.8	1.9
Total Barium (Ba)	220	µg/g	45	43	42	43	46	29	33	25	18
Total Beryllium (Be)	2.5	µg/g	0.33	0.32	0.33	0.34	0.36	0.28	0.33	0.28	< 0.20
Boron	36	µg/g	5.7	5.4	5.4	5.8	5.4	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	0.13	< 0.10	< 0.10	< 0.10	0.11	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	12	11	11	12	13	10	16	14	8.5
Total Cobalt (Co)	21	µg/g	4.3	4.1	3.9	4.3	4.3	3.5	3.4	3.4	2.8
Total Copper (Cu)	92	µg/g	8.5	8.2	8.5	8.6	8.3	7.6	5.7	5	6.2
Total Lead (Pb)	120	µg/g	5.7	5.3	5.1	5.4	6	4.8	6.3	4.3	4.9
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.57	< 0.50
Total Nickel (Ni)	82	µg/g	9.8	9	9.3	9.4	10	8.5	5.5	5.6	5.8
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	0.09	0.11	0.12	0.11	0.1	0.088	0.075	0.068
Total Uranium (U)	2.5	µg/g	0.49	0.47	0.43	0.48	0.46	0.49	0.51	0.53	0.54
Total Vanadium (V)	86	µg/g	21	20	20	21	22	18	29	25	21
Total Zinc (Zn)	290	µg/g	25	22	22	23	25	19	30	20	13

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	N4		N5	N6	N7	N8	N9	O10	O11
		Sample Name	N4	DUP 4	N5	N6	N7	N8	N9	O10	O11
		Sample Date	6-Dec-2018		6-Dec-2018	6-Dec-2018	5-Dec-2018	5-Dec-2018	6-Mar-2019	14-Feb-2019	22-Jan-2019
		Sample Depth (mbgs)	0.4 m		0.35 m	0.45 m	0.45 m	0.45 m	0.45 m	0.45 m	0.45 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	1.1	0.33	1	< 0.20	0.56	0.6	< 0.20	0.8	< 0.20
Total Arsenic (As)	18	µg/g	1.6	1.4	1.4	1.7	2.1	2	1.9	2.6	1.3
Total Barium (Ba)	220	µg/g	19	20	30	30	28	45	64	100	60
Total Beryllium (Be)	2.5	µg/g	0.24	0.24	0.28	0.29	0.28	0.36	0.39	0.59	0.35
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	5.2	< 5.0	< 5.0	6.8	9.3	6
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.12	0.11	0.12
Total Chromium (Cr)	70	µg/g	9.1	9.3	11	10	9.6	12	13	21	13
Total Cobalt (Co)	21	µg/g	2.8	2.8	3.3	3.7	3.7	4.5	5	7.1	4.5
Total Copper (Cu)	92	µg/g	5.4	5.8	5.1	7.4	7.5	8.5	9.3	14	7.9
Total Lead (Pb)	120	µg/g	69	4.7	10	5.5	9.1	9.1	5.9	16	5
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	5.3	5.5	6.9	8.9	8.6	11	11	17	10
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	< 0.050	< 0.050	0.069	0.1	0.11	0.13	0.12	0.18	0.11
Total Uranium (U)	2.5	µg/g	0.48	0.47	0.46	0.53	0.47	0.48	0.49	0.55	0.43
Total Vanadium (V)	86	µg/g	21	23	23	18	18	21	22	29	22
Total Zinc (Zn)	290	µg/g	16	13	18	21	19	23	26	35	29

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	O12		O13	O14	O15	O16	O17	O2	O2-P3
		Sample Name	O12	DUP14	O13	O14	O15	O16	O17	O2	O2-P3
		Sample Date	22-Jan-2019		28-Feb-2019	20-Dec-2018	20-Dec-2018	20-Dec-2018	20-Dec-2018	10-Dec-2018	6-Dec-2018
		Sample Depth (mbgs)	0.45 m		0.45 m	0.4 m	0.3 m	0.3 m	0.3 m	0.3 m	0.15 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	0.24	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.77
Total Arsenic (As)	18	µg/g	2	1.9	1.5	1.5	1.7	1.6	1.7	1.6	2.5
Total Barium (Ba)	220	µg/g	54	50	32	45	38	40	44	38	52
Total Beryllium (Be)	2.5	µg/g	0.39	0.37	0.25	0.35	0.31	0.3	0.36	0.28	0.39
Boron	36	µg/g	6	5.9	< 5.0	5.5	5.6	< 5.0	5.1	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	0.11	< 0.10	0.11	< 0.10	0.26
Total Chromium (Cr)	70	µg/g	14	13	9.7	12	12	10	12	11	19
Total Cobalt (Co)	21	µg/g	4.9	4.8	3.7	4.1	4	4	4.3	4	3.5
Total Copper (Cu)	92	µg/g	10	9.2	6.1	7.9	8.3	7.7	8.6	7.3	8.2
Total Lead (Pb)	120	µg/g	5.6	5.3	5.3	5.2	5.3	5.1	5.5	4.6	19
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	11	12	8.1	9.6	9	9.2	9.5	8.8	6.2
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.78
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.11	0.11	0.088	0.11	0.11	0.1	0.1	0.1	0.1
Total Uranium (U)	2.5	µg/g	0.51	0.46	0.5	0.5	0.47	0.46	0.47	0.49	0.55
Total Vanadium (V)	86	µg/g	23	21	22	22	18	18	21	21	22
Total Zinc (Zn)	290	µg/g	25	22	20	24	20	26	23	21	44

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	O3	O4	O5	O6	O7	O8	O9	P10	P11
		Sample Name	O3	O4	O5	O6	O7	O8	O9	P10	P11
		Sample Date	5-Mar-2019	13-Mar-2019	13-Mar-2019	30-Jan-2019	5-Dec-2018	5-Mar-2019	5-Mar-2019	1-Feb-2019	22-Jan-2019
		Sample Depth (mbgs)	0.45 m	0.45 m	0.45 m	0.5 m	0.45 m	0.5 m	0.5 m	0.35 m	0.45 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.72	< 0.20	< 0.20	< 0.20	0.5	0.35	0.22	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	2.1	< 1.0	1.1	1.7	1.5	1.7	1.8	1.6	1.3
Total Barium (Ba)	220	µg/g	15	16	26	32	25	44	41	54	60
Total Beryllium (Be)	2.5	µg/g	< 0.20	< 0.20	0.22	0.32	0.24	0.34	0.28	0.37	0.36
Boron	36	µg/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.4	6.8
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.12	0.1	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	7.3	6.7	8.7	11	8.6	11	10	14	14
Total Cobalt (Co)	21	µg/g	2	2.1	2.9	3.9	3.2	3.8	3.6	4.4	4.7
Total Copper (Cu)	92	µg/g	6.4	2.4	4.5	8.9	6.2	7.2	7.4	8.2	8.6
Total Lead (Pb)	120	µg/g	7.8	2.4	4.1	5.8	14	6.4	6	5.1	5.7
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	4.5	3.7	5.4	9.3	7.4	8.8	8.7	9.8	11
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.053	< 0.050	0.057	0.096	0.081	0.091	0.089	0.1	0.11
Total Uranium (U)	2.5	µg/g	0.4	0.4	0.4	0.5	0.45	0.47	0.44	0.49	0.48
Total Vanadium (V)	86	µg/g	15	17	18	19	16	21	19	22	20
Total Zinc (Zn)	290	µg/g	12	10	16	23	16	24	21	25	23

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	P12	P13		P3	P4	P5	P6	P7
		Sample Name	P12	P13	DUP7	P3	P4	P5	P6	P7
		Sample Date	22-Jan-2019	11-Dec-2018		10-Dec-2018	10-Dec-2018	10-Dec-2018	30-Jan-2019	5-Dec-2018
		Sample Depth (mbgs)	0.4 m	0.4 m		0.3 m	0.4 m	0.4 m	0.45 m	0.4 m
Parameter	**Table 1**	**Unit**								
Total Antimony (Sb)	1.3	µg/g	0.3	< 0.20	0.2	< 0.20	< 0.20	< 0.20	< 0.20	0.21
Total Arsenic (As)	18	µg/g	2.2	1.5	1.2	1.5	1.2	1.6	1.8	1.9
Total Barium (Ba)	220	µg/g	63	30	25	41	46	46	34	24
Total Beryllium (Be)	2.5	µg/g	0.49	0.22	0.22	0.32	0.31	0.33	0.32	0.27
Boron	36	µg/g	5.1	< 5.0	< 5.0	5.3	5.5	5.5	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	0.18	< 0.10	< 0.10	< 0.10	< 0.10	0.14	0.1	< 0.10
Total Chromium (Cr)	70	µg/g	19	8.1	7.4	11	11	11	11	12
Total Cobalt (Co)	21	µg/g	6.7	3.2	2.8	4.4	3.8	4.3	4	3.5
Total Copper (Cu)	92	µg/g	8	6.7	6.7	9.2	6.6	7.7	8.6	7.1
Total Lead (Pb)	120	µg/g	9.6	3.1	3	5.2	4.4	5.6	5.3	4.8
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	15	6.5	6.1	10	8.1	10	10	8
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.16	0.054	0.06	0.11	0.092	0.1	0.12	0.1
Total Uranium (U)	2.5	µg/g	1.6	0.37	0.41	0.45	0.46	0.49	0.53	0.44
Total Vanadium (V)	86	µg/g	33	17	17	20	19	20	20	17
Total Zinc (Zn)	290	µg/g	41	17	14	22	20	22	22	18

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

Location			P8		P9	Q10	Q11	Q12	Q13	Q3	Q4
Sample Name			P8	DUP16	P9	Q10	Q11	Q12	Q13	Q3	Q4
Sample Date			5-Mar-2019		5-Mar-2019	1-Feb-2019	22-Jan-2019	11-Dec-2018	11-Dec-2018	10-Dec-2018	10-Dec-2018
Sample Depth (mbgs)			0.45 m		0.45 m	0.35 m	0.45 m	0.35 m	0.5 m	0.35 m	0.4 m
Parameter	**Table 1**	**Unit**									
Total Antimony (Sb)	1.3	µg/g	0.24	0.71	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	2	1.4	1.6	1.7	1.9	1.3	1	1.2	1.4
Total Barium (Ba)	220	µg/g	48	46	48	60	44	29	29	28	53
Total Beryllium (Be)	2.5	µg/g	0.43	0.36	0.28	0.4	0.27	< 0.20	< 0.20	0.21	0.33
Boron	36	µg/g	< 5.0	< 5.0	5.2	7.2	5.6	< 5.0	< 5.0	< 5.0	5.3
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Chromium (Cr)	70	µg/g	14	12	10	15	10	8.1	8.2	8.5	12
Total Cobalt (Co)	21	µg/g	4.6	4.4	3.9	4.8	3.9	3.1	3.4	3	4.2
Total Copper (Cu)	92	µg/g	7.4	8	7.1	11	6.9	5.6	5.7	4.3	6.8
Total Lead (Pb)	120	µg/g	7	8.5	4.6	5.7	4.8	2.6	2.8	3.4	4.7
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	10	10	8.7	11	8.7	5.5	6	5.7	9.2
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.12	0.092	0.088	0.14	0.11	0.05	0.076	0.05	0.092
Total Uranium (U)	2.5	µg/g	0.46	0.46	0.44	0.55	0.46	0.38	0.39	0.41	0.45
Total Vanadium (V)	86	µg/g	23	23	18	22	18	17	18	19	19
Total Zinc (Zn)	290	µg/g	24	24	25	29	22	15	16	14	19

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

Table 1B - Floor Samples
Soil Analytical Results - Metals and Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

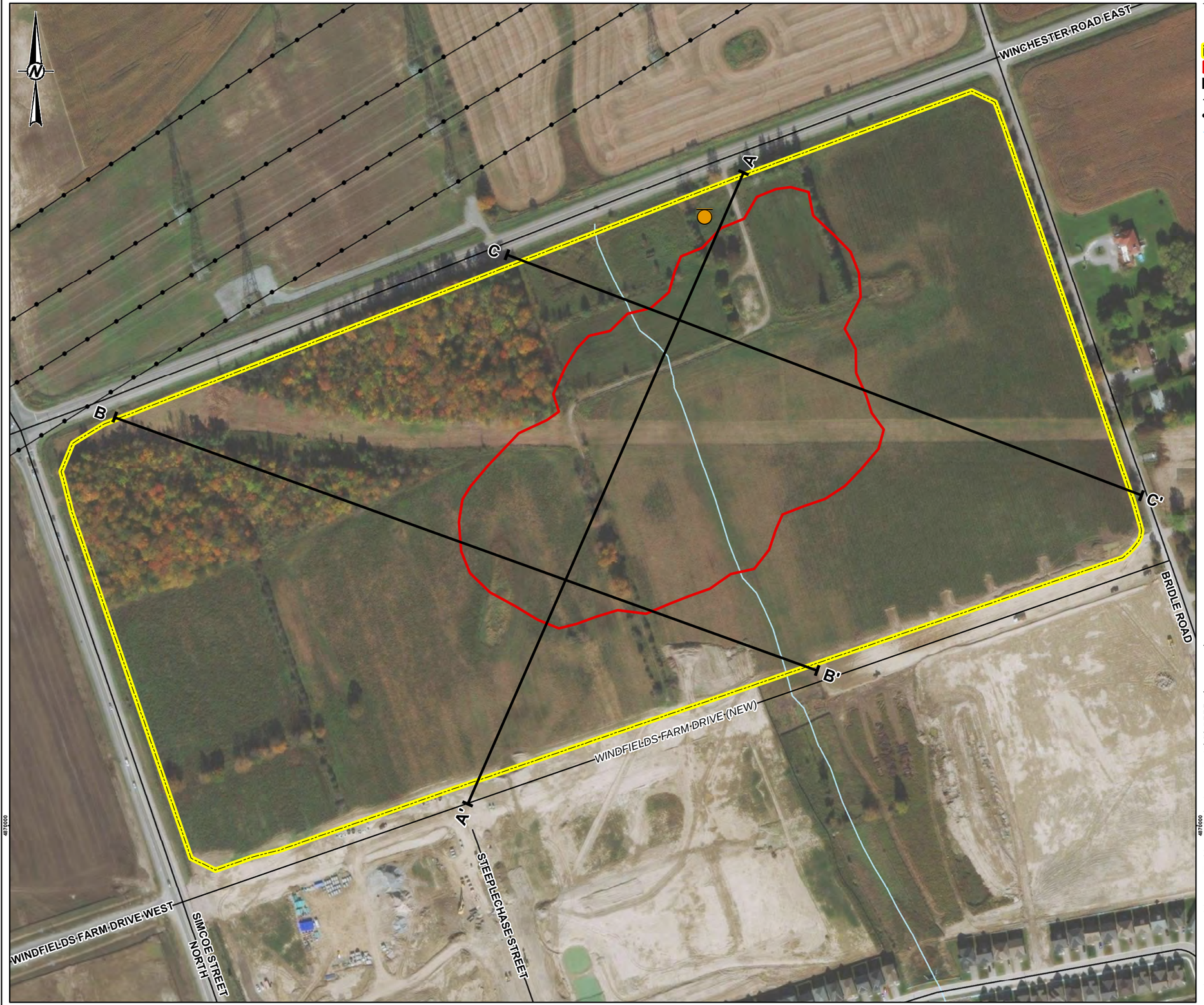
		Location	Q5	Q6	Q7	Q8	Q9
		Sample Name	Q5	Q6	Q7	Q8	Q9
		Sample Date	10-Dec-2018	30-Jan-2019	5-Dec-2018	5-Dec-2018	5-Dec-2018
		Sample Depth (mbgs)	0.45 m	0.4 m	0.4 m	0.4 m	0.4 m
Parameter	**Table 1**	**Unit**					
Total Antimony (Sb)	1.3	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	µg/g	1.4	1.7	1.7	1.5	1.6
Total Barium (Ba)	220	µg/g	60	30	31	38	35
Total Beryllium (Be)	2.5	µg/g	0.37	0.29	0.3	0.26	0.29
Boron	36	µg/g	6.3	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	µg/g	< 0.10	< 0.10	0.12	< 0.10	0.12
Total Chromium (Cr)	70	µg/g	14	10	10	10	10
Total Cobalt (Co)	21	µg/g	4.7	3.9	3.8	3.3	3.6
Total Copper (Cu)	92	µg/g	7.6	7.9	7.3	5.3	6.8
Total Lead (Pb)	120	µg/g	5.2	5	5.5	4.3	5
Total Molybdenum (Mo)	2	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	µg/g	10	8.6	8.2	6.6	8.8
Total Selenium (Se)	1.5	µg/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	µg/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	µg/g	0.11	0.11	0.092	0.079	0.095
Total Uranium (U)	2.5	µg/g	0.44	0.45	0.46	0.42	0.49
Total Vanadium (V)	86	µg/g	22	19	19	19	19
Total Zinc (Zn)	290	µg/g	26	23	20	23	21

Notes:

NV	= No Value
mbgs	= meters below ground surface
µg/g	= Microgram Per Gram
Table 1	= Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community
BOLD	= Exceedance of Table 1 (soil subsequently removed)

Prepared By: LL/AL
Checked By: AVR

FIGURES



LEGEND

- FORMER AST LOCATION
- PHASE TWO PROPERTY BOUNDARY
- EXCAVATION AREA
- CROSS SECTION LINE
- ROAD
- UTILITY LINE
- INTERMITTENT WATERCOURSE

0 0.06 0.12

1:3,000 KILOMETRES

NOTE(S)

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2019
IMAGERY: SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY
SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL.

CLIENT
RIOCAN REALTY INV PARTNER 11LP

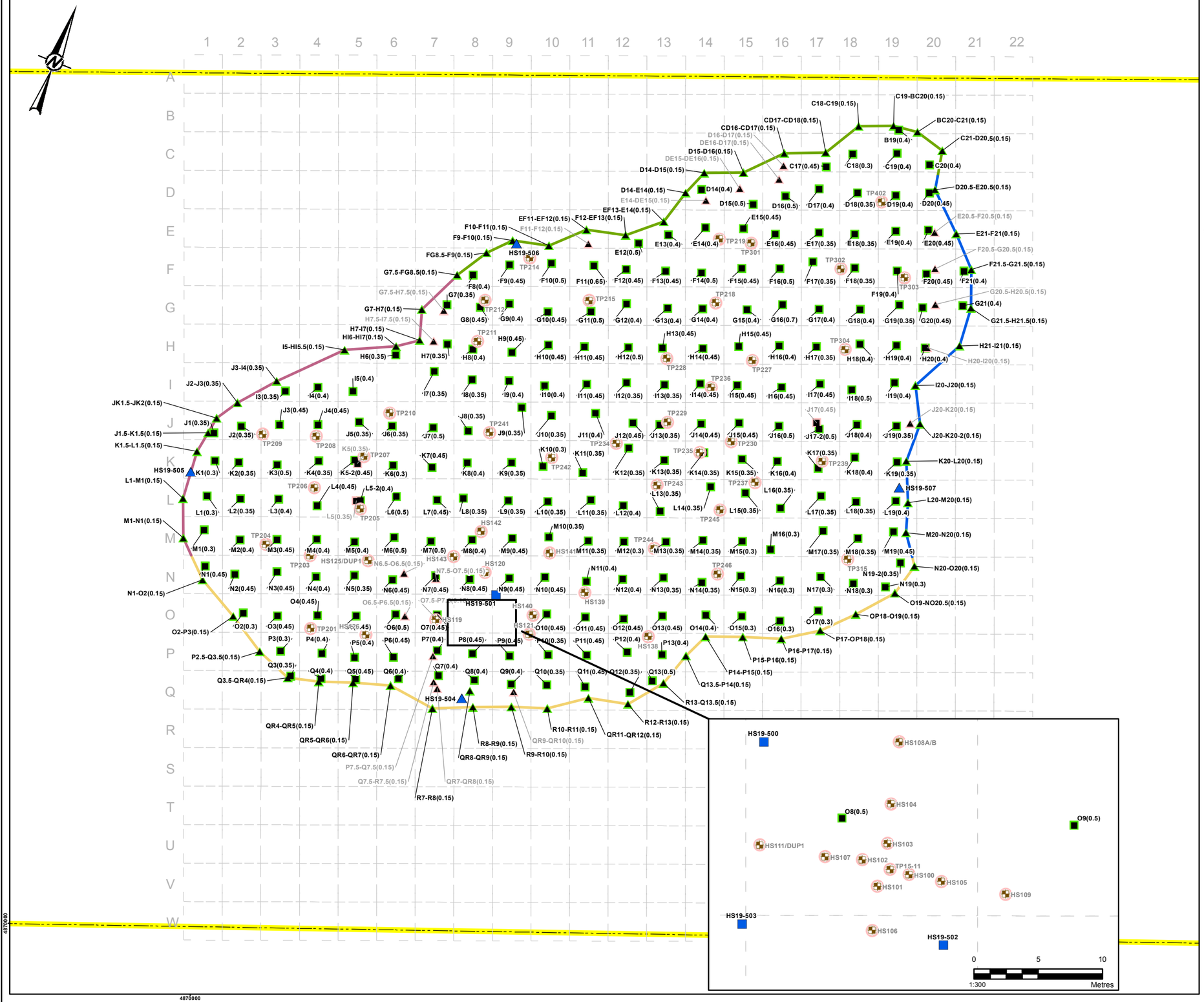
PROJECT
WINDFIELDS FARM REMEDIATION
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
EXTENT OF REMEDIAL EXCAVATION

CONSULTANT
GOLDER

YYYY-MM-DD	2019-11-06
DESIGNED	LMM
PREPARED	LMM
REVIEWED	KB
APPROVED	RS

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0004	-	B1



LEGEND

- WALL VERIFICATION SAMPLE - CYANIDE
- FLOOR VERIFICATION SAMPLE - CYANIDE
- WALL SOIL SAMPLE (SUBMITTED FOR LABORATORY ANALYSIS FOR METALS AND HYDRIDE METALS)
- FLOOR SOIL SAMPLE (SUBMITTED FOR LABORATORY ANALYSIS FOR METALS AND HYDRIDE METALS)
- TEST PIT LOCATION (2016)
- SAMPLE PASSED
- SAMPLE FAILED (SUBSQUENTLY REMOVED)
- EAST WALL
- NORTH WALL
- SOUTH WALL
- WEST WALL
- PHASE TWO PROPERTY BOUNDARY

SAMPLE ID *EX. D20-E20(0.15) = SAMPLE ID (DEPTH BELOW GROUND SURFACE)*

0 0.035 0.07

1:1,800 KILOMETRES

NOTE(S)

1. THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ IN CONJUCTION WITH ACCOMPANYING TEXT.
2. REFER TO PHASE TWO FIGURE 5 FOR EXCEEDANCE CONCENTRATIONS AT TEST PIT LOCATIONS.

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
PRODUCED BY GOLDER ASSOCIATES LTD UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2019
IMAGERY: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

CLIENT
RIOCAN REALTY INV PARTNER 11LP

PROJECT
WINDFIELDS FARM REMEDIATION
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
REMEDIAL EXCAVATION - PLAN VIEW

CONSULTANT
GOLDER

YYYY-MM-DD	2020-01-21
DESIGNED	LMM
PREPARED	LMM
REVIEWED	KB
APPROVED	RS

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0004	-	B2

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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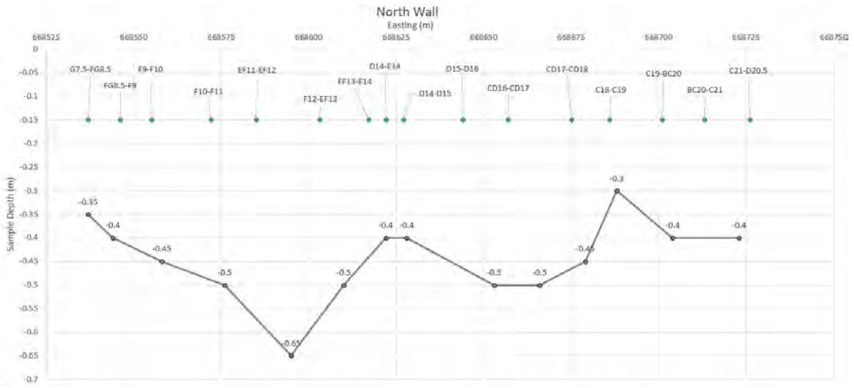

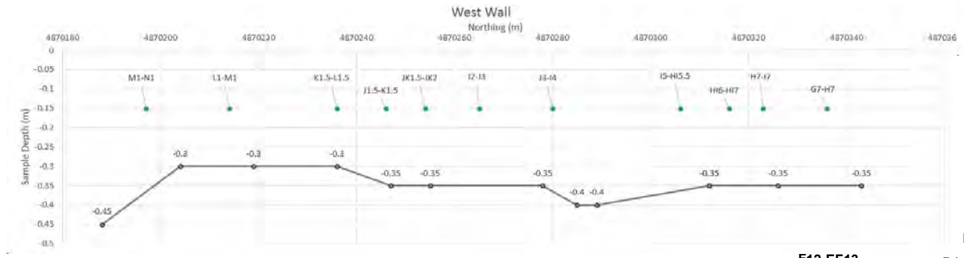

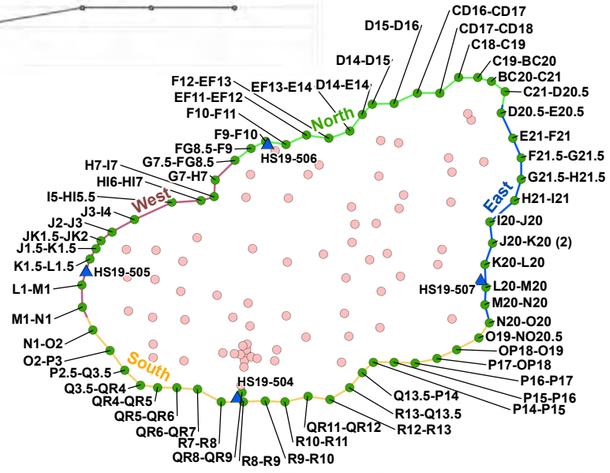

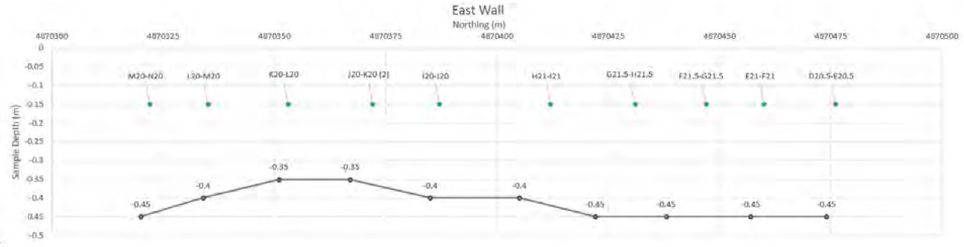

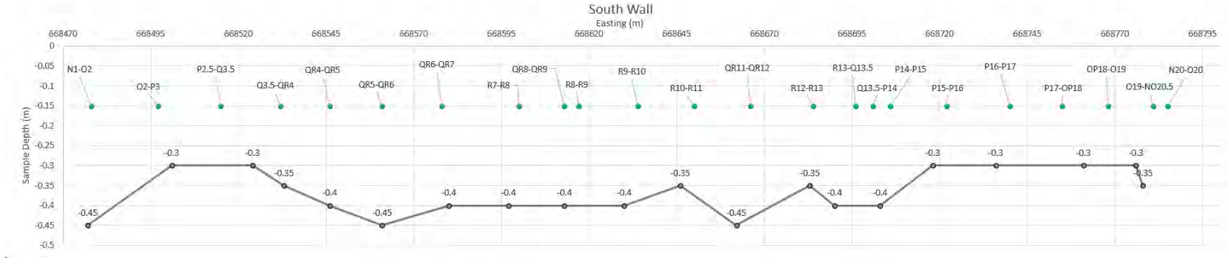

LEGEND

- WALL VERIFICATION SAMPLE MEETS SITE CONDITION STANDARD FOR CYANIDE
- SOIL SAMPLE FAILED (SUBSQUENTLY REMOVED)
- WALL SAMPLE MEETS SITE CONDITION STANDARDS FOR METALS AND HYDRIDE METALS
- BASE OF EXCAVATION
- EAST WALL
- NORTH WALL
- SOUTH WALL
- WEST WALL

0 0.1 0.2

1:5,000 KILOMETRES

NOTE(S)

1. THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ IN CONJUCTION WITH ACCOMPANYING TEXT.
2. REFER TO PHASE TWO FIGURE 5 FOR CONCENTRATIONS.

REFERENCE(S)

BASE DATA - MNR LIO, OBTAINED 2019
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IMAGERY: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

CLIENT
RIOCAN REALTY INV PARTNER 11LP

PROJECT
WINDFIELDS FARM REMEDIATION
WINDFIELDS FARM, NO MUNICIPAL ADDRESS, SIMCOE STREET NORTH, OSHAWA, ONTARIO

TITLE
REMEDIAL EXCAVATION WALL PROFILES

CONSULTANT

GOLDER

YYYY-MM-DD	2020-01-21
DESIGNED	LMM
PREPARED	LMM
REVIEWED	KB
APPROVED	RS

PROJECT NO.	CONTROL	REV.	FIGURE
1791121	0004	-	B3

4870000

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

25mm

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APPENDIX A

Sampling and Analysis Plan

TECHNICAL MEMORANDUM

DATE November 15, 2018 **Project No.** 1791121 (5000)

TO Field Crew
Golder Associates Ltd.

FROM Kevan Browne/
Ryan Smith

**EMAIL kbrowne@golder.com/
rsmith@golder.com**

SAMPLING AND ANALYSIS PLAN, RIOCAN WINDFIELDS FARM DEVELOPMENT SITE - REMEDIATION

Objective

As required by Ontario Regulation (O.Reg.) 153/04, this site-specific sampling and analysis plan ("SAP") is to be addressed during the upcoming remediation and confirmation sampling program at the above referenced site (the "Site").

The objective of this remediation confirmation sampling program is to investigate the presence or absence of remaining environmental impacts to soil associated with the previously identified lead and antimony impacts in Topsoil at the Site, following the removal of the impacted topsoil by Ground Force Environmental Inc ("GFEI")

APEC	Location of APEC on Site	Potentially Contaminating Activity	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
APEC 1 Lead and Antimony impacted Topsoil	**Field south of the former residential dwelling, east/central portion of the Site, north of proposed Windfields Farm Drive and southeast of the forested area.**	***#30 Importation of Fill Material of Unknown Quality***	**On-Site**	**Metals, Hydride-Forming Metals**	**Soil**
APEC 3 Inferred former use of the property as a private shooting range	**South central portion of the Site.**	***#21 Explosives and Firing Range***	**On-Site**	**Metals, Hydride-Forming Metals**	**Soil**

*Metals and inorganics are proposed as baseline analyses as these impacts (if present) are not typically evident based on field observation. Should evidence of other potential contaminants impacts be identified during sampling (e.g. staining or odours), SAP is to be modified accordingly.

*Note- The bold text indicates the APECs that affect the Phase Two ESA Property.

GENERAL PROJECT INFORMATION AND REQUIREMENTS

- **Contact:**
  - General project questions – Kevan Browne 905-723-2727 (ext. 6677) (office) / 905-409-1650 (cell)
  - General project questions/environmental senior support – Ryan Smith (905) 903-6102 (Cell)
- Follow standard operating procedures, as a Record of Site Condition will be required.
- Complete a Daily Log for every day of fieldwork. Use standard field forms.
- Initial calibration of field equipment should be performed at the start of each field program.
  - Clean disposable Nitrile™ gloves will be used at each sampling location to prevent cross-contamination.
  - Any shared sampling equipment (shovels, trowels, etc.) shall be cleaned with a brush; washed with a laboratory-grade detergent solution (e.g., Alconox) and thoroughly rinsed with distilled water between each sample location.

Soil Sampling

It is understood that an approximately 70,000 m^2 area is to be excavated by GFEI. The entire area is to be over laid by a 25-metre by 25-metre grid. Testing locations are to be established within each cell. Wall samples to be collected from surrounding final walls of the excavation at an approximate 25-metre spacing.

All samples are to be collected from fresh face (approximately 0.006 to 0.015 m below existing grade. Samples are to be consolidated in a soil headspace bag and promptly placed into soil sampling jars and stored on ice, in a cooler, until delivery to MAXXAM Laboratories in Mississauga for analysis.

Headspace testing is not required unless obvious evidence of environmental impact is noted (objectionable odour, noticeable sheet or staining in the soil samples). Please contact Kevan or Ryan should this be encountered.

- A summary of soil samples including Quality Assurance/Quality Control ("QA/QC") samples is summarized in Table 1, below. The duplicate soil samples should be labelled in a manner in which the laboratory cannot identify the sample as a duplicate.

A summary of the number of soil samples (including QA/CQ samples) is provided in the table below.

Summary of Soil samples Including QA/QC Samples

Parameter	Sample Location	Soil samples	Duplicate samples
Metals, Hydride-Forming Metals	Floor of Excavation	250	25 Aerial coverage
Metals, Hydride-Forming Metals	Walls of Excavation	50	5 Aerial coverage

Notes: Metals = ICPMS Metals

Kevan Browne, B.A.
Project Manager, Contaminated Sites

Ryan J. Smith, P.Eng., QP_{ESA}
Senior Environmental Engineer, Associate

AVR/KDB/RJS;js

https://golderassociates.sharepoint.com/sites/20914g/deliverables/06. phase two esa/appendix a/(i) sap/remediation/1791121 (5000) tmem 2018'11'15 sample and analysis plan.docx

APPENDIX B

Laboratory Certificates of Analysis

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS
Your C.O.C. #: 689495-09-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/11
Report #: R5520436
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8W6222
Received: 2018/12/06, 11:45

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	3	2018/12/08	2018/12/10	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	4	2018/12/10	2018/12/10	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Colby Coutu
Project Manager Assistant
11 Dec 2018 11:01:47

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8W6222
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IMD350	IMD351	IMD351		IMD352		
Sampling Date			2018/12/05 11:00	2018/12/05 11:00	2018/12/05 11:00		2018/12/05 11:00		
COC Number			689495-09-01	689495-09-01	689495-09-01		689495-09-01		
	UNITS	Criteria	N7.5-O7.5	O7.5-P7.5	O7.5-P7.5 Lab-Dup	QC Batch	P7.5-Q7.5	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	**18**	**9.2**	**9.2**	5879182	**2.9**	0.20	5878586
Acid Extractable Arsenic (As)	ug/g	18	5.4	4.3	4.1	5879182	3.1	1.0	5878586
Acid Extractable Barium (Ba)	ug/g	220	43	41	40	5879182	37	0.50	5878586
Acid Extractable Beryllium (Be)	ug/g	2.5	0.38	0.35	0.36	5879182	0.38	0.20	5878586
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	5879182	<5.0	5.0	5878586
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.26	0.20	0.20	5879182	0.23	0.10	5878586
Acid Extractable Chromium (Cr)	ug/g	70	13	12	12	5879182	13	1.0	5878586
Acid Extractable Cobalt (Co)	ug/g	21	4.0	4.0	4.1	5879182	4.1	0.10	5878586
Acid Extractable Copper (Cu)	ug/g	92	7.2	6.3	6.4	5879182	6.3	0.50	5878586
Acid Extractable Lead (Pb)	ug/g	120	**220**	**130**	**150**	5879182	49	1.0	5878586
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	5879182	<0.50	0.50	5878586
Acid Extractable Nickel (Ni)	ug/g	82	8.0	7.8	7.8	5879182	7.9	0.50	5878586
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	5879182	<0.50	0.50	5878586
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	5879182	<0.20	0.20	5878586
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.10	0.11	5879182	0.11	0.050	5878586
Acid Extractable Uranium (U)	ug/g	2.5	0.47	0.46	0.46	5879182	0.52	0.050	5878586
Acid Extractable Vanadium (V)	ug/g	86	24	23	24	5879182	24	5.0	5878586
Acid Extractable Zinc (Zn)	ug/g	290	41	39	40	5879182	42	5.0	5878586

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W6222
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IMD353	IMD354		IMD355	IMD356		
Sampling Date			2018/12/05 11:00	2018/12/05 11:00		2018/12/05 11:00	2018/12/05 11:00		
COC Number			689495-09-01	689495-09-01		689495-09-01	689495-09-01		
	UNITS	Criteria	Q7.5-R7.5	QR7-QR8	QC Batch	QR8-QR9	QR9-QR10	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	**1.6**	**1.7**	5879182	0.86	**2.1**	0.20	5878586
Acid Extractable Arsenic (As)	ug/g	18	2.3	2.3	5879182	2.3	3.0	1.0	5878586
Acid Extractable Barium (Ba)	ug/g	220	41	54	5879182	68	59	0.50	5878586
Acid Extractable Beryllium (Be)	ug/g	2.5	0.37	0.42	5879182	0.52	0.50	0.20	5878586
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5879182	<5.0	5.4	5.0	5878586
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.24	0.19	5879182	0.20	0.35	0.10	5878586
Acid Extractable Chromium (Cr)	ug/g	70	12	15	5879182	17	15	1.0	5878586
Acid Extractable Cobalt (Co)	ug/g	21	4.0	4.8	5879182	5.1	4.6	0.10	5878586
Acid Extractable Copper (Cu)	ug/g	92	6.0	7.7	5879182	8.7	8.9	0.50	5878586
Acid Extractable Lead (Pb)	ug/g	120	25	29	5879182	16	29	1.0	5878586
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	5879182	<0.50	<0.50	0.50	5878586
Acid Extractable Nickel (Ni)	ug/g	82	7.7	9.5	5879182	10	9.9	0.50	5878586
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	5879182	<0.50	<0.50	0.50	5878586
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	5879182	<0.20	<0.20	0.20	5878586
Acid Extractable Thallium (Tl)	ug/g	1	0.095	0.11	5879182	0.11	0.12	0.050	5878586
Acid Extractable Uranium (U)	ug/g	2.5	0.45	0.52	5879182	0.45	0.60	0.050	5878586
Acid Extractable Vanadium (V)	ug/g	86	24	27	5879182	27	26	5.0	5878586
Acid Extractable Zinc (Zn)	ug/g	290	38	41	5879182	39	44	5.0	5878586

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W6222
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IMD350 **Collected:** 2018/12/05
Sample ID: N7.5-O7.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD351 **Collected:** 2018/12/05
Sample ID: O7.5-P7.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD351 Dup **Collected:** 2018/12/05
Sample ID: O7.5-P7.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD352 **Collected:** 2018/12/05
Sample ID: P7.5-Q7.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5878586	2018/12/08	2018/12/10	Thao Nguyen

Maxxam ID: IMD353 **Collected:** 2018/12/05
Sample ID: Q7.5-R7.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD354 **Collected:** 2018/12/05
Sample ID: QR7-QR8 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD355 **Collected:** 2018/12/05
Sample ID: QR8-QR9 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5878586	2018/12/08	2018/12/10	Thao Nguyen

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Maxxam Job #: B8W6222
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IMD356
Sample ID: QR9-QR10
Matrix: Soil

Collected: 2018/12/05
Shipped:
Received: 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5878586	2018/12/08	2018/12/10	Thao Nguyen

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8W6222
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	0.3°C

Results relate only to the items tested.

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Maxxam Job #: B8W6222
Report Date: 2018/12/11

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5878586	Acid Extractable Antimony (Sb)	2018/12/10	92	75 - 125	106	80 - 120	<0.20	ug/g	5.4	30
5878586	Acid Extractable Arsenic (As)	2018/12/10	105	75 - 125	101	80 - 120	<1.0	ug/g	3.2	30
5878586	Acid Extractable Barium (Ba)	2018/12/10	NC	75 - 125	107	80 - 120	<0.50	ug/g	1.0	30
5878586	Acid Extractable Beryllium (Be)	2018/12/10	108	75 - 125	106	80 - 120	<0.20	ug/g	1.9	30
5878586	Acid Extractable Boron (B)	2018/12/10	103	75 - 125	104	80 - 120	<5.0	ug/g	7.0	30
5878586	Acid Extractable Cadmium (Cd)	2018/12/10	102	75 - 125	102	80 - 120	<0.10	ug/g	22	30
5878586	Acid Extractable Chromium (Cr)	2018/12/10	106	75 - 125	102	80 - 120	<1.0	ug/g	1.6	30
5878586	Acid Extractable Cobalt (Co)	2018/12/10	100	75 - 125	102	80 - 120	<0.10	ug/g	2.6	30
5878586	Acid Extractable Copper (Cu)	2018/12/10	NC	75 - 125	103	80 - 120	<0.50	ug/g	2.9	30
5878586	Acid Extractable Lead (Pb)	2018/12/10	97	75 - 125	101	80 - 120	<1.0	ug/g	2.2	30
5878586	Acid Extractable Molybdenum (Mo)	2018/12/10	104	75 - 125	101	80 - 120	<0.50	ug/g	6.0	30
5878586	Acid Extractable Nickel (Ni)	2018/12/10	NC	75 - 125	102	80 - 120	<0.50	ug/g	1.6	30
5878586	Acid Extractable Selenium (Se)	2018/12/10	105	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5878586	Acid Extractable Silver (Ag)	2018/12/10	100	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5878586	Acid Extractable Thallium (Tl)	2018/12/10	100	75 - 125	102	80 - 120	<0.050	ug/g	0.52	30
5878586	Acid Extractable Uranium (U)	2018/12/10	91	75 - 125	91	80 - 120	<0.050	ug/g	5.7	30
5878586	Acid Extractable Vanadium (V)	2018/12/10	NC	75 - 125	102	80 - 120	<5.0	ug/g	6.5	30
5878586	Acid Extractable Zinc (Zn)	2018/12/10	NC	75 - 125	101	80 - 120	<5.0	ug/g	1.7	30
5879182	Acid Extractable Antimony (Sb)	2018/12/10	101	75 - 125	104	80 - 120	<0.20	ug/g	0.11	30
5879182	Acid Extractable Arsenic (As)	2018/12/10	98	75 - 125	104	80 - 120	<1.0	ug/g	4.9	30
5879182	Acid Extractable Barium (Ba)	2018/12/10	NC	75 - 125	101	80 - 120	<0.50	ug/g	2.9	30
5879182	Acid Extractable Beryllium (Be)	2018/12/10	100	75 - 125	103	80 - 120	<0.20	ug/g	2.4	30
5879182	Acid Extractable Boron (B)	2018/12/10	96	75 - 125	99	80 - 120	<5.0	ug/g	NC	30
5879182	Acid Extractable Cadmium (Cd)	2018/12/10	100	75 - 125	102	80 - 120	<0.10	ug/g	2.3	30
5879182	Acid Extractable Chromium (Cr)	2018/12/10	102	75 - 125	99	80 - 120	<1.0	ug/g	0.83	30
5879182	Acid Extractable Cobalt (Co)	2018/12/10	99	75 - 125	101	80 - 120	<0.10	ug/g	1.3	30
5879182	Acid Extractable Copper (Cu)	2018/12/10	101	75 - 125	101	80 - 120	<0.50	ug/g	1.4	30
5879182	Acid Extractable Lead (Pb)	2018/12/10	NC	75 - 125	99	80 - 120	<1.0	ug/g	13	30
5879182	Acid Extractable Molybdenum (Mo)	2018/12/10	100	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5879182	Acid Extractable Nickel (Ni)	2018/12/10	102	75 - 125	101	80 - 120	<0.50	ug/g	1.0	30
5879182	Acid Extractable Selenium (Se)	2018/12/10	97	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5879182	Acid Extractable Silver (Ag)	2018/12/10	98	75 - 125	98	80 - 120	<0.20	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5879182	Acid Extractable Thallium (Tl)	2018/12/10	97	75 - 125	100	80 - 120	<0.050	ug/g	10	30
5879182	Acid Extractable Uranium (U)	2018/12/10	90	75 - 125	93	80 - 120	<0.050	ug/g	0.65	30
5879182	Acid Extractable Vanadium (V)	2018/12/10	106	75 - 125	103	80 - 120	<5.0	ug/g	2.0	30
5879182	Acid Extractable Zinc (Zn)	2018/12/10	NC	75 - 125	96	80 - 120	<5.0	ug/g	3.6	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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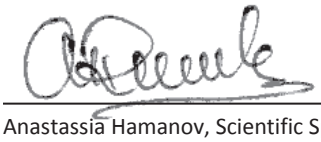
Maxxam Job #: B8W6222
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam RUSH!

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:	Golder	Quotation #:	~~B90000~~	Maxxam Job #:	Bottle Order #: 689495
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	1791121 (5000)		
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:		COC #: C#689495-09-01	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	Fax:	Project Name:	Windfields		Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	kevan_browne@golder.com, andrew_vanrooyen@golder.com, talayne_steenburg@golder.com	Site #: / Sampled By:	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [ ] Medium/Fine [ ] Table 2 [X] Ind/Comm [X] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ______ [ ] PWQO [ ] Other ______

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; ICPMS metals

Turnaround Time (TAT) Required: Please provide advance notice for rush projects

Regular (Standard) TAT: (will be applied if Rush TAT is not specified). Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 day Rush
Date Required: ______ Time Required: ______
Rush Confirmation Number: EEG2018 12058 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	ICPMS metals	# of Bottles	Comments
1		N7.5 - O7.5	Dec 5/18	11 am	Soil		X	1	
2		O7.5 - P7.5	↓	↓	↓		X	1	
3		P7.5 - Q7.5	↓	↓	↓		X	1	
4		Q7.5 - R7.5	↓	↓	↓		X	1	
5		QR7 - QR8	↓	↓	↓		X	1	
6		QR8 - QR9	↓	↓	↓		X	1	
7		QR9 - QR10	↓	↓	↓		X	1	06-Dec-18 11:45 Ema Gitej B8W6222 KVG ENV-1233
8									
9									
10									

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Time Sensitive
A Van	18/12/05	5pm	Juan Pablo/STAN COLENE CUK ITAO	2018/12/06	11:45	0	

Laboratory Use Only: Temperature (°C) on Receipt: 0/0/1 ICE; Custody Seal Present: Yes ✓; Intact: Yes ✓

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

WB 45127

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8W6222
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
N7.5-O7.5	IMD350-01	Acid Extractable Antimony (Sb)	1.3	18	0.20	ug/g
N7.5-O7.5	IMD350-01	Acid Extractable Lead (Pb)	120	220	1.0	ug/g
O7.5-P7.5	IMD351-01	Acid Extractable Antimony (Sb)	1.3	9.2	0.20	ug/g
O7.5-P7.5	IMD351-01-Lab Dup	Acid Extractable Antimony (Sb)	1.3	9.2	0.20	ug/g
O7.5-P7.5	IMD351-01	Acid Extractable Lead (Pb)	120	130	1.0	ug/g
O7.5-P7.5	IMD351-01-Lab Dup	Acid Extractable Lead (Pb)	120	150	1.0	ug/g
P7.5-Q7.5	IMD352-01	Acid Extractable Antimony (Sb)	1.3	2.9	0.20	ug/g
Q7.5-R7.5	IMD353-01	Acid Extractable Antimony (Sb)	1.3	1.6	0.20	ug/g
QR7-QR8	IMD354-01	Acid Extractable Antimony (Sb)	1.3	1.7	0.20	ug/g
QR9-QR10	IMD356-01	Acid Extractable Antimony (Sb)	1.3	2.1	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS
Your C.O.C. #: 689495-03-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/11
Report #: R5520297
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8W6227
Received: 2018/12/06, 11:45

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	7	2018/12/10	2018/12/10	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8W6227
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IMD361	IMD362	IMD363	IMD364	IMD365		
Sampling Date			2018/12/05 13:00	2018/12/05 13:00	2018/12/05 13:00	2018/12/05 13:00	2018/12/05 13:00		
COC Number			689495-03-01	689495-03-01	689495-03-01	689495-03-01	689495-03-01		
	UNITS	Criteria	N7	O7	P7	N8	Q7	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.56	0.50	0.21	0.60	<0.20	0.20	5879182
Acid Extractable Arsenic (As)	ug/g	18	2.1	1.5	1.9	2.0	1.7	1.0	5879182
Acid Extractable Barium (Ba)	ug/g	220	28	25	24	45	31	0.50	5879182
Acid Extractable Beryllium (Be)	ug/g	2.5	0.28	0.24	0.27	0.36	0.30	0.20	5879182
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5879182
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	0.12	0.10	5879182
Acid Extractable Chromium (Cr)	ug/g	70	9.6	8.6	12	12	10	1.0	5879182
Acid Extractable Cobalt (Co)	ug/g	21	3.7	3.2	3.5	4.5	3.8	0.10	5879182
Acid Extractable Copper (Cu)	ug/g	92	7.5	6.2	7.1	8.5	7.3	0.50	5879182
Acid Extractable Lead (Pb)	ug/g	120	9.1	14	4.8	9.1	5.5	1.0	5879182
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5879182
Acid Extractable Nickel (Ni)	ug/g	82	8.6	7.4	8.0	11	8.2	0.50	5879182
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5879182
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5879182
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.081	0.10	0.13	0.092	0.050	5879182
Acid Extractable Uranium (U)	ug/g	2.5	0.47	0.45	0.44	0.48	0.46	0.050	5879182
Acid Extractable Vanadium (V)	ug/g	86	18	16	17	21	19	5.0	5879182
Acid Extractable Zinc (Zn)	ug/g	290	19	16	18	23	20	5.0	5879182

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8W6227
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IMD366	IMD367		
Sampling Date			2018/12/05 13:00	2018/12/05 13:00		
COC Number			689495-03-01	689495-03-01		
	UNITS	Criteria	Q8	Q9	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.20	5879182
Acid Extractable Arsenic (As)	ug/g	18	1.5	1.6	1.0	5879182
Acid Extractable Barium (Ba)	ug/g	220	38	35	0.50	5879182
Acid Extractable Beryllium (Be)	ug/g	2.5	0.26	0.29	0.20	5879182
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.0	5879182
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.12	0.10	5879182
Acid Extractable Chromium (Cr)	ug/g	70	10	10	1.0	5879182
Acid Extractable Cobalt (Co)	ug/g	21	3.3	3.6	0.10	5879182
Acid Extractable Copper (Cu)	ug/g	92	5.3	6.8	0.50	5879182
Acid Extractable Lead (Pb)	ug/g	120	4.3	5.0	1.0	5879182
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	0.50	5879182
Acid Extractable Nickel (Ni)	ug/g	82	6.6	8.8	0.50	5879182
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	0.50	5879182
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	0.20	5879182
Acid Extractable Thallium (Tl)	ug/g	1	0.079	0.095	0.050	5879182
Acid Extractable Uranium (U)	ug/g	2.5	0.42	0.49	0.050	5879182
Acid Extractable Vanadium (V)	ug/g	86	19	19	5.0	5879182
Acid Extractable Zinc (Zn)	ug/g	290	23	21	5.0	5879182

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W6227
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IMD361 **Collected:** 2018/12/05
Sample ID: N7 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD362 **Collected:** 2018/12/05
Sample ID: O7 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD363 **Collected:** 2018/12/05
Sample ID: P7 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD364 **Collected:** 2018/12/05
Sample ID: N8 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD365 **Collected:** 2018/12/05
Sample ID: Q7 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD366 **Collected:** 2018/12/05
Sample ID: Q8 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IMD367 **Collected:** 2018/12/05
Sample ID: Q9 **Shipped:**
Matrix: Soil **Received:** 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8W6227
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	0.3°C

Sample IMD364 [N8] : Sample ID updated as requested.

Results relate only to the items tested.

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Maxxam Job #: B8W6227
Report Date: 2018/12/11

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5879182	Acid Extractable Antimony (Sb)	2018/12/10	101	75 - 125	104	80 - 120	<0.20	ug/g	0.11	30
5879182	Acid Extractable Arsenic (As)	2018/12/10	98	75 - 125	104	80 - 120	<1.0	ug/g	4.9	30
5879182	Acid Extractable Barium (Ba)	2018/12/10	NC	75 - 125	101	80 - 120	<0.50	ug/g	2.9	30
5879182	Acid Extractable Beryllium (Be)	2018/12/10	100	75 - 125	103	80 - 120	<0.20	ug/g	2.4	30
5879182	Acid Extractable Boron (B)	2018/12/10	96	75 - 125	99	80 - 120	<5.0	ug/g	NC	30
5879182	Acid Extractable Cadmium (Cd)	2018/12/10	100	75 - 125	102	80 - 120	<0.10	ug/g	2.3	30
5879182	Acid Extractable Chromium (Cr)	2018/12/10	102	75 - 125	99	80 - 120	<1.0	ug/g	0.83	30
5879182	Acid Extractable Cobalt (Co)	2018/12/10	99	75 - 125	101	80 - 120	<0.10	ug/g	1.3	30
5879182	Acid Extractable Copper (Cu)	2018/12/10	101	75 - 125	101	80 - 120	<0.50	ug/g	1.4	30
5879182	Acid Extractable Lead (Pb)	2018/12/10	NC	75 - 125	99	80 - 120	<1.0	ug/g	13	30
5879182	Acid Extractable Molybdenum (Mo)	2018/12/10	100	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5879182	Acid Extractable Nickel (Ni)	2018/12/10	102	75 - 125	101	80 - 120	<0.50	ug/g	1.0	30
5879182	Acid Extractable Selenium (Se)	2018/12/10	97	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5879182	Acid Extractable Silver (Ag)	2018/12/10	98	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5879182	Acid Extractable Thallium (Tl)	2018/12/10	97	75 - 125	100	80 - 120	<0.050	ug/g	10	30
5879182	Acid Extractable Uranium (U)	2018/12/10	90	75 - 125	93	80 - 120	<0.050	ug/g	0.65	30
5879182	Acid Extractable Vanadium (V)	2018/12/10	106	75 - 125	103	80 - 120	<5.0	ug/g	2.0	30
5879182	Acid Extractable Zinc (Zn)	2018/12/10	NC	75 - 125	96	80 - 120	<5.0	ug/g	3.6	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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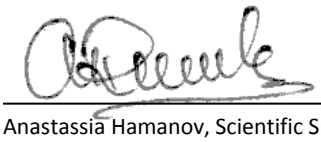
Maxxam Job #: B8W6227
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam RUSH!! Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:	Golder	Quotation #:	~~B80683~~	Maxxam Job #:	Bottle Order #: 689495
Attention:	Accounts Payable	Attention:	Kevin Browne	P.O. #:	1791121 (5001)		
Address:	100 Scotia Crt	Address:	kevin_browne@golder.com	Project:		COC #: C#689495-03-01	Project Manager: Ema Gitej
	Whitby ON L1N 8Y6		andrew_vermeer@golder.com	Project Name:	Woodfields		
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel: Fax:	jalayne_stebbing@golder.com	Site #:			
Email:	AP_CustomerService@golder.com	Email:		Sampled By:	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1, [ ] Table 2, [ ] Table 3, [ ] Table ___; [X] Res/Park, [X] Ind/Comm, [ ] Agri/Other, [ ] Medium/Fine, [X] Coarse, [ ] For RSC

Other Regulations: [ ] CCME, [ ] Reg 558, [ ] MISA, [ ] PWQO, [ ] Other ___; [ ] Sanitary Sewer Bylaw, [ ] Storm Sewer Bylaw, Municipality ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; ICPMS metals

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	ICPMS metals	# of Bottles	Comments
1		N7	Dec 5/18	1pm	Soil		X	1	
2		O7	↓	↓	↓		X	1	
3		P7	↓	↓	↓		X	1	
4		N9	↓	↓	↓		X	1	
5		Q7	↓	↓	↓		X	1	
6		Q8	↓	↓	↓		X	1	
7		Q9	↓	↓	↓		X	1	
8									
9									
10									

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [ ]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 day Rush
Date Required: ___ Time Required: ___
Rush Confirmation Number: FEG 2018 12058 (call lab for #)

06-Dec-18 11:45
Ema Gitej
B8W6227
KVG ENV-1233

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
[signature]	18/12/05	5pm	[signature] JEAN COLENE CURITRO	2018/12/06	11:45	Ø

Laboratory Use Only: Time Sensitive: [illegible]; Temperature (°C) on Recei: 0/0/1 ice; Custody Seal Present: Yes ✓; Intact: Yes ✓

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

WB 45127

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8W6227
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121(5001)
Site Location: WINDFIELDS
Your C.O.C. #: 689495-13-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/11
Report #: R5521057
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8W7797
Received: 2018/12/07, 12:29

Sample Matrix: Soil
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	2	2018/12/10	2018/12/10	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	7	2018/12/11	2018/12/11	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8W7797
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121(5001)
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IML842		IML843	IML844	IML845		
Sampling Date			2018/12/06 10:00		2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00		
COC Number			689495-13-01		689495-13-01	689495-13-01	689495-13-01		
	UNITS	Criteria	J1.5-K1.5	QC Batch	N1-02	02-P3	M1-N1	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.30	5879182	0.78	0.77	<0.20	0.20	5881542
Acid Extractable Arsenic (As)	ug/g	18	2.2	5879182	2.2	2.5	2.6	1.0	5881542
Acid Extractable Barium (Ba)	ug/g	220	36	5879182	46	52	97	0.50	5881542
Acid Extractable Beryllium (Be)	ug/g	2.5	0.35	5879182	0.36	0.39	0.75	0.20	5881542
Acid Extractable Boron (B)	ug/g	36	<5.0	5879182	<5.0	<5.0	6.6	5.0	5881542
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.22	5879182	0.22	0.26	0.25	0.10	5881542
Acid Extractable Chromium (Cr)	ug/g	70	13	5879182	17	19	22	1.0	5881542
Acid Extractable Cobalt (Co)	ug/g	21	3.8	5879182	3.7	3.5	7.2	0.10	5881542
Acid Extractable Copper (Cu)	ug/g	92	6.1	5879182	7.7	8.2	13	0.50	5881542
Acid Extractable Lead (Pb)	ug/g	120	10	5879182	15	19	12	1.0	5881542
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5879182	<0.50	<0.50	<0.50	0.50	5881542
Acid Extractable Nickel (Ni)	ug/g	82	6.7	5879182	5.8	6.2	15	0.50	5881542
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5879182	0.55	0.78	<0.50	0.50	5881542
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5879182	<0.20	<0.20	<0.20	0.20	5881542
Acid Extractable Thallium (Tl)	ug/g	1	0.081	5879182	0.094	0.10	0.16	0.050	5881542
Acid Extractable Uranium (U)	ug/g	2.5	0.52	5879182	0.55	0.55	0.54	0.050	5881542
Acid Extractable Vanadium (V)	ug/g	86	27	5879182	23	22	35	5.0	5881542
Acid Extractable Zinc (Zn)	ug/g	290	28	5879182	39	44	45	5.0	5881542

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W7797
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121(5001)
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IML846	IML847	IML848	IML849		
Sampling Date			2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00	2018/12/06 14:00		
COC Number			689495-13-01	689495-13-01	689495-13-01	689495-13-01		
	UNITS	Criteria	L1-M1	JK1.5-JK2	K1.5- L1.5	N6.5-06.5	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	**3.7**	0.20	5881542
Acid Extractable Arsenic (As)	ug/g	18	1.7	2.5	1.4	2.7	1.0	5881542
Acid Extractable Barium (Ba)	ug/g	220	46	37	45	35	0.50	5881542
Acid Extractable Beryllium (Be)	ug/g	2.5	0.42	0.44	0.47	0.36	0.20	5881542
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	5.0	5881542
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.16	0.26	0.15	0.19	0.10	5881542
Acid Extractable Chromium (Cr)	ug/g	70	13	16	14	12	1.0	5881542
Acid Extractable Cobalt (Co)	ug/g	21	4.8	4.6	4.6	4.2	0.10	5881542
Acid Extractable Copper (Cu)	ug/g	92	6.8	9.7	5.1	5.7	0.50	5881542
Acid Extractable Lead (Pb)	ug/g	120	11	7.8	6.2	87	1.0	5881542
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5881542
Acid Extractable Nickel (Ni)	ug/g	82	8.8	7.2	7.8	7.5	0.50	5881542
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.52	<0.50	<0.50	0.50	5881542
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5881542
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.12	0.082	0.093	0.050	5881542
Acid Extractable Uranium (U)	ug/g	2.5	0.52	0.56	0.46	0.49	0.050	5881542
Acid Extractable Vanadium (V)	ug/g	86	26	28	27	23	5.0	5881542
Acid Extractable Zinc (Zn)	ug/g	290	34	25	26	37	5.0	5881542

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W7797
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121(5001)
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IML850		
Sampling Date			2018/12/06 14:00		
COC Number			689495-13-01		
	UNITS	Criteria	06.5-P6.5	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	**3.2**	0.20	5879182
Acid Extractable Arsenic (As)	ug/g	18	3.5	1.0	5879182
Acid Extractable Barium (Ba)	ug/g	220	42	0.50	5879182
Acid Extractable Beryllium (Be)	ug/g	2.5	0.38	0.20	5879182
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	5879182
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.18	0.10	5879182
Acid Extractable Chromium (Cr)	ug/g	70	14	1.0	5879182
Acid Extractable Cobalt (Co)	ug/g	21	4.0	0.10	5879182
Acid Extractable Copper (Cu)	ug/g	92	7.3	0.50	5879182
Acid Extractable Lead (Pb)	ug/g	120	76	1.0	5879182
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	5879182
Acid Extractable Nickel (Ni)	ug/g	82	8.2	0.50	5879182
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	5879182
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	5879182
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.050	5879182
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.050	5879182
Acid Extractable Vanadium (V)	ug/g	86	24	5.0	5879182
Acid Extractable Zinc (Zn)	ug/g	290	44	5.0	5879182

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W7797
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121(5001)
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IML842 **Collected:** 2018/12/06
Sample ID: J1.5-K1.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IML843 **Collected:** 2018/12/06
Sample ID: N1-02 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5881542	2018/12/11	2018/12/11	Viviana Canzonieri

Maxxam ID: IML844 **Collected:** 2018/12/06
Sample ID: 02-P3 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5881542	2018/12/11	2018/12/11	Viviana Canzonieri

Maxxam ID: IML845 **Collected:** 2018/12/06
Sample ID: M1-N1 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5881542	2018/12/11	2018/12/11	Viviana Canzonieri

Maxxam ID: IML846 **Collected:** 2018/12/06
Sample ID: L1-M1 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5881542	2018/12/11	2018/12/11	Viviana Canzonieri

Maxxam ID: IML847 **Collected:** 2018/12/06
Sample ID: JK1.5-JK2 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5881542	2018/12/11	2018/12/11	Viviana Canzonieri

Maxxam ID: IML848 **Collected:** 2018/12/06
Sample ID: K1.5- L1.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5881542	2018/12/11	2018/12/11	Viviana Canzonieri

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Maxxam Job #: B8W7797
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121(5001)
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IML849
Sample ID: N6.5-06.5
Matrix: Soil

Collected: 2018/12/06
Shipped:
Received: 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5881542	2018/12/11	2018/12/11	Viviana Canzonieri

Maxxam ID: IML850
Sample ID: 06.5-P6.5
Matrix: Soil

Collected: 2018/12/06
Shipped:
Received: 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

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Maxxam Job #: B8W7797
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121(5001)
Site Location: WINDFIELDS
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	3.7°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B8W7797
Report Date: 2018/12/11

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121(5001)
Site Location: WINDFIELDS
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5879182	Acid Extractable Antimony (Sb)	2018/12/10	101	75 - 125	104	80 - 120	<0.20	ug/g	0.11	30
5879182	Acid Extractable Arsenic (As)	2018/12/10	98	75 - 125	104	80 - 120	<1.0	ug/g	4.9	30
5879182	Acid Extractable Barium (Ba)	2018/12/10	NC	75 - 125	101	80 - 120	<0.50	ug/g	2.9	30
5879182	Acid Extractable Beryllium (Be)	2018/12/10	100	75 - 125	103	80 - 120	<0.20	ug/g	2.4	30
5879182	Acid Extractable Boron (B)	2018/12/10	96	75 - 125	99	80 - 120	<5.0	ug/g	NC	30
5879182	Acid Extractable Cadmium (Cd)	2018/12/10	100	75 - 125	102	80 - 120	<0.10	ug/g	2.3	30
5879182	Acid Extractable Chromium (Cr)	2018/12/10	102	75 - 125	99	80 - 120	<1.0	ug/g	0.83	30
5879182	Acid Extractable Cobalt (Co)	2018/12/10	99	75 - 125	101	80 - 120	<0.10	ug/g	1.3	30
5879182	Acid Extractable Copper (Cu)	2018/12/10	101	75 - 125	101	80 - 120	<0.50	ug/g	1.4	30
5879182	Acid Extractable Lead (Pb)	2018/12/10	NC	75 - 125	99	80 - 120	<1.0	ug/g	13	30
5879182	Acid Extractable Molybdenum (Mo)	2018/12/10	100	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5879182	Acid Extractable Nickel (Ni)	2018/12/10	102	75 - 125	101	80 - 120	<0.50	ug/g	1.0	30
5879182	Acid Extractable Selenium (Se)	2018/12/10	97	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5879182	Acid Extractable Silver (Ag)	2018/12/10	98	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5879182	Acid Extractable Thallium (Tl)	2018/12/10	97	75 - 125	100	80 - 120	<0.050	ug/g	10	30
5879182	Acid Extractable Uranium (U)	2018/12/10	90	75 - 125	93	80 - 120	<0.050	ug/g	0.65	30
5879182	Acid Extractable Vanadium (V)	2018/12/10	106	75 - 125	103	80 - 120	<5.0	ug/g	2.0	30
5879182	Acid Extractable Zinc (Zn)	2018/12/10	NC	75 - 125	96	80 - 120	<5.0	ug/g	3.6	30
5881542	Acid Extractable Antimony (Sb)	2018/12/11	94	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5881542	Acid Extractable Arsenic (As)	2018/12/11	103	75 - 125	100	80 - 120	<1.0	ug/g	11	30
5881542	Acid Extractable Barium (Ba)	2018/12/11	NC	75 - 125	92	80 - 120	<0.50	ug/g	1.0	30
5881542	Acid Extractable Beryllium (Be)	2018/12/11	103	75 - 125	97	80 - 120	<0.20	ug/g	1.6	30
5881542	Acid Extractable Boron (B)	2018/12/11	96	75 - 125	96	80 - 120	<5.0	ug/g	2.9	30
5881542	Acid Extractable Cadmium (Cd)	2018/12/11	100	75 - 125	96	80 - 120	<0.10	ug/g	NC	30
5881542	Acid Extractable Chromium (Cr)	2018/12/11	NC	75 - 125	96	80 - 120	<1.0	ug/g	1.6	30
5881542	Acid Extractable Cobalt (Co)	2018/12/11	100	75 - 125	98	80 - 120	<0.10	ug/g	4.2	30
5881542	Acid Extractable Copper (Cu)	2018/12/11	NC	75 - 125	95	80 - 120	<0.50	ug/g	1.5	30
5881542	Acid Extractable Lead (Pb)	2018/12/11	100	75 - 125	101	80 - 120	<1.0	ug/g	0.39	30
5881542	Acid Extractable Molybdenum (Mo)	2018/12/11	98	75 - 125	98	80 - 120	<0.50	ug/g	NC	30
5881542	Acid Extractable Nickel (Ni)	2018/12/11	NC	75 - 125	97	80 - 120	<0.50	ug/g	0.25	30
5881542	Acid Extractable Selenium (Se)	2018/12/11	105	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5881542	Acid Extractable Silver (Ag)	2018/12/11	100	75 - 125	99	80 - 120	<0.20	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5881542	Acid Extractable Thallium (Tl)	2018/12/11	101	75 - 125	100	80 - 120	<0.050	ug/g	12	30
5881542	Acid Extractable Uranium (U)	2018/12/11	96	75 - 125	93	80 - 120	<0.050	ug/g	0.15	30
5881542	Acid Extractable Vanadium (V)	2018/12/11	NC	75 - 125	97	80 - 120	<5.0	ug/g	1.5	30
5881542	Acid Extractable Zinc (Zn)	2018/12/11	NC	75 - 125	104	80 - 120	<5.0	ug/g	0.37	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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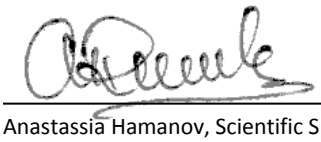
Maxxam Job #: B8W7797
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121(5001)
Site Location: WINDFIELDS
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam RUSH!

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name	#2292 - Golder Associates Ltd	Company Name	Golder	Quotation #	B80683	Maxxam Job #:	Bottle Order #: 689495
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #	1791121 (5001)		
Address	100 Scotia Crt Whitby ON L1N 8Y6	Address	kevan_browne@golder.com jvanroon@golder.com andrew_steenbruge@golder.com	Project		COC #: C#689495-13-01	Project Manager: Ema Gitej
Tel	(905) 723-2727 Fax (905) 723-2182	Tel		Project Name	Windfields		
Email	AP_CustomerService@golder.com	Email	andrew_mcintyre@golder.com	Site # / Sampled By	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [ ] Medium/Fine [ ] Table 2 [X] Ind/Comm [X] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ___ [ ] PWQO [ ] Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; ICPMS Metals

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

3 DAY RUSH

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: EE6 20181206 5 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	ICPMS Metals	# of Bottles	Comments
1		J1.5 - K1.5	Dec 6/18	10 am	Soil	N/A	X	1	
2		N1 - O2	↓	↓	↓	↓	X	1	
3		O2 - P3					X	1	
4		M1 - N1					X	1	
5		L1 - M1					X	1	
6		JK1.5 - JK2					X	1	
7		K1.5 - L1.5		↓			X	1	07-Dec-18 12:29
8		N6.5 - O6.5		2 pm			X	1	Ema Gitej
9		O6.5 - P6.5	↓	"	↓	↓	X	1	B8W7797
10									GID ENV-1197

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
A Vall	18/12/06	5pm	VAUGHAN IDREZ	2018/12/07	12:29	Ø		5/3/3	Present	✓	
									Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8W7797
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1791121(5001)
Site Location: WINDFIELDS
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
N6.5-06.5	IML849-01	Acid Extractable Antimony (Sb)	1.3	3.7	0.20	ug/g
06.5-P6.5	IML850-01	Acid Extractable Antimony (Sb)	1.3	3.2	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1991121(5001)
Site Location: WINDFIELDS

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 689495-10-01, 689495-11-01, 689495-12-01

Report Date: 2018/12/11
Report #: R5521196
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8W7806
Received: 2018/12/07, 12:29

Sample Matrix: Soil
Samples Received: 23

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	3	2018/12/10	2018/12/10	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	20	2018/12/10	2018/12/11	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca

Your Project #: 1991121(5001)
Site Location: WINDFIELDS

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 689495-10-01, 689495-11-01, 689495-12-01

Report Date: 2018/12/11
Report #: R5521196
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8W7806
Received: 2018/12/07, 12:29
Phone# (905)817-5829

==========

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IML894	IML895	IML896	IML897	IML898		
Sampling Date			2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00		
COC Number			689495-10-01	689495-10-01	689495-10-01	689495-10-01	689495-10-01		
	UNITS	Criteria	N1	N2	N4	N5	N6	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	1.1	1.0	<0.20	0.20	5879191
Acid Extractable Arsenic (As)	ug/g	18	1.2	3.2	1.6	1.4	1.7	1.0	5879191
Acid Extractable Barium (Ba)	ug/g	220	17	33	19	30	30	0.50	5879191
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.33	0.24	0.28	0.29	0.20	5879191
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	5.2	5.0	5879191
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	5879191
Acid Extractable Chromium (Cr)	ug/g	70	8.2	16	9.1	11	10	1.0	5879191
Acid Extractable Cobalt (Co)	ug/g	21	2.2	3.4	2.8	3.3	3.7	0.10	5879191
Acid Extractable Copper (Cu)	ug/g	92	3.6	5.7	5.4	5.1	7.4	0.50	5879191
Acid Extractable Lead (Pb)	ug/g	120	3.4	6.3	69	10	5.5	1.0	5879191
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5879191
Acid Extractable Nickel (Ni)	ug/g	82	3.9	5.5	5.3	6.9	8.9	0.50	5879191
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5879191
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5879191
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.088	<0.050	0.069	0.10	0.050	5879191
Acid Extractable Uranium (U)	ug/g	2.5	0.44	0.51	0.48	0.46	0.53	0.050	5879191
Acid Extractable Vanadium (V)	ug/g	86	20	29	21	23	18	5.0	5879191
Acid Extractable Zinc (Zn)	ug/g	290	15	30	16	18	21	5.0	5879191

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IML899	IML900	IML901	IML902	IML903		
Sampling Date			2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00		
COC Number			689495-10-01	689495-10-01	689495-10-01	689495-10-01	689495-10-01		
	UNITS	Criteria	L1	L2	L3	L4	L5	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.41	1.1	0.63	**1.5**	0.20	5879191
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.9	1.9	1.3	1.6	1.0	5879191
Acid Extractable Barium (Ba)	ug/g	220	22	34	30	33	41	0.50	5879191
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.34	0.30	0.21	0.34	0.20	5879191
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5879191
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.11	0.10	0.17	0.13	0.10	5879191
Acid Extractable Chromium (Cr)	ug/g	70	6.9	15	11	9.8	12	1.0	5879191
Acid Extractable Cobalt (Co)	ug/g	21	2.6	3.6	3.2	3.6	4.1	0.10	5879191
Acid Extractable Copper (Cu)	ug/g	92	3.4	6.9	4.7	3.0	4.6	0.50	5879191
Acid Extractable Lead (Pb)	ug/g	120	2.5	8.1	14	7.5	11	1.0	5879191
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5879191
Acid Extractable Nickel (Ni)	ug/g	82	4.4	6.4	6.4	8.1	8.2	0.50	5879191
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5879191
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5879191
Acid Extractable Thallium (Tl)	ug/g	1	0.055	0.11	0.080	0.068	0.080	0.050	5879191
Acid Extractable Uranium (U)	ug/g	2.5	0.38	0.51	0.51	0.56	0.51	0.050	5879191
Acid Extractable Vanadium (V)	ug/g	86	17	26	23	25	25	5.0	5879191
Acid Extractable Zinc (Zn)	ug/g	290	15	21	20	17	19	5.0	5879191

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IML903	IML904	IML905	IML906	IML907		
Sampling Date			2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00	2018/12/06 10:00		
COC Number			689495-10-01	689495-11-01	689495-11-01	689495-11-01	689495-11-01		
	UNITS	Criteria	L5 Lab-Dup	K1	K2	J1	J2	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	1.3	<0.20	<0.20	<0.20	<0.20	0.20	5879191
Acid Extractable Arsenic (As)	ug/g	18	1.8	<1.0	1.4	1.1	1.2	1.0	5879191
Acid Extractable Barium (Ba)	ug/g	220	40	14	23	18	20	0.50	5879191
Acid Extractable Beryllium (Be)	ug/g	2.5	0.32	<0.20	0.24	0.21	0.22	0.20	5879191
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5879191
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.14	<0.10	<0.10	<0.10	<0.10	0.10	5879191
Acid Extractable Chromium (Cr)	ug/g	70	12	5.9	11	7.6	8.4	1.0	5879191
Acid Extractable Cobalt (Co)	ug/g	21	4.2	2.1	3.4	2.7	2.5	0.10	5879191
Acid Extractable Copper (Cu)	ug/g	92	4.7	3.0	5.8	3.5	4.1	0.50	5879191
Acid Extractable Lead (Pb)	ug/g	120	12	1.9	3.6	3.2	3.4	1.0	5879191
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5879191
Acid Extractable Nickel (Ni)	ug/g	82	8.6	3.6	6.1	4.2	4.5	0.50	5879191
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5879191
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5879191
Acid Extractable Thallium (Tl)	ug/g	1	0.075	<0.050	0.079	0.050	0.057	0.050	5879191
Acid Extractable Uranium (U)	ug/g	2.5	0.53	0.38	0.49	0.41	0.37	0.050	5879191
Acid Extractable Vanadium (V)	ug/g	86	25	17	22	19	18	5.0	5879191
Acid Extractable Zinc (Zn)	ug/g	290	19	12	16	15	15	5.0	5879191

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IML908	IML909		IML910	IML911		
Sampling Date			2018/12/06 10:00	2018/12/06 10:00		2018/12/06 14:00	2018/12/06 14:00		
COC Number			689495-11-01	689495-11-01		689495-11-01	689495-11-01		
	UNITS	Criteria	M1	M2	QC Batch	M3	M4	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.44	5879191	0.51	0.40	0.20	5879182
Acid Extractable Arsenic (As)	ug/g	18	1.1	2.2	5879191	<1.0	1.3	1.0	5879182
Acid Extractable Barium (Ba)	ug/g	220	23	20	5879191	15	24	0.50	5879182
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.21	5879191	<0.20	0.22	0.20	5879182
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5879191	<5.0	<5.0	5.0	5879182
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	5879191	<0.10	<0.10	0.10	5879182
Acid Extractable Chromium (Cr)	ug/g	70	7.5	11	5879191	5.7	9.2	1.0	5879182
Acid Extractable Cobalt (Co)	ug/g	21	2.7	2.5	5879191	1.6	2.7	0.10	5879182
Acid Extractable Copper (Cu)	ug/g	92	3.6	3.6	5879191	3.1	2.1	0.50	5879182
Acid Extractable Lead (Pb)	ug/g	120	2.7	3.4	5879191	1.8	3.7	1.0	5879182
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	5879191	<0.50	<0.50	0.50	5879182
Acid Extractable Nickel (Ni)	ug/g	82	4.5	3.8	5879191	3.1	4.8	0.50	5879182
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	5879191	<0.50	<0.50	0.50	5879182
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	5879191	<0.20	<0.20	0.20	5879182
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.053	5879191	<0.050	<0.050	0.050	5879182
Acid Extractable Uranium (U)	ug/g	2.5	0.38	0.39	5879191	0.41	0.51	0.050	5879182
Acid Extractable Vanadium (V)	ug/g	86	17	20	5879191	15	25	5.0	5879182
Acid Extractable Zinc (Zn)	ug/g	290	15	17	5879191	8.4	12	5.0	5879182

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IML912		IML913		IML914		
Sampling Date			2018/12/06 14:00		2018/12/06 14:00		2018/12/06		
COC Number			689495-11-01		689495-11-01		689495-12-01		
	UNITS	Criteria	M5	QC Batch	DUP 1	QC Batch	DUP 2	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5879191	<0.20	5879182	<0.20	0.20	5879191
Acid Extractable Arsenic (As)	ug/g	18	<1.0	5879191	1.9	5879182	1.0	1.0	5879191
Acid Extractable Barium (Ba)	ug/g	220	11	5879191	47	5879182	14	0.50	5879191
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	5879191	0.43	5879182	<0.20	0.20	5879191
Acid Extractable Boron (B)	ug/g	36	<5.0	5879191	<5.0	5879182	<5.0	5.0	5879191
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5879191	0.18	5879182	<0.10	0.10	5879191
Acid Extractable Chromium (Cr)	ug/g	70	5.0	5879191	15	5879182	6.2	1.0	5879191
Acid Extractable Cobalt (Co)	ug/g	21	1.6	5879191	4.6	5879182	2.3	0.10	5879191
Acid Extractable Copper (Cu)	ug/g	92	2.4	5879191	6.8	5879182	3.0	0.50	5879191
Acid Extractable Lead (Pb)	ug/g	120	1.6	5879191	10	5879182	2.0	1.0	5879191
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5879191	<0.50	5879182	<0.50	0.50	5879191
Acid Extractable Nickel (Ni)	ug/g	82	3.1	5879191	8.8	5879182	3.4	0.50	5879191
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5879191	<0.50	5879182	<0.50	0.50	5879191
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5879191	<0.20	5879182	<0.20	0.20	5879191
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	5879191	0.099	5879182	<0.050	0.050	5879191
Acid Extractable Uranium (U)	ug/g	2.5	0.36	5879191	0.50	5879182	0.40	0.050	5879191
Acid Extractable Vanadium (V)	ug/g	86	12	5879191	27	5879182	16	5.0	5879191
Acid Extractable Zinc (Zn)	ug/g	290	7.8	5879191	34	5879182	11	5.0	5879191

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IML915	IML916		
Sampling Date			2018/12/06	2018/12/06		
COC Number			689495-12-01	689495-12-01		
	UNITS	Criteria	DUP 3	DUP 4	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.33	0.20	5879191
Acid Extractable Arsenic (As)	ug/g	18	1.8	1.4	1.0	5879191
Acid Extractable Barium (Ba)	ug/g	220	25	20	0.50	5879191
Acid Extractable Beryllium (Be)	ug/g	2.5	0.28	0.24	0.20	5879191
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.0	5879191
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	0.10	5879191
Acid Extractable Chromium (Cr)	ug/g	70	14	9.3	1.0	5879191
Acid Extractable Cobalt (Co)	ug/g	21	3.4	2.8	0.10	5879191
Acid Extractable Copper (Cu)	ug/g	92	5.0	5.8	0.50	5879191
Acid Extractable Lead (Pb)	ug/g	120	4.3	4.7	1.0	5879191
Acid Extractable Molybdenum (Mo)	ug/g	2	0.57	<0.50	0.50	5879191
Acid Extractable Nickel (Ni)	ug/g	82	5.6	5.5	0.50	5879191
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	0.50	5879191
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	0.20	5879191
Acid Extractable Thallium (Tl)	ug/g	1	0.075	<0.050	0.050	5879191
Acid Extractable Uranium (U)	ug/g	2.5	0.53	0.47	0.050	5879191
Acid Extractable Vanadium (V)	ug/g	86	25	23	5.0	5879191
Acid Extractable Zinc (Zn)	ug/g	290	20	13	5.0	5879191

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

TEST SUMMARY

Maxxam ID: IML894 **Collected:** 2018/12/06
Sample ID: N1 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML895 **Collected:** 2018/12/06
Sample ID: N2 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML896 **Collected:** 2018/12/06
Sample ID: N4 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML897 **Collected:** 2018/12/06
Sample ID: N5 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML898 **Collected:** 2018/12/06
Sample ID: N6 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML899 **Collected:** 2018/12/06
Sample ID: L1 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML900 **Collected:** 2018/12/06
Sample ID: L2 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

TEST SUMMARY

Maxxam ID: IML901 **Collected:** 2018/12/06
Sample ID: L3 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML902 **Collected:** 2018/12/06
Sample ID: L4 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML903 **Collected:** 2018/12/06
Sample ID: L5 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML903 Dup **Collected:** 2018/12/06
Sample ID: L5 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML904 **Collected:** 2018/12/06
Sample ID: K1 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML905 **Collected:** 2018/12/06
Sample ID: K2 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML906 **Collected:** 2018/12/06
Sample ID: J1 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

TEST SUMMARY

Maxxam ID: IML907 **Collected:** 2018/12/06
Sample ID: J2 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML908 **Collected:** 2018/12/06
Sample ID: M1 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML909 **Collected:** 2018/12/06
Sample ID: M2 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML910 **Collected:** 2018/12/06
Sample ID: M3 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IML911 **Collected:** 2018/12/06
Sample ID: M4 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

Maxxam ID: IML912 **Collected:** 2018/12/06
Sample ID: M5 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML913 **Collected:** 2018/12/06
Sample ID: DUP 1 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879182	2018/12/10	2018/12/10	Thao Nguyen

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

TEST SUMMARY

Maxxam ID: IML914 **Collected:** 2018/12/06
Sample ID: DUP 2 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML915 **Collected:** 2018/12/06
Sample ID: DUP 3 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

Maxxam ID: IML916 **Collected:** 2018/12/06
Sample ID: DUP 4 **Shipped:**
Matrix: Soil **Received:** 2018/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5879191	2018/12/10	2018/12/11	Daniel Teclu

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

GENERAL COMMENTS

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

Package 1	3.7°C

Results relate only to the items tested.

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Maxxam Job #: B8W7806
Report Date: 2018/12/11

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5879182	Acid Extractable Antimony (Sb)	2018/12/10	101	75 - 125	104	80 - 120	<0.20	ug/g	0.11	30
5879182	Acid Extractable Arsenic (As)	2018/12/10	98	75 - 125	104	80 - 120	<1.0	ug/g	4.9	30
5879182	Acid Extractable Barium (Ba)	2018/12/10	NC	75 - 125	101	80 - 120	<0.50	ug/g	2.9	30
5879182	Acid Extractable Beryllium (Be)	2018/12/10	100	75 - 125	103	80 - 120	<0.20	ug/g	2.4	30
5879182	Acid Extractable Boron (B)	2018/12/10	96	75 - 125	99	80 - 120	<5.0	ug/g	NC	30
5879182	Acid Extractable Cadmium (Cd)	2018/12/10	100	75 - 125	102	80 - 120	<0.10	ug/g	2.3	30
5879182	Acid Extractable Chromium (Cr)	2018/12/10	102	75 - 125	99	80 - 120	<1.0	ug/g	0.83	30
5879182	Acid Extractable Cobalt (Co)	2018/12/10	99	75 - 125	101	80 - 120	<0.10	ug/g	1.3	30
5879182	Acid Extractable Copper (Cu)	2018/12/10	101	75 - 125	101	80 - 120	<0.50	ug/g	1.4	30
5879182	Acid Extractable Lead (Pb)	2018/12/10	NC	75 - 125	99	80 - 120	<1.0	ug/g	13	30
5879182	Acid Extractable Molybdenum (Mo)	2018/12/10	100	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5879182	Acid Extractable Nickel (Ni)	2018/12/10	102	75 - 125	101	80 - 120	<0.50	ug/g	1.0	30
5879182	Acid Extractable Selenium (Se)	2018/12/10	97	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5879182	Acid Extractable Silver (Ag)	2018/12/10	98	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5879182	Acid Extractable Thallium (Tl)	2018/12/10	97	75 - 125	100	80 - 120	<0.050	ug/g	10	30
5879182	Acid Extractable Uranium (U)	2018/12/10	90	75 - 125	93	80 - 120	<0.050	ug/g	0.65	30
5879182	Acid Extractable Vanadium (V)	2018/12/10	106	75 - 125	103	80 - 120	<5.0	ug/g	2.0	30
5879182	Acid Extractable Zinc (Zn)	2018/12/10	NC	75 - 125	96	80 - 120	<5.0	ug/g	3.6	30
5879191	Acid Extractable Antimony (Sb)	2018/12/11	92	75 - 125	106	80 - 120	<0.20	ug/g	15	30
5879191	Acid Extractable Arsenic (As)	2018/12/11	104	75 - 125	105	80 - 120	<1.0	ug/g	13	30
5879191	Acid Extractable Barium (Ba)	2018/12/11	NC	75 - 125	97	80 - 120	<0.50	ug/g	2.7	30
5879191	Acid Extractable Beryllium (Be)	2018/12/11	101	75 - 125	101	80 - 120	<0.20	ug/g	5.6	30
5879191	Acid Extractable Boron (B)	2018/12/11	101	75 - 125	100	80 - 120	<5.0	ug/g	NC	30
5879191	Acid Extractable Cadmium (Cd)	2018/12/11	99	75 - 125	103	80 - 120	<0.10	ug/g	8.6	30
5879191	Acid Extractable Chromium (Cr)	2018/12/11	101	75 - 125	105	80 - 120	<1.0	ug/g	5.0	30
5879191	Acid Extractable Cobalt (Co)	2018/12/11	102	75 - 125	103	80 - 120	<0.10	ug/g	1.4	30
5879191	Acid Extractable Copper (Cu)	2018/12/11	92	75 - 125	100	80 - 120	<0.50	ug/g	2.9	30
5879191	Acid Extractable Lead (Pb)	2018/12/11	111	75 - 125	105	80 - 120	<1.0	ug/g	1.3	30
5879191	Acid Extractable Molybdenum (Mo)	2018/12/11	98	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5879191	Acid Extractable Nickel (Ni)	2018/12/11	100	75 - 125	104	80 - 120	<0.50	ug/g	4.7	30
5879191	Acid Extractable Selenium (Se)	2018/12/11	104	75 - 125	107	80 - 120	<0.50	ug/g	NC	30
5879191	Acid Extractable Silver (Ag)	2018/12/11	101	75 - 125	105	80 - 120	<0.20	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5879191	Acid Extractable Thallium (Tl)	2018/12/11	101	75 - 125	105	80 - 120	<0.050	ug/g	6.3	30
5879191	Acid Extractable Uranium (U)	2018/12/11	96	75 - 125	99	80 - 120	<0.050	ug/g	2.6	30
5879191	Acid Extractable Vanadium (V)	2018/12/11	NC	75 - 125	100	80 - 120	<5.0	ug/g	0.49	30
5879191	Acid Extractable Zinc (Zn)	2018/12/11	110	75 - 125	103	80 - 120	<5.0	ug/g	2.5	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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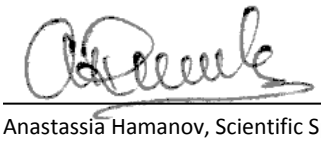
Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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ROSH

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CHAIN OF CUSTODY RECORD

Page 1 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name	#2292 Golder Associates Ltd	Company Name	Golder	Quotation #	~~B80683~~	Maxxam Job #:	Bottle Order #:
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #	1991121 (5001)		689495
Address	100 Scotia Crt Whitby ON L1N 8Y6	Address	browne@golder.com kevan_vanboom@golder.com andrew_jayne_steenberg@golder.com	Project	Windfield 3	COC #:	Project Manager:
Tel	(905) 723-2727 Fax (905) 723-2182	Tel		Project Name		C#689495-10-01	Ema Gitej
Email	AP_CustomerService@golder.com	Email		Site #			
				Sampled By	A Van Koom		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
[X] Table 1 [X] Res/Park [ ] Medium/Fine	[ ] CCME [ ] Sanitary Sewer Bylaw	
[ ] Table 2 [X] Ind/Comm [X] Coarse	[ ] Reg 558 [ ] Storm Sewer Bylaw	
[ ] Table 3 [ ] Agri/Other [X] For RSC	[ ] MISA Municipality	
[ ] Table ___	[ ] PWQO	
	[ ] Other	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

3 DAY RUSH

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEG 20181212065 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ICPMS Metals								# of Bottles	Comments
1		N1	Dec 6/18	10 am	Soil	N/A	X								1	
2		N2					X								1	
3		N4					X								1	
4		N5					X								1	
5		N6					X								1	
6		L1					X								1	
7		L2					X								1	
8		L3					X								1	
9		L4					X								1	
10		L5					X								1	

07-Dec-18 12:29
Ema Gitej
B8W7806
GID ENV-1197

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/06	5pm		2018/12/07	12:29	0

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	5/3/3	Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 2 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name	#2292 Golder Associates Ltd	Company Name	Golder	Quotation #	[redacted]	Maxxam Job #:	Bottle Order #: 689495
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #	1791121 (5001)		
Address	100 Scotia Crt	Address	kevan_browne@golder.com	Project		COC #: C#689495-11-01	Project Manager: Ema Gitej
	Whitby ON L1N 8Y6		andrew_vermeer@golder.com	Project Name	Windfield 3		
Tel	(905) 723-2727 Fax (905) 723-2182	Tel / Fax	jolayne_steenbergen@golder.com	Site #			
Email	AP_CustomerService@golder.com	Email		Sampled By	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [ ] Medium/Fine [ ] Table 2 [X] Ind/Comm [X] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ____ [ ] PWQO [ ] Other ____

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; ICPMS Metals

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details
3 DAY RUSH

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: EEG 201812065 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	ICPMS Metals	# of Bottles	Comments
1		K1	Dec 6/18	10am	Soil	N/A	X	1	
2		K2	↓	↓	↓	↓	X	1	
3		J1	↓	↓	↓	↓	X	1	
4		J2	↓	↓	↓	↓	X	1	
5		M1	↓	↓	↓	↓	X	1	
6		M2	↓	↓	↓	↓	X	1	
7		M3	↓	2pm	↓	↓	X	1	
8		M4	↓	↓	↓	↓	X	1	
9		M5	↓	↓	↓	↓	X	1	
10		DUP1	↓	↓	↓	↓	X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Time Sensitive	Laboratory Use Only
[signature]	18/12/06	5pm	See page one					Temperature (°C) on Recei; Custody Seal Present / Intact: Yes / No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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CHAIN OF CUSTODY RECORD

Page 3 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name	#2292 Golder Associates Ltd	Company Name	Golder	Quotation #:	[redacted]	Maxxam Job #:	Bottle Order #:
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #:	1791121 (5001)		589495
Address	100 Scotia Ct Whitby ON L1N 8Y6	Address	kbrowne@golder.com kevan_browne@golder.com andrew_vanrooden@golder.com stembridge@golder.com	Project:		COC #:	Project Manager:
Tel	(905) 723-2727 Fax (905) 723-2182	Tel	Fax:	Project Name:	Windfields	C#589495-12-01	Ema Gitej
Email	AP_CustomerService@golder.com	Email		Site #:			
				Sampled By:	ACVANROOY		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
[X] Table 1 [ ] Res/Park [ ] Medium/Fine	[ ] CCME [ ] Sanitary Sewer Bylaw	
[ ] Table 2 [X] Ind/Comm [X] Coarse	[ ] Reg 558 [ ] Storm Sewer Bylaw	
[ ] Table 3 [ ] Agri/Other [X] For RSC	[ ] MISA Municipality	
[ ] Table ___	[ ] PWQO	
	[ ] Other	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

3 DAY RUSH

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEG20181206 5 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ICPMS Metals								# of Bottles	Comments
1		DUP 2	Dec 6/18	~	Soil	N/A	X								1	
2		DUP 3	"	~	"	X	X								1	
3		DUP 4	"	~	"	X	X								1	
4																
5																
6																
7																
8																
9																
10																

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Present	Yes	No
	18/12/06	5pm	SEE PAGE ONE			0			Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8W7806
Report Date: 2018/12/11

Golder Associates Ltd
Client Project #: 1991121(5001)
Site Location: WINDFIELDS
Sampler Initials: AR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
L5	IML903-01	Acid Extractable Antimony (Sb)	1.3	1.5	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 179112(5001)
Site Location: WINDFIELDS
Your C.O.C. #: 688529-17-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/12
Report #: R5522446
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8W9449
Received: 2018/12/10, 11:43

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	6	2018/12/12	2018/12/12	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8W9449
Report Date: 2018/12/12

Golder Associates Ltd
Client Project #: 179112(5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IMW896	IMW897	IMW898	IMW899	IMW900		
Sampling Date			2018/12/07 10:00	2018/12/07 10:00	2018/12/07 10:00	2018/12/07 10:00	2018/12/07 10:00		
COC Number			688529-17-01	688529-17-01	688529-17-01	688529-17-01	688529-17-01		
	UNITS	Criteria	P2.5-Q3.5	Q3.5-QR4	QR4-QR5	QR5-QR6	QR6-QR7	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.38	0.28	0.73	0.45	0.65	0.20	5883851
Acid Extractable Arsenic (As)	ug/g	18	2.0	1.9	1.8	2.1	1.9	1.0	5883851
Acid Extractable Barium (Ba)	ug/g	220	50	50	62	59	58	0.50	5883851
Acid Extractable Beryllium (Be)	ug/g	2.5	0.43	0.43	0.45	0.41	0.43	0.20	5883851
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5883851
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.25	0.21	0.23	0.25	0.23	0.10	5883851
Acid Extractable Chromium (Cr)	ug/g	70	15	15	17	18	16	1.0	5883851
Acid Extractable Cobalt (Co)	ug/g	21	4.4	4.3	4.5	4.7	4.4	0.10	5883851
Acid Extractable Copper (Cu)	ug/g	92	7.4	6.2	7.6	7.9	6.6	0.50	5883851
Acid Extractable Lead (Pb)	ug/g	120	13	11	19	15	19	1.0	5883851
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5883851
Acid Extractable Nickel (Ni)	ug/g	82	8.0	7.1	8.8	8.6	9.2	0.50	5883851
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5883851
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5883851
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.11	0.12	0.12	0.10	0.050	5883851
Acid Extractable Uranium (U)	ug/g	2.5	0.67	0.58	0.49	0.41	0.46	0.050	5883851
Acid Extractable Vanadium (V)	ug/g	86	26	26	26	25	27	5.0	5883851
Acid Extractable Zinc (Zn)	ug/g	290	38	32	40	35	39	5.0	5883851

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W9449
Report Date: 2018/12/12

Golder Associates Ltd
Client Project #: 179112(5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IMW901		
Sampling Date			2018/12/07 10:00		
COC Number			688529-17-01		
	UNITS	Criteria	DUP5	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	**2.2**	0.20	5883851
Acid Extractable Arsenic (As)	ug/g	18	2.4	1.0	5883851
Acid Extractable Barium (Ba)	ug/g	220	62	0.50	5883851
Acid Extractable Beryllium (Be)	ug/g	2.5	0.47	0.20	5883851
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	5883851
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.28	0.10	5883851
Acid Extractable Chromium (Cr)	ug/g	70	18	1.0	5883851
Acid Extractable Cobalt (Co)	ug/g	21	4.8	0.10	5883851
Acid Extractable Copper (Cu)	ug/g	92	7.8	0.50	5883851
Acid Extractable Lead (Pb)	ug/g	120	54	1.0	5883851
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	5883851
Acid Extractable Nickel (Ni)	ug/g	82	9.4	0.50	5883851
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	5883851
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	5883851
Acid Extractable Thallium (Tl)	ug/g	1	0.13	0.050	5883851
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.050	5883851
Acid Extractable Vanadium (V)	ug/g	86	26	5.0	5883851
Acid Extractable Zinc (Zn)	ug/g	290	42	5.0	5883851

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W9449
Report Date: 2018/12/12

Golder Associates Ltd
Client Project #: 179112(5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IMW896 **Collected:** 2018/12/07
Sample ID: P2.5-Q3.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW897 **Collected:** 2018/12/07
Sample ID: Q3.5-QR4 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW898 **Collected:** 2018/12/07
Sample ID: QR4-QR5 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW899 **Collected:** 2018/12/07
Sample ID: QR5-QR6 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW900 **Collected:** 2018/12/07
Sample ID: QR6-QR7 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW901 **Collected:** 2018/12/07
Sample ID: DUP5 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8W9449
Report Date: 2018/12/12

Golder Associates Ltd
Client Project #: 179112(5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	0.7°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8W9449
Report Date: 2018/12/12

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 179112(5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5883851	Acid Extractable Antimony (Sb)	2018/12/12	91	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5883851	Acid Extractable Arsenic (As)	2018/12/12	96	75 - 125	109	80 - 120	<1.0	ug/g	5.4	30
5883851	Acid Extractable Barium (Ba)	2018/12/12	NC	75 - 125	104	80 - 120	<0.50	ug/g	5.5	30
5883851	Acid Extractable Beryllium (Be)	2018/12/12	98	75 - 125	101	80 - 120	<0.20	ug/g	2.6	30
5883851	Acid Extractable Boron (B)	2018/12/12	96	75 - 125	101	80 - 120	<5.0	ug/g	5.4	30
5883851	Acid Extractable Cadmium (Cd)	2018/12/12	99	75 - 125	103	80 - 120	<0.10	ug/g	5.6	30
5883851	Acid Extractable Chromium (Cr)	2018/12/12	106	75 - 125	105	80 - 120	<1.0	ug/g	2.7	30
5883851	Acid Extractable Cobalt (Co)	2018/12/12	99	75 - 125	106	80 - 120	<0.10	ug/g	2.7	30
5883851	Acid Extractable Copper (Cu)	2018/12/12	93	75 - 125	105	80 - 120	<0.50	ug/g	1.4	30
5883851	Acid Extractable Lead (Pb)	2018/12/12	102	75 - 125	107	80 - 120	<1.0	ug/g	7.2	30
5883851	Acid Extractable Molybdenum (Mo)	2018/12/12	98	75 - 125	106	80 - 120	<0.50	ug/g	NC	30
5883851	Acid Extractable Nickel (Ni)	2018/12/12	99	75 - 125	107	80 - 120	<0.50	ug/g	3.5	30
5883851	Acid Extractable Selenium (Se)	2018/12/12	102	75 - 125	106	80 - 120	<0.50	ug/g	NC	30
5883851	Acid Extractable Silver (Ag)	2018/12/12	95	75 - 125	104	80 - 120	<0.20	ug/g	NC	30
5883851	Acid Extractable Thallium (Tl)	2018/12/12	99	75 - 125	108	80 - 120	<0.050	ug/g	19	30
5883851	Acid Extractable Uranium (U)	2018/12/12	94	75 - 125	102	80 - 120	<0.050	ug/g	0.50	30
5883851	Acid Extractable Vanadium (V)	2018/12/12	99	75 - 125	103	80 - 120	<5.0	ug/g	0.89	30
5883851	Acid Extractable Zinc (Zn)	2018/12/12	NC	75 - 125	109	80 - 120	<5.0	ug/g	0.49	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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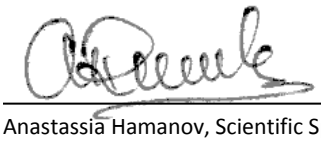
Maxxam Job #: B8W9449
Report Date: 2018/12/12

Golder Associates Ltd
Client Project #: 179112(5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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RUSH!

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name	#2292 Golder Associates Ltd	Company Name	Golder	Quotation #	~~B78516~~
Attention	Accounts Payable	Attention	~~Kimberly Rose~~ Kevin Browne	P.O. #	
Address	100 Scotia Crt	Address	andrew.winrow@golder.com	Project	~~1773922 (8001)~~ 1791121(5001)
	Whitby ON L1N 8Y6		kevin_browne@golder.com; jalayne_steenbergen@golder.com	Project Name	Windfields
Tel	(905) 723-2727 Fax (905) 723-2182	Tel	Fax	Site #	
Email	AP_CustomerService@golder.com	Email	~~Kimberley_Rose@golder.com~~	Sampled By	AR

Laboratory Use Only:

Maxxam Job #:	Bottle Order #:
	688529
COC #:	Project Manager:
C#688529-17-01	Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [ ] Medium/Fine [ ] Table 2 [X] Ind/Comm [X] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ___ [ ] PWQO [ ] Other

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; ~~O.Reg 153 VOCs~~; ~~O.Reg 153 PAHs~~; ICPMS Metals

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [ ]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEB2018 12073 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered / Metals / Hg / Cr VI	O.Reg 153 VOCs	O.Reg 153 PAHs	ICPMS Metals	# of Bottles	Comments
1		P2.5-Q3.5	Dec 7/18	10am	Soil	N/A			X	1	
2		Q3.5-QR4	↓	↓	↓	↓			X	1	
3		QR4-QR5	↓	↓	↓	↓			X	1	
4		QR5-QR6	↓	↓	↓	↓			X	1	
5		QR6-QR7	↓	↓	↓	↓			X	1	
6		DUP5	↓	↓	↓	↓			X	1	
7											
8											
9											
10											

10-Dec-18 11:43
Ema Gitej
B8W9449
ASR ENV-674

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
[signature]	18/12/07	5pm	[signature] MSA	2018/12/10	11:43	0

Laboratory Use Only: Time Sensitive; Temperature (°C) on Recei: 1/0/1; Custody Seal: Present Yes ✓; Intact Yes ✓

White: Maxxam Yellow: Client

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

#84271

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8W9449
Report Date: 2018/12/12

Golder Associates Ltd
Client Project #: 179112(5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
DUP5	IMW901-01	Acid Extractable Antimony (Sb)	1.3	2.2	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 1791121 (5001)
Site Location: WINDFIELDS
Your C.O.C. #: 688529-17-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/17
Report #: R5529703
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8W9449
Received: 2018/12/10, 11:43

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	5	2018/12/12	2018/12/12	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	1	2018/12/13	2018/12/13	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8W9449
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IMW896	IMW897	IMW898	IMW899	IMW900		
Sampling Date			2018/12/07 10:00	2018/12/07 10:00	2018/12/07 10:00	2018/12/07 10:00	2018/12/07 10:00		
COC Number			688529-17-01	688529-17-01	688529-17-01	688529-17-01	688529-17-01		
	UNITS	Criteria	P2.5-Q3.5	Q3.5-QR4	QR4-QR5	QR5-QR6	QR6-QR7	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.38	0.28	0.73	0.45	0.65	0.20	5883851
Acid Extractable Arsenic (As)	ug/g	18	2.0	1.9	1.8	2.1	1.9	1.0	5883851
Acid Extractable Barium (Ba)	ug/g	220	50	50	62	59	58	0.50	5883851
Acid Extractable Beryllium (Be)	ug/g	2.5	0.43	0.43	0.45	0.41	0.43	0.20	5883851
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5883851
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.25	0.21	0.23	0.25	0.23	0.10	5883851
Acid Extractable Chromium (Cr)	ug/g	70	15	15	17	18	16	1.0	5883851
Acid Extractable Cobalt (Co)	ug/g	21	4.4	4.3	4.5	4.7	4.4	0.10	5883851
Acid Extractable Copper (Cu)	ug/g	92	7.4	6.2	7.6	7.9	6.6	0.50	5883851
Acid Extractable Lead (Pb)	ug/g	120	13	11	19	15	19	1.0	5883851
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5883851
Acid Extractable Nickel (Ni)	ug/g	82	8.0	7.1	8.8	8.6	9.2	0.50	5883851
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5883851
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5883851
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.11	0.12	0.12	0.10	0.050	5883851
Acid Extractable Uranium (U)	ug/g	2.5	0.67	0.58	0.49	0.41	0.46	0.050	5883851
Acid Extractable Vanadium (V)	ug/g	86	26	26	26	25	27	5.0	5883851
Acid Extractable Zinc (Zn)	ug/g	290	38	32	40	35	39	5.0	5883851

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W9449
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IMW901		IMW901		IMW901		
Sampling Date			2018/12/07 10:00		2018/12/07 10:00		2018/12/07 10:00		
COC Number			688529-17-01		688529-17-01		688529-17-01		
	UNITS	Criteria	DUP5	QC Batch	DUP5 REPEAT	QC Batch	DUP5 REPEAT	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	**2.2**	5883851	0.67	5886275	0.57	0.20	5888830
Acid Extractable Arsenic (As)	ug/g	18	2.4	5883851	1.9	5886275	2.1	1.0	5888830
Acid Extractable Barium (Ba)	ug/g	220	62	5883851	74	5886275	71	0.50	5888830
Acid Extractable Beryllium (Be)	ug/g	2.5	0.47	5883851	0.52	5886275	0.54	0.20	5888830
Acid Extractable Boron (B)	ug/g	36	<5.0	5883851	<5.0	5886275	5.6	5.0	5888830
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.28	5883851	0.30	5886275	0.24	0.10	5888830
Acid Extractable Chromium (Cr)	ug/g	70	18	5883851	21	5886275	22	1.0	5888830
Acid Extractable Cobalt (Co)	ug/g	21	4.8	5883851	5.3	5886275	5.6	0.10	5888830
Acid Extractable Copper (Cu)	ug/g	92	7.8	5883851	8.8	5886275	9.0	0.50	5888830
Acid Extractable Lead (Pb)	ug/g	120	54	5883851	17	5886275	18	1.0	5888830
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5883851	<0.50	5886275	<0.50	0.50	5888830
Acid Extractable Nickel (Ni)	ug/g	82	9.4	5883851	11	5886275	11	0.50	5888830
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5883851	<0.50	5886275	<0.50	0.50	5888830
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5883851	<0.20	5886275	<0.20	0.20	5888830
Acid Extractable Thallium (Tl)	ug/g	1	0.13	5883851	0.13	5886275	0.14	0.050	5888830
Acid Extractable Uranium (U)	ug/g	2.5	0.49	5883851	0.48	5886275	0.50	0.050	5888830
Acid Extractable Vanadium (V)	ug/g	86	26	5883851	28	5886275	30	5.0	5888830
Acid Extractable Zinc (Zn)	ug/g	290	42	5883851	43	5886275	47	5.0	5888830

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8W9449
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IMW896 **Collected:** 2018/12/07
Sample ID: P2.5-Q3.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW897 **Collected:** 2018/12/07
Sample ID: Q3.5-QR4 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW898 **Collected:** 2018/12/07
Sample ID: QR4-QR5 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW899 **Collected:** 2018/12/07
Sample ID: QR5-QR6 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW900 **Collected:** 2018/12/07
Sample ID: QR6-QR7 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5883851	2018/12/12	2018/12/12	Daniel Teclu

Maxxam ID: IMW901 **Collected:** 2018/12/07
Sample ID: DUP5 **Shipped:**
Matrix: Soil **Received:** 2018/12/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5886275	2018/12/13	2018/12/13	Thao Nguyen

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8W9449
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	0.7°C

Revised report (2018/12/17): Sample DUP-5 has been re-analyzed for ICPMS Metals as per client request.

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B8W9449
Report Date: 2018/12/17

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5883851	Acid Extractable Antimony (Sb)	2018/12/12	91	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5883851	Acid Extractable Arsenic (As)	2018/12/12	96	75 - 125	109	80 - 120	<1.0	ug/g	5.4	30
5883851	Acid Extractable Barium (Ba)	2018/12/12	NC	75 - 125	104	80 - 120	<0.50	ug/g	5.5	30
5883851	Acid Extractable Beryllium (Be)	2018/12/12	98	75 - 125	101	80 - 120	<0.20	ug/g	2.6	30
5883851	Acid Extractable Boron (B)	2018/12/12	96	75 - 125	101	80 - 120	<5.0	ug/g	5.4	30
5883851	Acid Extractable Cadmium (Cd)	2018/12/12	99	75 - 125	103	80 - 120	<0.10	ug/g	5.6	30
5883851	Acid Extractable Chromium (Cr)	2018/12/12	106	75 - 125	105	80 - 120	<1.0	ug/g	2.7	30
5883851	Acid Extractable Cobalt (Co)	2018/12/12	99	75 - 125	106	80 - 120	<0.10	ug/g	2.7	30
5883851	Acid Extractable Copper (Cu)	2018/12/12	93	75 - 125	105	80 - 120	<0.50	ug/g	1.4	30
5883851	Acid Extractable Lead (Pb)	2018/12/12	102	75 - 125	107	80 - 120	<1.0	ug/g	7.2	30
5883851	Acid Extractable Molybdenum (Mo)	2018/12/12	98	75 - 125	106	80 - 120	<0.50	ug/g	NC	30
5883851	Acid Extractable Nickel (Ni)	2018/12/12	99	75 - 125	107	80 - 120	<0.50	ug/g	3.5	30
5883851	Acid Extractable Selenium (Se)	2018/12/12	102	75 - 125	106	80 - 120	<0.50	ug/g	NC	30
5883851	Acid Extractable Silver (Ag)	2018/12/12	95	75 - 125	104	80 - 120	<0.20	ug/g	NC	30
5883851	Acid Extractable Thallium (Tl)	2018/12/12	99	75 - 125	108	80 - 120	<0.050	ug/g	19	30
5883851	Acid Extractable Uranium (U)	2018/12/12	94	75 - 125	102	80 - 120	<0.050	ug/g	0.50	30
5883851	Acid Extractable Vanadium (V)	2018/12/12	99	75 - 125	103	80 - 120	<5.0	ug/g	0.89	30
5883851	Acid Extractable Zinc (Zn)	2018/12/12	NC	75 - 125	109	80 - 120	<5.0	ug/g	0.49	30
5886275	Acid Extractable Antimony (Sb)	2018/12/13	102	75 - 125	104	80 - 120	<0.20	ug/g		
5886275	Acid Extractable Arsenic (As)	2018/12/13	101	75 - 125	103	80 - 120	<1.0	ug/g	0.12	30
5886275	Acid Extractable Barium (Ba)	2018/12/13	NC	75 - 125	102	80 - 120	<0.50	ug/g	5.3	30
5886275	Acid Extractable Beryllium (Be)	2018/12/13	108	75 - 125	104	80 - 120	<0.20	ug/g	5.0	30
5886275	Acid Extractable Boron (B)	2018/12/13	107	75 - 125	102	80 - 120	<5.0	ug/g	NC	30
5886275	Acid Extractable Cadmium (Cd)	2018/12/13	99	75 - 125	99	80 - 120	<0.10	ug/g	NC	30
5886275	Acid Extractable Chromium (Cr)	2018/12/13	101	75 - 125	103	80 - 120	<1.0	ug/g	1.6	30
5886275	Acid Extractable Cobalt (Co)	2018/12/13	100	75 - 125	102	80 - 120	<0.10	ug/g	0.41	30
5886275	Acid Extractable Copper (Cu)	2018/12/13	97	75 - 125	103	80 - 120	<0.50	ug/g	2.2	30
5886275	Acid Extractable Lead (Pb)	2018/12/13	97	75 - 125	102	80 - 120	<1.0	ug/g		
5886275	Acid Extractable Molybdenum (Mo)	2018/12/13	103	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5886275	Acid Extractable Nickel (Ni)	2018/12/13	99	75 - 125	101	80 - 120	<0.50	ug/g	3.6	30
5886275	Acid Extractable Selenium (Se)	2018/12/13	103	75 - 125	109	80 - 120	<0.50	ug/g	NC	30
5886275	Acid Extractable Silver (Ag)	2018/12/13	96	75 - 125	101	80 - 120	<0.20	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5886275	Acid Extractable Thallium (Tl)	2018/12/13	97	75 - 125	100	80 - 120	<0.050	ug/g	8.9	30
5886275	Acid Extractable Uranium (U)	2018/12/13	90	75 - 125	91	80 - 120	<0.050	ug/g	0.063	30
5886275	Acid Extractable Vanadium (V)	2018/12/13	105	75 - 125	101	80 - 120	<5.0	ug/g	0.19	30
5886275	Acid Extractable Zinc (Zn)	2018/12/13	96	75 - 125	105	80 - 120	<5.0	ug/g	2.0	30
5888830	Acid Extractable Antimony (Sb)	2018/12/14	98	75 - 125	102	80 - 120	<0.20	ug/g	1.4	30
5888830	Acid Extractable Arsenic (As)	2018/12/14	103	75 - 125	104	80 - 120	<1.0	ug/g		
5888830	Acid Extractable Barium (Ba)	2018/12/14	NC	75 - 125	99	80 - 120	<0.50	ug/g		
5888830	Acid Extractable Beryllium (Be)	2018/12/14	106	75 - 125	102	80 - 120	<0.20	ug/g		
5888830	Acid Extractable Boron (B)	2018/12/14	100	75 - 125	102	80 - 120	<5.0	ug/g		
5888830	Acid Extractable Cadmium (Cd)	2018/12/14	110	75 - 125	102	80 - 120	<0.10	ug/g		
5888830	Acid Extractable Chromium (Cr)	2018/12/14	110	75 - 125	107	80 - 120	<1.0	ug/g		
5888830	Acid Extractable Cobalt (Co)	2018/12/14	106	75 - 125	106	80 - 120	<0.10	ug/g		
5888830	Acid Extractable Copper (Cu)	2018/12/14	104	75 - 125	106	80 - 120	<0.50	ug/g		
5888830	Acid Extractable Lead (Pb)	2018/12/14	102	75 - 125	103	80 - 120	<1.0	ug/g	0.35	30
5888830	Acid Extractable Molybdenum (Mo)	2018/12/14	104	75 - 125	101	80 - 120	<0.50	ug/g		
5888830	Acid Extractable Nickel (Ni)	2018/12/14	108	75 - 125	109	80 - 120	<0.50	ug/g		
5888830	Acid Extractable Selenium (Se)	2018/12/14	108	75 - 125	109	80 - 120	<0.50	ug/g		
5888830	Acid Extractable Silver (Ag)	2018/12/14	102	75 - 125	101	80 - 120	<0.20	ug/g		
5888830	Acid Extractable Thallium (Tl)	2018/12/14	104	75 - 125	103	80 - 120	<0.050	ug/g		
5888830	Acid Extractable Uranium (U)	2018/12/14	97	75 - 125	94	80 - 120	<0.050	ug/g		
5888830	Acid Extractable Vanadium (V)	2018/12/14	NC	75 - 125	107	80 - 120	<5.0	ug/g		
5888830	Acid Extractable Zinc (Zn)	2018/12/14	NC	75 - 125	115	80 - 120	<5.0	ug/g		

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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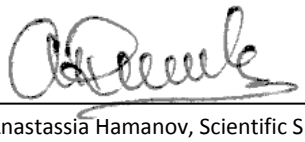
Maxxam Job #: B8W9449
Report Date: 2018/12/17

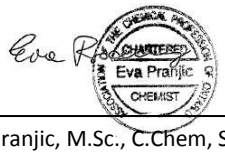
Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist



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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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RUSH!

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name	#2292 Golder Associates Ltd	Company Name	Golder	Quotation #	~~B78516~~	Maxxam Job #:	Bottle Order #: 688529
Attention	Accounts Payable	Attention	~~Kimberly Rose~~ Kevin Browne	P.O. #			
Address	100 Scotia Crt	Address	andrew.winrock@golder.com	Project	~~1779922 (8001)~~ 1791121(5001)	COC #: C#688529-17-01	Project Manager: Ema Gitej
	Whitby ON L1N 8Y6		kevin_browne@golder.com jalayne_sleenbry@golder.com	Project Name	Windfields		
Tel	(905) 723-2727 Fax (905) 723-2182	Tel	Fax	Site #			
Email	AP_CustomerService@golder.com	Email	~~Kimberley_Rose@golder.com~~	Sampled By	AR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1, [ ] Table 2, [ ] Table 3, [ ] Table ___; [X] Res/Park, [X] Ind/Comm, [ ] Agri/Other; [ ] Medium/Fine, [X] Coarse, [X] For RSC

Other Regulations: [ ] CCME, [ ] Reg 558, [ ] MISA, [ ] PWQO, [ ] Other; [ ] Sanitary Sewer Bylaw, [ ] Storm Sewer Bylaw, Municipality ______

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle) Metals / Hg / Cr VI; ~~O.Reg 153 VOCs~~; ~~O.Reg 153 PAHs~~; ICPMS Metals

Turnaround Time (TAT) Required: Please provide advance notice for rush projects

Regular (Standard) TAT: (will be applied if Rush TAT is not specified) Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission): 3 DAY RUSH
Date Required: ______ Time Required: ______
Rush Confirmation Number: EEB20181 2073 (call lab for #)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered / Metals / Hg / Cr VI	ICPMS Metals	# of Bottles	Comments
1		P2.5-Q3.5	Dec 7/18	10am	Soil	N/A	X	1	
2		Q3.5-QR4	↓	↓	↓	↓	X	1	
3		QR4-QR5	↓	↓	↓	↓	X	1	
4		QR5-QR6	↓	↓	↓	↓	X	1	
5		QR6-QR7	↓	↓	↓	↓	X	1	
6		DUP5	↓	↓	↓	↓	X	1	
7									
8									
9									
10									

10-Dec-18 11:43
Ema Gitej
B8W9449
ASR ENV-674

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only
[signature]	18/12/07	5pm	[signature] MSA	2018/12/10	11:43	0	Time Sensitive; Temperature (°C) on Recei 1/0/1; Custody Seal Present Yes ✓; Intact Yes ✓

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

#84271

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8W9449
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
DUP5	IMW901-01	Acid Extractable Antimony (Sb)	1.3	2.2	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-01-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/14
Report #: R5525374
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X0717
Received: 2018/12/11, 12:00

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	3	2018/12/12	2018/12/13	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	4	2018/12/12	2018/12/14	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X0717
Report Date: 2018/12/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			INE531	INE532	INE532	INE533	INE534		
Sampling Date			2018/12/10 10:00	2018/12/10 10:00	2018/12/10 10:00	2018/12/10 10:00	2018/12/10 10:00		
COC Number			696190-01-01	696190-01-01	696190-01-01	696190-01-01	696190-01-01		
	UNITS	Criteria	O2	P3	P3 Lab-Dup	P4	P5	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5884880
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.5	2.3	1.2	1.6	1.0	5884880
Acid Extractable Barium (Ba)	ug/g	220	38	41	41	46	46	0.50	5884880
Acid Extractable Beryllium (Be)	ug/g	2.5	0.28	0.32	0.31	0.31	0.33	0.20	5884880
Acid Extractable Boron (B)	ug/g	36	<5.0	5.3	5.2	5.5	5.5	5.0	5884880
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	0.14	0.10	5884880
Acid Extractable Chromium (Cr)	ug/g	70	11	11	11	11	11	1.0	5884880
Acid Extractable Cobalt (Co)	ug/g	21	4.0	4.4	4.4	3.8	4.3	0.10	5884880
Acid Extractable Copper (Cu)	ug/g	92	7.3	9.2	9.5	6.6	7.7	0.50	5884880
Acid Extractable Lead (Pb)	ug/g	120	4.6	5.2	5.2	4.4	5.6	1.0	5884880
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5884880
Acid Extractable Nickel (Ni)	ug/g	82	8.8	10	10	8.1	10	0.50	5884880
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5884880
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5884880
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.11	0.12	0.092	0.10	0.050	5884880
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.45	0.45	0.46	0.49	0.050	5884880
Acid Extractable Vanadium (V)	ug/g	86	21	20	20	19	20	5.0	5884880
Acid Extractable Zinc (Zn)	ug/g	290	21	22	23	20	22	5.0	5884880

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X0717
Report Date: 2018/12/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			INE535	INE536	INE537		
Sampling Date			2018/12/10 10:00	2018/12/10 10:00	2018/12/10 10:00		
COC Number			696190-01-01	696190-01-01	696190-01-01		
	UNITS	Criteria	Q3	Q4	Q5	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	0.20	5884880
Acid Extractable Arsenic (As)	ug/g	18	1.2	1.4	1.4	1.0	5884880
Acid Extractable Barium (Ba)	ug/g	220	28	53	60	0.50	5884880
Acid Extractable Beryllium (Be)	ug/g	2.5	0.21	0.33	0.37	0.20	5884880
Acid Extractable Boron (B)	ug/g	36	<5.0	5.3	6.3	5.0	5884880
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	0.10	5884880
Acid Extractable Chromium (Cr)	ug/g	70	8.5	12	14	1.0	5884880
Acid Extractable Cobalt (Co)	ug/g	21	3.0	4.2	4.7	0.10	5884880
Acid Extractable Copper (Cu)	ug/g	92	4.3	6.8	7.6	0.50	5884880
Acid Extractable Lead (Pb)	ug/g	120	3.4	4.7	5.2	1.0	5884880
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	0.50	5884880
Acid Extractable Nickel (Ni)	ug/g	82	5.7	9.2	10	0.50	5884880
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	0.50	5884880
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	0.20	5884880
Acid Extractable Thallium (Tl)	ug/g	1	0.050	0.092	0.11	0.050	5884880
Acid Extractable Uranium (U)	ug/g	2.5	0.41	0.45	0.44	0.050	5884880
Acid Extractable Vanadium (V)	ug/g	86	19	19	22	5.0	5884880
Acid Extractable Zinc (Zn)	ug/g	290	14	19	26	5.0	5884880

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X0717
Report Date: 2018/12/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: INE531 **Collected:** 2018/12/10
Sample ID: O2 **Shipped:**
Matrix: Soil **Received:** 2018/12/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5884880	2018/12/12	2018/12/14	Daniel Teclu

Maxxam ID: INE532 **Collected:** 2018/12/10
Sample ID: P3 **Shipped:**
Matrix: Soil **Received:** 2018/12/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5884880	2018/12/12	2018/12/13	Daniel Teclu

Maxxam ID: INE532 Dup **Collected:** 2018/12/10
Sample ID: P3 **Shipped:**
Matrix: Soil **Received:** 2018/12/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5884880	2018/12/12	2018/12/13	Daniel Teclu

Maxxam ID: INE533 **Collected:** 2018/12/10
Sample ID: P4 **Shipped:**
Matrix: Soil **Received:** 2018/12/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5884880	2018/12/12	2018/12/14	Daniel Teclu

Maxxam ID: INE534 **Collected:** 2018/12/10
Sample ID: P5 **Shipped:**
Matrix: Soil **Received:** 2018/12/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5884880	2018/12/12	2018/12/14	Daniel Teclu

Maxxam ID: INE535 **Collected:** 2018/12/10
Sample ID: Q3 **Shipped:**
Matrix: Soil **Received:** 2018/12/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5884880	2018/12/12	2018/12/14	Daniel Teclu

Maxxam ID: INE536 **Collected:** 2018/12/10
Sample ID: Q4 **Shipped:**
Matrix: Soil **Received:** 2018/12/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5884880	2018/12/12	2018/12/13	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X0717
Report Date: 2018/12/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: INE537
Sample ID: Q5
Matrix: Soil

Collected: 2018/12/10
Shipped:
Received: 2018/12/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5884880	2018/12/12	2018/12/13	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X0717
Report Date: 2018/12/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.7°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X0717
Report Date: 2018/12/14

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5884880	Acid Extractable Antimony (Sb)	2018/12/13	94	75 - 125	104	80 - 120	<0.20	ug/g	NC	30
5884880	Acid Extractable Arsenic (As)	2018/12/13	98	75 - 125	101	80 - 120	<1.0	ug/g	NC	30
5884880	Acid Extractable Barium (Ba)	2018/12/13	NC	75 - 125	102	80 - 120	<0.50	ug/g	0.78	30
5884880	Acid Extractable Beryllium (Be)	2018/12/13	98	75 - 125	106	80 - 120	<0.20	ug/g	2.8	30
5884880	Acid Extractable Boron (B)	2018/12/13	96	75 - 125	105	80 - 120	<5.0	ug/g	2.5	30
5884880	Acid Extractable Cadmium (Cd)	2018/12/13	95	75 - 125	101	80 - 120	<0.10	ug/g	NC	30
5884880	Acid Extractable Chromium (Cr)	2018/12/13	97	75 - 125	103	80 - 120	<1.0	ug/g	0.081	30
5884880	Acid Extractable Cobalt (Co)	2018/12/13	98	75 - 125	102	80 - 120	<0.10	ug/g	1.3	30
5884880	Acid Extractable Copper (Cu)	2018/12/13	94	75 - 125	105	80 - 120	<0.50	ug/g	2.7	30
5884880	Acid Extractable Lead (Pb)	2018/12/13	90	75 - 125	103	80 - 120	<1.0	ug/g	1.3	30
5884880	Acid Extractable Molybdenum (Mo)	2018/12/13	98	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5884880	Acid Extractable Nickel (Ni)	2018/12/13	97	75 - 125	105	80 - 120	<0.50	ug/g	0.044	30
5884880	Acid Extractable Selenium (Se)	2018/12/13	96	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5884880	Acid Extractable Silver (Ag)	2018/12/13	91	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5884880	Acid Extractable Thallium (Tl)	2018/12/13	90	75 - 125	101	80 - 120	<0.050	ug/g	3.7	30
5884880	Acid Extractable Uranium (U)	2018/12/13	84	75 - 125	92	80 - 120	<0.050	ug/g	1.6	30
5884880	Acid Extractable Vanadium (V)	2018/12/13	98	75 - 125	100	80 - 120	<5.0	ug/g	1.5	30
5884880	Acid Extractable Zinc (Zn)	2018/12/13	91	75 - 125	97	80 - 120	<5.0	ug/g	4.6	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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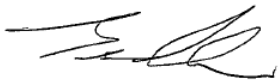
Maxxam Job #: B8X0717
Report Date: 2018/12/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

RUSH

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8. Tel (905) 817-5700. Toll-free 800-563-6266. Fax (905) 817-5777 www.maxxam.ca

11-Dec-18 12:00

Page 1 of 1

Ema Gitej

B8X0717

VMK ENV-1215

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name	#2292 Golder Associates Ltd	Company Name		Quotation #	B80683
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #	
Address	100 Scotia Crt Whitby ON L1N 8Y6	Address		Project	1791121 (5001)
Tel	(905) 723-2727 Fax (905) 723-2182	Tel	(905) 723-5491 Ext: 6677 Fax (905) 723-2182	Project Name	
Email	AP_CustomerService@golder.com	Email	Kevan_Browne@golder.com, Andrew_VanRoon@golder	Site #	Windfields Farm
				Sampled By	AVR

Lab Use Only: Bottle Order #: 696190 | Project Manager: Ema Gitej | C#696190-01-01

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [ ] Medium/Fine; [ ] Table 2 [X] Ind/Comm [X] Coarse; [ ] Table 3 [ ] Agr/Other [X] For RSC; [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw; [ ] Reg 558 [ ] Storm Sewer Bylaw; [ ] MISA Municipality ___; [ ] PWQO; [ ] Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEG 20181205 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		Q2	Dec 10/18	10am	Soil	N/A				X	1	
2		P3								X	1	
3		P4								X	1	
4		P5								X	1	
5		Q3								X	1	
6		Q4								X	1	
7		Q5	↓	↓	↓	↓				X	1	
8												
9												
10												

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/10	5pm	DIPIKA SINGH	18/12/11	12:00	

Laboratory Use Only: Time Sensitive | Temperature (°C) on Receipt: 4/4/0 | Custody Seal Present: Yes ✓ / No | Intact: Yes ✓ / No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

LB#84990

Maxxam Job #: B8X0717
Report Date: 2018/12/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-05-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/17
Report #: R5528977
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X2191
Received: 2018/12/12, 12:23

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	4	2018/12/14	2018/12/14	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X2191
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			INN152	INN153	INN153	INN154	INN155		
Sampling Date			2018/12/11 14:00	2018/12/11 14:00	2018/12/11 14:00	2018/12/11 14:00	2018/12/11 14:00		
COC Number			696190-05-01	696190-05-01	696190-05-01	696190-05-01	696190-05-01		
	UNITS	Criteria	Q12	Q13	Q13 Lab-Dup	P13	DUP7	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	0.20	0.20	5888776
Acid Extractable Arsenic (As)	ug/g	18	1.3	1.0	<1.0	1.5	1.2	1.0	5888776
Acid Extractable Barium (Ba)	ug/g	220	29	29	29	30	25	0.50	5888776
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	<0.20	0.20	0.22	0.22	0.20	5888776
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5888776
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	5888776
Acid Extractable Chromium (Cr)	ug/g	70	8.1	8.2	7.8	8.1	7.4	1.0	5888776
Acid Extractable Cobalt (Co)	ug/g	21	3.1	3.4	3.4	3.2	2.8	0.10	5888776
Acid Extractable Copper (Cu)	ug/g	92	5.6	5.7	5.8	6.7	6.7	0.50	5888776
Acid Extractable Lead (Pb)	ug/g	120	2.6	2.8	2.8	3.1	3.0	1.0	5888776
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5888776
Acid Extractable Nickel (Ni)	ug/g	82	5.5	6.0	6.1	6.5	6.1	0.50	5888776
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5888776
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5888776
Acid Extractable Thallium (Tl)	ug/g	1	0.050	0.076	0.060	0.054	0.060	0.050	5888776
Acid Extractable Uranium (U)	ug/g	2.5	0.38	0.39	0.40	0.37	0.41	0.050	5888776
Acid Extractable Vanadium (V)	ug/g	86	17	18	19	17	17	5.0	5888776
Acid Extractable Zinc (Zn)	ug/g	290	15	16	15	17	14	5.0	5888776

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X2191
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: INN152 **Collected:** 2018/12/11
Sample ID: Q12 **Shipped:**
Matrix: Soil **Received:** 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5888776	2018/12/14	2018/12/14	Matthew Ritenburg

Maxxam ID: INN153 **Collected:** 2018/12/11
Sample ID: Q13 **Shipped:**
Matrix: Soil **Received:** 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5888776	2018/12/14	2018/12/14	Matthew Ritenburg

Maxxam ID: INN153 Dup **Collected:** 2018/12/11
Sample ID: Q13 **Shipped:**
Matrix: Soil **Received:** 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5888776	2018/12/14	2018/12/14	Matthew Ritenburg

Maxxam ID: INN154 **Collected:** 2018/12/11
Sample ID: P13 **Shipped:**
Matrix: Soil **Received:** 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5888776	2018/12/14	2018/12/14	Matthew Ritenburg

Maxxam ID: INN155 **Collected:** 2018/12/11
Sample ID: DUP7 **Shipped:**
Matrix: Soil **Received:** 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5888776	2018/12/14	2018/12/14	Matthew Ritenburg

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Maxxam Job #: B8X2191
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	3.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X2191
Report Date: 2018/12/17

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5888776	Acid Extractable Antimony (Sb)	2018/12/14	104	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5888776	Acid Extractable Arsenic (As)	2018/12/14	102	75 - 125	102	80 - 120	<1.0	ug/g	0.60	30
5888776	Acid Extractable Barium (Ba)	2018/12/14	NC	75 - 125	105	80 - 120	<0.50	ug/g	0.84	30
5888776	Acid Extractable Beryllium (Be)	2018/12/14	103	75 - 125	101	80 - 120	<0.20	ug/g	0.25	30
5888776	Acid Extractable Boron (B)	2018/12/14	100	75 - 125	101	80 - 120	<5.0	ug/g	NC	30
5888776	Acid Extractable Cadmium (Cd)	2018/12/14	101	75 - 125	99	80 - 120	<0.10	ug/g	NC	30
5888776	Acid Extractable Chromium (Cr)	2018/12/14	100	75 - 125	98	80 - 120	<1.0	ug/g	4.6	30
5888776	Acid Extractable Cobalt (Co)	2018/12/14	104	75 - 125	99	80 - 120	<0.10	ug/g	1.7	30
5888776	Acid Extractable Copper (Cu)	2018/12/14	102	75 - 125	101	80 - 120	<0.50	ug/g	1.8	30
5888776	Acid Extractable Lead (Pb)	2018/12/14	96	75 - 125	98	80 - 120	<1.0	ug/g	2.2	30
5888776	Acid Extractable Molybdenum (Mo)	2018/12/14	105	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5888776	Acid Extractable Nickel (Ni)	2018/12/14	103	75 - 125	102	80 - 120	<0.50	ug/g	2.1	30
5888776	Acid Extractable Selenium (Se)	2018/12/14	104	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5888776	Acid Extractable Silver (Ag)	2018/12/14	98	75 - 125	96	80 - 120	<0.20	ug/g	NC	30
5888776	Acid Extractable Thallium (Tl)	2018/12/14	97	75 - 125	99	80 - 120	<0.050	ug/g	24	30
5888776	Acid Extractable Uranium (U)	2018/12/14	85	75 - 125	85	80 - 120	<0.050	ug/g	2.2	30
5888776	Acid Extractable Vanadium (V)	2018/12/14	105	75 - 125	100	80 - 120	<5.0	ug/g	2.5	30
5888776	Acid Extractable Zinc (Zn)	2018/12/14	98	75 - 125	93	80 - 120	<5.0	ug/g	2.4	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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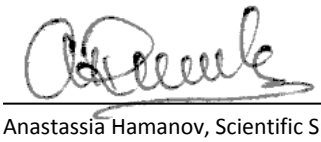
Maxxam Job #: B8X2191
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

RUSH!!

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario, Canada L5N 2L8. Tel (905) 817-5700. Toll-free 800-563-6266. Fax (905) 817-5777. www.maxxam.ca

12-Dec-18 12:23

Ema Gitej

B8X2191

NSQ ENV-1094

Page 1 of 1

Bottle Order #: 596190

Project Manager: Ema Gitej

C#596190-05-01

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name	#2292 Golder Associates Ltd	Company Name		Quotation #	B80683
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #	
Address	100 Scotia Crt Whitby ON L1N 8Y6	Address		Project	1791121 (5001)
Tel	(905) 723-2727 Fax (905) 723-2182	Tel	(905) 723-5491 Ext: 6677 Fax (905) 723-2182	Project Name	
Email	AP_CustomerService@golder.com	Email	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #	Windfields Farm
				Sampled By	AVK

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine ☐ Table 2 ☒ Ind/Comm ☒ Coarse ☐ Table 3 ☐ Agri/Other ☒ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required

Please provide advance notice for rush projects

Regular (Standard) TAT:

(will be applied if Rush TAT is not specified)

Standard TAT = 5-7 Working days for most tests.

Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

3DAY RUSH

Job Specific Rush TAT (If applies to entire submission)

Date Required: ___ Time Required: ___

Rush Confirmation Number: EEG20181211 5 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals	# of Bottles	Comments
1		Q12	Dec 11/18	2pm	Soil	N/A				X	1	
2		Q13	↓	↓	↓	↓				X	1	
3		P13								X	1	
4		DUP 7								X	1	
5												
6												
7												
8												
9												
10												

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/11	5pm		2018/12/11	12:23	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Rece	Custody Seal	Yes	No
	3/3/4	Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Mwt 8631 3

Maxxam Job #: B8X2191
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-06-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/17
Report #: R5529007
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X2195
Received: 2018/12/12, 12:23

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	4	2018/12/14	2018/12/14	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

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Maxxam Job #: B8X2195
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			INN171	INN172	INN173	INN174		
Sampling Date			2018/12/11 14:00	2018/12/11 14:00	2018/12/11 14:00	2018/12/11 14:00		
COC Number			696190-06-01	696190-06-01	696190-06-01	696190-06-01		
	UNITS	Criteria	R12-R13	R13-Q13.5	Q13.5-P14	DUP6	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	0.53	<0.20	0.34	0.36	0.20	5888776
Acid Extractable Arsenic (As)	ug/g	18	2.2	1.8	2.4	2.6	1.0	5888776
Acid Extractable Barium (Ba)	ug/g	220	43	48	65	59	0.50	5888776
Acid Extractable Beryllium (Be)	ug/g	2.5	0.39	1.2	0.49	0.47	0.20	5888776
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	5.0	5888776
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.19	0.31	0.27	0.23	0.10	5888776
Acid Extractable Chromium (Cr)	ug/g	70	13	13	15	15	1.0	5888776
Acid Extractable Cobalt (Co)	ug/g	21	4.0	4.0	5.1	4.7	0.10	5888776
Acid Extractable Copper (Cu)	ug/g	92	8.1	10	9.0	8.2	0.50	5888776
Acid Extractable Lead (Pb)	ug/g	120	14	5.4	11	12	1.0	5888776
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5888776
Acid Extractable Nickel (Ni)	ug/g	82	7.7	7.5	9.6	9.3	0.50	5888776
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5888776
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5888776
Acid Extractable Thallium (Tl)	ug/g	1	0.082	0.10	0.11	0.11	0.050	5888776
Acid Extractable Uranium (U)	ug/g	2.5	0.57	0.82	0.57	0.54	0.050	5888776
Acid Extractable Vanadium (V)	ug/g	86	25	24	27	26	5.0	5888776
Acid Extractable Zinc (Zn)	ug/g	290	36	87	35	36	5.0	5888776

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X2195
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: INN171 **Collected:** 2018/12/11
Sample ID: R12-R13 **Shipped:**
Matrix: Soil **Received:** 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5888776	2018/12/14	2018/12/14	Matthew Ritenburg

Maxxam ID: INN172 **Collected:** 2018/12/11
Sample ID: R13-Q13.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5888776	2018/12/14	2018/12/14	Matthew Ritenburg

Maxxam ID: INN173 **Collected:** 2018/12/11
Sample ID: Q13.5-P14 **Shipped:**
Matrix: Soil **Received:** 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5888776	2018/12/14	2018/12/14	Matthew Ritenburg

Maxxam ID: INN174 **Collected:** 2018/12/11
Sample ID: DUP6 **Shipped:**
Matrix: Soil **Received:** 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5888776	2018/12/14	2018/12/14	Matthew Ritenburg

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Maxxam Job #: B8X2195
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	3.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B8X2195
Report Date: 2018/12/17

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5888776	Acid Extractable Antimony (Sb)	2018/12/14	104	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5888776	Acid Extractable Arsenic (As)	2018/12/14	102	75 - 125	102	80 - 120	<1.0	ug/g	0.60	30
5888776	Acid Extractable Barium (Ba)	2018/12/14	NC	75 - 125	105	80 - 120	<0.50	ug/g	0.84	30
5888776	Acid Extractable Beryllium (Be)	2018/12/14	103	75 - 125	101	80 - 120	<0.20	ug/g	0.25	30
5888776	Acid Extractable Boron (B)	2018/12/14	100	75 - 125	101	80 - 120	<5.0	ug/g	NC	30
5888776	Acid Extractable Cadmium (Cd)	2018/12/14	101	75 - 125	99	80 - 120	<0.10	ug/g	NC	30
5888776	Acid Extractable Chromium (Cr)	2018/12/14	100	75 - 125	98	80 - 120	<1.0	ug/g	4.6	30
5888776	Acid Extractable Cobalt (Co)	2018/12/14	104	75 - 125	99	80 - 120	<0.10	ug/g	1.7	30
5888776	Acid Extractable Copper (Cu)	2018/12/14	102	75 - 125	101	80 - 120	<0.50	ug/g	1.8	30
5888776	Acid Extractable Lead (Pb)	2018/12/14	96	75 - 125	98	80 - 120	<1.0	ug/g	2.2	30
5888776	Acid Extractable Molybdenum (Mo)	2018/12/14	105	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5888776	Acid Extractable Nickel (Ni)	2018/12/14	103	75 - 125	102	80 - 120	<0.50	ug/g	2.1	30
5888776	Acid Extractable Selenium (Se)	2018/12/14	104	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5888776	Acid Extractable Silver (Ag)	2018/12/14	98	75 - 125	96	80 - 120	<0.20	ug/g	NC	30
5888776	Acid Extractable Thallium (Tl)	2018/12/14	97	75 - 125	99	80 - 120	<0.050	ug/g	24	30
5888776	Acid Extractable Uranium (U)	2018/12/14	85	75 - 125	85	80 - 120	<0.050	ug/g	2.2	30
5888776	Acid Extractable Vanadium (V)	2018/12/14	105	75 - 125	100	80 - 120	<5.0	ug/g	2.5	30
5888776	Acid Extractable Zinc (Zn)	2018/12/14	98	75 - 125	93	80 - 120	<5.0	ug/g	2.4	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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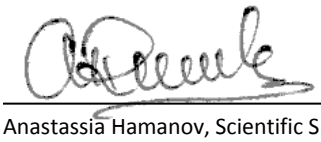
Maxxam Job #: B8X2195
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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RUSH!!

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario, Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-5266 Fax (905) 817-5777 www.maxxam.ca

12-Dec-18 12:23

Page 1 of 1

INVOICE TO:

Company Name: #2292 Golder Associates Ltd
Attention: Accounts Payable
Address: 100 Scotia Crt, Whitby ON L1N 8Y6
Tel: (905) 723-2727 Fax: (905) 723-2182
Email: AP_CustomerService@golder.com

REPORT TO:

Company Name:
Attention: Kevan Browne
Address:
Tel: (905) 723-5491 Ext: 6677 Fax: (905) 723-2182
Email: Kevan_Browne@golder.com, Andrew_VanRoon@golder

PROJECT INFORMATION:

Quotation #: B80683
P.O. #:
Project: 1791121 (5001)
Project Name:
Site #: Windfields Farm
Sampled By: AVR

Ema Gitej
B8X2195
NSO ENV-1094

Bottle Order #: 696190
Project Manager: Ema Gitej
C#696190-06-01

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [ ] Medium/Fine; [ ] Table 2 [X] Ind/Comm [ ] Coarse; [ ] Table 3 [ ] Agri/Other [X] For RSC; [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw; [ ] Reg 558 [ ] Storm Sewer Bylaw; [ ] MISA Municipality ___; [ ] PWQO; [ ] Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals	# of Bottles	Comments
1		R12-R13	Dec 11/18	2pm	Soil	N/A				X	1	
2		R13-Q13.5	↓	↓	↓	↓				X	1	
3		Q13.5-P14								X	1	
4		DUP6								X	1	
5												
6												
7												
8												
9												
10												

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

3 DAY RUSH

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEG-20181211 5 (call lab for #)

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
[signature]	18/12/11	5pm	GURVINDER	2018/12/12	12:23	

Laboratory Use Only
Time Sensitive | Temperature (°C) on Receipt: 3/2/4 | Custody Seal Present: Yes / Intact: | No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Mw# 86313

Maxxam Job #: B8X2195
Report Date: 2018/12/17

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-07-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/19
Report #: R5531647
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X5373
Received: 2018/12/14, 12:44

Sample Matrix: Soil
Samples Received: 24

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	20	2018/12/17	2018/12/18	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	4	2018/12/18	2018/12/18	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.
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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD889	IOD890	IOD891	IOD892	IOD893		
Sampling Date			2018/12/13 11:00	2018/12/13 11:00	2018/12/13 11:00	2018/12/13 11:00	2018/12/13 11:00		
COC Number			696190-07-01	696190-07-01	696190-07-01	696190-07-01	696190-07-01		
	UNITS	Criteria	F8	F9	F10	F11	D15	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5892404
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.1	1.9	1.6	1.4	1.0	5892404
Acid Extractable Barium (Ba)	ug/g	220	27	29	88	62	41	0.50	5892404
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.21	0.51	0.37	0.29	0.20	5892404
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	8.2	6.5	5.5	5.0	5892404
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	5892404
Acid Extractable Chromium (Cr)	ug/g	70	6.8	9.3	18	14	11	1.0	5892404
Acid Extractable Cobalt (Co)	ug/g	21	2.6	3.0	6.7	4.9	3.9	0.10	5892404
Acid Extractable Copper (Cu)	ug/g	92	5.2	5.7	13	9.3	7.9	0.50	5892404
Acid Extractable Lead (Pb)	ug/g	120	2.4	3.3	7.9	5.2	4.9	1.0	5892404
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892404
Acid Extractable Nickel (Ni)	ug/g	82	4.6	5.7	16	11	8.8	0.50	5892404
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892404
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5892404
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.057	0.15	0.13	0.12	0.050	5892404
Acid Extractable Uranium (U)	ug/g	2.5	0.39	0.44	0.55	0.52	0.47	0.050	5892404
Acid Extractable Vanadium (V)	ug/g	86	17	19	26	21	18	5.0	5892404
Acid Extractable Zinc (Zn)	ug/g	290	16	17	35	22	21	5.0	5892404

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD894		IOD895	IOD896		
Sampling Date			2018/12/13 11:00		2018/12/13 11:00	2018/12/13 11:00		
COC Number			696190-07-01		696190-07-01	696190-07-01		
	UNITS	Criteria	D16	QC Batch	E12	E13	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5892404	0.24	<0.20	0.20	5893833
Acid Extractable Arsenic (As)	ug/g	18	1.6	5892404	1.7	1.7	1.0	5893833
Acid Extractable Barium (Ba)	ug/g	220	50	5892404	48	43	0.50	5893833
Acid Extractable Beryllium (Be)	ug/g	2.5	0.38	5892404	0.30	0.26	0.20	5893833
Acid Extractable Boron (B)	ug/g	36	7.0	5892404	5.3	5.4	5.0	5893833
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5892404	<0.10	<0.10	0.10	5893833
Acid Extractable Chromium (Cr)	ug/g	70	14	5892404	11	10	1.0	5893833
Acid Extractable Cobalt (Co)	ug/g	21	4.4	5892404	3.8	3.7	0.10	5893833
Acid Extractable Copper (Cu)	ug/g	92	9.9	5892404	7.3	8.4	0.50	5893833
Acid Extractable Lead (Pb)	ug/g	120	6.6	5892404	4.6	4.3	1.0	5893833
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5892404	<0.50	<0.50	0.50	5893833
Acid Extractable Nickel (Ni)	ug/g	82	11	5892404	8.6	8.1	0.50	5893833
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5892404	<0.50	<0.50	0.50	5893833
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5892404	<0.20	<0.20	0.20	5893833
Acid Extractable Thallium (Tl)	ug/g	1	0.12	5892404	0.11	0.11	0.050	5893833
Acid Extractable Uranium (U)	ug/g	2.5	0.51	5892404	0.48	0.47	0.050	5893833
Acid Extractable Vanadium (V)	ug/g	86	20	5892404	19	17	5.0	5893833
Acid Extractable Zinc (Zn)	ug/g	290	26	5892404	20	20	5.0	5893833

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD897	IOD898		IOD899		
Sampling Date			2018/12/13 11:00	2018/12/13 11:00		2018/12/13 11:00		
COC Number			696190-07-01	696190-07-01		696190-07-01		
	UNITS	Criteria	E14	E15	QC Batch	E16	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	5892404	0.22	0.20	5893833
Acid Extractable Arsenic (As)	ug/g	18	1.4	1.4	5892404	2.0	1.0	5893833
Acid Extractable Barium (Ba)	ug/g	220	34	42	5892404	44	0.50	5893833
Acid Extractable Beryllium (Be)	ug/g	2.5	0.24	0.27	5892404	0.32	0.20	5893833
Acid Extractable Boron (B)	ug/g	36	<5.0	5.9	5892404	5.2	5.0	5893833
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	5892404	<0.10	0.10	5893833
Acid Extractable Chromium (Cr)	ug/g	70	9.4	11	5892404	11	1.0	5893833
Acid Extractable Cobalt (Co)	ug/g	21	3.4	3.7	5892404	4.0	0.10	5893833
Acid Extractable Copper (Cu)	ug/g	92	8.0	7.5	5892404	7.9	0.50	5893833
Acid Extractable Lead (Pb)	ug/g	120	4.5	5.4	5892404	5.3	1.0	5893833
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	5892404	<0.50	0.50	5893833
Acid Extractable Nickel (Ni)	ug/g	82	8.1	8.7	5892404	9.3	0.50	5893833
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	5892404	<0.50	0.50	5893833
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	5892404	<0.20	0.20	5893833
Acid Extractable Thallium (Tl)	ug/g	1	0.097	0.10	5892404	0.094	0.050	5893833
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.49	5892404	0.47	0.050	5893833
Acid Extractable Vanadium (V)	ug/g	86	18	18	5892404	18	5.0	5893833
Acid Extractable Zinc (Zn)	ug/g	290	20	21	5892404	22	5.0	5893833

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD900	IOD901	IOD902	IOD903	IOD904		
Sampling Date			2018/12/13 11:00	2018/12/13 11:00	2018/12/13 11:00	2018/12/13 13:00	2018/12/13 13:00		
COC Number			696190-07-01	696190-07-01	696190-07-01	696190-07-01	696190-07-01		
	UNITS	Criteria	G7	G8	G9	G10	G11	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.24	0.33	<0.20	<0.20	<0.20	0.20	5892404
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.1	1.2	1.7	1.6	1.0	5892404
Acid Extractable Barium (Ba)	ug/g	220	25	30	38	74	51	0.50	5892404
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	<0.20	0.24	0.42	0.36	0.20	5892404
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	7.5	6.7	5.0	5892404
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	0.12	0.10	5892404
Acid Extractable Chromium (Cr)	ug/g	70	7.6	7.3	10	16	14	1.0	5892404
Acid Extractable Cobalt (Co)	ug/g	21	2.8	2.5	3.2	5.0	4.7	0.10	5892404
Acid Extractable Copper (Cu)	ug/g	92	5.8	4.8	6.0	10	8.8	0.50	5892404
Acid Extractable Lead (Pb)	ug/g	120	5.1	6.5	4.0	6.5	5.6	1.0	5892404
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892404
Acid Extractable Nickel (Ni)	ug/g	82	4.4	4.3	6.1	12	11	0.50	5892404
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892404
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5892404
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.052	0.080	0.13	0.10	0.050	5892404
Acid Extractable Uranium (U)	ug/g	2.5	0.40	0.42	0.46	0.50	0.51	0.050	5892404
Acid Extractable Vanadium (V)	ug/g	86	18	17	19	23	22	5.0	5892404
Acid Extractable Zinc (Zn)	ug/g	290	16	18	18	27	25	5.0	5892404

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD905	IOD906	IOD906	IOD907	IOD908		
Sampling Date			2018/12/13 13:00	2018/12/13 13:00	2018/12/13 13:00	2018/12/13 13:00	2018/12/13 13:00		
COC Number			696190-07-01	696190-07-01	696190-07-01	696190-07-01	696190-07-01		
	UNITS	Criteria	G12	G13	G13 Lab-Dup	G14	G15	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	0.27	0.20	5892404
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.1	1.4	1.7	1.5	1.0	5892404
Acid Extractable Barium (Ba)	ug/g	220	53	26	28	42	39	0.50	5892404
Acid Extractable Beryllium (Be)	ug/g	2.5	0.33	0.21	0.22	0.28	0.25	0.20	5892404
Acid Extractable Boron (B)	ug/g	36	6.1	<5.0	<5.0	5.3	<5.0	5.0	5892404
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.11	<0.10	<0.10	<0.10	<0.10	0.10	5892404
Acid Extractable Chromium (Cr)	ug/g	70	14	8.5	8.2	11	10	1.0	5892404
Acid Extractable Cobalt (Co)	ug/g	21	3.7	3.1	3.0	4.1	4.0	0.10	5892404
Acid Extractable Copper (Cu)	ug/g	92	8.2	7.7	8.2	8.4	7.7	0.50	5892404
Acid Extractable Lead (Pb)	ug/g	120	5.0	4.1	4.0	5.2	5.9	1.0	5892404
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892404
Acid Extractable Nickel (Ni)	ug/g	82	9.3	6.6	7.3	8.4	9.3	0.50	5892404
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892404
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5892404
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.091	0.10	0.099	0.10	0.050	5892404
Acid Extractable Uranium (U)	ug/g	2.5	0.55	0.45	0.49	0.50	0.45	0.050	5892404
Acid Extractable Vanadium (V)	ug/g	86	20	17	17	19	18	5.0	5892404
Acid Extractable Zinc (Zn)	ug/g	290	21	18	18	22	21	5.0	5892404

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD909		IOD910	IOD911	IOD912		
Sampling Date			2018/12/13 13:00		2018/12/13 13:00	2018/12/13 13:00	2018/12/13 13:00		
COC Number			696190-07-01		696190-07-01	696190-07-01	696190-07-01		
	UNITS	Criteria	G16	QC Batch	DUP A	DUP C	DUP D	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.28	5893833	<0.20	0.23	<0.20	0.20	5892404
Acid Extractable Arsenic (As)	ug/g	18	1.8	5893833	1.0	1.6	2.0	1.0	5892404
Acid Extractable Barium (Ba)	ug/g	220	32	5893833	30	54	49	0.50	5892404
Acid Extractable Beryllium (Be)	ug/g	2.5	0.28	5893833	<0.20	0.40	0.34	0.20	5892404
Acid Extractable Boron (B)	ug/g	36	<5.0	5893833	<5.0	6.4	6.6	5.0	5892404
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5893833	<0.10	<0.10	0.13	0.10	5892404
Acid Extractable Chromium (Cr)	ug/g	70	10	5893833	7.1	14	13	1.0	5892404
Acid Extractable Cobalt (Co)	ug/g	21	3.6	5893833	2.7	4.6	4.4	0.10	5892404
Acid Extractable Copper (Cu)	ug/g	92	6.4	5893833	5.3	10	9.0	0.50	5892404
Acid Extractable Lead (Pb)	ug/g	120	5.0	5893833	3.0	6.7	5.7	1.0	5892404
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5893833	<0.50	<0.50	<0.50	0.50	5892404
Acid Extractable Nickel (Ni)	ug/g	82	8.4	5893833	4.3	12	10	0.50	5892404
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5893833	<0.50	<0.50	<0.50	0.50	5892404
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5893833	<0.20	<0.20	<0.20	0.20	5892404
Acid Extractable Thallium (Tl)	ug/g	1	0.084	5893833	<0.050	0.13	0.12	0.050	5892404
Acid Extractable Uranium (U)	ug/g	2.5	0.51	5893833	0.38	0.49	0.45	0.050	5892404
Acid Extractable Vanadium (V)	ug/g	86	18	5893833	17	20	21	5.0	5892404
Acid Extractable Zinc (Zn)	ug/g	290	21	5893833	16	28	26	5.0	5892404

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOD889 **Collected:** 2018/12/13
Sample ID: F8 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD890 **Collected:** 2018/12/13
Sample ID: F9 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD891 **Collected:** 2018/12/13
Sample ID: F10 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD892 **Collected:** 2018/12/13
Sample ID: F11 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD893 **Collected:** 2018/12/13
Sample ID: D15 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD894 **Collected:** 2018/12/13
Sample ID: D16 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD895 **Collected:** 2018/12/13
Sample ID: E12 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5893833	2018/12/18	2018/12/18	Thao Nguyen

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Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOD896 **Collected:** 2018/12/13
Sample ID: E13 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5893833	2018/12/18	2018/12/18	Thao Nguyen

Maxxam ID: IOD897 **Collected:** 2018/12/13
Sample ID: E14 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD898 **Collected:** 2018/12/13
Sample ID: E15 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD899 **Collected:** 2018/12/13
Sample ID: E16 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5893833	2018/12/18	2018/12/18	Thao Nguyen

Maxxam ID: IOD900 **Collected:** 2018/12/13
Sample ID: G7 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD901 **Collected:** 2018/12/13
Sample ID: G8 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD902 **Collected:** 2018/12/13
Sample ID: G9 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

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Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOD903 **Collected:** 2018/12/13
Sample ID: G10 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD904 **Collected:** 2018/12/13
Sample ID: G11 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD905 **Collected:** 2018/12/13
Sample ID: G12 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD906 **Collected:** 2018/12/13
Sample ID: G13 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD906 Dup **Collected:** 2018/12/13
Sample ID: G13 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD907 **Collected:** 2018/12/13
Sample ID: G14 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD908 **Collected:** 2018/12/13
Sample ID: G15 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

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Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOD909 **Collected:** 2018/12/13
Sample ID: G16 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5893833	2018/12/18	2018/12/18	Thao Nguyen

Maxxam ID: IOD910 **Collected:** 2018/12/13
Sample ID: DUP A **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD911 **Collected:** 2018/12/13
Sample ID: DUP C **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

Maxxam ID: IOD912 **Collected:** 2018/12/13
Sample ID: DUP D **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892404	2018/12/17	2018/12/18	Daniel Teclu

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Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.0°C

Results relate only to the items tested.

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Maxxam Job #: B8X5373
Report Date: 2018/12/19

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5892404	Acid Extractable Antimony (Sb)	2018/12/18	98	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5892404	Acid Extractable Arsenic (As)	2018/12/18	102	75 - 125	101	80 - 120	<1.0	ug/g	24	30
5892404	Acid Extractable Barium (Ba)	2018/12/18	NC	75 - 125	99	80 - 120	<0.50	ug/g	6.7	30
5892404	Acid Extractable Beryllium (Be)	2018/12/18	100	75 - 125	95	80 - 120	<0.20	ug/g	2.7	30
5892404	Acid Extractable Boron (B)	2018/12/18	99	75 - 125	93	80 - 120	<5.0	ug/g	NC	30
5892404	Acid Extractable Cadmium (Cd)	2018/12/18	102	75 - 125	97	80 - 120	<0.10	ug/g	NC	30
5892404	Acid Extractable Chromium (Cr)	2018/12/18	99	75 - 125	105	80 - 120	<1.0	ug/g	3.5	30
5892404	Acid Extractable Cobalt (Co)	2018/12/18	98	75 - 125	100	80 - 120	<0.10	ug/g	0.75	30
5892404	Acid Extractable Copper (Cu)	2018/12/18	104	75 - 125	99	80 - 120	<0.50	ug/g	5.8	30
5892404	Acid Extractable Lead (Pb)	2018/12/18	100	75 - 125	99	80 - 120	<1.0	ug/g	2.9	30
5892404	Acid Extractable Molybdenum (Mo)	2018/12/18	102	75 - 125	96	80 - 120	<0.50	ug/g	NC	30
5892404	Acid Extractable Nickel (Ni)	2018/12/18	97	75 - 125	101	80 - 120	<0.50	ug/g	10	30
5892404	Acid Extractable Selenium (Se)	2018/12/18	100	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5892404	Acid Extractable Silver (Ag)	2018/12/18	102	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5892404	Acid Extractable Thallium (Tl)	2018/12/18	100	75 - 125	99	80 - 120	<0.050	ug/g	8.6	30
5892404	Acid Extractable Uranium (U)	2018/12/18	99	75 - 125	98	80 - 120	<0.050	ug/g	8.6	30
5892404	Acid Extractable Vanadium (V)	2018/12/18	101	75 - 125	100	80 - 120	<5.0	ug/g	0.15	30
5892404	Acid Extractable Zinc (Zn)	2018/12/18	106	75 - 125	99	80 - 120	<5.0	ug/g	0.58	30
5893833	Acid Extractable Antimony (Sb)	2018/12/18	98	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5893833	Acid Extractable Arsenic (As)	2018/12/18	102	75 - 125	104	80 - 120	<1.0	ug/g	19	30
5893833	Acid Extractable Barium (Ba)	2018/12/18	NC	75 - 125	102	80 - 120	<0.50	ug/g	6.4	30
5893833	Acid Extractable Beryllium (Be)	2018/12/18	99	75 - 125	100	80 - 120	<0.20	ug/g	3.8	30
5893833	Acid Extractable Boron (B)	2018/12/18	96	75 - 125	96	80 - 120	<5.0	ug/g	0.78	30
5893833	Acid Extractable Cadmium (Cd)	2018/12/18	98	75 - 125	101	80 - 120	<0.10	ug/g	NC	30
5893833	Acid Extractable Chromium (Cr)	2018/12/18	NC	75 - 125	100	80 - 120	<1.0	ug/g	3.4	30
5893833	Acid Extractable Cobalt (Co)	2018/12/18	96	75 - 125	97	80 - 120	<0.10	ug/g	4.1	30
5893833	Acid Extractable Copper (Cu)	2018/12/18	93	75 - 125	98	80 - 120	<0.50	ug/g	3.7	30
5893833	Acid Extractable Lead (Pb)	2018/12/18	93	75 - 125	97	80 - 120	<1.0	ug/g	8.0	30
5893833	Acid Extractable Molybdenum (Mo)	2018/12/18	100	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5893833	Acid Extractable Nickel (Ni)	2018/12/18	97	75 - 125	100	80 - 120	<0.50	ug/g	6.2	30
5893833	Acid Extractable Selenium (Se)	2018/12/18	100	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5893833	Acid Extractable Silver (Ag)	2018/12/18	96	75 - 125	97	80 - 120	<0.20	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5893833	Acid Extractable Thallium (Tl)	2018/12/18	93	75 - 125	94	80 - 120	<0.050	ug/g	8.5	30
5893833	Acid Extractable Uranium (U)	2018/12/18	97	75 - 125	98	80 - 120	<0.050	ug/g	25	30
5893833	Acid Extractable Vanadium (V)	2018/12/18	NC	75 - 125	99	80 - 120	<5.0	ug/g	0.29	30
5893833	Acid Extractable Zinc (Zn)	2018/12/18	NC	75 - 125	96	80 - 120	<5.0	ug/g	4.4	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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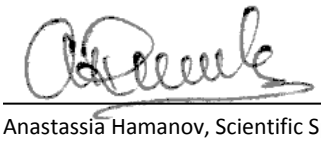
Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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RUSH

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.maxxam.ca

14-Dec-18 12:44
Ema Gitej
B8X5373
RPC ENV-1418

Page 1 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm
				Sampled By:	AML

For Lab Use Only
Bottle Order #: 696190
C#696190-07-01
Project Manager: Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals	# of Bottles	Comments
1		F8	Dec 13/18	11pm	So.l	N/A				X	1	
2		F9								X	1	
3		F10								X	1	
4		F11								X	1	
5		D15								X	1	
6		D16								X	1	
7		E12								X	1	
8		E13								X	1	
9		E14								X	1	
10		E15								X	1	

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY Rush
Date Required: Time Required:
Rush Confirmation Number: AD20181214-01
(call lab for #)

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/13	5pm		2018/12/14	12:44	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

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SU 18/12/14

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Maxxam Analytics International Corporation o/a Maxxam Analytics
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CHAIN OF CUSTODY RECORD

Page 2 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			696190
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#696190-08-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality: _____
- [ ] PWQO
- [ ] Other _____

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals						# of Bottles	Comments
1		E16	Dec 13/18	11pm	Soil	N/A				X						1	
2		G7								X						1	
3		G8								X						1	
4		G9								X						1	
5		G10		1pm						X						1	
6		G11								X						1	
7		G12								X						1	
8		G13								X						1	
9		G14								X						1	
10		G15								X						1	

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: _____ Time Required: _____
Rush Confirmation Number: AD20181214-01 (call lab for #)

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/13	5pm	See page 1			

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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A Bureau Veritas Group Company

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6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 3 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			696190
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#696190-09-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

3 DAY RUSH

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: AD2018 1214-01 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals	# of Bottles	Comments
1		G16	Dec 13/18	1pm	Soil	N/A				X	1	
2		DUP A	↓	↓	↓	↓				X	1	
3		DUP C								X	1	
4		DUP D								X	1	
5												
6												
7												
8												
9												
10												

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/13	5pm	See page 1			0

Laboratory Use Only					
Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8X5373
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-10-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/19
Report #: R5532018
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X5382
Received: 2018/12/14, 12:44

Sample Matrix: Soil
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	12	2018/12/17	2018/12/17	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X5382
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD957	IOD958	IOD959	IOD960	IOD961		
Sampling Date			2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00		
COC Number			696190-10-01	696190-10-01	696190-10-01	696190-10-01	696190-10-01		
	UNITS	Criteria	G7.5-FG8.5	FG8.5-F9	F9-F10	F10-F11	F11-F12	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.91	0.86	1.1	1.3	**1.5**	0.20	5892568
Acid Extractable Arsenic (As)	ug/g	18	2.4	2.4	2.6	3.0	2.7	1.0	5892568
Acid Extractable Barium (Ba)	ug/g	220	46	53	55	73	75	0.50	5892568
Acid Extractable Beryllium (Be)	ug/g	2.5	0.40	0.45	0.45	0.64	0.57	0.20	5892568
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5892568
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.20	0.23	0.29	0.15	0.33	0.10	5892568
Acid Extractable Chromium (Cr)	ug/g	70	14	15	15	20	21	1.0	5892568
Acid Extractable Cobalt (Co)	ug/g	21	4.4	4.6	4.6	5.9	6.0	0.10	5892568
Acid Extractable Copper (Cu)	ug/g	92	8.3	7.2	8.3	11	24	0.50	5892568
Acid Extractable Lead (Pb)	ug/g	120	26	22	30	28	47	1.0	5892568
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892568
Acid Extractable Nickel (Ni)	ug/g	82	8.7	9.4	9.0	14	13	0.50	5892568
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892568
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5892568
Acid Extractable Thallium (Tl)	ug/g	1	0.096	0.092	0.10	0.16	0.13	0.050	5892568
Acid Extractable Uranium (U)	ug/g	2.5	0.45	0.49	0.56	0.44	0.54	0.050	5892568
Acid Extractable Vanadium (V)	ug/g	86	26	27	27	30	30	5.0	5892568
Acid Extractable Zinc (Zn)	ug/g	290	45	38	47	53	150	5.0	5892568

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X5382
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD962	IOD963	IOD964	IOD965	IOD966		
Sampling Date			2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00		
COC Number			696190-10-01	696190-10-01	696190-10-01	696190-10-01	696190-10-01		
	UNITS	Criteria	F12-EF13	EF13-EF14	E14-DE15	DE15-DE16	DE16-D17	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.95	0.72	**2.2**	**3.2**	**3.3**	0.20	5892568
Acid Extractable Arsenic (As)	ug/g	18	2.4	2.6	3.4	4.0	9.5	1.0	5892568
Acid Extractable Barium (Ba)	ug/g	220	59	60	63	52	82	0.50	5892568
Acid Extractable Beryllium (Be)	ug/g	2.5	0.46	0.48	0.47	0.42	0.40	0.20	5892568
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5892568
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.21	0.23	0.28	0.35	0.38	0.10	5892568
Acid Extractable Chromium (Cr)	ug/g	70	15	17	17	15	18	1.0	5892568
Acid Extractable Cobalt (Co)	ug/g	21	4.6	4.9	5.1	4.3	5.1	0.10	5892568
Acid Extractable Copper (Cu)	ug/g	92	7.7	8.8	9.6	8.3	29	0.50	5892568
Acid Extractable Lead (Pb)	ug/g	120	27	19	34	81	110	1.0	5892568
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892568
Acid Extractable Nickel (Ni)	ug/g	82	10	10	11	9.5	10	0.50	5892568
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892568
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5892568
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.10	0.13	0.12	0.11	0.050	5892568
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.46	0.48	0.38	0.47	0.050	5892568
Acid Extractable Vanadium (V)	ug/g	86	25	29	29	26	25	5.0	5892568
Acid Extractable Zinc (Zn)	ug/g	290	36	44	48	77	130	5.0	5892568

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X5382
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD967	IOD968		
Sampling Date			2018/12/13 10:00	2018/12/13 10:00		
COC Number			696190-10-01	696190-10-01		
	UNITS	Criteria	G7.5-H7.5	DUP B	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	1.3	**6.1**	0.74	0.20	5892568
Acid Extractable Arsenic (As)	ug/g	18	3.3	2.7	1.0	5892568
Acid Extractable Barium (Ba)	ug/g	220	51	59	0.50	5892568
Acid Extractable Beryllium (Be)	ug/g	2.5	0.47	0.44	0.20	5892568
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.0	5892568
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.17	0.20	0.10	5892568
Acid Extractable Chromium (Cr)	ug/g	70	15	15	1.0	5892568
Acid Extractable Cobalt (Co)	ug/g	21	4.5	4.8	0.10	5892568
Acid Extractable Copper (Cu)	ug/g	92	7.4	8.0	0.50	5892568
Acid Extractable Lead (Pb)	ug/g	120	120	24	1.0	5892568
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	0.50	5892568
Acid Extractable Nickel (Ni)	ug/g	82	8.6	10	0.50	5892568
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	0.50	5892568
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	0.20	5892568
Acid Extractable Thallium (Tl)	ug/g	1	0.092	0.12	0.050	5892568
Acid Extractable Uranium (U)	ug/g	2.5	0.43	0.48	0.050	5892568
Acid Extractable Vanadium (V)	ug/g	86	27	26	5.0	5892568
Acid Extractable Zinc (Zn)	ug/g	290	39	35	5.0	5892568

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X5382
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOD957 **Collected:** 2018/12/13
Sample ID: G7.5-FG8.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD958 **Collected:** 2018/12/13
Sample ID: FG8.5-F9 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD959 **Collected:** 2018/12/13
Sample ID: F9-F10 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD960 **Collected:** 2018/12/13
Sample ID: F10-F11 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD961 **Collected:** 2018/12/13
Sample ID: F11-F12 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD962 **Collected:** 2018/12/13
Sample ID: F12-EF13 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD963 **Collected:** 2018/12/13
Sample ID: EF13-EF14 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam Job #: B8X5382
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOD964 **Collected:** 2018/12/13
Sample ID: E14-DE15 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD965 **Collected:** 2018/12/13
Sample ID: DE15-DE16 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD966 **Collected:** 2018/12/13
Sample ID: DE16-D17 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD967 **Collected:** 2018/12/13
Sample ID: G7.5-H7.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD968 **Collected:** 2018/12/13
Sample ID: DUP B **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5382
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.0°C

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5382
Report Date: 2018/12/19

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5892568	Acid Extractable Antimony (Sb)	2018/12/17	92	75 - 125	106	80 - 120	<0.20	ug/g	9.5	30
5892568	Acid Extractable Arsenic (As)	2018/12/17	97	75 - 125	99	80 - 120	<1.0	ug/g	12	30
5892568	Acid Extractable Barium (Ba)	2018/12/17	NC	75 - 125	108	80 - 120	<0.50	ug/g	1.6	30
5892568	Acid Extractable Beryllium (Be)	2018/12/17	94	75 - 125	96	80 - 120	<0.20	ug/g	6.6	30
5892568	Acid Extractable Boron (B)	2018/12/17	96	75 - 125	82	80 - 120	<5.0	ug/g	14	30
5892568	Acid Extractable Cadmium (Cd)	2018/12/17	97	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
5892568	Acid Extractable Chromium (Cr)	2018/12/17	104	75 - 125	99	80 - 120	<1.0	ug/g	4.2	30
5892568	Acid Extractable Cobalt (Co)	2018/12/17	97	75 - 125	99	80 - 120	<0.10	ug/g	0.25	30
5892568	Acid Extractable Copper (Cu)	2018/12/17	100	75 - 125	98	80 - 120	<0.50	ug/g	3.6	30
5892568	Acid Extractable Lead (Pb)	2018/12/17	112	75 - 125	97	80 - 120	<1.0	ug/g	0.26	30
5892568	Acid Extractable Molybdenum (Mo)	2018/12/17	98	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5892568	Acid Extractable Nickel (Ni)	2018/12/17	NC	75 - 125	99	80 - 120	<0.50	ug/g	0.16	30
5892568	Acid Extractable Selenium (Se)	2018/12/17	94	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5892568	Acid Extractable Silver (Ag)	2018/12/17	95	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5892568	Acid Extractable Thallium (Tl)	2018/12/17	91	75 - 125	96	80 - 120	<0.050	ug/g	4.3	30
5892568	Acid Extractable Uranium (U)	2018/12/17	89	75 - 125	91	80 - 120	<0.050	ug/g	4.0	30
5892568	Acid Extractable Vanadium (V)	2018/12/17	NC	75 - 125	102	80 - 120	<5.0	ug/g	1.1	30
5892568	Acid Extractable Zinc (Zn)	2018/12/17	NC	75 - 125	102	80 - 120	<5.0	ug/g	0.12	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

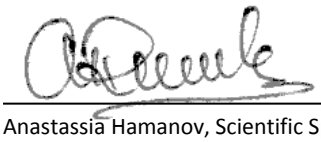
Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5382
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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RUSH

Maxxam Analytics International Corporation o/a Maxxam Analytics
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14-Dec-18 12:44
Ema Gitej
B8X5382
RPC ENV-634

Page 1 of 2

Bottle Order #: 696190

Project Manager: Ema Gitej

C#696190-10-01

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm
				Sampled By:	AVR

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: AD2018 1214-01 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		G7.5 - FG8.5	Dec 13/18	10am	Soil	N/A				X	1	
2		FG8.5 - F9								X	1	
3		F9 - F10								X	1	
4		F10 - F11								X	1	
5		F11 - F12								X	1	
6		F12 - EF13								X	1	
7		EF13 - E14								X	1	
8		E14 - DE15								X	1	
9		DE15 - DE16								X	1	
10		DE16 - D17								X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/13	5pm		2015/12/14	12:44	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

86675 2/2/2

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 2 of 2

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			696190
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#696190-11-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	HVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: AD20181214-01 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		G7.5-H7.5	Dec 13/18	10am	Soil	N/A				X	1	
2		DUP B	"	"	"	"				X	1	
3												
4												
5												
6												
7												
8												
9												
10												

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	18/12/13	5pm	See page 1			0	Time Sensitive	Temperature (°C) on Rece	Custody Seal	Yes	No
									Present		
									Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8X5382
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
F11-F12	IOD961-01	Acid Extractable Antimony (Sb)	1.3	1.5	0.20	ug/g
E14-DE15	IOD964-01	Acid Extractable Antimony (Sb)	1.3	2.2	0.20	ug/g
DE15-DE16	IOD965-01	Acid Extractable Antimony (Sb)	1.3	3.2	0.20	ug/g
DE16-D17	IOD966-01	Acid Extractable Antimony (Sb)	1.3	3.3	0.20	ug/g
G7.5-H7.5	IOD967-01	Acid Extractable Antimony (Sb)	1.3	6.1	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-10-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/11
Report #: R5554031
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8X5382
Received: 2018/12/14, 12:44

Sample Matrix: Soil
Samples Received: 12

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	12	2018/12/17	2018/12/17	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X5382
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD957	IOD958	IOD959	IOD960	IOD961		
Sampling Date			2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00		
COC Number			696190-10-01	696190-10-01	696190-10-01	696190-10-01	696190-10-01		
	UNITS	Criteria	G7.5-FG8.5	FG8.5-F9	F9-F10	F10-F11	F11-F12	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.91	0.86	1.1	1.3	**1.5**	0.20	5892568
Acid Extractable Arsenic (As)	ug/g	18	2.4	2.4	2.6	3.0	2.7	1.0	5892568
Acid Extractable Barium (Ba)	ug/g	220	46	53	55	73	75	0.50	5892568
Acid Extractable Beryllium (Be)	ug/g	2.5	0.40	0.45	0.45	0.64	0.57	0.20	5892568
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5892568
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.20	0.23	0.29	0.15	0.33	0.10	5892568
Acid Extractable Chromium (Cr)	ug/g	70	14	15	15	20	21	1.0	5892568
Acid Extractable Cobalt (Co)	ug/g	21	4.4	4.6	4.6	5.9	6.0	0.10	5892568
Acid Extractable Copper (Cu)	ug/g	92	8.3	7.2	8.3	11	24	0.50	5892568
Acid Extractable Lead (Pb)	ug/g	120	26	22	30	28	47	1.0	5892568
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892568
Acid Extractable Nickel (Ni)	ug/g	82	8.7	9.4	9.0	14	13	0.50	5892568
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892568
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5892568
Acid Extractable Thallium (Tl)	ug/g	1	0.096	0.092	0.10	0.16	0.13	0.050	5892568
Acid Extractable Uranium (U)	ug/g	2.5	0.45	0.49	0.56	0.44	0.54	0.050	5892568
Acid Extractable Vanadium (V)	ug/g	86	26	27	27	30	30	5.0	5892568
Acid Extractable Zinc (Zn)	ug/g	290	45	38	47	53	150	5.0	5892568

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5382
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD962	IOD963	IOD964	IOD965	IOD966		
Sampling Date			2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00	2018/12/13 10:00		
COC Number			696190-10-01	696190-10-01	696190-10-01	696190-10-01	696190-10-01		
	UNITS	Criteria	F12-EF13	EF13-E14	E14-DE15	DE15-DE16	DE16-D17	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.95	0.72	**2.2**	**3.2**	**3.3**	0.20	5892568
Acid Extractable Arsenic (As)	ug/g	18	2.4	2.6	3.4	4.0	9.5	1.0	5892568
Acid Extractable Barium (Ba)	ug/g	220	59	60	63	52	82	0.50	5892568
Acid Extractable Beryllium (Be)	ug/g	2.5	0.46	0.48	0.47	0.42	0.40	0.20	5892568
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5892568
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.21	0.23	0.28	0.35	0.38	0.10	5892568
Acid Extractable Chromium (Cr)	ug/g	70	15	17	17	15	18	1.0	5892568
Acid Extractable Cobalt (Co)	ug/g	21	4.6	4.9	5.1	4.3	5.1	0.10	5892568
Acid Extractable Copper (Cu)	ug/g	92	7.7	8.8	9.6	8.3	29	0.50	5892568
Acid Extractable Lead (Pb)	ug/g	120	27	19	34	81	110	1.0	5892568
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892568
Acid Extractable Nickel (Ni)	ug/g	82	10	10	11	9.5	10	0.50	5892568
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5892568
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5892568
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.10	0.13	0.12	0.11	0.050	5892568
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.46	0.48	0.38	0.47	0.050	5892568
Acid Extractable Vanadium (V)	ug/g	86	25	29	29	26	25	5.0	5892568
Acid Extractable Zinc (Zn)	ug/g	290	36	44	48	77	130	5.0	5892568

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5382
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOD967	IOD968		
Sampling Date			2018/12/13 10:00	2018/12/13 10:00		
COC Number			696190-10-01	696190-10-01		
	UNITS	Criteria	G7.5-H7.5	DUP B	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	1.3	**6.1**	0.74	0.20	5892568
Acid Extractable Arsenic (As)	ug/g	18	3.3	2.7	1.0	5892568
Acid Extractable Barium (Ba)	ug/g	220	51	59	0.50	5892568
Acid Extractable Beryllium (Be)	ug/g	2.5	0.47	0.44	0.20	5892568
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.0	5892568
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.17	0.20	0.10	5892568
Acid Extractable Chromium (Cr)	ug/g	70	15	15	1.0	5892568
Acid Extractable Cobalt (Co)	ug/g	21	4.5	4.8	0.10	5892568
Acid Extractable Copper (Cu)	ug/g	92	7.4	8.0	0.50	5892568
Acid Extractable Lead (Pb)	ug/g	120	120	24	1.0	5892568
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	0.50	5892568
Acid Extractable Nickel (Ni)	ug/g	82	8.6	10	0.50	5892568
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	0.50	5892568
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	0.20	5892568
Acid Extractable Thallium (Tl)	ug/g	1	0.092	0.12	0.050	5892568
Acid Extractable Uranium (U)	ug/g	2.5	0.43	0.48	0.050	5892568
Acid Extractable Vanadium (V)	ug/g	86	27	26	5.0	5892568
Acid Extractable Zinc (Zn)	ug/g	290	39	35	5.0	5892568

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5382
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOD957 **Collected:** 2018/12/13
Sample ID: G7.5-FG8.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD958 **Collected:** 2018/12/13
Sample ID: FG8.5-F9 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD959 **Collected:** 2018/12/13
Sample ID: F9-F10 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD960 **Collected:** 2018/12/13
Sample ID: F10-F11 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD961 **Collected:** 2018/12/13
Sample ID: F11-F12 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD962 **Collected:** 2018/12/13
Sample ID: F12-EF13 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD963 **Collected:** 2018/12/13
Sample ID: EF13-E14 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X5382
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOD964 **Collected:** 2018/12/13
Sample ID: E14-DE15 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD965 **Collected:** 2018/12/13
Sample ID: DE15-DE16 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD966 **Collected:** 2018/12/13
Sample ID: DE16-D17 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD967 **Collected:** 2018/12/13
Sample ID: G7.5-H7.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

Maxxam ID: IOD968 **Collected:** 2018/12/13
Sample ID: DUP B **Shipped:**
Matrix: Soil **Received:** 2018/12/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5892568	2018/12/17	2018/12/17	Thao Nguyen

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Maxxam Job #: B8X5382
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.0°C

Revised report (2019/01/11): Sample ID EF13-E14 updated as requested.

Results relate only to the items tested.

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Maxxam Job #: B8X5382
Report Date: 2019/01/11

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5892568	Acid Extractable Antimony (Sb)	2018/12/17	92	75 - 125	106	80 - 120	<0.20	ug/g	9.5	30
5892568	Acid Extractable Arsenic (As)	2018/12/17	97	75 - 125	99	80 - 120	<1.0	ug/g	12	30
5892568	Acid Extractable Barium (Ba)	2018/12/17	NC	75 - 125	108	80 - 120	<0.50	ug/g	1.6	30
5892568	Acid Extractable Beryllium (Be)	2018/12/17	94	75 - 125	96	80 - 120	<0.20	ug/g	6.6	30
5892568	Acid Extractable Boron (B)	2018/12/17	96	75 - 125	82	80 - 120	<5.0	ug/g	14	30
5892568	Acid Extractable Cadmium (Cd)	2018/12/17	97	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
5892568	Acid Extractable Chromium (Cr)	2018/12/17	104	75 - 125	99	80 - 120	<1.0	ug/g	4.2	30
5892568	Acid Extractable Cobalt (Co)	2018/12/17	97	75 - 125	99	80 - 120	<0.10	ug/g	0.25	30
5892568	Acid Extractable Copper (Cu)	2018/12/17	100	75 - 125	98	80 - 120	<0.50	ug/g	3.6	30
5892568	Acid Extractable Lead (Pb)	2018/12/17	112	75 - 125	97	80 - 120	<1.0	ug/g	0.26	30
5892568	Acid Extractable Molybdenum (Mo)	2018/12/17	98	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5892568	Acid Extractable Nickel (Ni)	2018/12/17	NC	75 - 125	99	80 - 120	<0.50	ug/g	0.16	30
5892568	Acid Extractable Selenium (Se)	2018/12/17	94	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5892568	Acid Extractable Silver (Ag)	2018/12/17	95	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5892568	Acid Extractable Thallium (Tl)	2018/12/17	91	75 - 125	96	80 - 120	<0.050	ug/g	4.3	30
5892568	Acid Extractable Uranium (U)	2018/12/17	89	75 - 125	91	80 - 120	<0.050	ug/g	4.0	30
5892568	Acid Extractable Vanadium (V)	2018/12/17	NC	75 - 125	102	80 - 120	<5.0	ug/g	1.1	30
5892568	Acid Extractable Zinc (Zn)	2018/12/17	NC	75 - 125	102	80 - 120	<5.0	ug/g	0.12	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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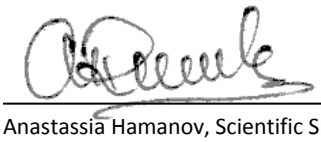
Maxxam Job #: B8X5382
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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RUSH

Maxxam Analytics International Corporation o/a Maxxam Analytics
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14-Dec-18 12:44
Ema Gitej
B8X5382
RPC ENV-634

Page 1 of 2

Bottle Order #: 696190

Project Manager: Ema Gitej

C#696190-10-01

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm
				Sampled By:	AVR

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: AD2018 1214-01 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		G7.5 - FG8.5	Dec 13/18	10am	Soil	N/A				X	1	
2		FG8.5 - F9								X	1	
3		F9 - F10								X	1	
4		F10 - F11								X	1	
5		F11 - F12								X	1	
6		F12 - EF13								X	1	
7		EF13 - E14								X	1	
8		E14 - DE15								X	1	
9		DE15 - DE16								X	1	
10		DE16 - D17								X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/13	5pm		2015/12/14	12:44	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

86675 2/2/2

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Analytics International Corporation o/a Maxxam Analytics
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CHAIN OF CUSTODY RECORD

Page 2 of 2

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			696190
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#696190-11-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	HVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
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- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: AD20181214-01 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		G7.5-H7.5	Dec 13/18	10am	Soil	N/A				X	1	
2		DUP B	"	"	"	"				X	1	
3												
4												
5												
6												
7												
8												
9												
10												

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	18/12/13	5pm	See page 1			0	Time Sensitive	Temperature (°C) on Rece	Custody Seal	Yes	No
									Present		
									Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8X5382
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
F11-F12	IOD961-01	Acid Extractable Antimony (Sb)	1.3	1.5	0.20	ug/g
E14-DE15	IOD964-01	Acid Extractable Antimony (Sb)	1.3	2.2	0.20	ug/g
DE15-DE16	IOD965-01	Acid Extractable Antimony (Sb)	1.3	3.2	0.20	ug/g
DE16-D17	IOD966-01	Acid Extractable Antimony (Sb)	1.3	3.3	0.20	ug/g
G7.5-H7.5	IOD967-01	Acid Extractable Antimony (Sb)	1.3	6.1	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-16-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/19
Report #: R5531682
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X6935
Received: 2018/12/17, 11:51

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	8	2018/12/18	2018/12/18	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X6935
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: ANC

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOM724	IOM724	IOM725	IOM726	IOM727		
Sampling Date			2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00		
COC Number			696190-16-01	696190-16-01	696190-16-01	696190-16-01	696190-16-01		
	UNITS	Criteria	B19	B19 Lab-Dup	C18	C20	D20	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5894281
Acid Extractable Arsenic (As)	ug/g	18	1.8	1.7	1.7	1.2	1.4	1.0	5894281
Acid Extractable Barium (Ba)	ug/g	220	34	34	31	26	36	0.50	5894281
Acid Extractable Beryllium (Be)	ug/g	2.5	0.30	0.30	0.24	0.20	0.26	0.20	5894281
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5894281
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	5894281
Acid Extractable Chromium (Cr)	ug/g	70	11	11	10	8.2	10	1.0	5894281
Acid Extractable Cobalt (Co)	ug/g	21	3.9	3.5	3.4	2.6	3.4	0.10	5894281
Acid Extractable Copper (Cu)	ug/g	92	7.5	7.2	6.5	5.9	6.5	0.50	5894281
Acid Extractable Lead (Pb)	ug/g	120	4.9	5.0	4.5	3.6	4.7	1.0	5894281
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5894281
Acid Extractable Nickel (Ni)	ug/g	82	8.7	9.2	7.9	6.4	8.7	0.50	5894281
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5894281
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5894281
Acid Extractable Thallium (Tl)	ug/g	1	0.099	0.095	0.099	0.077	0.090	0.050	5894281
Acid Extractable Uranium (U)	ug/g	2.5	0.44	0.49	0.52	0.46	0.45	0.050	5894281
Acid Extractable Vanadium (V)	ug/g	86	19	19	21	15	18	5.0	5894281
Acid Extractable Zinc (Zn)	ug/g	290	20	22	19	17	20	5.0	5894281

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X6935
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: ANC

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOM728	IOM729	IOM730	IOM731		
Sampling Date			2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00		
COC Number			696190-16-01	696190-16-01	696190-16-01	696190-16-01		
	UNITS	Criteria	E20	F20	G20	DUP F	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	0.20	5894281
Acid Extractable Arsenic (As)	ug/g	18	1.9	1.6	1.5	1.6	1.0	5894281
Acid Extractable Barium (Ba)	ug/g	220	48	33	30	33	0.50	5894281
Acid Extractable Beryllium (Be)	ug/g	2.5	0.34	0.26	0.23	0.26	0.20	5894281
Acid Extractable Boron (B)	ug/g	36	5.3	5.4	<5.0	<5.0	5.0	5894281
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	0.10	5894281
Acid Extractable Chromium (Cr)	ug/g	70	13	9.9	9.2	14	1.0	5894281
Acid Extractable Cobalt (Co)	ug/g	21	4.8	4.0	3.4	4.7	0.10	5894281
Acid Extractable Copper (Cu)	ug/g	92	9.1	7.2	6.7	6.9	0.50	5894281
Acid Extractable Lead (Pb)	ug/g	120	5.6	5.0	4.1	4.2	1.0	5894281
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5894281
Acid Extractable Nickel (Ni)	ug/g	82	11	8.4	8.1	9.9	0.50	5894281
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5894281
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5894281
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.093	0.086	0.10	0.050	5894281
Acid Extractable Uranium (U)	ug/g	2.5	0.51	0.43	0.44	0.42	0.050	5894281
Acid Extractable Vanadium (V)	ug/g	86	21	18	17	27	5.0	5894281
Acid Extractable Zinc (Zn)	ug/g	290	23	19	19	21	5.0	5894281

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X6935
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: ANC

TEST SUMMARY

Maxxam ID: IOM724 **Collected:** 2018/12/14
Sample ID: B19 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM724 Dup **Collected:** 2018/12/14
Sample ID: B19 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM725 **Collected:** 2018/12/14
Sample ID: C18 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM726 **Collected:** 2018/12/14
Sample ID: C20 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM727 **Collected:** 2018/12/14
Sample ID: D20 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM728 **Collected:** 2018/12/14
Sample ID: E20 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM729 **Collected:** 2018/12/14
Sample ID: F20 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X6935
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: ANC

TEST SUMMARY

Maxxam ID: IOM730
Sample ID: G20
Matrix: Soil

Collected: 2018/12/14
Shipped:
Received: 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM731
Sample ID: DUP F
Matrix: Soil

Collected: 2018/12/14
Shipped:
Received: 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X6935
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: ANC

GENERAL COMMENTS

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

Package 1	0.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B8X6935
Report Date: 2018/12/19

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: ANC

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5894281	Acid Extractable Antimony (Sb)	2018/12/18	101	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5894281	Acid Extractable Arsenic (As)	2018/12/18	106	75 - 125	102	80 - 120	<1.0	ug/g	4.0	30
5894281	Acid Extractable Barium (Ba)	2018/12/18	NC	75 - 125	97	80 - 120	<0.50	ug/g	0.30	30
5894281	Acid Extractable Beryllium (Be)	2018/12/18	103	75 - 125	98	80 - 120	<0.20	ug/g	1.5	30
5894281	Acid Extractable Boron (B)	2018/12/18	100	75 - 125	96	80 - 120	<5.0	ug/g	NC	30
5894281	Acid Extractable Cadmium (Cd)	2018/12/18	102	75 - 125	101	80 - 120	<0.10	ug/g	NC	30
5894281	Acid Extractable Chromium (Cr)	2018/12/18	109	75 - 125	101	80 - 120	<1.0	ug/g	4.0	30
5894281	Acid Extractable Cobalt (Co)	2018/12/18	105	75 - 125	103	80 - 120	<0.10	ug/g	10	30
5894281	Acid Extractable Copper (Cu)	2018/12/18	96	75 - 125	100	80 - 120	<0.50	ug/g	5.1	30
5894281	Acid Extractable Lead (Pb)	2018/12/18	102	75 - 125	99	80 - 120	<1.0	ug/g	0.93	30
5894281	Acid Extractable Molybdenum (Mo)	2018/12/18	104	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5894281	Acid Extractable Nickel (Ni)	2018/12/18	102	75 - 125	101	80 - 120	<0.50	ug/g	4.8	30
5894281	Acid Extractable Selenium (Se)	2018/12/18	105	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5894281	Acid Extractable Silver (Ag)	2018/12/18	102	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5894281	Acid Extractable Thallium (Tl)	2018/12/18	100	75 - 125	98	80 - 120	<0.050	ug/g	3.9	30
5894281	Acid Extractable Uranium (U)	2018/12/18	102	75 - 125	97	80 - 120	<0.050	ug/g	10	30
5894281	Acid Extractable Vanadium (V)	2018/12/18	108	75 - 125	99	80 - 120	<5.0	ug/g	0.27	30
5894281	Acid Extractable Zinc (Zn)	2018/12/18	116	75 - 125	98	80 - 120	<5.0	ug/g	7.7	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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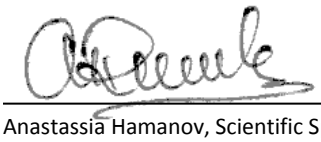
Maxxam Job #: B8X6935
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: ANC

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

RUSH!

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

17-Dec-18 11:51
Ema Gitej
B8X6935
J L ENV-938

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		
Company Name	#2292 Golder Associates Ltd	Company Name		Quotation #	B80683	Bottle Order #: 696190
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #		
Address	100 Scotia Crt Whitby ON L1N 8Y6	Address		Project	1791121 (5001)	
Tel	(905) 723-2727 Fax (905) 723-2182	Tel	(905) 723-5491 Ext: 6677 Fax (905) 723-2182	Project Name		COC #: C#696190-16-01 / Project Manager: Ema Gitej
Email	AP_CustomerService@golder.com	Email	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #	Windfields Farm	
				Sampled By	AMC	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine ☐ Table 2 ☒ Ind/Comm ☒ Coarse ☐ Table 3 ☐ Agri/Other ☒ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3DAY RUSH ☐
Date Required: ___ Time Required: ___
Rush Confirmation Number: EE62018121145 *(call lab for #)*

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr VI	O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals					# of Bottles	Comments
1		B19	Dec 14/18	10am	Soil	N/A				X					1	
2		C18	↓	↓	↓	↓				X					1	
3		C20								X					1	
4		D20								X					1	
5		E20								X					1	
6		F20								X					1	
7		G20								X					1	
8		DUPF	↓	↓	↓	↓				X					1	
9																
10																

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/14	5pm		2018/12/17	11:51	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Rece	Custody Seal	Yes	No
	0 1 0	Present	✓	
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8X6935
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: ANC

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-12-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/19
Report #: R5531683
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X6940
Received: 2018/12/17, 11:51

Sample Matrix: Soil
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	9	2018/12/18	2018/12/18	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X6940
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AN

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOM736	IOM737	IOM738	IOM739	IOM740		
Sampling Date			2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00		
COC Number			696190-12-01	696190-12-01	696190-12-01	696190-12-01	696190-12-01		
	UNITS	Criteria	C18-C19	C19-BC20	BC20-C21	C21-D20.5	D20.5-E20.5	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.48	0.21	0.40	0.65	1.0	0.20	5894281
Acid Extractable Arsenic (As)	ug/g	18	3.9	2.4	2.8	4.1	3.2	1.0	5894281
Acid Extractable Barium (Ba)	ug/g	220	48	48	43	47	58	0.50	5894281
Acid Extractable Beryllium (Be)	ug/g	2.5	0.47	0.44	0.38	0.41	0.40	0.20	5894281
Acid Extractable Boron (B)	ug/g	36	5.0	<5.0	<5.0	5.2	5.3	5.0	5894281
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.28	0.18	0.20	0.23	0.26	0.10	5894281
Acid Extractable Chromium (Cr)	ug/g	70	15	14	14	15	15	1.0	5894281
Acid Extractable Cobalt (Co)	ug/g	21	5.0	4.9	4.1	4.3	4.3	0.10	5894281
Acid Extractable Copper (Cu)	ug/g	92	22	7.9	7.8	8.6	11	0.50	5894281
Acid Extractable Lead (Pb)	ug/g	120	21	13	16	22	29	1.0	5894281
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5894281
Acid Extractable Nickel (Ni)	ug/g	82	11	9.6	8.6	9.2	9.5	0.50	5894281
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5894281
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5894281
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.081	0.11	0.098	0.11	0.050	5894281
Acid Extractable Uranium (U)	ug/g	2.5	0.45	0.44	0.44	0.45	0.43	0.050	5894281
Acid Extractable Vanadium (V)	ug/g	86	26	26	24	24	24	5.0	5894281
Acid Extractable Zinc (Zn)	ug/g	290	54	38	38	44	57	5.0	5894281

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X6940
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AN

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOM741	IOM742	IOM743	IOM744		
Sampling Date			2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00	2018/12/14 10:00		
COC Number			696190-12-01	696190-12-01	696190-12-01	696190-12-01		
	UNITS	Criteria	E20.5-F20.5	F20.5-G20.5	G20.5-H20.5	DUP E	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	**1.5**	**1.6**	**1.7**	0.26	0.20	5894281
Acid Extractable Arsenic (As)	ug/g	18	3.4	3.1	2.6	2.9	1.0	5894281
Acid Extractable Barium (Ba)	ug/g	220	60	40	43	45	0.50	5894281
Acid Extractable Beryllium (Be)	ug/g	2.5	0.49	0.38	0.41	0.41	0.20	5894281
Acid Extractable Boron (B)	ug/g	36	5.9	<5.0	<5.0	5.4	5.0	5894281
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.35	0.28	0.27	0.28	0.10	5894281
Acid Extractable Chromium (Cr)	ug/g	70	16	13	13	15	1.0	5894281
Acid Extractable Cobalt (Co)	ug/g	21	5.2	4.1	4.3	4.7	0.10	5894281
Acid Extractable Copper (Cu)	ug/g	92	12	7.8	9.0	9.3	0.50	5894281
Acid Extractable Lead (Pb)	ug/g	120	27	30	71	17	1.0	5894281
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5894281
Acid Extractable Nickel (Ni)	ug/g	82	11	8.5	9.0	9.7	0.50	5894281
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5894281
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5894281
Acid Extractable Thallium (Tl)	ug/g	1	0.14	0.11	0.12	0.12	0.050	5894281
Acid Extractable Uranium (U)	ug/g	2.5	0.62	0.46	0.44	0.42	0.050	5894281
Acid Extractable Vanadium (V)	ug/g	86	27	24	23	25	5.0	5894281
Acid Extractable Zinc (Zn)	ug/g	290	54	40	44	47	5.0	5894281

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X6940
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AN

TEST SUMMARY

Maxxam ID: IOM736 **Collected:** 2018/12/14
Sample ID: C18-C19 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM737 **Collected:** 2018/12/14
Sample ID: C19-BC20 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM738 **Collected:** 2018/12/14
Sample ID: BC20-C21 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM739 **Collected:** 2018/12/14
Sample ID: C21-D20.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM740 **Collected:** 2018/12/14
Sample ID: D20.5-E20.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM741 **Collected:** 2018/12/14
Sample ID: E20.5-F20.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM742 **Collected:** 2018/12/14
Sample ID: F20.5-G20.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X6940
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AN

TEST SUMMARY

Maxxam ID: IOM743
Sample ID: G20.5-H20.5
Matrix: Soil

Collected: 2018/12/14
Shipped:
Received: 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam ID: IOM744
Sample ID: DUP E
Matrix: Soil

Collected: 2018/12/14
Shipped:
Received: 2018/12/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5894281	2018/12/18	2018/12/18	Viviana Canzonieri

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X6940
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AN

GENERAL COMMENTS

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

Package 1	0.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B8X6940
Report Date: 2018/12/19

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AN

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5894281	Acid Extractable Antimony (Sb)	2018/12/18	101	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5894281	Acid Extractable Arsenic (As)	2018/12/18	106	75 - 125	102	80 - 120	<1.0	ug/g	4.0	30
5894281	Acid Extractable Barium (Ba)	2018/12/18	NC	75 - 125	97	80 - 120	<0.50	ug/g	0.30	30
5894281	Acid Extractable Beryllium (Be)	2018/12/18	103	75 - 125	98	80 - 120	<0.20	ug/g	1.5	30
5894281	Acid Extractable Boron (B)	2018/12/18	100	75 - 125	96	80 - 120	<5.0	ug/g	NC	30
5894281	Acid Extractable Cadmium (Cd)	2018/12/18	102	75 - 125	101	80 - 120	<0.10	ug/g	NC	30
5894281	Acid Extractable Chromium (Cr)	2018/12/18	109	75 - 125	101	80 - 120	<1.0	ug/g	4.0	30
5894281	Acid Extractable Cobalt (Co)	2018/12/18	105	75 - 125	103	80 - 120	<0.10	ug/g	10	30
5894281	Acid Extractable Copper (Cu)	2018/12/18	96	75 - 125	100	80 - 120	<0.50	ug/g	5.1	30
5894281	Acid Extractable Lead (Pb)	2018/12/18	102	75 - 125	99	80 - 120	<1.0	ug/g	0.93	30
5894281	Acid Extractable Molybdenum (Mo)	2018/12/18	104	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5894281	Acid Extractable Nickel (Ni)	2018/12/18	102	75 - 125	101	80 - 120	<0.50	ug/g	4.8	30
5894281	Acid Extractable Selenium (Se)	2018/12/18	105	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5894281	Acid Extractable Silver (Ag)	2018/12/18	102	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5894281	Acid Extractable Thallium (Tl)	2018/12/18	100	75 - 125	98	80 - 120	<0.050	ug/g	3.9	30
5894281	Acid Extractable Uranium (U)	2018/12/18	102	75 - 125	97	80 - 120	<0.050	ug/g	10	30
5894281	Acid Extractable Vanadium (V)	2018/12/18	108	75 - 125	99	80 - 120	<5.0	ug/g	0.27	30
5894281	Acid Extractable Zinc (Zn)	2018/12/18	116	75 - 125	98	80 - 120	<5.0	ug/g	7.7	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

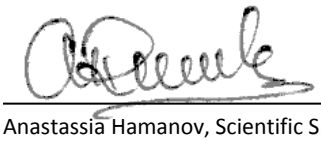
Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X6940
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AN

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

2

RUSH!

Maxxam Analytics International Corporation o/a Maxxam Analytics
8740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 * Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

17-Dec-18 11:51
Ema Gitej
B8X6940
J L ENV-938

Page 1 of 1

Bottle Order #: 896190

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:			
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	COC #:	Project Manager:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)		
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#596190-12-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com; Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [ ] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required
Please provide advance notice for rush projects

Regular (Standard) TAT: [ ]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

3 DAY RUSH

Job Specific Rush TAT (if applies to entire submission) [ ]
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEG20181214 (call lab for #)

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals					# of Bottles	Comments
1		C18 - C19	Dec14/18	10am	Soil	N/A				X					1	
2		C19 - BC20								X					1	
3		BC20 - C21								X					1	
4		C21 - DBO.5								X					1	
5		D20.5 - E20.5								X					1	
6		E20.5 - F20.5								X					1	
7		F20.5 - G20.5								X					1	
8		G20.5 - H20.5								X					1	
9		DUP E								X					1	
10																

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only
	18/12/14	5pm		2018/12/17	11:51	0	Time Sensitive; Temperature (°C) on Recei: 0 1 0; Custody Seal Present: Yes ✓; Intact: No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8X6940
Report Date: 2018/12/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AN

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
E20.5-F20.5	IOM741-01	Acid Extractable Antimony (Sb)	1.3	1.5	0.20	ug/g
F20.5-G20.5	IOM742-01	Acid Extractable Antimony (Sb)	1.3	1.6	0.20	ug/g
G20.5-H20.5	IOM743-01	Acid Extractable Antimony (Sb)	1.3	1.7	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-13-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/20
Report #: R5533647
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X8127
Received: 2018/12/18, 11:47

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	3	2018/12/19	2018/12/19	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X8127
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOS808	IOS809	IOS810	IOS810		
Sampling Date			2018/12/17 14:00	2018/12/17 14:00	2018/12/17 14:00	2018/12/17 14:00		
COC Number			696190-13-01	696190-13-01	696190-13-01	696190-13-01		
	UNITS	Criteria	R8-R9	R9-R10	R10-R11	R10-R11 Lab-Dup	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	0.33	0.72	0.64	0.59	0.20	5896579
Acid Extractable Arsenic (As)	ug/g	18	2.1	2.1	2.0	1.9	1.0	5896579
Acid Extractable Barium (Ba)	ug/g	220	63	56	50	48	0.50	5896579
Acid Extractable Beryllium (Be)	ug/g	2.5	0.47	0.45	0.44	0.45	0.20	5896579
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	5.0	5896579
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.26	0.26	0.23	0.20	0.10	5896579
Acid Extractable Chromium (Cr)	ug/g	70	16	15	15	15	1.0	5896579
Acid Extractable Cobalt (Co)	ug/g	21	5.0	4.6	4.7	4.3	0.10	5896579
Acid Extractable Copper (Cu)	ug/g	92	7.6	7.4	7.8	7.8	0.50	5896579
Acid Extractable Lead (Pb)	ug/g	120	11	18	21	20	1.0	5896579
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5896579
Acid Extractable Nickel (Ni)	ug/g	82	11	9.3	9.1	9.7	0.50	5896579
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5896579
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5896579
Acid Extractable Thallium (Tl)	ug/g	1	0.13	0.11	0.099	0.11	0.050	5896579
Acid Extractable Uranium (U)	ug/g	2.5	0.60	0.58	0.55	0.55	0.050	5896579
Acid Extractable Vanadium (V)	ug/g	86	28	26	26	25	5.0	5896579
Acid Extractable Zinc (Zn)	ug/g	290	41	47	40	41	5.0	5896579

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X8127
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOS808 **Collected:** 2018/12/17
Sample ID: R8-R9 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896579	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS809 **Collected:** 2018/12/17
Sample ID: R9-R10 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896579	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS810 **Collected:** 2018/12/17
Sample ID: R10-R11 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896579	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS810 Dup **Collected:** 2018/12/17
Sample ID: R10-R11 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896579	2018/12/19	2018/12/19	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X8127
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	0.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B8X8127
Report Date: 2018/12/20

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5896579	Acid Extractable Antimony (Sb)	2018/12/19	91	75 - 125	102	80 - 120	<0.20	ug/g	8.3	30
5896579	Acid Extractable Arsenic (As)	2018/12/19	98	75 - 125	104	80 - 120	<1.0	ug/g	3.7	30
5896579	Acid Extractable Barium (Ba)	2018/12/19	NC	75 - 125	102	80 - 120	<0.50	ug/g	4.5	30
5896579	Acid Extractable Beryllium (Be)	2018/12/19	96	75 - 125	100	80 - 120	<0.20	ug/g	3.8	30
5896579	Acid Extractable Boron (B)	2018/12/19	90	75 - 125	98	80 - 120	<5.0	ug/g	NC	30
5896579	Acid Extractable Cadmium (Cd)	2018/12/19	98	75 - 125	102	80 - 120	<0.10	ug/g	18	30
5896579	Acid Extractable Chromium (Cr)	2018/12/19	102	75 - 125	102	80 - 120	<1.0	ug/g	0.84	30
5896579	Acid Extractable Cobalt (Co)	2018/12/19	99	75 - 125	104	80 - 120	<0.10	ug/g	8.2	30
5896579	Acid Extractable Copper (Cu)	2018/12/19	97	75 - 125	103	80 - 120	<0.50	ug/g	0.54	30
5896579	Acid Extractable Lead (Pb)	2018/12/19	92	75 - 125	107	80 - 120	<1.0	ug/g	6.8	30
5896579	Acid Extractable Molybdenum (Mo)	2018/12/19	98	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5896579	Acid Extractable Nickel (Ni)	2018/12/19	98	75 - 125	106	80 - 120	<0.50	ug/g	6.7	30
5896579	Acid Extractable Selenium (Se)	2018/12/19	101	75 - 125	106	80 - 120	<0.50	ug/g	NC	30
5896579	Acid Extractable Silver (Ag)	2018/12/19	98	75 - 125	104	80 - 120	<0.20	ug/g	NC	30
5896579	Acid Extractable Thallium (Tl)	2018/12/19	99	75 - 125	107	80 - 120	<0.050	ug/g	8.3	30
5896579	Acid Extractable Uranium (U)	2018/12/19	95	75 - 125	101	80 - 120	<0.050	ug/g	0.25	30
5896579	Acid Extractable Vanadium (V)	2018/12/19	NC	75 - 125	104	80 - 120	<5.0	ug/g	1.9	30
5896579	Acid Extractable Zinc (Zn)	2018/12/19	NC	75 - 125	103	80 - 120	<5.0	ug/g	2.4	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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Maxxam Job #: B8X8127
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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18-Dec-18 11:47
Ema Gitej
B8X8127
MAF ENV-727

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name	#2292 Golder Associates Ltd	Company Name		Quotation #	B80683
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #	
Address	100 Scotia Crt Whitby ON L1N 8Y6	Address		Project	1791121 (5001)
Tel	(905) 723-2727 Fax (905) 723-2182	Tel	(905) 723-5491 Ext: 6677 Fax (905) 723-2182	Project Name	Windfields Farm
Email	AP_CustomerService@golder.com	Email	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #	
				Sampled By	AVR

Laboratory Use Only: Bottle Order #: 696190 — COC #: C#696190-13-01 — Project Manager: Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [ ] Medium/Fine [ ] Table 2 [X] Ind/Comm [X] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ___ [ ] PWQO [ ] Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required: Please provide advance notice for rush projects

Regular (Standard) TAT: [ ]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3DAY RUSH
Date Required: Time Required:
Rush Confirmation Number: EEG 201812177 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals							# of Bottles	Comments
1		R8-R9	Dec 17/18	2pm	Soil	N/A				X							1	
2		R9-R10	↓	↓	↓	↓				X							1	
3		R10-R11	↓	↓	↓	↓				X							1	
4																		
5																		
6																		
7																		
8																		
9																		
10																		

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only	
AVR	18/12/17	5pm	[signature]	2018/12/18	11:47	0	Time Sensitive; Temperature (°C) on Receipt: 0/0/1	Custody Seal Present: Yes; Intact: Yes

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8X8127
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-14-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/20
Report #: R5533682
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X8128
Received: 2018/12/18, 11:47

Sample Matrix: Soil
Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	11	2018/12/19	2018/12/19	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X8128
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOS811	IOS812	IOS813	IOS814	IOS815		
Sampling Date			2018/12/17 14:00	2018/12/17 14:00	2018/12/17 14:00	2018/12/17 14:00	2018/12/17 14:00		
COC Number			696190-14-01	696190-14-01	696190-14-01	696190-14-01	696190-14-01		
	UNITS	Criteria	J13	J14	K14	K15	K16	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.48	0.44	0.58	0.36	0.20	5896862
Acid Extractable Arsenic (As)	ug/g	18	1.1	1.4	1.6	1.3	1.6	1.0	5896862
Acid Extractable Barium (Ba)	ug/g	220	21	30	45	36	39	0.50	5896862
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.23	0.28	0.26	0.31	0.20	5896862
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.4	<5.0	5.1	5.0	5896862
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.12	<0.10	<0.10	<0.10	<0.10	0.10	5896862
Acid Extractable Chromium (Cr)	ug/g	70	7.0	8.4	12	9.5	11	1.0	5896862
Acid Extractable Cobalt (Co)	ug/g	21	3.0	3.3	3.9	3.3	3.7	0.10	5896862
Acid Extractable Copper (Cu)	ug/g	92	5.8	6.7	7.6	7.0	7.8	0.50	5896862
Acid Extractable Lead (Pb)	ug/g	120	3.2	8.1	7.7	6.9	7.0	1.0	5896862
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5896862
Acid Extractable Nickel (Ni)	ug/g	82	5.7	6.7	8.5	7.2	8.7	0.50	5896862
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5896862
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5896862
Acid Extractable Thallium (Tl)	ug/g	1	0.071	0.096	0.11	0.085	0.095	0.050	5896862
Acid Extractable Uranium (U)	ug/g	2.5	0.41	0.47	0.48	0.43	0.45	0.050	5896862
Acid Extractable Vanadium (V)	ug/g	86	17	17	18	17	18	5.0	5896862
Acid Extractable Zinc (Zn)	ug/g	290	23	21	22	20	21	5.0	5896862

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X8128
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOS816	IOS817	IOS818	IOS819	IOS820		
Sampling Date			2018/12/17 14:00	2018/12/17 14:00	2018/12/17 14:00	2018/12/17 14:00	2018/12/17 14:00		
COC Number			696190-14-01	696190-14-01	696190-14-01	696190-14-01	696190-14-01		
	UNITS	Criteria	K17	L17	L18	L19	L5-2	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	0.52	0.20	5896862
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.6	1.7	1.4	1.1	1.0	5896862
Acid Extractable Barium (Ba)	ug/g	220	37	36	36	26	15	0.50	5896862
Acid Extractable Beryllium (Be)	ug/g	2.5	0.27	0.24	0.28	0.22	<0.20	0.20	5896862
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5896862
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	5896862
Acid Extractable Chromium (Cr)	ug/g	70	9.9	9.0	10	9.2	6.4	1.0	5896862
Acid Extractable Cobalt (Co)	ug/g	21	3.5	3.6	4.1	3.4	2.3	0.10	5896862
Acid Extractable Copper (Cu)	ug/g	92	7.1	7.0	9.5	7.2	3.1	0.50	5896862
Acid Extractable Lead (Pb)	ug/g	120	4.9	4.4	5.7	4.4	9.8	1.0	5896862
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5896862
Acid Extractable Nickel (Ni)	ug/g	82	7.6	7.8	10	7.9	4.1	0.50	5896862
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5896862
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5896862
Acid Extractable Thallium (Tl)	ug/g	1	0.086	0.095	0.12	0.089	<0.050	0.050	5896862
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.45	0.48	0.46	0.36	0.050	5896862
Acid Extractable Vanadium (V)	ug/g	86	17	17	18	17	17	5.0	5896862
Acid Extractable Zinc (Zn)	ug/g	290	19	22	23	18	13	5.0	5896862

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X8128
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IOS821		
Sampling Date			2018/12/17 14:00		
COC Number			696190-14-01		
	UNITS	Criteria	DUPG	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	0.56	0.20	5896862
Acid Extractable Arsenic (As)	ug/g	18	1.5	1.0	5896862
Acid Extractable Barium (Ba)	ug/g	220	49	0.50	5896862
Acid Extractable Beryllium (Be)	ug/g	2.5	0.33	0.20	5896862
Acid Extractable Boron (B)	ug/g	36	5.8	5.0	5896862
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	5896862
Acid Extractable Chromium (Cr)	ug/g	70	12	1.0	5896862
Acid Extractable Cobalt (Co)	ug/g	21	3.6	0.10	5896862
Acid Extractable Copper (Cu)	ug/g	92	7.7	0.50	5896862
Acid Extractable Lead (Pb)	ug/g	120	12	1.0	5896862
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	5896862
Acid Extractable Nickel (Ni)	ug/g	82	8.9	0.50	5896862
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	5896862
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	5896862
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.050	5896862
Acid Extractable Uranium (U)	ug/g	2.5	0.48	0.050	5896862
Acid Extractable Vanadium (V)	ug/g	86	20	5.0	5896862
Acid Extractable Zinc (Zn)	ug/g	290	22	5.0	5896862

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X8128
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOS811 **Collected:** 2018/12/17
Sample ID: J13 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS812 **Collected:** 2018/12/17
Sample ID: J14 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS813 **Collected:** 2018/12/17
Sample ID: K14 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS814 **Collected:** 2018/12/17
Sample ID: K15 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS815 **Collected:** 2018/12/17
Sample ID: K16 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS816 **Collected:** 2018/12/17
Sample ID: K17 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS817 **Collected:** 2018/12/17
Sample ID: L17 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

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Maxxam Job #: B8X8128
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IOS818 **Collected:** 2018/12/17
Sample ID: L18 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS819 **Collected:** 2018/12/17
Sample ID: L19 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS820 **Collected:** 2018/12/17
Sample ID: L5-2 **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

Maxxam ID: IOS821 **Collected:** 2018/12/17
Sample ID: DUPG **Shipped:**
Matrix: Soil **Received:** 2018/12/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5896862	2018/12/19	2018/12/19	Daniel Teclu

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Maxxam Job #: B8X8128
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.0°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B8X8128
Report Date: 2018/12/20

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5896862	Acid Extractable Antimony (Sb)	2018/12/19	91	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5896862	Acid Extractable Arsenic (As)	2018/12/19	100	75 - 125	100	80 - 120	<1.0	ug/g	5.9	30
5896862	Acid Extractable Barium (Ba)	2018/12/19	NC	75 - 125	95	80 - 120	<0.50	ug/g	1.7	30
5896862	Acid Extractable Beryllium (Be)	2018/12/19	99	75 - 125	95	80 - 120	<0.20	ug/g	3.1	30
5896862	Acid Extractable Boron (B)	2018/12/19	90	75 - 125	94	80 - 120	<5.0	ug/g	0.33	30
5896862	Acid Extractable Cadmium (Cd)	2018/12/19	103	75 - 125	101	80 - 120	<0.10	ug/g	23	30
5896862	Acid Extractable Chromium (Cr)	2018/12/19	108	75 - 125	100	80 - 120	<1.0	ug/g	2.1	30
5896862	Acid Extractable Cobalt (Co)	2018/12/19	101	75 - 125	99	80 - 120	<0.10	ug/g	1.2	30
5896862	Acid Extractable Copper (Cu)	2018/12/19	103	75 - 125	101	80 - 120	<0.50	ug/g	3.9	30
5896862	Acid Extractable Lead (Pb)	2018/12/19	105	75 - 125	102	80 - 120	<1.0	ug/g	5.1	30
5896862	Acid Extractable Molybdenum (Mo)	2018/12/19	105	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5896862	Acid Extractable Nickel (Ni)	2018/12/19	101	75 - 125	100	80 - 120	<0.50	ug/g	0.64	30
5896862	Acid Extractable Selenium (Se)	2018/12/19	100	75 - 125	99	80 - 120	<0.50	ug/g	NC	30
5896862	Acid Extractable Silver (Ag)	2018/12/19	103	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5896862	Acid Extractable Thallium (Tl)	2018/12/19	102	75 - 125	102	80 - 120	<0.050	ug/g	5.5	30
5896862	Acid Extractable Uranium (U)	2018/12/19	99	75 - 125	97	80 - 120	<0.050	ug/g	0.41	30
5896862	Acid Extractable Vanadium (V)	2018/12/19	NC	75 - 125	103	80 - 120	<5.0	ug/g	2.0	30
5896862	Acid Extractable Zinc (Zn)	2018/12/19	NC	75 - 125	100	80 - 120	<5.0	ug/g	3.8	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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Maxxam Job #: B8X8128
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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18-Dec-18 11:47
Ema Gitej
B8X8128
RPC ENV-1323

Page 1 of 2

Lab Use Only
Bottle Order #: 696190
Project Manager: Ema Gitej
C#696190-14-01

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm
				Sampled By:	AVR

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		J13	Dec 17/18	2pm	Soil	N/A				X	1	
2		J14								X	1	
3		K14								X	1	
4		K15								X	1	
5		K16								X	1	
6		K17								X	1	
7		L17								X	1	
8		L18								X	1	
9		L19								X	1	
10		L5-2								X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/17	5pm		2018/12/18	11:47	0

Laboratory Use Only
Time Sensitive
Temperature (°C) on Recei: 2 | 1 | 3 ICE
Custody Seal Present: Yes [ ] No [ ]
Intact: Yes [ ] No [ ]

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

87605

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CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			696190
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#696190-15-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals						# of Bottles	Comments
1		DUP6	Dec 17/18	2pm	Soil	N/A				X						1	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/17	5pm	See page 1			9

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Rece	Custody Seal Present	Yes	No
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8X8128
Report Date: 2018/12/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-29-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/11
Report #: R5554033
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8X9656
Received: 2018/12/19, 12:50

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	4	2018/12/21	2018/12/21	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

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Maxxam Job #: B8X9656
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB430	IPB431	IPB432	IPB433		
Sampling Date			2018/12/18 10:00	2018/12/18 10:00	2018/12/18 10:00	2018/12/18 10:00		
COC Number			696190-29-01	696190-29-01	696190-29-01	696190-29-01		
	UNITS	Criteria	H20-I20	I20-J20	J2-J3	J3-I4	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	**3.5**	1.2	<0.20	<0.20	0.20	5901171
Acid Extractable Arsenic (As)	ug/g	18	2.8	2.3	1.6	1.8	1.0	5901171
Acid Extractable Barium (Ba)	ug/g	220	42	40	33	44	0.50	5901171
Acid Extractable Beryllium (Be)	ug/g	2.5	0.36	0.41	0.34	0.41	0.20	5901171
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	5.0	5901171
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.21	0.23	0.10	0.21	0.10	5901171
Acid Extractable Chromium (Cr)	ug/g	70	13	14	12	13	1.0	5901171
Acid Extractable Cobalt (Co)	ug/g	21	4.0	4.4	4.3	4.4	0.10	5901171
Acid Extractable Copper (Cu)	ug/g	92	7.5	6.7	4.4	5.8	0.50	5901171
Acid Extractable Lead (Pb)	ug/g	120	41	20	5.1	5.9	1.0	5901171
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5901171
Acid Extractable Nickel (Ni)	ug/g	82	8.2	9.1	7.0	7.6	0.50	5901171
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5901171
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5901171
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.11	0.083	0.090	0.050	5901171
Acid Extractable Uranium (U)	ug/g	2.5	0.50	0.54	0.43	0.58	0.050	5901171
Acid Extractable Vanadium (V)	ug/g	86	23	26	26	26	5.0	5901171
Acid Extractable Zinc (Zn)	ug/g	290	42	35	23	29	5.0	5901171

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X9656
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPB430 **Collected:** 2018/12/18
Sample ID: H20-I20 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5901171	2018/12/21	2018/12/21	Viviana Canzonieri

Maxxam ID: IPB431 **Collected:** 2018/12/18
Sample ID: I20-J20 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5901171	2018/12/21	2018/12/21	Viviana Canzonieri

Maxxam ID: IPB432 **Collected:** 2018/12/18
Sample ID: J2-J3 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5901171	2018/12/21	2018/12/21	Viviana Canzonieri

Maxxam ID: IPB433 **Collected:** 2018/12/18
Sample ID: J3-I4 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5901171	2018/12/21	2018/12/21	Viviana Canzonieri

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X9656
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.3°C

Revised report (2019/01/11): Sample IDJ3-I4 updated as requested.

Cooler custody seal was present and intact.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X9656
Report Date: 2019/01/11

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5901171	Acid Extractable Antimony (Sb)	2018/12/21	90	75 - 125	101	80 - 120	<0.20	ug/g		
5901171	Acid Extractable Arsenic (As)	2018/12/21	99	75 - 125	102	80 - 120	<1.0	ug/g	6.0	30
5901171	Acid Extractable Barium (Ba)	2018/12/21	NC	75 - 125	103	80 - 120	<0.50	ug/g		
5901171	Acid Extractable Beryllium (Be)	2018/12/21	96	75 - 125	98	80 - 120	<0.20	ug/g		
5901171	Acid Extractable Boron (B)	2018/12/21	90	75 - 125	96	80 - 120	<5.0	ug/g		
5901171	Acid Extractable Cadmium (Cd)	2018/12/21	96	75 - 125	101	80 - 120	<0.10	ug/g		
5901171	Acid Extractable Chromium (Cr)	2018/12/21	NC	75 - 125	100	80 - 120	<1.0	ug/g		
5901171	Acid Extractable Cobalt (Co)	2018/12/21	95	75 - 125	100	80 - 120	<0.10	ug/g		
5901171	Acid Extractable Copper (Cu)	2018/12/21	91	75 - 125	101	80 - 120	<0.50	ug/g		
5901171	Acid Extractable Lead (Pb)	2018/12/21	NC	75 - 125	102	80 - 120	<1.0	ug/g		
5901171	Acid Extractable Molybdenum (Mo)	2018/12/21	98	75 - 125	98	80 - 120	<0.50	ug/g		
5901171	Acid Extractable Nickel (Ni)	2018/12/21	92	75 - 125	101	80 - 120	<0.50	ug/g		
5901171	Acid Extractable Selenium (Se)	2018/12/21	97	75 - 125	104	80 - 120	<0.50	ug/g		
5901171	Acid Extractable Silver (Ag)	2018/12/21	96	75 - 125	98	80 - 120	<0.20	ug/g		
5901171	Acid Extractable Thallium (Tl)	2018/12/21	96	75 - 125	100	80 - 120	<0.050	ug/g		
5901171	Acid Extractable Uranium (U)	2018/12/21	97	75 - 125	98	80 - 120	<0.050	ug/g	30	30
5901171	Acid Extractable Vanadium (V)	2018/12/21	NC	75 - 125	99	80 - 120	<5.0	ug/g		
5901171	Acid Extractable Zinc (Zn)	2018/12/21	NC	75 - 125	123 (1)	80 - 120	<5.0	ug/g		

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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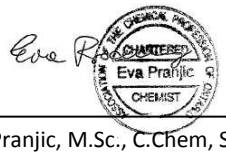
Maxxam Job #: B8X9656
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free 800-563-6266 Fax:(905) 817-5777 www.maxxam.ca

19-Dec-18 12:50
Ema Gitej
B8X9656

Page 1 of 7

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:			
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683		
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt	Address:		Project:	1791121 (5001)	URE	ENV-844
	Whitby ON L1N 8Y6			Project Name:			
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Site #:	Windfields Farm		
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Sampled By:	HVL		

Lab Use Only: Bottle Order #: 696190 | COC #: C#696190-29-01 | Project Manager: Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects
Regular (Standard) TAT: (will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: Time Required:
Rush Confirmation Number: EEG 20181212156 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		H20-I20	Dec18/18	10am	Soil	N/A				X	1	
2		I20-J20	"	"	"	"				X	1	
3		J2-J3	"	"	"	"				X	1	
4		J3-I4	"	"	"	"				X	1	
5												
6												
7												
8												
9												
10												

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/18	5pm		2018/12/19	12:50	8

Laboratory Use Only

Time Sensitive	Temperature (°C) on Rece	Custody Seal Present	Yes	No
	2/2/3	Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

MH 8721Y

Maxxam Job #: B8X9656
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
H20-I20	IPB430-01	Acid Extractable Antimony (Sb)	1.3	3.5	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 696190-30-01, 696190-31-01, 696190-02-01

Report Date: 2018/12/28
Report #: R5541512
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X9667
Received: 2018/12/19, 12:50

Sample Matrix: Soil
Samples Received: 30

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	4	2018/12/21	2018/12/21	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	6	2018/12/21	2018/12/24	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	20	2018/12/27	2018/12/27	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 696190-30-01, 696190-31-01, 696190-02-01

Report Date: 2018/12/28
Report #: R5541512
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X9667
Received: 2018/12/19, 12:50
Email: EGitej@maxxam.ca
Phone# (905)817-5829
==========
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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB475	IPB476	IPB477		IPB478		
Sampling Date			2018/12/18 11:00	2018/12/18 11:00	2018/12/18 11:00		2018/12/18 11:00		
COC Number			696190-30-01	696190-30-01	696190-30-01		696190-30-01		
	UNITS	Criteria	H8	H9	H19	QC Batch	H20	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	5905463	<0.20	0.20	5901108
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.3	1.8	5905463	1.6	1.0	5901108
Acid Extractable Barium (Ba)	ug/g	220	27	54	38	5905463	33	0.50	5901108
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.31	0.38	5905463	0.29	0.20	5901108
Acid Extractable Boron (B)	ug/g	36	<5.0	5.6	<5.0	5905463	<5.0	5.0	5901108
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	5905463	<0.10	0.10	5901108
Acid Extractable Chromium (Cr)	ug/g	70	8.1	11	13	5905463	11	1.0	5901108
Acid Extractable Cobalt (Co)	ug/g	21	2.7	3.8	4.4	5905463	3.4	0.10	5901108
Acid Extractable Copper (Cu)	ug/g	92	4.7	7.1	8.6	5905463	7.1	0.50	5901108
Acid Extractable Lead (Pb)	ug/g	120	2.6	4.6	6.6	5905463	5.0	1.0	5901108
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	5905463	<0.50	0.50	5901108
Acid Extractable Nickel (Ni)	ug/g	82	4.5	8.3	9.8	5905463	8.5	0.50	5901108
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	5905463	<0.50	0.50	5901108
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	5905463	<0.20	0.20	5901108
Acid Extractable Thallium (Tl)	ug/g	1	0.059	0.095	0.13	5905463	0.094	0.050	5901108
Acid Extractable Uranium (U)	ug/g	2.5	0.43	0.48	0.46	5905463	0.49	0.050	5901108
Acid Extractable Vanadium (V)	ug/g	86	18	20	23	5905463	19	5.0	5901108
Acid Extractable Zinc (Zn)	ug/g	290	15	19	27	5905463	22	5.0	5901108

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB479		IPB480	IPB481		
Sampling Date			2018/12/18 11:00		2018/12/18 11:00	2018/12/18 11:00		
COC Number			696190-30-01		696190-30-01	696190-30-01		
	UNITS	Criteria	I3	QC Batch	I9	I10	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5905463	<0.20	<0.20	0.20	5900961
Acid Extractable Arsenic (As)	ug/g	18	<1.0	5905463	1.6	1.6	1.0	5900961
Acid Extractable Barium (Ba)	ug/g	220	19	5905463	79	74	0.50	5900961
Acid Extractable Beryllium (Be)	ug/g	2.5	0.40	5905463	0.45	0.40	0.20	5900961
Acid Extractable Boron (B)	ug/g	36	<5.0	5905463	7.6	7.1	5.0	5900961
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5905463	<0.10	<0.10	0.10	5900961
Acid Extractable Chromium (Cr)	ug/g	70	7.0	5905463	17	16	1.0	5900961
Acid Extractable Cobalt (Co)	ug/g	21	2.4	5905463	6.1	5.3	0.10	5900961
Acid Extractable Copper (Cu)	ug/g	92	2.7	5905463	10	9.7	0.50	5900961
Acid Extractable Lead (Pb)	ug/g	120	2.7	5905463	6.8	6.8	1.0	5900961
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5905463	<0.50	<0.50	0.50	5900961
Acid Extractable Nickel (Ni)	ug/g	82	4.2	5905463	14	13	0.50	5900961
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5905463	<0.50	<0.50	0.50	5900961
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5905463	<0.20	<0.20	0.20	5900961
Acid Extractable Thallium (Tl)	ug/g	1	0.053	5905463	0.14	0.12	0.050	5900961
Acid Extractable Uranium (U)	ug/g	2.5	0.48	5905463	0.52	0.49	0.050	5900961
Acid Extractable Vanadium (V)	ug/g	86	19	5905463	23	23	5.0	5900961
Acid Extractable Zinc (Zn)	ug/g	290	11	5905463	29	31	5.0	5900961

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB482		IPB483		IPB484		
Sampling Date			2018/12/18 11:00		2018/12/18 11:00		2018/12/18 11:00		
COC Number			696190-30-01		696190-30-01		696190-30-01		
	UNITS	Criteria	I12	QC Batch	I13	QC Batch	I14	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5900753	<0.20	5905463	0.34	0.20	5901108
Acid Extractable Arsenic (As)	ug/g	18	1.0	5900753	1.6	5905463	1.6	1.0	5901108
Acid Extractable Barium (Ba)	ug/g	220	32	5900753	45	5905463	37	0.50	5901108
Acid Extractable Beryllium (Be)	ug/g	2.5	0.22	5900753	0.30	5905463	0.26	0.20	5901108
Acid Extractable Boron (B)	ug/g	36	<5.0	5900753	<5.0	5905463	<5.0	5.0	5901108
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5900753	<0.10	5905463	<0.10	0.10	5901108
Acid Extractable Chromium (Cr)	ug/g	70	9.3	5900753	11	5905463	9.9	1.0	5901108
Acid Extractable Cobalt (Co)	ug/g	21	3.2	5900753	3.6	5905463	3.6	0.10	5901108
Acid Extractable Copper (Cu)	ug/g	92	6.2	5900753	7.3	5905463	7.2	0.50	5901108
Acid Extractable Lead (Pb)	ug/g	120	4.1	5900753	5.7	5905463	5.9	1.0	5901108
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5900753	<0.50	5905463	<0.50	0.50	5901108
Acid Extractable Nickel (Ni)	ug/g	82	6.7	5900753	8.5	5905463	7.7	0.50	5901108
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5900753	<0.50	5905463	<0.50	0.50	5901108
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5900753	<0.20	5905463	<0.20	0.20	5901108
Acid Extractable Thallium (Tl)	ug/g	1	0.084	5900753	0.12	5905463	0.090	0.050	5901108
Acid Extractable Uranium (U)	ug/g	2.5	0.43	5900753	0.48	5905463	0.45	0.050	5901108
Acid Extractable Vanadium (V)	ug/g	86	18	5900753	17	5905463	19	5.0	5901108
Acid Extractable Zinc (Zn)	ug/g	290	17	5900753	20	5905463	19	5.0	5901108

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB487		IPB488		IPB489		
Sampling Date			2018/12/18 12:00		2018/12/18 12:00		2018/12/18 12:00		
COC Number			696190-31-01		696190-31-01		696190-31-01		
	UNITS	Criteria	I15	QC Batch	I16	QC Batch	I17	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.81	5905463	0.96	5901108	0.56	0.20	5900961
Acid Extractable Arsenic (As)	ug/g	18	2.1	5905463	2.4	5901108	1.4	1.0	5900961
Acid Extractable Barium (Ba)	ug/g	220	44	5905463	47	5901108	34	0.50	5900961
Acid Extractable Beryllium (Be)	ug/g	2.5	0.32	5905463	0.37	5901108	0.29	0.20	5900961
Acid Extractable Boron (B)	ug/g	36	<5.0	5905463	5.4	5901108	5.0	5.0	5900961
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5905463	<0.10	5901108	<0.10	0.10	5900961
Acid Extractable Chromium (Cr)	ug/g	70	12	5905463	13	5901108	10	1.0	5900961
Acid Extractable Cobalt (Co)	ug/g	21	4.1	5905463	4.5	5901108	3.9	0.10	5900961
Acid Extractable Copper (Cu)	ug/g	92	8.6	5905463	8.2	5901108	7.9	0.50	5900961
Acid Extractable Lead (Pb)	ug/g	120	7.8	5905463	14	5901108	7.8	1.0	5900961
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5905463	<0.50	5901108	<0.50	0.50	5900961
Acid Extractable Nickel (Ni)	ug/g	82	9.5	5905463	10	5901108	8.8	0.50	5900961
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5905463	<0.50	5901108	<0.50	0.50	5900961
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5905463	<0.20	5901108	<0.20	0.20	5900961
Acid Extractable Thallium (Tl)	ug/g	1	0.13	5905463	0.12	5901108	0.11	0.050	5900961
Acid Extractable Uranium (U)	ug/g	2.5	0.47	5905463	0.51	5901108	0.44	0.050	5900961
Acid Extractable Vanadium (V)	ug/g	86	21	5905463	24	5901108	19	5.0	5900961
Acid Extractable Zinc (Zn)	ug/g	290	24	5905463	26	5901108	23	5.0	5900961

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB490	IPB491	IPB492	IPB493	IPB494		
Sampling Date			2018/12/18 12:00	2018/12/18 12:00	2018/12/18 12:00	2018/12/18 12:00	2018/12/18 12:00		
COC Number			696190-31-01	696190-31-01	696190-31-01	696190-31-01	696190-31-01		
	UNITS	Criteria	I18	I19	J5	J6	J16	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.49	<0.20	0.23	0.29	0.58	0.20	5905463
Acid Extractable Arsenic (As)	ug/g	18	1.7	1.5	1.5	1.2	1.6	1.0	5905463
Acid Extractable Barium (Ba)	ug/g	220	38	36	45	16	37	0.50	5905463
Acid Extractable Beryllium (Be)	ug/g	2.5	0.31	0.32	0.37	<0.20	0.27	0.20	5905463
Acid Extractable Boron (B)	ug/g	36	<5.0	5.3	<5.0	<5.0	5.2	5.0	5905463
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.11	0.10	<0.10	<0.10	0.10	5905463
Acid Extractable Chromium (Cr)	ug/g	70	11	11	12	5.9	10	1.0	5905463
Acid Extractable Cobalt (Co)	ug/g	21	4.2	3.8	3.6	2.0	3.7	0.10	5905463
Acid Extractable Copper (Cu)	ug/g	92	8.6	7.6	5.5	2.5	8.0	0.50	5905463
Acid Extractable Lead (Pb)	ug/g	120	7.6	5.1	6.2	5.8	7.2	1.0	5905463
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5905463
Acid Extractable Nickel (Ni)	ug/g	82	9.0	8.8	8.4	3.4	8.9	0.50	5905463
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5905463
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5905463
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.11	0.096	<0.050	0.097	0.050	5905463
Acid Extractable Uranium (U)	ug/g	2.5	0.45	0.46	0.46	0.44	0.49	0.050	5905463
Acid Extractable Vanadium (V)	ug/g	86	20	18	23	16	19	5.0	5905463
Acid Extractable Zinc (Zn)	ug/g	290	24	22	20	11	20	5.0	5905463

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB495	IPB496		IPB504	IPB504		
Sampling Date			2018/12/18 12:00	2018/12/18 12:00		2018/12/18 14:00	2018/12/18 14:00		
COC Number			696190-31-01	696190-31-01		696190-02-01	696190-02-01		
	UNITS	Criteria	J17	J18	QC Batch	K4	K4 Lab-Dup	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	**3.4**	<0.20	5905463	0.94	1.1	0.20	5901108
Acid Extractable Arsenic (As)	ug/g	18	3.5	1.9	5905463	1.2	1.3	1.0	5901108
Acid Extractable Barium (Ba)	ug/g	220	69	37	5905463	35	36	0.50	5901108
Acid Extractable Beryllium (Be)	ug/g	2.5	0.48	0.36	5905463	0.40	0.40	0.20	5901108
Acid Extractable Boron (B)	ug/g	36	5.9	<5.0	5905463	<5.0	<5.0	5.0	5901108
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.11	<0.10	5905463	0.12	0.13	0.10	5901108
Acid Extractable Chromium (Cr)	ug/g	70	17	12	5905463	13	13	1.0	5901108
Acid Extractable Cobalt (Co)	ug/g	21	5.5	4.9	5905463	4.1	4.3	0.10	5901108
Acid Extractable Copper (Cu)	ug/g	92	12	9.9	5905463	4.3	4.3	0.50	5901108
Acid Extractable Lead (Pb)	ug/g	120	**150**	7.8	5905463	13	13	1.0	5901108
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	5905463	<0.50	<0.50	0.50	5901108
Acid Extractable Nickel (Ni)	ug/g	82	13	11	5905463	7.3	7.3	0.50	5901108
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	5905463	<0.50	<0.50	0.50	5901108
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	5905463	<0.20	<0.20	0.20	5901108
Acid Extractable Thallium (Tl)	ug/g	1	0.14	0.13	5905463	0.072	0.082	0.050	5901108
Acid Extractable Uranium (U)	ug/g	2.5	0.52	0.50	5905463	0.49	0.50	0.050	5901108
Acid Extractable Vanadium (V)	ug/g	86	28	22	5905463	27	27	5.0	5901108
Acid Extractable Zinc (Zn)	ug/g	290	29	26	5905463	27	27	5.0	5901108

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB505		IPB506	IPB507	IPB508		
Sampling Date			2018/12/18 14:00		2018/12/18 14:00	2018/12/18 14:00	2018/12/18 14:00		
COC Number			696190-02-01		696190-02-01	696190-02-01	696190-02-01		
	UNITS	Criteria	K5	QC Batch	K6	K18	DUP8	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	**2.1**	5900961	0.55	<0.20	<0.20	0.20	5905463
Acid Extractable Arsenic (As)	ug/g	18	1.9	5900961	1.6	1.5	<1.0	1.0	5905463
Acid Extractable Barium (Ba)	ug/g	220	41	5900961	33	33	21	0.50	5905463
Acid Extractable Beryllium (Be)	ug/g	2.5	0.34	5900961	0.31	0.28	0.23	0.20	5905463
Acid Extractable Boron (B)	ug/g	36	<5.0	5900961	<5.0	<5.0	<5.0	5.0	5905463
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.19	5900961	<0.10	<0.10	<0.10	0.10	5905463
Acid Extractable Chromium (Cr)	ug/g	70	14	5900961	12	11	8.2	1.0	5905463
Acid Extractable Cobalt (Co)	ug/g	21	4.2	5900961	3.7	4.1	2.7	0.10	5905463
Acid Extractable Copper (Cu)	ug/g	92	5.5	5900961	5.0	8.5	2.8	0.50	5905463
Acid Extractable Lead (Pb)	ug/g	120	21	5900961	9.8	5.1	2.6	1.0	5905463
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5900961	<0.50	<0.50	<0.50	0.50	5905463
Acid Extractable Nickel (Ni)	ug/g	82	8.2	5900961	7.1	9.6	4.9	0.50	5905463
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5900961	<0.50	<0.50	<0.50	0.50	5905463
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5900961	<0.20	<0.20	<0.20	0.20	5905463
Acid Extractable Thallium (Tl)	ug/g	1	0.093	5900961	0.10	0.11	<0.050	0.050	5905463
Acid Extractable Uranium (U)	ug/g	2.5	0.51	5900961	0.47	0.50	0.46	0.050	5905463
Acid Extractable Vanadium (V)	ug/g	86	29	5900961	23	20	20	5.0	5905463
Acid Extractable Zinc (Zn)	ug/g	290	28	5900961	22	22	14	5.0	5905463

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB509	IPB510	IPB511		IPB512		
Sampling Date			2018/12/18 14:00	2018/12/18 14:00	2018/12/18 14:00		2018/12/18 14:00		
COC Number			696190-02-01	696190-02-01	696190-02-01		696190-02-01		
	UNITS	Criteria	DUP9	DUP H	DUP I	QC Batch	DUP J	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.23	<0.20	<0.20	5905463	0.66	0.20	5900961
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.3	<1.0	5905463	1.5	1.0	5900961
Acid Extractable Barium (Ba)	ug/g	220	15	35	31	5905463	33	0.50	5900961
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.28	0.21	5905463	0.27	0.20	5900961
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	5905463	5.4	5.0	5900961
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	5905463	<0.10	0.10	5900961
Acid Extractable Chromium (Cr)	ug/g	70	5.4	10	8.5	5905463	9.7	1.0	5900961
Acid Extractable Cobalt (Co)	ug/g	21	1.9	4.0	3.1	5905463	3.7	0.10	5900961
Acid Extractable Copper (Cu)	ug/g	92	2.6	7.5	6.0	5905463	7.6	0.50	5900961
Acid Extractable Lead (Pb)	ug/g	120	2.6	5.1	4.0	5905463	6.7	1.0	5900961
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	5905463	<0.50	0.50	5900961
Acid Extractable Nickel (Ni)	ug/g	82	3.3	8.5	6.3	5905463	9.0	0.50	5900961
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	5905463	<0.50	0.50	5900961
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	5905463	<0.20	0.20	5900961
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.090	0.099	5905463	0.092	0.050	5900961
Acid Extractable Uranium (U)	ug/g	2.5	0.36	0.45	0.44	5905463	0.47	0.050	5900961
Acid Extractable Vanadium (V)	ug/g	86	14	18	18	5905463	18	5.0	5900961
Acid Extractable Zinc (Zn)	ug/g	290	11	19	17	5905463	19	5.0	5900961

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPB513	IPB513		
Sampling Date			2018/12/18 14:00	2018/12/18 14:00		
COC Number			696190-02-01	696190-02-01		
	UNITS	Criteria	DUP K	DUP K Lab-Dup	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	1.3	0.31	0.42	0.20	5905463
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.6	1.0	5905463
Acid Extractable Barium (Ba)	ug/g	220	35	36	0.50	5905463
Acid Extractable Beryllium (Be)	ug/g	2.5	0.31	0.32	0.20	5905463
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.0	5905463
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	0.10	5905463
Acid Extractable Chromium (Cr)	ug/g	70	11	10	1.0	5905463
Acid Extractable Cobalt (Co)	ug/g	21	3.9	3.9	0.10	5905463
Acid Extractable Copper (Cu)	ug/g	92	8.7	8.5	0.50	5905463
Acid Extractable Lead (Pb)	ug/g	120	6.5	6.2	1.0	5905463
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	0.50	5905463
Acid Extractable Nickel (Ni)	ug/g	82	9.2	8.7	0.50	5905463
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	0.50	5905463
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	0.20	5905463
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.12	0.050	5905463
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.46	0.050	5905463
Acid Extractable Vanadium (V)	ug/g	86	21	20	5.0	5905463
Acid Extractable Zinc (Zn)	ug/g	290	22	23	5.0	5905463

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPB475 **Collected:** 2018/12/18
Sample ID: H8 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB476 **Collected:** 2018/12/18
Sample ID: H9 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB477 **Collected:** 2018/12/18
Sample ID: H19 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB478 **Collected:** 2018/12/18
Sample ID: H20 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5901108	2018/12/21	2018/12/21	Daniel Teclu

Maxxam ID: IPB479 **Collected:** 2018/12/18
Sample ID: I3 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB480 **Collected:** 2018/12/18
Sample ID: I9 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5900961	2018/12/21	2018/12/24	Daniel Teclu

Maxxam ID: IPB481 **Collected:** 2018/12/18
Sample ID: I10 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5900961	2018/12/21	2018/12/24	Daniel Teclu

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPB482 **Collected:** 2018/12/18
Sample ID: I12 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5900753	2018/12/21	2018/12/24	Daniel Teclu

Maxxam ID: IPB483 **Collected:** 2018/12/18
Sample ID: I13 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB484 **Collected:** 2018/12/18
Sample ID: I14 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5901108	2018/12/21	2018/12/21	Daniel Teclu

Maxxam ID: IPB487 **Collected:** 2018/12/18
Sample ID: I15 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB488 **Collected:** 2018/12/18
Sample ID: I16 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5901108	2018/12/21	2018/12/21	Daniel Teclu

Maxxam ID: IPB489 **Collected:** 2018/12/18
Sample ID: I17 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5900961	2018/12/21	2018/12/24	Daniel Teclu

Maxxam ID: IPB490 **Collected:** 2018/12/18
Sample ID: I18 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPB491 **Collected:** 2018/12/18
Sample ID: I19 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB492 **Collected:** 2018/12/18
Sample ID: J5 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB493 **Collected:** 2018/12/18
Sample ID: J6 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB494 **Collected:** 2018/12/18
Sample ID: J16 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB495 **Collected:** 2018/12/18
Sample ID: J17 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB496 **Collected:** 2018/12/18
Sample ID: J18 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB504 **Collected:** 2018/12/18
Sample ID: K4 **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5901108	2018/12/21	2018/12/21	Daniel Teclu

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPB504 Dup
Sample ID: K4
Matrix: Soil
Collected: 2018/12/18
Shipped:
Received: 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5901108	2018/12/21	2018/12/21	Daniel Teclu

Maxxam ID: IPB505
Sample ID: K5
Matrix: Soil
Collected: 2018/12/18
Shipped:
Received: 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5900961	2018/12/21	2018/12/24	Daniel Teclu

Maxxam ID: IPB506
Sample ID: K6
Matrix: Soil
Collected: 2018/12/18
Shipped:
Received: 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB507
Sample ID: K18
Matrix: Soil
Collected: 2018/12/18
Shipped:
Received: 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB508
Sample ID: DUP8
Matrix: Soil
Collected: 2018/12/18
Shipped:
Received: 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB509
Sample ID: DUP9
Matrix: Soil
Collected: 2018/12/18
Shipped:
Received: 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB510
Sample ID: DUP H
Matrix: Soil
Collected: 2018/12/18
Shipped:
Received: 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPB511 **Collected:** 2018/12/18
Sample ID: DUP I **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB512 **Collected:** 2018/12/18
Sample ID: DUP J **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5900961	2018/12/21	2018/12/24	Daniel Teclu

Maxxam ID: IPB513 **Collected:** 2018/12/18
Sample ID: DUP K **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

Maxxam ID: IPB513 Dup **Collected:** 2018/12/18
Sample ID: DUP K **Shipped:**
Matrix: Soil **Received:** 2018/12/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5905463	2018/12/27	2018/12/27	Daniel Teclu

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.3°C

Results relate only to the items tested.

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Maxxam Job #: B8X9667
Report Date: 2018/12/28

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5900753	Acid Extractable Antimony (Sb)	2018/12/24	96	75 - 125	99	80 - 120	<0.20	ug/g	1.2	30
5900753	Acid Extractable Arsenic (As)	2018/12/24	102	75 - 125	101	80 - 120	<1.0	ug/g	0.71	30
5900753	Acid Extractable Barium (Ba)	2018/12/24	NC	75 - 125	97	80 - 120	<0.50	ug/g	1.8	30
5900753	Acid Extractable Beryllium (Be)	2018/12/24	101	75 - 125	101	80 - 120	<0.20	ug/g	8.8	30
5900753	Acid Extractable Boron (B)	2018/12/24	101	75 - 125	100	80 - 120	<5.0	ug/g	5.0	30
5900753	Acid Extractable Cadmium (Cd)	2018/12/24	98	75 - 125	97	80 - 120	<0.10	ug/g	20	30
5900753	Acid Extractable Chromium (Cr)	2018/12/24	108	75 - 125	99	80 - 120	<1.0	ug/g		
5900753	Acid Extractable Cobalt (Co)	2018/12/24	103	75 - 125	100	80 - 120	<0.10	ug/g	0.31	30
5900753	Acid Extractable Copper (Cu)	2018/12/24	106	75 - 125	100	80 - 120	<0.50	ug/g	8.5	30
5900753	Acid Extractable Lead (Pb)	2018/12/24	NC	75 - 125	100	80 - 120	<1.0	ug/g	4.2	30
5900753	Acid Extractable Molybdenum (Mo)	2018/12/24	101	75 - 125	96	80 - 120	<0.50	ug/g	NC	30
5900753	Acid Extractable Nickel (Ni)	2018/12/24	109	75 - 125	104	80 - 120	<0.50	ug/g	3.0	30
5900753	Acid Extractable Selenium (Se)	2018/12/24	99	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5900753	Acid Extractable Silver (Ag)	2018/12/24	100	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
5900753	Acid Extractable Thallium (Tl)	2018/12/24	99	75 - 125	100	80 - 120	<0.050	ug/g		
5900753	Acid Extractable Uranium (U)	2018/12/24	100	75 - 125	97	80 - 120	<0.050	ug/g	8.1	30
5900753	Acid Extractable Vanadium (V)	2018/12/24	110	75 - 125	101	80 - 120	<5.0	ug/g	5.4	30
5900753	Acid Extractable Zinc (Zn)	2018/12/24	NC	75 - 125	101	80 - 120	<5.0	ug/g	4.4	30
5900961	Acid Extractable Antimony (Sb)	2018/12/24	101	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5900961	Acid Extractable Arsenic (As)	2018/12/24	105	75 - 125	97	80 - 120	<1.0	ug/g	NC	30
5900961	Acid Extractable Barium (Ba)	2018/12/24	NC	75 - 125	94	80 - 120	<0.50	ug/g	4.7	30
5900961	Acid Extractable Beryllium (Be)	2018/12/24	102	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5900961	Acid Extractable Boron (B)	2018/12/24	99	75 - 125	97	80 - 120	<5.0	ug/g	NC	30
5900961	Acid Extractable Cadmium (Cd)	2018/12/24	101	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
5900961	Acid Extractable Chromium (Cr)	2018/12/24	105	75 - 125	99	80 - 120	<1.0	ug/g	2.2	30
5900961	Acid Extractable Cobalt (Co)	2018/12/24	103	75 - 125	101	80 - 120	<0.10	ug/g	5.2	30
5900961	Acid Extractable Copper (Cu)	2018/12/24	98	75 - 125	101	80 - 120	<0.50	ug/g	13	30
5900961	Acid Extractable Lead (Pb)	2018/12/24	97	75 - 125	100	80 - 120	<1.0	ug/g	14	30
5900961	Acid Extractable Molybdenum (Mo)	2018/12/24	99	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5900961	Acid Extractable Nickel (Ni)	2018/12/24	106	75 - 125	100	80 - 120	<0.50	ug/g	6.2	30
5900961	Acid Extractable Selenium (Se)	2018/12/24	98	75 - 125	99	80 - 120	<0.50	ug/g	NC	30
5900961	Acid Extractable Silver (Ag)	2018/12/24	96	75 - 125	100	80 - 120	<0.20	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5900961	Acid Extractable Thallium (Tl)	2018/12/24	96	75 - 125	99	80 - 120	<0.050	ug/g	NC	30
5900961	Acid Extractable Uranium (U)	2018/12/24	98	75 - 125	95	80 - 120	<0.050	ug/g	0.94	30
5900961	Acid Extractable Vanadium (V)	2018/12/24	110	75 - 125	100	80 - 120	<5.0	ug/g	0.60	30
5900961	Acid Extractable Zinc (Zn)	2018/12/24	109	75 - 125	106	80 - 120	<5.0	ug/g	4.6	30
5901108	Acid Extractable Antimony (Sb)	2018/12/21	103	75 - 125	107	80 - 120	<0.20	ug/g	14	30
5901108	Acid Extractable Arsenic (As)	2018/12/21	113	75 - 125	105	80 - 120	<1.0	ug/g	7.3	30
5901108	Acid Extractable Barium (Ba)	2018/12/21	NC	75 - 125	105	80 - 120	<0.50	ug/g	5.4	30
5901108	Acid Extractable Beryllium (Be)	2018/12/21	104	75 - 125	99	80 - 120	<0.20	ug/g	1.1	30
5901108	Acid Extractable Boron (B)	2018/12/21	94	75 - 125	96	80 - 120	<5.0	ug/g	NC	30
5901108	Acid Extractable Cadmium (Cd)	2018/12/21	106	75 - 125	101	80 - 120	<0.10	ug/g	8.2	30
5901108	Acid Extractable Chromium (Cr)	2018/12/21	111	75 - 125	99	80 - 120	<1.0	ug/g	0.88	30
5901108	Acid Extractable Cobalt (Co)	2018/12/21	110	75 - 125	101	80 - 120	<0.10	ug/g	4.0	30
5901108	Acid Extractable Copper (Cu)	2018/12/21	106	75 - 125	104	80 - 120	<0.50	ug/g	0.50	30
5901108	Acid Extractable Lead (Pb)	2018/12/21	109	75 - 125	103	80 - 120	<1.0	ug/g	0.77	30
5901108	Acid Extractable Molybdenum (Mo)	2018/12/21	107	75 - 125	106	80 - 120	<0.50	ug/g	NC	30
5901108	Acid Extractable Nickel (Ni)	2018/12/21	112	75 - 125	101	80 - 120	<0.50	ug/g	0.48	30
5901108	Acid Extractable Selenium (Se)	2018/12/21	109	75 - 125	106	80 - 120	<0.50	ug/g	NC	30
5901108	Acid Extractable Silver (Ag)	2018/12/21	109	75 - 125	105	80 - 120	<0.20	ug/g	NC	30
5901108	Acid Extractable Thallium (Tl)	2018/12/21	106	75 - 125	101	80 - 120	<0.050	ug/g	13	30
5901108	Acid Extractable Uranium (U)	2018/12/21	106	75 - 125	101	80 - 120	<0.050	ug/g	1.1	30
5901108	Acid Extractable Vanadium (V)	2018/12/21	NC	75 - 125	103	80 - 120	<5.0	ug/g	2.8	30
5901108	Acid Extractable Zinc (Zn)	2018/12/21	NC	75 - 125	106	80 - 120	<5.0	ug/g	1.7	30
5905463	Acid Extractable Antimony (Sb)	2018/12/27	90	75 - 125	99	80 - 120	<0.20	ug/g	30	30
5905463	Acid Extractable Arsenic (As)	2018/12/27	92	75 - 125	105	80 - 120	<1.0	ug/g	0.12	30
5905463	Acid Extractable Barium (Ba)	2018/12/27	NC	75 - 125	100	80 - 120	<0.50	ug/g	3.1	30
5905463	Acid Extractable Beryllium (Be)	2018/12/27	92	75 - 125	101	80 - 120	<0.20	ug/g	3.0	30
5905463	Acid Extractable Boron (B)	2018/12/27	89	75 - 125	98	80 - 120	<5.0	ug/g	NC	30
5905463	Acid Extractable Cadmium (Cd)	2018/12/27	95	75 - 125	101	80 - 120	<0.10	ug/g	NC	30
5905463	Acid Extractable Chromium (Cr)	2018/12/27	94	75 - 125	100	80 - 120	<1.0	ug/g	4.4	30
5905463	Acid Extractable Cobalt (Co)	2018/12/27	90	75 - 125	98	80 - 120	<0.10	ug/g	1.5	30
5905463	Acid Extractable Copper (Cu)	2018/12/27	89	75 - 125	104	80 - 120	<0.50	ug/g	1.7	30
5905463	Acid Extractable Lead (Pb)	2018/12/27	91	75 - 125	101	80 - 120	<1.0	ug/g	4.9	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5905463	Acid Extractable Molybdenum (Mo)	2018/12/27	97	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5905463	Acid Extractable Nickel (Ni)	2018/12/27	91	75 - 125	98	80 - 120	<0.50	ug/g	5.9	30
5905463	Acid Extractable Selenium (Se)	2018/12/27	93	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5905463	Acid Extractable Silver (Ag)	2018/12/27	91	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5905463	Acid Extractable Thallium (Tl)	2018/12/27	90	75 - 125	100	80 - 120	<0.050	ug/g	8.4	30
5905463	Acid Extractable Uranium (U)	2018/12/27	91	75 - 125	98	80 - 120	<0.050	ug/g	4.9	30
5905463	Acid Extractable Vanadium (V)	2018/12/27	91	75 - 125	98	80 - 120	<5.0	ug/g	2.2	30
5905463	Acid Extractable Zinc (Zn)	2018/12/27	94	75 - 125	102	80 - 120	<5.0	ug/g	2.2	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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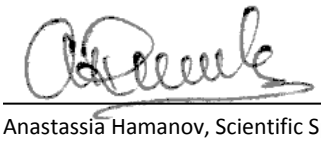
Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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ARG 2018/12/19

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Page 1 of 3

Only:

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm
				Sampled By:	AVR

Bottle Order #: 696190

C#696190-30-01

Project Manager: Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 day TAT ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		H8	Dec 14/18	11am	Soil				X	1	
2		H9							X	1	
3		H19							X	1	
4		H20							X	1	
5		I3							X	1	
6		I9							X	1	
7		I10							X	1	
8		I12							X	1	
9		I13							X	1	
10		I14							X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/18	5pm	GURVINDER	2018/12/19	12:50	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	2/4/3	Present	✓	
		Intact		

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

Maxxam Analytics International Corporation o/a Maxxam Analytics

MW # 87768

2018/12/19

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A Bureau Veritas Group Company

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CHAIN OF CUSTODY RECORD

PUSH

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			696190
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#696190-31-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☒ Ind/Comm ☒ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☒ For RSC	☐ MISA Municipality ____	
☐ Table ____	☐ PWQO	
	☐ Other ____	

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5day TAT ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____ ☐
Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals	# of Bottles	Comments
1		I15	Dec18/18	12pm	Soil	N/A				X	1	
2		I16								X	1	
3		I17								X	1	
4		I18								X	1	
5		I19								X	1	
6		J5								X	1	
7		J6								X	1	
8		J16								X	1	
9		J17								X	1	
10		J18								X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	18/12/18	5pm				0			Present		
									Intact		

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

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CHAIN OF CUSTODY RECORD

INVOICE TO:
Company Name: #2292 Golder Associates Ltd
Attention: Accounts Payable
Address: 100 Scotia Crt, Whitby ON L1N 8Y6
Tel: (905) 723-2727 Fax: (905) 723-2182
Email: AP_CustomerService@golder.com

REPORT TO:
Company Name:
Attention: Kevan Browne
Address:
Tel: (905) 723-5491 Ext: 6677 Fax: (905) 723-2182
Email: Kevan_Browne@golder.com, Andrew_VanRoon@golde

PROJECT INFORMATION:
Quotation #: B80683
P.O. #:
Project: 1791121 (5001)
Project Name:
Site #: Windfields Farm
Sampled By: AVR

Laboratory Use Only:
Maxxam Job #:
Bottle Order #: 696190
COC #: C#696190-02-01
Project Manager: Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [ ] Medium/Fine; [ ] Table 2 [X] Ind/Comm [X] Coarse; [ ] Table 3 [ ] Agri/Other [X] For RSC; [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw; [ ] Reg 558 [ ] Storm Sewer Bylaw; [ ] MISA Municipality ___; [ ] PWQO; [ ] Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects
Regular (Standard) TAT: 5 day TAT [X]
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals	# of Bottles	Comments
1		K4	Dec 18/18	2pm	Soil	N/A				X	1	
2		K5								X	1	
3		K6								X	1	
4		K18								X	1	
5		DUP 8								X	1	
6		DUP 9								X	1	
7		DUP H								X	1	
8		DUP I								X	1	
9		DUP J								X	1	
10		DUP K								X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	18/12/18	5pm				0			Intact		

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM.

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Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8X9667
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
J17	IPB495-01	Acid Extractable Antimony (Sb)	1.3	3.4	0.20	ug/g
J17	IPB495-01	Acid Extractable Lead (Pb)	120	150	1.0	ug/g
K5	IPB505-01	Acid Extractable Antimony (Sb)	1.3	2.1	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-04-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/12/27
Report #: R5541178
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8Y2375
Received: 2018/12/21, 11:47

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	4	2018/12/24	2018/12/24	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8Y2375
Report Date: 2018/12/27

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP640	IPP641	IPP642	IPP643		
Sampling Date			2018/12/20 14:00	2018/12/20 14:00	2018/12/20 14:00	2018/12/20 14:00		
COC Number			696190-04-01	696190-04-01	696190-04-01	696190-04-01		
	UNITS	Criteria	H7.5-I7.5	P17-OP18	OP18-019	O19-NO20.5	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	**3.4**	<0.20	<0.20	<0.20	0.20	5903754
Acid Extractable Arsenic (As)	ug/g	18	2.9	1.5	1.7	1.5	1.0	5903754
Acid Extractable Barium (Ba)	ug/g	220	44	39	36	34	0.50	5903754
Acid Extractable Beryllium (Be)	ug/g	2.5	0.38	0.29	0.27	0.28	0.20	5903754
Acid Extractable Boron (B)	ug/g	36	5.5	5.6	5.1	<5.0	5.0	5903754
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.28	<0.10	<0.10	<0.10	0.10	5903754
Acid Extractable Chromium (Cr)	ug/g	70	14	10	10	10	1.0	5903754
Acid Extractable Cobalt (Co)	ug/g	21	4.1	4.0	3.6	3.8	0.10	5903754
Acid Extractable Copper (Cu)	ug/g	92	18	7.4	7.5	7.6	0.50	5903754
Acid Extractable Lead (Pb)	ug/g	120	110	5.0	4.7	4.9	1.0	5903754
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5903754
Acid Extractable Nickel (Ni)	ug/g	82	8.3	8.3	8.0	8.2	0.50	5903754
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5903754
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5903754
Acid Extractable Thallium (Tl)	ug/g	1	0.089	0.089	0.095	0.087	0.050	5903754
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.47	0.46	0.46	0.050	5903754
Acid Extractable Vanadium (V)	ug/g	86	23	18	18	18	5.0	5903754
Acid Extractable Zinc (Zn)	ug/g	290	160	21	20	20	5.0	5903754

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8Y2375
Report Date: 2018/12/27

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP640 **Collected:** 2018/12/20
Sample ID: H7.5-I7.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5903754	2018/12/24	2018/12/24	Daniel Teclu

Maxxam ID: IPP641 **Collected:** 2018/12/20
Sample ID: P17-OP18 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5903754	2018/12/24	2018/12/24	Daniel Teclu

Maxxam ID: IPP642 **Collected:** 2018/12/20
Sample ID: OP18-019 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5903754	2018/12/24	2018/12/24	Daniel Teclu

Maxxam ID: IPP643 **Collected:** 2018/12/20
Sample ID: O19-NO20.5 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5903754	2018/12/24	2018/12/24	Daniel Teclu

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Maxxam Job #: B8Y2375
Report Date: 2018/12/27

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	1.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B8Y2375
Report Date: 2018/12/27

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5903754	Acid Extractable Antimony (Sb)	2018/12/24	81	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5903754	Acid Extractable Arsenic (As)	2018/12/24	101	75 - 125	99	80 - 120	<1.0	ug/g	15	30
5903754	Acid Extractable Barium (Ba)	2018/12/24	NC	75 - 125	96	80 - 120	<0.50	ug/g	7.2	30
5903754	Acid Extractable Beryllium (Be)	2018/12/24	93	75 - 125	96	80 - 120	<0.20	ug/g	2.4	30
5903754	Acid Extractable Boron (B)	2018/12/24	88	75 - 125	97	80 - 120	<5.0	ug/g	NC	30
5903754	Acid Extractable Cadmium (Cd)	2018/12/24	93	75 - 125	97	80 - 120	<0.10	ug/g	NC	30
5903754	Acid Extractable Chromium (Cr)	2018/12/24	NC	75 - 125	97	80 - 120	<1.0	ug/g	6.5	30
5903754	Acid Extractable Cobalt (Co)	2018/12/24	92	75 - 125	94	80 - 120	<0.10	ug/g	4.7	30
5903754	Acid Extractable Copper (Cu)	2018/12/24	NC	75 - 125	99	80 - 120	<0.50	ug/g	5.8	30
5903754	Acid Extractable Lead (Pb)	2018/12/24	95	75 - 125	98	80 - 120	<1.0	ug/g	2.7	30
5903754	Acid Extractable Molybdenum (Mo)	2018/12/24	97	75 - 125	101	80 - 120	<0.50	ug/g	6.3	30
5903754	Acid Extractable Nickel (Ni)	2018/12/24	NC	75 - 125	97	80 - 120	<0.50	ug/g	5.3	30
5903754	Acid Extractable Selenium (Se)	2018/12/24	93	75 - 125	98	80 - 120	<0.50	ug/g	NC	30
5903754	Acid Extractable Silver (Ag)	2018/12/24	95	75 - 125	96	80 - 120	<0.20	ug/g	NC	30
5903754	Acid Extractable Thallium (Tl)	2018/12/24	94	75 - 125	97	80 - 120	<0.050	ug/g	1.1	30
5903754	Acid Extractable Uranium (U)	2018/12/24	93	75 - 125	94	80 - 120	<0.050	ug/g	1.1	30
5903754	Acid Extractable Vanadium (V)	2018/12/24	NC	75 - 125	95	80 - 120	<5.0	ug/g	6.8	30
5903754	Acid Extractable Zinc (Zn)	2018/12/24	NC	75 - 125	105	80 - 120	<5.0	ug/g	1.1	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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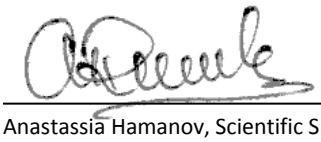
Maxxam Job #: B8Y2375
Report Date: 2018/12/27

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:

Company Name: #2292 Golder Associates Ltd
Attention: Accounts Payable
Address: 100 Scotia Crt, Whitby ON L1N 8Y6
Tel: (905) 723-2727 Fax: (905) 723-2182
Email: AP_CustomerService@golder.com

REPORT TO:

Company Name:
Attention: Kevan Browne
Address:
Tel: (905) 723-5491 Ext: 6677 Fax: (905) 723-2182
Email: Kevan_Browne@golder.com, Andrew_VanRoon@golde

PROJECT INFORMATION:

Quotation #: B80683
P.O. #:
Project: 1791121 (5001)
Project Name:
Site #: Windfields Farm
Sampled By: ATVC

Laboratory Use Only:

Maxxam Job #:
Bottle Order #: 696190
COC #: C#696190-04-01
Project Manager: Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [x] Table 1 [x] Res/Park [ ] Medium/Fine
- [ ] Table 2 [x] Ind/Comm [x] Coarse
- [ ] Table 3 [ ] Agri/Other [x] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: Time Required:
Rush Confirmation Number: EEG20181220 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals	# of Bottles	Comments
1		H7.5 - I7.5	Dec 20/18	12pm	Soil	N/A				X	1	
2		P17 - OP18	"	"	"	"				X	1	
3		OP18 - 019	"	"	"	"				X	1	
4		019 - NO20.5	"	"	"	"				X	1	
5											4	
6												
7												
8												
9												
10												

21-Dec-18 11:47
Ema Gitej
B8Y2375
JCC ENV-1181

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/20	5pm		18/12/21	11:47	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	1/1/2	Present		
		Intact	√	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

#88213

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8Y2375
Report Date: 2018/12/27

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
H7.5-I7.5	IPP640-01	Acid Extractable Antimony (Sb)	1.3	3.4	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 696190-17-01, 696190-18-01, 696190-19-01

Report Date: 2018/12/28
Report #: R5541975
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8Y2413
Received: 2018/12/21, 11:47

Sample Matrix: Soil
Samples Received: 30

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	30	2018/12/24	2018/12/28	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 696190-17-01, 696190-18-01, 696190-19-01

Report Date: 2018/12/28
Report #: R5541975
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8Y2413
Received: 2018/12/21, 11:47

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP845		IPP846		IPP847		
Sampling Date			2018/12/20 10:00		2018/12/20 10:00		2018/12/20 10:00		
COC Number			696190-17-01		696190-17-01		696190-17-01		
	UNITS	Criteria	H7	QC Batch	L8	QC Batch	L9	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5904227	<0.20	5904250	0.74	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	<1.0	5904227	1.5	5904250	1.7	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	28	5904227	32	5904250	47	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	5904227	0.25	5904250	0.35	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	5904227	<5.0	5904250	5.2	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5904227	<0.10	5904250	<0.10	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	8.0	5904227	8.7	5904250	12	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	2.7	5904227	3.4	5904250	4.3	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	4.9	5904227	8.0	5904250	8.0	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	4.7	5904227	5.2	5904250	10	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904227	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	4.6	5904227	8.3	5904250	10	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904227	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904227	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.062	5904227	0.11	5904250	0.11	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.41	5904227	0.46	5904250	0.47	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	18	5904227	16	5904250	21	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	15	5904227	19	5904250	25	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP848		IPP849	IPP850	IPP851		
Sampling Date			2018/12/20 10:00		2018/12/20 10:00	2018/12/20 10:00	2018/12/20 10:00		
COC Number			696190-17-01		696190-17-01	696190-17-01	696190-17-01		
	UNITS	Criteria	L10	QC Batch	K8	K9	K10	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5904250	<0.20	<0.20	0.30	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.8	5904250	1.9	1.4	1.6	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	55	5904250	74	45	81	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.35	5904250	0.46	0.31	0.46	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	5.0	5904250	7.5	5.1	7.7	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.10	5904250	0.11	<0.10	<0.10	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	12	5904250	16	11	17	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	4.5	5904250	5.9	3.8	5.1	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	9.1	5904250	12	7.3	9.8	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	6.6	5904250	7.5	5.6	8.5	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	10	5904250	14	8.9	13	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904250	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.11	5904250	0.16	0.089	0.15	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.47	5904250	0.52	0.49	0.50	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	21	5904250	23	20	24	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	25	5904250	29	21	28	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP852	IPP853	IPP854		IPP855		
Sampling Date			2018/12/20 10:00	2018/12/20 10:00	2018/12/20 10:00		2018/12/20 12:00		
COC Number			696190-17-01	696190-17-01	696190-17-01		696190-18-01		
	UNITS	Criteria	I11	M10	N15	QC Batch	N16	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.45	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.5	1.8	1.7	5904250	1.6	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	39	73	45	5904250	45	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.23	0.39	0.36	5904250	0.33	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	7.1	5.0	5904250	5.7	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	5904250	0.13	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	9.4	15	12	5904250	12	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	3.4	5.3	4.5	5904250	4.3	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	7.2	11	9.0	5904250	8.5	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	4.2	8.0	6.1	5904250	5.7	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	7.7	13	10	5904250	9.8	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.077	0.14	0.11	5904250	0.12	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.44	0.48	0.47	5904250	0.49	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	17	22	20	5904250	21	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	21	29	25	5904250	25	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP856		IPP857	IPP857	IPP858		
Sampling Date			2018/12/20 12:00		2018/12/20 12:00	2018/12/20 12:00	2018/12/20 12:00		
COC Number			696190-18-01		696190-18-01	696190-18-01	696190-18-01		
	UNITS	Criteria	N17	QC Batch	N18	N18 Lab-Dup	N19	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5904250	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.5	5904250	1.9	1.9	1.9	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	42	5904250	43	39	46	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.33	5904250	0.34	0.32	0.36	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	5.4	5904250	5.8	5.5	5.4	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5904250	<0.10	<0.10	0.11	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	11	5904250	12	12	13	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	3.9	5904250	4.3	4.4	4.3	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	8.5	5904250	8.6	8.3	8.3	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	5.1	5904250	5.4	5.3	6.0	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	9.3	5904250	9.4	10	10	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904250	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.11	5904250	0.12	0.11	0.11	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.43	5904250	0.48	0.48	0.46	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	20	5904250	21	20	22	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	22	5904250	23	22	25	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP859		IPP860		IPP861		
Sampling Date			2018/12/20 12:00		2018/12/20 12:00		2018/12/20 12:00		
COC Number			696190-18-01		696190-18-01		696190-18-01		
	UNITS	Criteria	O16	QC Batch	O17	QC Batch	M16	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5904227	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.6	5904227	1.7	5904250	1.5	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	40	5904227	44	5904250	45	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.30	5904227	0.36	5904250	0.33	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	5904227	5.1	5904250	5.7	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5904227	0.11	5904250	<0.10	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	10	5904227	12	5904250	12	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	4.0	5904227	4.3	5904250	4.1	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	7.7	5904227	8.6	5904250	8.5	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	5.1	5904227	5.5	5904250	5.3	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904227	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	9.2	5904227	9.5	5904250	9.1	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904227	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904227	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.10	5904227	0.10	5904250	0.13	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.46	5904227	0.47	5904250	0.51	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	18	5904227	21	5904250	19	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	26	5904227	23	5904250	20	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP862	IPP863	IPP864	IPP865		
Sampling Date			2018/12/20 12:00	2018/12/20 12:00	2018/12/20 12:00	2018/12/20 14:00		
COC Number			696190-18-01	696190-18-01	696190-18-01	696190-19-01		
	UNITS	Criteria	N13	N14	L13	M12	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	0.45	<0.20	0.34	1.3	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.8	1.4	1.4	2.9	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	37	36	40	69	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.32	0.28	0.26	0.54	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	5.3	6.3	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.12	<0.10	<0.10	0.28	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	12	10	11	23	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	4.3	3.9	3.4	7.9	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	7.1	7.8	6.7	9.3	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	6.3	5.1	5.5	15	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	8.8	8.2	7.8	17	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.11	0.11	0.16	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.54	0.47	0.75	0.71	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	23	18	18	35	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	23	21	18	49	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP866		IPP867	IPP868	IPP869		
Sampling Date			2018/12/20 14:00		2018/12/20 14:00	2018/12/20 14:00	2018/12/20 14:00		
COC Number			696190-19-01		696190-19-01	696190-19-01	696190-19-01		
	UNITS	Criteria	M13	QC Batch	M14	M15	O14	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.95	5904250	0.50	<0.20	<0.20	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.8	5904250	1.2	1.7	1.5	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	45	5904250	31	39	45	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.31	5904250	0.26	0.31	0.35	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	5904250	<5.0	5.6	5.5	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5904250	<0.10	<0.10	<0.10	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	14	5904250	9.0	11	12	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	4.4	5904250	3.5	4.0	4.1	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	7.6	5904250	6.6	7.9	7.9	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	16	5904250	6.3	5.0	5.2	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	8.6	5904250	7.6	8.8	9.6	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904250	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.090	5904250	0.087	0.11	0.11	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.44	5904250	0.43	0.46	0.50	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	23	5904250	17	20	22	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	24	5904250	19	22	24	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP870	IPP871	IPP872		IPP873		
Sampling Date			2018/12/20 14:00	2018/12/20 14:00	2018/12/20 14:00		2018/12/20 14:00		
COC Number			696190-19-01	696190-19-01	696190-19-01		696190-19-01		
	UNITS	Criteria	O15	DUP10	DUP11	QC Batch	DUP12	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.68	5904227	<0.20	0.20	5904250
Acid Extractable Arsenic (As)	ug/g	18	1.7	1.6	1.8	5904227	1.4	1.0	5904250
Acid Extractable Barium (Ba)	ug/g	220	38	43	46	5904227	47	0.50	5904250
Acid Extractable Beryllium (Be)	ug/g	2.5	0.31	0.32	0.35	5904227	0.32	0.20	5904250
Acid Extractable Boron (B)	ug/g	36	5.6	5.4	5.1	5904227	5.6	5.0	5904250
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.11	<0.10	<0.10	5904227	<0.10	0.10	5904250
Acid Extractable Chromium (Cr)	ug/g	70	12	11	15	5904227	11	1.0	5904250
Acid Extractable Cobalt (Co)	ug/g	21	4.0	4.1	4.4	5904227	3.9	0.10	5904250
Acid Extractable Copper (Cu)	ug/g	92	8.3	8.2	7.6	5904227	7.5	0.50	5904250
Acid Extractable Lead (Pb)	ug/g	120	5.3	5.3	9.9	5904227	5.3	1.0	5904250
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	5904227	<0.50	0.50	5904250
Acid Extractable Nickel (Ni)	ug/g	82	9.0	9.0	9.5	5904227	9.6	0.50	5904250
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	5904227	<0.50	0.50	5904250
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	5904227	<0.20	0.20	5904250
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.090	0.11	5904227	0.097	0.050	5904250
Acid Extractable Uranium (U)	ug/g	2.5	0.47	0.47	0.53	5904227	0.49	0.050	5904250
Acid Extractable Vanadium (V)	ug/g	86	18	20	25	5904227	18	5.0	5904250
Acid Extractable Zinc (Zn)	ug/g	290	20	22	24	5904227	23	5.0	5904250

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP874		
Sampling Date			2018/12/20 14:00		
COC Number			696190-19-01		
	UNITS	Criteria	DUP 2	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.20	5904250
Acid Extractable Arsenic (As)	ug/g	18	1.5	1.0	5904250
Acid Extractable Barium (Ba)	ug/g	220	44	0.50	5904250
Acid Extractable Beryllium (Be)	ug/g	2.5	0.27	0.20	5904250
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	5904250
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	5904250
Acid Extractable Chromium (Cr)	ug/g	70	11	1.0	5904250
Acid Extractable Cobalt (Co)	ug/g	21	3.5	0.10	5904250
Acid Extractable Copper (Cu)	ug/g	92	7.1	0.50	5904250
Acid Extractable Lead (Pb)	ug/g	120	4.4	1.0	5904250
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	5904250
Acid Extractable Nickel (Ni)	ug/g	82	8.1	0.50	5904250
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	5904250
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	5904250
Acid Extractable Thallium (Tl)	ug/g	1	0.094	0.050	5904250
Acid Extractable Uranium (U)	ug/g	2.5	0.41	0.050	5904250
Acid Extractable Vanadium (V)	ug/g	86	17	5.0	5904250
Acid Extractable Zinc (Zn)	ug/g	290	20	5.0	5904250

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP845 **Collected:** 2018/12/20
Sample ID: H7 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP846 **Collected:** 2018/12/20
Sample ID: L8 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP847 **Collected:** 2018/12/20
Sample ID: L9 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP848 **Collected:** 2018/12/20
Sample ID: L10 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP849 **Collected:** 2018/12/20
Sample ID: K8 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP850 **Collected:** 2018/12/20
Sample ID: K9 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP851 **Collected:** 2018/12/20
Sample ID: K10 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP852 **Collected:** 2018/12/20
Sample ID: I11 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP853 **Collected:** 2018/12/20
Sample ID: M10 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP854 **Collected:** 2018/12/20
Sample ID: N15 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP855 **Collected:** 2018/12/20
Sample ID: N16 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP856 **Collected:** 2018/12/20
Sample ID: N17 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP857 **Collected:** 2018/12/20
Sample ID: N18 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP857 Dup **Collected:** 2018/12/20
Sample ID: N18 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP858 **Collected:** 2018/12/20
Sample ID: N19 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP859 **Collected:** 2018/12/20
Sample ID: O16 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP860 **Collected:** 2018/12/20
Sample ID: O17 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP861 **Collected:** 2018/12/20
Sample ID: M16 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP862 **Collected:** 2018/12/20
Sample ID: N13 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP863 **Collected:** 2018/12/20
Sample ID: N14 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP864 **Collected:** 2018/12/20
Sample ID: L13 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP865 **Collected:** 2018/12/20
Sample ID: M12 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP866 **Collected:** 2018/12/20
Sample ID: M13 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP867 **Collected:** 2018/12/20
Sample ID: M14 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP868 **Collected:** 2018/12/20
Sample ID: M15 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP869 **Collected:** 2018/12/20
Sample ID: O14 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP870 **Collected:** 2018/12/20
Sample ID: O15 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP871 **Collected:** 2018/12/20
Sample ID: DUP10 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP872 **Collected:** 2018/12/20
Sample ID: DUP11 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP873 **Collected:** 2018/12/20
Sample ID: DUP12 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP874 **Collected:** 2018/12/20
Sample ID: DUP 2 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	1.3°C

Results relate only to the items tested.

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5904227	Acid Extractable Antimony (Sb)	2018/12/28	98	75 - 125	105	80 - 120	<0.20	ug/g	NC	30
5904227	Acid Extractable Arsenic (As)	2018/12/28	105	75 - 125	104	80 - 120	<1.0	ug/g	3.6	30
5904227	Acid Extractable Barium (Ba)	2018/12/28	NC	75 - 125	102	80 - 120	<0.50	ug/g	9.1	30
5904227	Acid Extractable Beryllium (Be)	2018/12/28	99	75 - 125	98	80 - 120	<0.20	ug/g	4.6	30
5904227	Acid Extractable Boron (B)	2018/12/28	97	75 - 125	98	80 - 120	<5.0	ug/g	4.6	30
5904227	Acid Extractable Cadmium (Cd)	2018/12/28	102	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
5904227	Acid Extractable Chromium (Cr)	2018/12/28	100	75 - 125	100	80 - 120	<1.0	ug/g	1.3	30
5904227	Acid Extractable Cobalt (Co)	2018/12/28	102	75 - 125	101	80 - 120	<0.10	ug/g	1.5	30
5904227	Acid Extractable Copper (Cu)	2018/12/28	100	75 - 125	100	80 - 120	<0.50	ug/g	3.5	30
5904227	Acid Extractable Lead (Pb)	2018/12/28	97	75 - 125	102	80 - 120	<1.0	ug/g	1.3	30
5904227	Acid Extractable Molybdenum (Mo)	2018/12/28	103	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
5904227	Acid Extractable Nickel (Ni)	2018/12/28	105	75 - 125	102	80 - 120	<0.50	ug/g	6.0	30
5904227	Acid Extractable Selenium (Se)	2018/12/28	105	75 - 125	109	80 - 120	<0.50	ug/g	NC	30
5904227	Acid Extractable Silver (Ag)	2018/12/28	102	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5904227	Acid Extractable Thallium (Tl)	2018/12/28	99	75 - 125	100	80 - 120	<0.050	ug/g	4.2	30
5904227	Acid Extractable Uranium (U)	2018/12/28	97	75 - 125	98	80 - 120	<0.050	ug/g	1.7	30
5904227	Acid Extractable Vanadium (V)	2018/12/28	99	75 - 125	99	80 - 120	<5.0	ug/g	5.6	30
5904227	Acid Extractable Zinc (Zn)	2018/12/28	108	75 - 125	110	80 - 120	<5.0	ug/g	6.2	30
5904250	Acid Extractable Antimony (Sb)	2018/12/28	95	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5904250	Acid Extractable Arsenic (As)	2018/12/28	99	75 - 125	100	80 - 120	<1.0	ug/g	3.8	30
5904250	Acid Extractable Barium (Ba)	2018/12/28	NC	75 - 125	93	80 - 120	<0.50	ug/g	21	30
5904250	Acid Extractable Beryllium (Be)	2018/12/28	98	75 - 125	96	80 - 120	<0.20	ug/g	4.4	30
5904250	Acid Extractable Boron (B)	2018/12/28	93	75 - 125	98	80 - 120	<5.0	ug/g	3.5	30
5904250	Acid Extractable Cadmium (Cd)	2018/12/28	100	75 - 125	95	80 - 120	<0.10	ug/g	NC	30
5904250	Acid Extractable Chromium (Cr)	2018/12/28	100	75 - 125	98	80 - 120	<1.0	ug/g	1.4	30
5904250	Acid Extractable Cobalt (Co)	2018/12/28	97	75 - 125	97	80 - 120	<0.10	ug/g	1.5	30
5904250	Acid Extractable Copper (Cu)	2018/12/28	97	75 - 125	96	80 - 120	<0.50	ug/g	5.2	30
5904250	Acid Extractable Lead (Pb)	2018/12/28	98	75 - 125	97	80 - 120	<1.0	ug/g	1.7	30
5904250	Acid Extractable Molybdenum (Mo)	2018/12/28	99	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
5904250	Acid Extractable Nickel (Ni)	2018/12/28	103	75 - 125	99	80 - 120	<0.50	ug/g	11	30
5904250	Acid Extractable Selenium (Se)	2018/12/28	107	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5904250	Acid Extractable Silver (Ag)	2018/12/28	97	75 - 125	96	80 - 120	<0.20	ug/g	NC	30

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Maxxam Job #: B8Y2413
Report Date: 2018/12/28

QUALITY ASSURANCE REPORT(CONT'D)

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5904250	Acid Extractable Thallium (Tl)	2018/12/28	99	75 - 125	96	80 - 120	<0.050	ug/g	0.17	30
5904250	Acid Extractable Uranium (U)	2018/12/28	98	75 - 125	94	80 - 120	<0.050	ug/g	11	30
5904250	Acid Extractable Vanadium (V)	2018/12/28	NC	75 - 125	101	80 - 120	<5.0	ug/g	0.035	30
5904250	Acid Extractable Zinc (Zn)	2018/12/28	NC	75 - 125	101	80 - 120	<5.0	ug/g	1.6	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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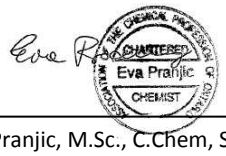
Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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21-Dec-18 11:47
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Page 1 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:			
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Bottle Order #:	696190
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	C#696190-17-01
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		Project Manager:	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVK		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		H7	Dec 20/18	10am	Soil	N/A				X	1	
2		L8								X	1	
3		L9								X	1	
4		L10								X	1	
5		K8								X	1	
6		K9								X	1	
7		K10								X	1	
8		I11								X	1	
9		M10								X	1	
10		N15								X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/20	5pm		18/12/21	11:47	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	1/1/2	Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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CHAIN OF CUSTODY RECORD

Page 2 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #: B8Y2413	Bottle Order #: 696190
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #: C#696190-18-01	Project Manager: Ema Gitej
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:			
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		N16	Dec 20/18	12pm	Soil	N/A				X	1	
2		N17								X	1	
3		N18								X	1	
4		N19								X	1	
5		O16								X	1	
6		O17								X	1	
7		M16								X	1	
8		N13								X	1	
9		N14								X	1	
10		L13								X	1	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/20	5pm				0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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CHAIN OF CUSTODY RECORD

Page 23 of 23

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #: B8Y2413	Bottle Order #: 696190
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #: C#696190-19-01	Project Manager: Ema Gitej
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:			
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [ ] Res/Park [ ] Medium/Fine
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Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

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Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		M12	Dec 20/18	2pm	Soil	N/A				X	1	
2		M13								X	1	
3		M14								X	1	
4		M15								X	1	
5		~~M~~ 014								X	1	
6		015								X	1	
7		DUP10								X	1	
8		DUP 11								X	1	
9		DUP12								X	1	
10		DUP L								X	1	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/20	5pm	See page 1			0

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8Y2413
Report Date: 2018/12/28

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 696190-17-01, 696190-18-01, 696190-19-01

Report Date: 2019/01/11
Report #: R5554035
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8Y2413
Received: 2018/12/21, 11:47

Sample Matrix: Soil
Samples Received: 30

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	30	2018/12/24	2018/12/28	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 696190-17-01, 696190-18-01, 696190-19-01

Report Date: 2019/01/11
Report #: R5554035
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8Y2413
Received: 2018/12/21, 11:47

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP845		IPP846		IPP847		
Sampling Date			2018/12/20 10:00		2018/12/20 10:00		2018/12/20 10:00		
COC Number			696190-17-01		696190-17-01		696190-17-01		
	UNITS	Criteria	H7	QC Batch	L8	QC Batch	L9	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5904227	<0.20	5904250	0.74	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	<1.0	5904227	1.5	5904250	1.7	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	28	5904227	32	5904250	47	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	5904227	0.25	5904250	0.35	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	5904227	<5.0	5904250	5.2	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5904227	<0.10	5904250	<0.10	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	8.0	5904227	8.7	5904250	12	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	2.7	5904227	3.4	5904250	4.3	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	4.9	5904227	8.0	5904250	8.0	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	4.7	5904227	5.2	5904250	10	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904227	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	4.6	5904227	8.3	5904250	10	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904227	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904227	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.062	5904227	0.11	5904250	0.11	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.41	5904227	0.46	5904250	0.47	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	18	5904227	16	5904250	21	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	15	5904227	19	5904250	25	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP848		IPP849	IPP850	IPP851		
Sampling Date			2018/12/20 10:00		2018/12/20 10:00	2018/12/20 10:00	2018/12/20 10:00		
COC Number			696190-17-01		696190-17-01	696190-17-01	696190-17-01		
	UNITS	Criteria	L10	QC Batch	K8	K9	K10	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5904250	<0.20	<0.20	0.30	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.8	5904250	1.9	1.4	1.6	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	55	5904250	74	45	81	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.35	5904250	0.46	0.31	0.46	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	5.0	5904250	7.5	5.1	7.7	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.10	5904250	0.11	<0.10	<0.10	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	12	5904250	16	11	17	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	4.5	5904250	5.9	3.8	5.1	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	9.1	5904250	12	7.3	9.8	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	6.6	5904250	7.5	5.6	8.5	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	10	5904250	14	8.9	13	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904250	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.11	5904250	0.16	0.089	0.15	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.47	5904250	0.52	0.49	0.50	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	21	5904250	23	20	24	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	25	5904250	29	21	28	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP852	IPP853	IPP854		IPP855		
Sampling Date			2018/12/20 10:00	2018/12/20 10:00	2018/12/20 10:00		2018/12/20 12:00		
COC Number			696190-17-01	696190-17-01	696190-17-01		696190-18-01		
	UNITS	Criteria	I11	M10	N15	QC Batch	N16	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.45	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.5	1.8	1.7	5904250	1.6	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	39	73	45	5904250	45	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.23	0.39	0.36	5904250	0.33	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	7.1	5.0	5904250	5.7	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	5904250	0.13	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	9.4	15	12	5904250	12	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	3.4	5.3	4.5	5904250	4.3	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	7.2	11	9.0	5904250	8.5	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	4.2	8.0	6.1	5904250	5.7	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	7.7	13	10	5904250	9.8	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.077	0.14	0.11	5904250	0.12	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.44	0.48	0.47	5904250	0.49	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	17	22	20	5904250	21	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	21	29	25	5904250	25	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP856		IPP857	IPP857	IPP858		
Sampling Date			2018/12/20 12:00		2018/12/20 12:00	2018/12/20 12:00	2018/12/20 12:00		
COC Number			696190-18-01		696190-18-01	696190-18-01	696190-18-01		
	UNITS	Criteria	N17	QC Batch	N18	N18 Lab-Dup	N19	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5904250	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.5	5904250	1.9	1.9	1.9	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	42	5904250	43	39	46	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.33	5904250	0.34	0.32	0.36	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	5.4	5904250	5.8	5.5	5.4	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5904250	<0.10	<0.10	0.11	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	11	5904250	12	12	13	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	3.9	5904250	4.3	4.4	4.3	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	8.5	5904250	8.6	8.3	8.3	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	5.1	5904250	5.4	5.3	6.0	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	9.3	5904250	9.4	10	10	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904250	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.11	5904250	0.12	0.11	0.11	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.43	5904250	0.48	0.48	0.46	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	20	5904250	21	20	22	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	22	5904250	23	22	25	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP859		IPP860		IPP861		
Sampling Date			2018/12/20 12:00		2018/12/20 12:00		2018/12/20 12:00		
COC Number			696190-18-01		696190-18-01		696190-18-01		
	UNITS	Criteria	O16	QC Batch	O17	QC Batch	M16	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5904227	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.6	5904227	1.7	5904250	1.5	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	40	5904227	44	5904250	45	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.30	5904227	0.36	5904250	0.33	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	5904227	5.1	5904250	5.7	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5904227	0.11	5904250	<0.10	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	10	5904227	12	5904250	12	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	4.0	5904227	4.3	5904250	4.1	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	7.7	5904227	8.6	5904250	8.5	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	5.1	5904227	5.5	5904250	5.3	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904227	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	9.2	5904227	9.5	5904250	9.1	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904227	<0.50	5904250	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904227	<0.20	5904250	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.10	5904227	0.10	5904250	0.13	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.46	5904227	0.47	5904250	0.51	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	18	5904227	21	5904250	19	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	26	5904227	23	5904250	20	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP862	IPP863	IPP864	IPP865		
Sampling Date			2018/12/20 12:00	2018/12/20 12:00	2018/12/20 12:00	2018/12/20 14:00		
COC Number			696190-18-01	696190-18-01	696190-18-01	696190-19-01		
	UNITS	Criteria	N13	N14	L13	M12	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	0.45	<0.20	0.34	1.3	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.8	1.4	1.4	2.9	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	37	36	40	69	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.32	0.28	0.26	0.54	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	5.3	6.3	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.12	<0.10	<0.10	0.28	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	12	10	11	23	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	4.3	3.9	3.4	7.9	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	7.1	7.8	6.7	9.3	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	6.3	5.1	5.5	15	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	8.8	8.2	7.8	17	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.11	0.11	0.16	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.54	0.47	0.75	0.71	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	23	18	18	35	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	23	21	18	49	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP866		IPP867	IPP868	IPP869		
Sampling Date			2018/12/20 14:00		2018/12/20 14:00	2018/12/20 14:00	2018/12/20 14:00		
COC Number			696190-19-01		696190-19-01	696190-19-01	696190-19-01		
	UNITS	Criteria	M13	QC Batch	M14	M15	O14	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.95	5904250	0.50	<0.20	<0.20	0.20	5904227
Acid Extractable Arsenic (As)	ug/g	18	1.8	5904250	1.2	1.7	1.5	1.0	5904227
Acid Extractable Barium (Ba)	ug/g	220	45	5904250	31	39	45	0.50	5904227
Acid Extractable Beryllium (Be)	ug/g	2.5	0.31	5904250	0.26	0.31	0.35	0.20	5904227
Acid Extractable Boron (B)	ug/g	36	<5.0	5904250	<5.0	5.6	5.5	5.0	5904227
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5904250	<0.10	<0.10	<0.10	0.10	5904227
Acid Extractable Chromium (Cr)	ug/g	70	14	5904250	9.0	11	12	1.0	5904227
Acid Extractable Cobalt (Co)	ug/g	21	4.4	5904250	3.5	4.0	4.1	0.10	5904227
Acid Extractable Copper (Cu)	ug/g	92	7.6	5904250	6.6	7.9	7.9	0.50	5904227
Acid Extractable Lead (Pb)	ug/g	120	16	5904250	6.3	5.0	5.2	1.0	5904227
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Nickel (Ni)	ug/g	82	8.6	5904250	7.6	8.8	9.6	0.50	5904227
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5904250	<0.50	<0.50	<0.50	0.50	5904227
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5904250	<0.20	<0.20	<0.20	0.20	5904227
Acid Extractable Thallium (Tl)	ug/g	1	0.090	5904250	0.087	0.11	0.11	0.050	5904227
Acid Extractable Uranium (U)	ug/g	2.5	0.44	5904250	0.43	0.46	0.50	0.050	5904227
Acid Extractable Vanadium (V)	ug/g	86	23	5904250	17	20	22	5.0	5904227
Acid Extractable Zinc (Zn)	ug/g	290	24	5904250	19	22	24	5.0	5904227

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP870	IPP871	IPP872		IPP873		
Sampling Date			2018/12/20 14:00	2018/12/20 14:00	2018/12/20 14:00		2018/12/20 14:00		
COC Number			696190-19-01	696190-19-01	696190-19-01		696190-19-01		
	UNITS	Criteria	O15	DUP10	DUP11	QC Batch	DUP12	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.68	5904227	<0.20	0.20	5904250
Acid Extractable Arsenic (As)	ug/g	18	1.7	1.6	1.8	5904227	1.4	1.0	5904250
Acid Extractable Barium (Ba)	ug/g	220	38	43	46	5904227	47	0.50	5904250
Acid Extractable Beryllium (Be)	ug/g	2.5	0.31	0.32	0.35	5904227	0.32	0.20	5904250
Acid Extractable Boron (B)	ug/g	36	5.6	5.4	5.1	5904227	5.6	5.0	5904250
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.11	<0.10	<0.10	5904227	<0.10	0.10	5904250
Acid Extractable Chromium (Cr)	ug/g	70	12	11	15	5904227	11	1.0	5904250
Acid Extractable Cobalt (Co)	ug/g	21	4.0	4.1	4.4	5904227	3.9	0.10	5904250
Acid Extractable Copper (Cu)	ug/g	92	8.3	8.2	7.6	5904227	7.5	0.50	5904250
Acid Extractable Lead (Pb)	ug/g	120	5.3	5.3	9.9	5904227	5.3	1.0	5904250
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	5904227	<0.50	0.50	5904250
Acid Extractable Nickel (Ni)	ug/g	82	9.0	9.0	9.5	5904227	9.6	0.50	5904250
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	5904227	<0.50	0.50	5904250
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	5904227	<0.20	0.20	5904250
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.090	0.11	5904227	0.097	0.050	5904250
Acid Extractable Uranium (U)	ug/g	2.5	0.47	0.47	0.53	5904227	0.49	0.050	5904250
Acid Extractable Vanadium (V)	ug/g	86	18	20	25	5904227	18	5.0	5904250
Acid Extractable Zinc (Zn)	ug/g	290	20	22	24	5904227	23	5.0	5904250

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IPP874		
Sampling Date			2018/12/20 14:00		
COC Number			696190-19-01		
	UNITS	Criteria	DUPL	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.20	5904250
Acid Extractable Arsenic (As)	ug/g	18	1.5	1.0	5904250
Acid Extractable Barium (Ba)	ug/g	220	44	0.50	5904250
Acid Extractable Beryllium (Be)	ug/g	2.5	0.27	0.20	5904250
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	5904250
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	5904250
Acid Extractable Chromium (Cr)	ug/g	70	11	1.0	5904250
Acid Extractable Cobalt (Co)	ug/g	21	3.5	0.10	5904250
Acid Extractable Copper (Cu)	ug/g	92	7.1	0.50	5904250
Acid Extractable Lead (Pb)	ug/g	120	4.4	1.0	5904250
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	5904250
Acid Extractable Nickel (Ni)	ug/g	82	8.1	0.50	5904250
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	5904250
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	5904250
Acid Extractable Thallium (Tl)	ug/g	1	0.094	0.050	5904250
Acid Extractable Uranium (U)	ug/g	2.5	0.41	0.050	5904250
Acid Extractable Vanadium (V)	ug/g	86	17	5.0	5904250
Acid Extractable Zinc (Zn)	ug/g	290	20	5.0	5904250

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP845 **Collected:** 2018/12/20
Sample ID: H7 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP846 **Collected:** 2018/12/20
Sample ID: L8 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP847 **Collected:** 2018/12/20
Sample ID: L9 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP848 **Collected:** 2018/12/20
Sample ID: L10 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP849 **Collected:** 2018/12/20
Sample ID: K8 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP850 **Collected:** 2018/12/20
Sample ID: K9 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP851 **Collected:** 2018/12/20
Sample ID: K10 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP852 **Collected:** 2018/12/20
Sample ID: I11 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP853 **Collected:** 2018/12/20
Sample ID: M10 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP854 **Collected:** 2018/12/20
Sample ID: N15 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP855 **Collected:** 2018/12/20
Sample ID: N16 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP856 **Collected:** 2018/12/20
Sample ID: N17 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP857 **Collected:** 2018/12/20
Sample ID: N18 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP857 Dup **Collected:** 2018/12/20
Sample ID: N18 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP858 **Collected:** 2018/12/20
Sample ID: N19 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP859 **Collected:** 2018/12/20
Sample ID: O16 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP860 **Collected:** 2018/12/20
Sample ID: O17 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP861 **Collected:** 2018/12/20
Sample ID: M16 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP862 **Collected:** 2018/12/20
Sample ID: N13 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP863 **Collected:** 2018/12/20
Sample ID: N14 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP864 **Collected:** 2018/12/20
Sample ID: L13 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP865 **Collected:** 2018/12/20
Sample ID: M12 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP866 **Collected:** 2018/12/20
Sample ID: M13 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP867 **Collected:** 2018/12/20
Sample ID: M14 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP868 **Collected:** 2018/12/20
Sample ID: M15 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP869 **Collected:** 2018/12/20
Sample ID: O14 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP870 **Collected:** 2018/12/20
Sample ID: O15 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP871 **Collected:** 2018/12/20
Sample ID: DUP10 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IPP872 **Collected:** 2018/12/20
Sample ID: DUP11 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904227	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP873 **Collected:** 2018/12/20
Sample ID: DUP12 **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

Maxxam ID: IPP874 **Collected:** 2018/12/20
Sample ID: DUPL **Shipped:**
Matrix: Soil **Received:** 2018/12/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5904250	2018/12/24	2018/12/28	Daniel Teclu

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	1.3°C

Revised report (2019/01/11): Sample DUPL updated as requested.

Results relate only to the items tested.

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Maxxam Job #: B8Y2413
Report Date: 2019/01/11

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5904227	Acid Extractable Antimony (Sb)	2018/12/28	98	75 - 125	105	80 - 120	<0.20	ug/g	NC	30
5904227	Acid Extractable Arsenic (As)	2018/12/28	105	75 - 125	104	80 - 120	<1.0	ug/g	3.6	30
5904227	Acid Extractable Barium (Ba)	2018/12/28	NC	75 - 125	102	80 - 120	<0.50	ug/g	9.1	30
5904227	Acid Extractable Beryllium (Be)	2018/12/28	99	75 - 125	98	80 - 120	<0.20	ug/g	4.6	30
5904227	Acid Extractable Boron (B)	2018/12/28	97	75 - 125	98	80 - 120	<5.0	ug/g	4.6	30
5904227	Acid Extractable Cadmium (Cd)	2018/12/28	102	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
5904227	Acid Extractable Chromium (Cr)	2018/12/28	100	75 - 125	100	80 - 120	<1.0	ug/g	1.3	30
5904227	Acid Extractable Cobalt (Co)	2018/12/28	102	75 - 125	101	80 - 120	<0.10	ug/g	1.5	30
5904227	Acid Extractable Copper (Cu)	2018/12/28	100	75 - 125	100	80 - 120	<0.50	ug/g	3.5	30
5904227	Acid Extractable Lead (Pb)	2018/12/28	97	75 - 125	102	80 - 120	<1.0	ug/g	1.3	30
5904227	Acid Extractable Molybdenum (Mo)	2018/12/28	103	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
5904227	Acid Extractable Nickel (Ni)	2018/12/28	105	75 - 125	102	80 - 120	<0.50	ug/g	6.0	30
5904227	Acid Extractable Selenium (Se)	2018/12/28	105	75 - 125	109	80 - 120	<0.50	ug/g	NC	30
5904227	Acid Extractable Silver (Ag)	2018/12/28	102	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5904227	Acid Extractable Thallium (Tl)	2018/12/28	99	75 - 125	100	80 - 120	<0.050	ug/g	4.2	30
5904227	Acid Extractable Uranium (U)	2018/12/28	97	75 - 125	98	80 - 120	<0.050	ug/g	1.7	30
5904227	Acid Extractable Vanadium (V)	2018/12/28	99	75 - 125	99	80 - 120	<5.0	ug/g	5.6	30
5904227	Acid Extractable Zinc (Zn)	2018/12/28	108	75 - 125	110	80 - 120	<5.0	ug/g	6.2	30
5904250	Acid Extractable Antimony (Sb)	2018/12/28	95	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5904250	Acid Extractable Arsenic (As)	2018/12/28	99	75 - 125	100	80 - 120	<1.0	ug/g	3.8	30
5904250	Acid Extractable Barium (Ba)	2018/12/28	NC	75 - 125	93	80 - 120	<0.50	ug/g	21	30
5904250	Acid Extractable Beryllium (Be)	2018/12/28	98	75 - 125	96	80 - 120	<0.20	ug/g	4.4	30
5904250	Acid Extractable Boron (B)	2018/12/28	93	75 - 125	98	80 - 120	<5.0	ug/g	3.5	30
5904250	Acid Extractable Cadmium (Cd)	2018/12/28	100	75 - 125	95	80 - 120	<0.10	ug/g	NC	30
5904250	Acid Extractable Chromium (Cr)	2018/12/28	100	75 - 125	98	80 - 120	<1.0	ug/g	1.4	30
5904250	Acid Extractable Cobalt (Co)	2018/12/28	97	75 - 125	97	80 - 120	<0.10	ug/g	1.5	30
5904250	Acid Extractable Copper (Cu)	2018/12/28	97	75 - 125	96	80 - 120	<0.50	ug/g	5.2	30
5904250	Acid Extractable Lead (Pb)	2018/12/28	98	75 - 125	97	80 - 120	<1.0	ug/g	1.7	30
5904250	Acid Extractable Molybdenum (Mo)	2018/12/28	99	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
5904250	Acid Extractable Nickel (Ni)	2018/12/28	103	75 - 125	99	80 - 120	<0.50	ug/g	11	30
5904250	Acid Extractable Selenium (Se)	2018/12/28	107	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5904250	Acid Extractable Silver (Ag)	2018/12/28	97	75 - 125	96	80 - 120	<0.20	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5904250	Acid Extractable Thallium (Tl)	2018/12/28	99	75 - 125	96	80 - 120	<0.050	ug/g	0.17	30
5904250	Acid Extractable Uranium (U)	2018/12/28	98	75 - 125	94	80 - 120	<0.050	ug/g	11	30
5904250	Acid Extractable Vanadium (V)	2018/12/28	NC	75 - 125	101	80 - 120	<5.0	ug/g	0.035	30
5904250	Acid Extractable Zinc (Zn)	2018/12/28	NC	75 - 125	101	80 - 120	<5.0	ug/g	1.6	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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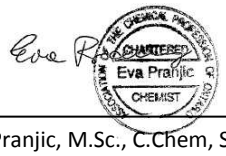
Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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21-Dec-18 11:47
Ema Gitej
B8Y2413
JCC ENV-727

Page 1 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:			
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Bottle Order #:	696190
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	C#696190-17-01
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		Project Manager:	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVK		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		H7	Dec 20/18	10am	Soil	N/A				X	1	
2		L8								X	1	
3		L9								X	1	
4		L10								X	1	
5		K8								X	1	
6		K9								X	1	
7		K10								X	1	
8		I11								X	1	
9		M10								X	1	
10		N15								X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/20	5pm		18/12/21	11:47	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	1/1/2	Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

IT 88213

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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CHAIN OF CUSTODY RECORD

Page 2 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #: B8Y2413	Bottle Order #: 696190
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #: C#696190-18-01	Project Manager: Ema Gitej
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:			
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		N16	Dec 20/18	12pm	Soil	N/A				X	1	
2		N17								X	1	
3		N18								X	1	
4		N19								X	1	
5		O16								X	1	
6		O17								X	1	
7		M16								X	1	
8		N13								X	1	
9		N14								X	1	
10		L13								X	1	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/20	5pm				0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

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CHAIN OF CUSTODY RECORD

Page 23 of 23

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #: B8Y2413	Bottle Order #: 696190
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #: C#696190-19-01	Project Manager: Ema Gitej
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:			
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

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Special Instructions

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Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		M12	Dec 20/18	2pm	Soil	N/A				X	1	
2		M13								X	1	
3		M14								X	1	
4		M15								X	1	
5		~~M~~ 014								X	1	
6		015								X	1	
7		DUP10								X	1	
8		DUP 11								X	1	
9		DUP12								X	1	
10		DUP L								X	1	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/12/20	5pm	See page 1			0

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

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Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8Y2413
Report Date: 2019/01/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-26-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/06/14
Report #: R5754229
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9F9884
Received: 2019/06/12, 14:30

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	7	2019/06/13	2019/06/13	CAM SOP-00447	EPA 6020B m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: Ema.Gitej@bvlabs.com
Phone# (905)817-5829

==========

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BV Labs Job #: B9F9884
Report Date: 2019/06/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			JZC221	JZC222	JZC223	JZC224	JZC224		
Sampling Date			2019/06/11 12:00	2019/06/11 12:00	2019/06/11 12:00	2019/06/11 12:00	2019/06/11 12:00		
COC Number			696190-26-01	696190-26-01	696190-26-01	696190-26-01	696190-26-01		
	UNITS	Criteria	I8	J9	J10	K12	K12 Lab-Dup	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.22	0.57	0.91	0.98	0.20	6174479
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.6	1.3	1.4	1.4	1.0	6174479
Acid Extractable Barium (Ba)	ug/g	220	16	64	45	35	35	0.50	6174479
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.38	0.29	0.25	0.26	0.20	6174479
Acid Extractable Boron (B)	ug/g	36	<5.0	7.0	5.4	<5.0	<5.0	5.0	6174479
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	6174479
Acid Extractable Chromium (Cr)	ug/g	70	6.0	15	12	13	12	1.0	6174479
Acid Extractable Cobalt (Co)	ug/g	21	1.9	4.4	3.2	3.6	3.4	0.10	6174479
Acid Extractable Copper (Cu)	ug/g	92	3.1	8.4	6.7	5.8	5.9	0.50	6174479
Acid Extractable Lead (Pb)	ug/g	120	2.0	6.1	8.3	11	11	1.0	6174479
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6174479
Acid Extractable Nickel (Ni)	ug/g	82	5.5	11	8.6	7.5	7.6	0.50	6174479
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6174479
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6174479
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.12	0.095	0.066	0.074	0.050	6174479
Acid Extractable Uranium (U)	ug/g	2.5	0.40	0.48	0.44	0.46	0.60	0.050	6174479
Acid Extractable Vanadium (V)	ug/g	86	14	24	18	20	20	5.0	6174479
Acid Extractable Zinc (Zn)	ug/g	290	11	28	22	21	21	5.0	6174479

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: B9F9884
Report Date: 2019/06/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			JZC225	JZC226	JZC227		
Sampling Date			2019/06/11 12:00	2019/06/11 12:00	2019/06/11 12:00		
COC Number			696190-26-01	696190-26-01	696190-26-01		
	UNITS	Criteria	K13	L14	DUP Q	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	1.3	0.72	0.80	<0.20	0.20	6174479
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.7	<1.0	1.0	6174479
Acid Extractable Barium (Ba)	ug/g	220	52	39	18	0.50	6174479
Acid Extractable Beryllium (Be)	ug/g	2.5	0.38	0.33	<0.20	0.20	6174479
Acid Extractable Boron (B)	ug/g	36	5.4	5.1	<5.0	5.0	6174479
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	0.10	6174479
Acid Extractable Chromium (Cr)	ug/g	70	15	13	6.1	1.0	6174479
Acid Extractable Cobalt (Co)	ug/g	21	4.6	4.0	2.1	0.10	6174479
Acid Extractable Copper (Cu)	ug/g	92	8.5	7.2	3.4	0.50	6174479
Acid Extractable Lead (Pb)	ug/g	120	9.0	9.2	2.2	1.0	6174479
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	0.50	6174479
Acid Extractable Nickel (Ni)	ug/g	82	11	9.2	3.7	0.50	6174479
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	0.50	6174479
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	0.20	6174479
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.11	<0.050	0.050	6174479
Acid Extractable Uranium (U)	ug/g	2.5	0.43	0.48	0.42	0.050	6174479
Acid Extractable Vanadium (V)	ug/g	86	23	21	15	5.0	6174479
Acid Extractable Zinc (Zn)	ug/g	290	24	23	12	5.0	6174479

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: B9F9884
Report Date: 2019/06/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

BV Labs ID: JZC221 **Collected:** 2019/06/11
Sample ID: I8 **Shipped:**
Matrix: Soil **Received:** 2019/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6174479	2019/06/13	2019/06/13	Daniel Teclu

BV Labs ID: JZC222 **Collected:** 2019/06/11
Sample ID: J9 **Shipped:**
Matrix: Soil **Received:** 2019/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6174479	2019/06/13	2019/06/13	Daniel Teclu

BV Labs ID: JZC223 **Collected:** 2019/06/11
Sample ID: J10 **Shipped:**
Matrix: Soil **Received:** 2019/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6174479	2019/06/13	2019/06/13	Daniel Teclu

BV Labs ID: JZC224 **Collected:** 2019/06/11
Sample ID: K12 **Shipped:**
Matrix: Soil **Received:** 2019/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6174479	2019/06/13	2019/06/13	Daniel Teclu

BV Labs ID: JZC224 Dup **Collected:** 2019/06/11
Sample ID: K12 **Shipped:**
Matrix: Soil **Received:** 2019/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6174479	2019/06/13	2019/06/13	Daniel Teclu

BV Labs ID: JZC225 **Collected:** 2019/06/11
Sample ID: K13 **Shipped:**
Matrix: Soil **Received:** 2019/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6174479	2019/06/13	2019/06/13	Daniel Teclu

BV Labs ID: JZC226 **Collected:** 2019/06/11
Sample ID: L14 **Shipped:**
Matrix: Soil **Received:** 2019/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6174479	2019/06/13	2019/06/13	Daniel Teclu

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BV Labs Job #: B9F9884
Report Date: 2019/06/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

BV Labs ID: JZC227
Sample ID: DUP Q
Matrix: Soil

Collected: 2019/06/11
Shipped:
Received: 2019/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6174479	2019/06/13	2019/06/13	Daniel Teclu

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

GENERAL COMMENTS

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

Package 1	4.0°C

Results relate only to the items tested.

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BV Labs Job #: B9F9884
Report Date: 2019/06/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6174479	DT1	Matrix Spike [JZC224-01]	Acid Extractable Antimony (Sb)	2019/06/13		105	%	75 - 125
			Acid Extractable Arsenic (As)	2019/06/13		100	%	75 - 125
			Acid Extractable Barium (Ba)	2019/06/13		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/06/13		95	%	75 - 125
			Acid Extractable Boron (B)	2019/06/13		95	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/06/13		101	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/06/13		101	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/06/13		96	%	75 - 125
			Acid Extractable Copper (Cu)	2019/06/13		97	%	75 - 125
			Acid Extractable Lead (Pb)	2019/06/13		97	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/06/13		101	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/06/13		95	%	75 - 125
			Acid Extractable Selenium (Se)	2019/06/13		101	%	75 - 125
			Acid Extractable Silver (Ag)	2019/06/13		100	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/06/13		97	%	75 - 125
			Acid Extractable Uranium (U)	2019/06/13		99	%	75 - 125
			Acid Extractable Vanadium (V)	2019/06/13		100	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/06/13		101	%	75 - 125
6174479	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2019/06/13		107	%	80 - 120
			Acid Extractable Arsenic (As)	2019/06/13		104	%	80 - 120
			Acid Extractable Barium (Ba)	2019/06/13		96	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/06/13		96	%	80 - 120
			Acid Extractable Boron (B)	2019/06/13		99	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/06/13		102	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/06/13		100	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/06/13		99	%	80 - 120
			Acid Extractable Copper (Cu)	2019/06/13		98	%	80 - 120
			Acid Extractable Lead (Pb)	2019/06/13		101	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/06/13		99	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/06/13		99	%	80 - 120
			Acid Extractable Selenium (Se)	2019/06/13		106	%	80 - 120
			Acid Extractable Silver (Ag)	2019/06/13		102	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/06/13		102	%	80 - 120
			Acid Extractable Uranium (U)	2019/06/13		103	%	80 - 120
			Acid Extractable Vanadium (V)	2019/06/13		99	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/06/13		101	%	80 - 120
6174479	DT1	Method Blank	Acid Extractable Antimony (Sb)	2019/06/13	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/06/13	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/06/13	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/06/13	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/06/13	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/06/13	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/06/13	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/06/13	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/06/13	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/06/13	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/06/13	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/06/13	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/06/13	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/06/13	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/06/13	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/06/13	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/06/13	<5.0		ug/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Zinc (Zn)	2019/06/13	<5.0		ug/g	
6174479	DT1	RPD [JZC224-01]	Acid Extractable Antimony (Sb)	2019/06/13	8.3		%	30
			Acid Extractable Arsenic (As)	2019/06/13	1.0		%	30
			Acid Extractable Barium (Ba)	2019/06/13	1.9		%	30
			Acid Extractable Beryllium (Be)	2019/06/13	0.80		%	30
			Acid Extractable Boron (B)	2019/06/13	NC		%	30
			Acid Extractable Cadmium (Cd)	2019/06/13	NC		%	30
			Acid Extractable Chromium (Cr)	2019/06/13	5.1		%	30
			Acid Extractable Cobalt (Co)	2019/06/13	4.8		%	30
			Acid Extractable Copper (Cu)	2019/06/13	1.8		%	30
			Acid Extractable Lead (Pb)	2019/06/13	0.60		%	30
			Acid Extractable Molybdenum (Mo)	2019/06/13	NC		%	30
			Acid Extractable Nickel (Ni)	2019/06/13	1.6		%	30
			Acid Extractable Selenium (Se)	2019/06/13	NC		%	30
			Acid Extractable Silver (Ag)	2019/06/13	NC		%	30
			Acid Extractable Thallium (Tl)	2019/06/13	11		%	30
			Acid Extractable Uranium (U)	2019/06/13	26		%	30
			Acid Extractable Vanadium (V)	2019/06/13	0.26		%	30
			Acid Extractable Zinc (Zn)	2019/06/13	0.13		%	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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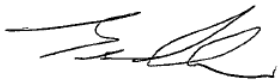
BV Labs Job #: B9F9884
Report Date: 2019/06/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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BV Labs Job #: B9F9884
Report Date: 2019/06/14

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-03-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/06/19
Report #: R5762208
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9G1450
Received: 2019/06/13, 14:30

Sample Matrix: Soil
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	10	2019/06/15	2019/06/17	CAM SOP-00447	EPA 6020B m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: Ema.Gitej@bvlabs.com
Phone# (905)817-5829

==========

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: B9G1450
Report Date: 2019/06/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			JZK695	JZK696	JZK697	JZK698	JZK699		
Sampling Date			2019/06/12 12:00	2019/06/12 12:00	2019/06/12 12:00	2019/06/12 12:00	2019/06/12 12:00		
COC Number			704923-03-01	704923-03-01	704923-03-01	704923-03-01	704923-03-01		
	UNITS	Criteria	L15	L16	M17	M18	N19	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.42	<0.20	<0.20	<0.20	<0.20	0.20	6179023
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.6	1.3	1.5	1.6	1.0	6179023
Acid Extractable Barium (Ba)	ug/g	220	38	42	29	27	29	0.50	6179023
Acid Extractable Beryllium (Be)	ug/g	2.5	0.31	0.34	0.26	0.25	0.28	0.20	6179023
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	6179023
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	6179023
Acid Extractable Chromium (Cr)	ug/g	70	10	13	9.2	8.9	10	1.0	6179023
Acid Extractable Cobalt (Co)	ug/g	21	3.7	3.8	3.1	3.3	3.5	0.10	6179023
Acid Extractable Copper (Cu)	ug/g	92	7.7	4.7	6.0	6.8	7.6	0.50	6179023
Acid Extractable Lead (Pb)	ug/g	120	6.8	5.9	4.3	4.4	4.8	1.0	6179023
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6179023
Acid Extractable Nickel (Ni)	ug/g	82	8.9	8.1	7.5	7.3	8.5	0.50	6179023
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6179023
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6179023
Acid Extractable Thallium (Tl)	ug/g	1	0.095	0.084	0.081	0.087	0.10	0.050	6179023
Acid Extractable Uranium (U)	ug/g	2.5	0.47	0.41	0.48	0.47	0.49	0.050	6179023
Acid Extractable Vanadium (V)	ug/g	86	19	22	17	16	18	5.0	6179023
Acid Extractable Zinc (Zn)	ug/g	290	21	21	17	18	19	5.0	6179023

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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BV Labs Job #: B9G1450
Report Date: 2019/06/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			JZK700		JZK701	JZK701	JZK702		
Sampling Date			2019/06/12 12:00		2019/06/12 12:00	2019/06/12 12:00	2019/06/12 12:00		
COC Number			704923-03-01		704923-03-01	704923-03-01	704923-03-01		
	UNITS	Criteria	I7	QC Batch	H6	H6 Lab-Dup	N20-020	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	6179055	<0.20	<0.20	<0.20	0.20	6179023
Acid Extractable Arsenic (As)	ug/g	18	<1.0	6179055	<1.0	<1.0	2.0	1.0	6179023
Acid Extractable Barium (Ba)	ug/g	220	20	6179055	18	18	40	0.50	6179023
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	6179055	<0.20	<0.20	0.41	0.20	6179023
Acid Extractable Boron (B)	ug/g	36	<5.0	6179055	<5.0	<5.0	<5.0	5.0	6179023
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	6179055	<0.10	<0.10	<0.10	0.10	6179023
Acid Extractable Chromium (Cr)	ug/g	70	6.1	6179055	6.8	6.7	14	1.0	6179023
Acid Extractable Cobalt (Co)	ug/g	21	2.0	6179055	2.3	2.4	4.3	0.10	6179023
Acid Extractable Copper (Cu)	ug/g	92	3.4	6179055	3.3	3.4	7.9	0.50	6179023
Acid Extractable Lead (Pb)	ug/g	120	2.2	6179055	2.5	2.6	5.7	1.0	6179023
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	6179055	<0.50	<0.50	<0.50	0.50	6179023
Acid Extractable Nickel (Ni)	ug/g	82	3.7	6179055	3.9	4.3	10	0.50	6179023
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	6179055	<0.50	<0.50	<0.50	0.50	6179023
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	6179055	<0.20	<0.20	<0.20	0.20	6179023
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	6179055	<0.050	0.052	0.12	0.050	6179023
Acid Extractable Uranium (U)	ug/g	2.5	0.37	6179055	0.42	0.39	0.50	0.050	6179023
Acid Extractable Vanadium (V)	ug/g	86	15	6179055	17	16	25	5.0	6179023
Acid Extractable Zinc (Zn)	ug/g	290	12	6179055	14	13	24	5.0	6179023

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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BV Labs Job #: B9G1450
Report Date: 2019/06/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			JZK703	JZK704		
Sampling Date			2019/06/12 12:00	2019/06/12 12:00		
COC Number			704923-03-01	704923-03-01		
	UNITS	Criteria	HI6-HI7	I5-HI5.5	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.20	6179023
Acid Extractable Arsenic (As)	ug/g	18	<1.0	2.0	1.0	6179023
Acid Extractable Barium (Ba)	ug/g	220	17	60	0.50	6179023
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.54	0.20	6179023
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.0	6179023
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.15	0.10	6179023
Acid Extractable Chromium (Cr)	ug/g	70	5.8	18	1.0	6179023
Acid Extractable Cobalt (Co)	ug/g	21	2.1	5.4	0.10	6179023
Acid Extractable Copper (Cu)	ug/g	92	3.0	6.6	0.50	6179023
Acid Extractable Lead (Pb)	ug/g	120	2.0	6.4	1.0	6179023
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	0.50	6179023
Acid Extractable Nickel (Ni)	ug/g	82	3.9	11	0.50	6179023
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	0.50	6179023
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	0.20	6179023
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.12	0.050	6179023
Acid Extractable Uranium (U)	ug/g	2.5	0.38	0.53	0.050	6179023
Acid Extractable Vanadium (V)	ug/g	86	15	31	5.0	6179023
Acid Extractable Zinc (Zn)	ug/g	290	13	30	5.0	6179023

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

BV Labs ID: JZK695 **Collected:** 2019/06/12
Sample ID: L15 **Shipped:**
Matrix: Soil **Received:** 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

BV Labs ID: JZK696 **Collected:** 2019/06/12
Sample ID: L16 **Shipped:**
Matrix: Soil **Received:** 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

BV Labs ID: JZK697 **Collected:** 2019/06/12
Sample ID: M17 **Shipped:**
Matrix: Soil **Received:** 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

BV Labs ID: JZK698 **Collected:** 2019/06/12
Sample ID: M18 **Shipped:**
Matrix: Soil **Received:** 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

BV Labs ID: JZK699 **Collected:** 2019/06/12
Sample ID: N19 **Shipped:**
Matrix: Soil **Received:** 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

BV Labs ID: JZK700 **Collected:** 2019/06/12
Sample ID: I7 **Shipped:**
Matrix: Soil **Received:** 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179055	2019/06/15	2019/06/17	Daniel Teclu

BV Labs ID: JZK701 **Collected:** 2019/06/12
Sample ID: H6 **Shipped:**
Matrix: Soil **Received:** 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

BV Labs Job #: B9G1450
Report Date: 2019/06/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

BV Labs ID: JZK701 Dup
Sample ID: H6
Matrix: Soil
Collected: 2019/06/12
Shipped:
Received: 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

BV Labs ID: JZK702
Sample ID: N20-020
Matrix: Soil
Collected: 2019/06/12
Shipped:
Received: 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

BV Labs ID: JZK703
Sample ID: HI6-HI7
Matrix: Soil
Collected: 2019/06/12
Shipped:
Received: 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

BV Labs ID: JZK704
Sample ID: I5-HI5.5
Matrix: Soil
Collected: 2019/06/12
Shipped:
Received: 2019/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6179023	2019/06/15	2019/06/17	Daniel Teclu

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BV Labs Job #: B9G1450
Report Date: 2019/06/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.7°C

Results relate only to the items tested.

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BV Labs Job #: B9G1450
Report Date: 2019/06/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6179023	DT1	Matrix Spike [JZK701-01]	Acid Extractable Antimony (Sb)	2019/06/17		97	%	75 - 125
			Acid Extractable Arsenic (As)	2019/06/17		98	%	75 - 125
			Acid Extractable Barium (Ba)	2019/06/17		95	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/06/17		94	%	75 - 125
			Acid Extractable Boron (B)	2019/06/17		95	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/06/17		96	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/06/17		98	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/06/17		98	%	75 - 125
			Acid Extractable Copper (Cu)	2019/06/17		94	%	75 - 125
			Acid Extractable Lead (Pb)	2019/06/17		92	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/06/17		96	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/06/17		95	%	75 - 125
			Acid Extractable Selenium (Se)	2019/06/17		100	%	75 - 125
			Acid Extractable Silver (Ag)	2019/06/17		94	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/06/17		92	%	75 - 125
			Acid Extractable Uranium (U)	2019/06/17		92	%	75 - 125
			Acid Extractable Vanadium (V)	2019/06/17		98	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/06/17		95	%	75 - 125
6179023	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2019/06/17		99	%	80 - 120
			Acid Extractable Arsenic (As)	2019/06/17		101	%	80 - 120
			Acid Extractable Barium (Ba)	2019/06/17		93	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/06/17		96	%	80 - 120
			Acid Extractable Boron (B)	2019/06/17		94	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/06/17		98	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/06/17		99	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/06/17		102	%	80 - 120
			Acid Extractable Copper (Cu)	2019/06/17		99	%	80 - 120
			Acid Extractable Lead (Pb)	2019/06/17		100	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/06/17		98	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/06/17		101	%	80 - 120
			Acid Extractable Selenium (Se)	2019/06/17		105	%	80 - 120
			Acid Extractable Silver (Ag)	2019/06/17		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/06/17		100	%	80 - 120
			Acid Extractable Uranium (U)	2019/06/17		99	%	80 - 120
			Acid Extractable Vanadium (V)	2019/06/17		99	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/06/17		102	%	80 - 120
6179023	DT1	Method Blank	Acid Extractable Antimony (Sb)	2019/06/17	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/06/17	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/06/17	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/06/17	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/06/17	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/06/17	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/06/17	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/06/17	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/06/17	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/06/17	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/06/17	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/06/17	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/06/17	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/06/17	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/06/17	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/06/17	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/06/17	<5.0		ug/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Zinc (Zn)	2019/06/17	<5.0		ug/g	
6179023	DT1	RPD [JZK701-01]	Acid Extractable Antimony (Sb)	2019/06/17	NC		%	30
			Acid Extractable Arsenic (As)	2019/06/17	NC		%	30
			Acid Extractable Barium (Ba)	2019/06/17	1.3		%	30
			Acid Extractable Beryllium (Be)	2019/06/17	NC		%	30
			Acid Extractable Boron (B)	2019/06/17	NC		%	30
			Acid Extractable Cadmium (Cd)	2019/06/17	NC		%	30
			Acid Extractable Chromium (Cr)	2019/06/17	1.6		%	30
			Acid Extractable Cobalt (Co)	2019/06/17	2.5		%	30
			Acid Extractable Copper (Cu)	2019/06/17	5.0		%	30
			Acid Extractable Lead (Pb)	2019/06/17	0.66		%	30
			Acid Extractable Molybdenum (Mo)	2019/06/17	NC		%	30
			Acid Extractable Nickel (Ni)	2019/06/17	8.8		%	30
			Acid Extractable Selenium (Se)	2019/06/17	NC		%	30
			Acid Extractable Silver (Ag)	2019/06/17	NC		%	30
			Acid Extractable Thallium (Tl)	2019/06/17	4.3		%	30
			Acid Extractable Uranium (U)	2019/06/17	8.1		%	30
			Acid Extractable Vanadium (V)	2019/06/17	7.2		%	30
			Acid Extractable Zinc (Zn)	2019/06/17	2.7		%	30
6179055	DT1	Matrix Spike	Acid Extractable Antimony (Sb)	2019/06/17		78	%	75 - 125
			Acid Extractable Arsenic (As)	2019/06/17		97	%	75 - 125
			Acid Extractable Barium (Ba)	2019/06/17		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/06/17		91	%	75 - 125
			Acid Extractable Boron (B)	2019/06/17		80	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/06/17		93	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/06/17		NC	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/06/17		92	%	75 - 125
			Acid Extractable Copper (Cu)	2019/06/17		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2019/06/17		92	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/06/17		91	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/06/17		NC	%	75 - 125
			Acid Extractable Selenium (Se)	2019/06/17		94	%	75 - 125
			Acid Extractable Silver (Ag)	2019/06/17		93	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/06/17		93	%	75 - 125
			Acid Extractable Uranium (U)	2019/06/17		97	%	75 - 125
			Acid Extractable Vanadium (V)	2019/06/17		NC	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/06/17		NC	%	75 - 125
6179055	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2019/06/17		101	%	80 - 120
			Acid Extractable Arsenic (As)	2019/06/17		105	%	80 - 120
			Acid Extractable Barium (Ba)	2019/06/17		100	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/06/17		96	%	80 - 120
			Acid Extractable Boron (B)	2019/06/17		90	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/06/17		101	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/06/17		105	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/06/17		104	%	80 - 120
			Acid Extractable Copper (Cu)	2019/06/17		101	%	80 - 120
			Acid Extractable Lead (Pb)	2019/06/17		104	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/06/17		101	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/06/17		105	%	80 - 120
			Acid Extractable Selenium (Se)	2019/06/17		105	%	80 - 120
			Acid Extractable Silver (Ag)	2019/06/17		103	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/06/17		103	%	80 - 120
			Acid Extractable Uranium (U)	2019/06/17		106	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Vanadium (V)	2019/06/17		105	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/06/17		105	%	80 - 120
6179055	DT1	Method Blank	Acid Extractable Antimony (Sb)	2019/06/17	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/06/17	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/06/17	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/06/17	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/06/17	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/06/17	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/06/17	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/06/17	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/06/17	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/06/17	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/06/17	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/06/17	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/06/17	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/06/17	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/06/17	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/06/17	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/06/17	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2019/06/17	<5.0		ug/g	
6179055	DT1	RPD	Acid Extractable Antimony (Sb)	2019/06/17	NC		%	30
			Acid Extractable Arsenic (As)	2019/06/17	5.3		%	30
			Acid Extractable Barium (Ba)	2019/06/17	3.9		%	30
			Acid Extractable Beryllium (Be)	2019/06/17	4.2		%	30
			Acid Extractable Boron (B)	2019/06/17	0.70		%	30
			Acid Extractable Cadmium (Cd)	2019/06/17	3.0		%	30
			Acid Extractable Chromium (Cr)	2019/06/17	1.8		%	30
			Acid Extractable Cobalt (Co)	2019/06/17	1.9		%	30
			Acid Extractable Copper (Cu)	2019/06/17	2.9		%	30
			Acid Extractable Lead (Pb)	2019/06/17	0.84		%	30
			Acid Extractable Molybdenum (Mo)	2019/06/17	NC		%	30
			Acid Extractable Nickel (Ni)	2019/06/17	3.8		%	30
			Acid Extractable Selenium (Se)	2019/06/17	NC		%	30
			Acid Extractable Silver (Ag)	2019/06/17	NC		%	30
			Acid Extractable Thallium (Tl)	2019/06/17	1.3		%	30
			Acid Extractable Uranium (U)	2019/06/17	1.0		%	30
			Acid Extractable Vanadium (V)	2019/06/17	1.9		%	30
			Acid Extractable Zinc (Zn)	2019/06/17	2.6		%	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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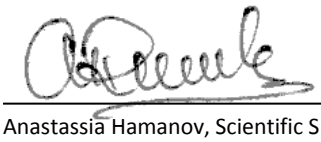
BV Labs Job #: B9G1450
Report Date: 2019/06/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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BV Labs Job #: B9G1450
Report Date: 2019/06/19

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-01-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/07/10
Report #: R5791929
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9I4727
Received: 2019/07/05, 14:05

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	2	2019/07/08	2019/07/09	CAM SOP-00447	EPA 6020B m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: Ema.Gitej@bvlabs.com
Phone# (905)817-5829

==========

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: B9I4727
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			KEP809	KEP810		
Sampling Date			2019/07/04 13:00	2019/07/04 13:00		
COC Number			704923-01-01	704923-01-01		
	UNITS	Criteria	CD16-CD17	CD17-CD18	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	1.3	0.23	<0.20	0.20	6215978
Acid Extractable Arsenic (As)	ug/g	18	2.6	2.2	1.0	6215978
Acid Extractable Barium (Ba)	ug/g	220	52	58	0.50	6215978
Acid Extractable Beryllium (Be)	ug/g	2.5	0.42	0.50	0.20	6215978
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.0	6215978
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.14	<0.10	0.10	6215978
Acid Extractable Chromium (Cr)	ug/g	70	15	18	1.0	6215978
Acid Extractable Cobalt (Co)	ug/g	21	5.0	5.7	0.10	6215978
Acid Extractable Copper (Cu)	ug/g	92	11	9.2	0.50	6215978
Acid Extractable Lead (Pb)	ug/g	120	22	8.4	1.0	6215978
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	0.50	6215978
Acid Extractable Nickel (Ni)	ug/g	82	12	13	0.50	6215978
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	0.50	6215978
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	0.20	6215978
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.13	0.050	6215978
Acid Extractable Uranium (U)	ug/g	2.5	0.45	0.76	0.050	6215978
Acid Extractable Vanadium (V)	ug/g	86	24	28	5.0	6215978
Acid Extractable Zinc (Zn)	ug/g	290	49	31	5.0	6215978

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: B9I4727
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

TEST SUMMARY

BV Labs ID: KEP809
Sample ID: CD16-CD17
Matrix: Soil

Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6215978	2019/07/08	2019/07/09	Daniel Teclu

BV Labs ID: KEP810
Sample ID: CD17-CD18
Matrix: Soil

Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6215978	2019/07/08	2019/07/09	Daniel Teclu

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BV Labs Job #: B9I4727
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	0.3°C

Results relate only to the items tested.

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BV Labs Job #: B9I4727
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6215978	DT1	Matrix Spike	Acid Extractable Antimony (Sb)	2019/07/09		50 (1)	%	75 - 125
			Acid Extractable Arsenic (As)	2019/07/09		99	%	75 - 125
			Acid Extractable Barium (Ba)	2019/07/09		98	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/07/09		97	%	75 - 125
			Acid Extractable Boron (B)	2019/07/09		98	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/07/09		99	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/07/09		104	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/07/09		98	%	75 - 125
			Acid Extractable Copper (Cu)	2019/07/09		98	%	75 - 125
			Acid Extractable Lead (Pb)	2019/07/09		97	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/07/09		100	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/07/09		96	%	75 - 125
			Acid Extractable Selenium (Se)	2019/07/09		101	%	75 - 125
			Acid Extractable Silver (Ag)	2019/07/09		96	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/07/09		95	%	75 - 125
			Acid Extractable Uranium (U)	2019/07/09		97	%	75 - 125
			Acid Extractable Vanadium (V)	2019/07/09		107	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/07/09		92	%	75 - 125
6215978	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2019/07/09		101	%	80 - 120
			Acid Extractable Arsenic (As)	2019/07/09		104	%	80 - 120
			Acid Extractable Barium (Ba)	2019/07/09		98	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/07/09		98	%	80 - 120
			Acid Extractable Boron (B)	2019/07/09		95	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/07/09		101	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/07/09		101	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/07/09		101	%	80 - 120
			Acid Extractable Copper (Cu)	2019/07/09		100	%	80 - 120
			Acid Extractable Lead (Pb)	2019/07/09		102	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/07/09		98	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/07/09		99	%	80 - 120
			Acid Extractable Selenium (Se)	2019/07/09		104	%	80 - 120
			Acid Extractable Silver (Ag)	2019/07/09		100	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/07/09		100	%	80 - 120
			Acid Extractable Uranium (U)	2019/07/09		98	%	80 - 120
			Acid Extractable Vanadium (V)	2019/07/09		100	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/07/09		100	%	80 - 120
6215978	DT1	Method Blank	Acid Extractable Antimony (Sb)	2019/07/09	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/07/09	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/07/09	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/07/09	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/07/09	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/07/09	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/07/09	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/07/09	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/07/09	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/07/09	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/07/09	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/07/09	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/07/09	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/07/09	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/07/09	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/07/09	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/07/09	<5.0		ug/g	

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BV Labs Job #: B9I4727
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Zinc (Zn)	2019/07/09	<5.0		ug/g	

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

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

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

(1) Bias likely due to matrix interference.

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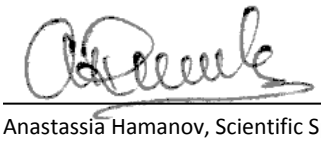
BV Labs Job #: B9I4727
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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BV Labs Job #: B9I4727
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-01-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/07/10
Report #: R5790694
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9I4731
Received: 2019/07/05, 14:05

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	8	2019/07/08	2019/07/09	CAM SOP-00447	EPA 6020B m

Remarks:

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

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
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Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: Ema.Gitej@bvlabs.com
Phone# (905)817-5829

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BV Labs Job #: B9I4731
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			KEP825	KEP826	KEP827	KEP828	KEP829		
Sampling Date			2019/07/04 13:00	2019/07/04 13:00	2019/07/04 13:00	2019/07/04 13:00	2019/07/04 13:00		
COC Number			704923-01-01	704923-01-01	704923-01-01	704923-01-01	704923-01-01		
	UNITS	Criteria	C19	D19	E19	F19	G19	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.22	0.33	0.22	0.20	6216079
Acid Extractable Arsenic (As)	ug/g	18	1.7	1.9	1.6	1.7	1.6	1.0	6216079
Acid Extractable Barium (Ba)	ug/g	220	32	43	38	37	29	0.50	6216079
Acid Extractable Beryllium (Be)	ug/g	2.5	0.28	0.35	0.29	0.32	0.33	0.20	6216079
Acid Extractable Boron (B)	ug/g	36	<5.0	5.1	5.3	5.2	<5.0	5.0	6216079
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.13	<0.10	<0.10	<0.10	0.10	6216079
Acid Extractable Chromium (Cr)	ug/g	70	10	14	11	11	12	1.0	6216079
Acid Extractable Cobalt (Co)	ug/g	21	3.4	4.2	3.6	3.7	4.0	0.10	6216079
Acid Extractable Copper (Cu)	ug/g	92	5.8	7.5	6.8	6.8	4.3	0.50	6216079
Acid Extractable Lead (Pb)	ug/g	120	6.0	6.5	6.7	8.9	5.8	1.0	6216079
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6216079
Acid Extractable Nickel (Ni)	ug/g	82	7.6	9.8	8.4	8.4	8.0	0.50	6216079
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6216079
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6216079
Acid Extractable Thallium (Tl)	ug/g	1	0.088	0.11	0.095	0.094	0.078	0.050	6216079
Acid Extractable Uranium (U)	ug/g	2.5	0.43	0.51	0.50	0.47	0.48	0.050	6216079
Acid Extractable Vanadium (V)	ug/g	86	19	22	19	20	24	5.0	6216079
Acid Extractable Zinc (Zn)	ug/g	290	20	27	21	22	19	5.0	6216079

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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BV Labs Job #: B9I4731
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			KEP829	KEP830	KEP831	KEP832		
Sampling Date			2019/07/04 13:00	2019/07/04 13:00	2019/07/04 13:00	2019/07/04 13:00		
COC Number			704923-01-01	704923-01-01	704923-01-01	704923-01-01		
	UNITS	Criteria	G19 Lab-Dup	G18	H18	DUP R	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.29	<0.20	<0.20	0.20	6216079
Acid Extractable Arsenic (As)	ug/g	18	1.9	1.5	1.6	1.6	1.0	6216079
Acid Extractable Barium (Ba)	ug/g	220	29	37	34	34	0.50	6216079
Acid Extractable Beryllium (Be)	ug/g	2.5	0.34	0.30	0.29	0.26	0.20	6216079
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	<5.0	<5.0	5.0	6216079
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	0.10	6216079
Acid Extractable Chromium (Cr)	ug/g	70	12	10	11	10	1.0	6216079
Acid Extractable Cobalt (Co)	ug/g	21	4.0	3.7	3.7	3.7	0.10	6216079
Acid Extractable Copper (Cu)	ug/g	92	4.6	7.1	7.2	7.1	0.50	6216079
Acid Extractable Lead (Pb)	ug/g	120	5.9	8.4	5.1	5.2	1.0	6216079
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	6216079
Acid Extractable Nickel (Ni)	ug/g	82	8.3	8.3	8.3	8.0	0.50	6216079
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	6216079
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	6216079
Acid Extractable Thallium (Tl)	ug/g	1	0.086	0.098	0.10	0.091	0.050	6216079
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.49	0.46	0.46	0.050	6216079
Acid Extractable Vanadium (V)	ug/g	86	24	18	19	18	5.0	6216079
Acid Extractable Zinc (Zn)	ug/g	290	19	22	21	19	5.0	6216079

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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BV Labs Job #: B9I4731
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

BV Labs ID: KEP825
Sample ID: C19
Matrix: Soil
Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6216079	2019/07/08	2019/07/09	Daniel Teclu

BV Labs ID: KEP826
Sample ID: D19
Matrix: Soil
Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6216079	2019/07/08	2019/07/09	Daniel Teclu

BV Labs ID: KEP827
Sample ID: E19
Matrix: Soil
Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6216079	2019/07/08	2019/07/09	Daniel Teclu

BV Labs ID: KEP828
Sample ID: F19
Matrix: Soil
Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6216079	2019/07/08	2019/07/09	Daniel Teclu

BV Labs ID: KEP829
Sample ID: G19
Matrix: Soil
Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6216079	2019/07/08	2019/07/09	Daniel Teclu

BV Labs ID: KEP829 Dup
Sample ID: G19
Matrix: Soil
Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6216079	2019/07/08	2019/07/09	Daniel Teclu

BV Labs ID: KEP830
Sample ID: G18
Matrix: Soil
Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6216079	2019/07/08	2019/07/09	Daniel Teclu

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BV Labs Job #: B9I4731
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

BV Labs ID: KEP831
Sample ID: H18
Matrix: Soil

Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6216079	2019/07/08	2019/07/09	Daniel Teclu

BV Labs ID: KEP832
Sample ID: DUP R
Matrix: Soil

Collected: 2019/07/04
Shipped:
Received: 2019/07/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6216079	2019/07/08	2019/07/09	Daniel Teclu

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BV Labs Job #: B9I4731
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	0.3°C

Results relate only to the items tested.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: B9I4731
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6216079	DT1	Matrix Spike [KEP829-01]	Acid Extractable Antimony (Sb)	2019/07/09		87	%	75 - 125
			Acid Extractable Arsenic (As)	2019/07/09		95	%	75 - 125
			Acid Extractable Barium (Ba)	2019/07/09		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/07/09		96	%	75 - 125
			Acid Extractable Boron (B)	2019/07/09		96	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/07/09		95	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/07/09		95	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/07/09		95	%	75 - 125
			Acid Extractable Copper (Cu)	2019/07/09		90	%	75 - 125
			Acid Extractable Lead (Pb)	2019/07/09		97	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/07/09		95	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/07/09		95	%	75 - 125
			Acid Extractable Selenium (Se)	2019/07/09		99	%	75 - 125
			Acid Extractable Silver (Ag)	2019/07/09		96	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/07/09		96	%	75 - 125
			Acid Extractable Uranium (U)	2019/07/09		96	%	75 - 125
			Acid Extractable Vanadium (V)	2019/07/09		94	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/07/09		99	%	75 - 125
6216079	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2019/07/09		105	%	80 - 120
			Acid Extractable Arsenic (As)	2019/07/09		103	%	80 - 120
			Acid Extractable Barium (Ba)	2019/07/09		97	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/07/09		100	%	80 - 120
			Acid Extractable Boron (B)	2019/07/09		103	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/07/09		103	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/07/09		102	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/07/09		104	%	80 - 120
			Acid Extractable Copper (Cu)	2019/07/09		99	%	80 - 120
			Acid Extractable Lead (Pb)	2019/07/09		107	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/07/09		103	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/07/09		100	%	80 - 120
			Acid Extractable Selenium (Se)	2019/07/09		108	%	80 - 120
			Acid Extractable Silver (Ag)	2019/07/09		106	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/07/09		108	%	80 - 120
			Acid Extractable Uranium (U)	2019/07/09		106	%	80 - 120
			Acid Extractable Vanadium (V)	2019/07/09		101	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/07/09		102	%	80 - 120
6216079	DT1	Method Blank	Acid Extractable Antimony (Sb)	2019/07/09	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/07/09	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/07/09	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/07/09	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/07/09	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/07/09	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/07/09	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/07/09	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/07/09	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/07/09	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/07/09	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/07/09	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/07/09	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/07/09	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/07/09	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/07/09	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/07/09	<5.0		ug/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Zinc (Zn)	2019/07/09	<5.0		ug/g	
6216079	DT1	RPD [KEP829-01]	Acid Extractable Antimony (Sb)	2019/07/09	8.7		%	30
			Acid Extractable Arsenic (As)	2019/07/09	19		%	30
			Acid Extractable Barium (Ba)	2019/07/09	0.19		%	30
			Acid Extractable Beryllium (Be)	2019/07/09	3.9		%	30
			Acid Extractable Boron (B)	2019/07/09	NC		%	30
			Acid Extractable Cadmium (Cd)	2019/07/09	NC		%	30
			Acid Extractable Chromium (Cr)	2019/07/09	0.63		%	30
			Acid Extractable Cobalt (Co)	2019/07/09	0.085		%	30
			Acid Extractable Copper (Cu)	2019/07/09	6.8		%	30
			Acid Extractable Lead (Pb)	2019/07/09	1.3		%	30
			Acid Extractable Molybdenum (Mo)	2019/07/09	NC		%	30
			Acid Extractable Nickel (Ni)	2019/07/09	3.6		%	30
			Acid Extractable Selenium (Se)	2019/07/09	NC		%	30
			Acid Extractable Silver (Ag)	2019/07/09	NC		%	30
			Acid Extractable Thallium (Tl)	2019/07/09	10		%	30
			Acid Extractable Uranium (U)	2019/07/09	3.1		%	30
			Acid Extractable Vanadium (V)	2019/07/09	0.78		%	30
			Acid Extractable Zinc (Zn)	2019/07/09	2.8		%	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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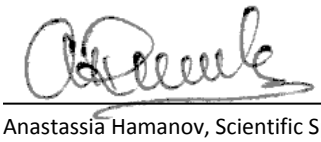
BV Labs Job #: B9I4731
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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BV Labs Job #: B9I4731
Report Date: 2019/07/10

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-11-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/07/16
Report #: R5799690
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9J0538
Received: 2019/07/11, 14:11

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	5	2019/07/13	2019/07/15	CAM SOP-00447	EPA 6020B m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: Ema.Gitej@bvlabs.com
Phone# (905)817-5829

==========

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

BV Labs Job #: B9J0538
Report Date: 2019/07/16

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			KFX098	KFX099	KFX100	KFX101		
Sampling Date			2019/07/09 12:00	2019/07/09 12:00	2019/07/09 12:00	2019/07/09 12:00		
COC Number			704923-11-01	704923-11-01	704923-11-01	704923-11-01		
	UNITS	Criteria	C17	D17	E18	F18	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.28	0.44	0.20	6226886
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.4	1.6	1.8	1.0	6226886
Acid Extractable Barium (Ba)	ug/g	220	45	33	41	36	0.50	6226886
Acid Extractable Beryllium (Be)	ug/g	2.5	0.30	0.23	0.28	0.27	0.20	6226886
Acid Extractable Boron (B)	ug/g	36	6.1	<5.0	5.1	<5.0	5.0	6226886
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	0.10	6226886
Acid Extractable Chromium (Cr)	ug/g	70	12	8.9	9.9	10	1.0	6226886
Acid Extractable Cobalt (Co)	ug/g	21	4.0	3.0	3.7	3.6	0.10	6226886
Acid Extractable Copper (Cu)	ug/g	92	7.0	5.5	6.9	6.9	0.50	6226886
Acid Extractable Lead (Pb)	ug/g	120	5.0	4.0	9.9	8.6	1.0	6226886
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	6226886
Acid Extractable Nickel (Ni)	ug/g	82	9.3	6.8	8.2	8.3	0.50	6226886
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	6226886
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	6226886
Acid Extractable Thallium (Tl)	ug/g	1	0.094	0.070	0.091	0.096	0.050	6226886
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.41	0.47	0.46	0.050	6226886
Acid Extractable Vanadium (V)	ug/g	86	20	16	18	18	5.0	6226886
Acid Extractable Zinc (Zn)	ug/g	290	21	16	21	20	5.0	6226886

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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BV Labs Job #: B9J0538
Report Date: 2019/07/16

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			KFX102		
Sampling Date			2019/07/09 12:00		
COC Number			704923-11-01		
	UNITS	Criteria	D18	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.20	6227001
Acid Extractable Arsenic (As)	ug/g	18	1.4	1.0	6227001
Acid Extractable Barium (Ba)	ug/g	220	40	0.50	6227001
Acid Extractable Beryllium (Be)	ug/g	2.5	0.28	0.20	6227001
Acid Extractable Boron (B)	ug/g	36	6.8	5.0	6227001
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	6227001
Acid Extractable Chromium (Cr)	ug/g	70	10	1.0	6227001
Acid Extractable Cobalt (Co)	ug/g	21	3.6	0.10	6227001
Acid Extractable Copper (Cu)	ug/g	92	6.6	0.50	6227001
Acid Extractable Lead (Pb)	ug/g	120	4.7	1.0	6227001
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	6227001
Acid Extractable Nickel (Ni)	ug/g	82	8.4	0.50	6227001
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	6227001
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	6227001
Acid Extractable Thallium (Tl)	ug/g	1	0.083	0.050	6227001
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.050	6227001
Acid Extractable Vanadium (V)	ug/g	86	18	5.0	6227001
Acid Extractable Zinc (Zn)	ug/g	290	19	5.0	6227001

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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BV Labs Job #: B9J0538
Report Date: 2019/07/16

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

BV Labs ID: KFX098
Sample ID: C17
Matrix: Soil
Collected: 2019/07/09
Shipped:
Received: 2019/07/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6226886	2019/07/13	2019/07/15	Viviana Canzonieri

BV Labs ID: KFX099
Sample ID: D17
Matrix: Soil
Collected: 2019/07/09
Shipped:
Received: 2019/07/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6226886	2019/07/13	2019/07/15	Viviana Canzonieri

BV Labs ID: KFX100
Sample ID: E18
Matrix: Soil
Collected: 2019/07/09
Shipped:
Received: 2019/07/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6226886	2019/07/13	2019/07/15	Viviana Canzonieri

BV Labs ID: KFX101
Sample ID: F18
Matrix: Soil
Collected: 2019/07/09
Shipped:
Received: 2019/07/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6226886	2019/07/13	2019/07/15	Viviana Canzonieri

BV Labs ID: KFX102
Sample ID: D18
Matrix: Soil
Collected: 2019/07/09
Shipped:
Received: 2019/07/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6227001	2019/07/13	2019/07/15	Daniel Teclu

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BV Labs Job #: B9J0538
Report Date: 2019/07/16

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.7°C

Results relate only to the items tested.

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BV Labs Job #: B9J0538
Report Date: 2019/07/16

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6226886	VIV	Matrix Spike	Acid Extractable Antimony (Sb)	2019/07/15		106	%	75 - 125
			Acid Extractable Arsenic (As)	2019/07/15		108	%	75 - 125
			Acid Extractable Barium (Ba)	2019/07/15		105	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/07/15		101	%	75 - 125
			Acid Extractable Boron (B)	2019/07/15		101	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/07/15		105	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/07/15		110	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/07/15		110	%	75 - 125
			Acid Extractable Copper (Cu)	2019/07/15		105	%	75 - 125
			Acid Extractable Lead (Pb)	2019/07/15		107	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/07/15		106	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/07/15		109	%	75 - 125
			Acid Extractable Selenium (Se)	2019/07/15		112	%	75 - 125
			Acid Extractable Silver (Ag)	2019/07/15		109	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/07/15		106	%	75 - 125
			Acid Extractable Uranium (U)	2019/07/15		108	%	75 - 125
			Acid Extractable Vanadium (V)	2019/07/15		110	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/07/15		112	%	75 - 125
6226886	VIV	Spiked Blank	Acid Extractable Antimony (Sb)	2019/07/15		100	%	80 - 120
			Acid Extractable Arsenic (As)	2019/07/15		100	%	80 - 120
			Acid Extractable Barium (Ba)	2019/07/15		97	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/07/15		96	%	80 - 120
			Acid Extractable Boron (B)	2019/07/15		100	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/07/15		98	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/07/15		98	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/07/15		101	%	80 - 120
			Acid Extractable Copper (Cu)	2019/07/15		99	%	80 - 120
			Acid Extractable Lead (Pb)	2019/07/15		99	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/07/15		96	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/07/15		102	%	80 - 120
			Acid Extractable Selenium (Se)	2019/07/15		103	%	80 - 120
			Acid Extractable Silver (Ag)	2019/07/15		100	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/07/15		99	%	80 - 120
			Acid Extractable Uranium (U)	2019/07/15		101	%	80 - 120
			Acid Extractable Vanadium (V)	2019/07/15		99	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/07/15		102	%	80 - 120
6226886	VIV	Method Blank	Acid Extractable Antimony (Sb)	2019/07/15	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/07/15	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/07/15	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/07/15	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/07/15	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/07/15	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/07/15	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/07/15	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/07/15	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/07/15	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/07/15	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/07/15	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/07/15	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/07/15	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/07/15	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/07/15	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/07/15	<5.0		ug/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Zinc (Zn)	2019/07/15	<5.0		ug/g	
6226886	VIV	RPD	Acid Extractable Arsenic (As)	2019/07/15	1.1		%	30
			Acid Extractable Uranium (U)	2019/07/15	11		%	30
6227001	DT1	Matrix Spike	Acid Extractable Antimony (Sb)	2019/07/15		55 (1)	%	75 - 125
			Acid Extractable Arsenic (As)	2019/07/15		91	%	75 - 125
			Acid Extractable Barium (Ba)	2019/07/15		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/07/15		86	%	75 - 125
			Acid Extractable Boron (B)	2019/07/15		NC	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/07/15		95	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/07/15		NC	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/07/15		89	%	75 - 125
			Acid Extractable Copper (Cu)	2019/07/15		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2019/07/15		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/07/15		97	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/07/15		NC	%	75 - 125
			Acid Extractable Selenium (Se)	2019/07/15		88	%	75 - 125
			Acid Extractable Silver (Ag)	2019/07/15		94	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/07/15		89	%	75 - 125
			Acid Extractable Uranium (U)	2019/07/15		88	%	75 - 125
			Acid Extractable Vanadium (V)	2019/07/15		NC	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/07/15		NC	%	75 - 125
6227001	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2019/07/15		97	%	80 - 120
			Acid Extractable Arsenic (As)	2019/07/15		98	%	80 - 120
			Acid Extractable Barium (Ba)	2019/07/15		97	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/07/15		97	%	80 - 120
			Acid Extractable Boron (B)	2019/07/15		102	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/07/15		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/07/15		95	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/07/15		99	%	80 - 120
			Acid Extractable Copper (Cu)	2019/07/15		97	%	80 - 120
			Acid Extractable Lead (Pb)	2019/07/15		99	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/07/15		97	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/07/15		100	%	80 - 120
			Acid Extractable Selenium (Se)	2019/07/15		100	%	80 - 120
			Acid Extractable Silver (Ag)	2019/07/15		99	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/07/15		99	%	80 - 120
			Acid Extractable Uranium (U)	2019/07/15		96	%	80 - 120
			Acid Extractable Vanadium (V)	2019/07/15		95	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/07/15		95	%	80 - 120
6227001	DT1	Method Blank	Acid Extractable Antimony (Sb)	2019/07/15	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/07/15	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/07/15	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/07/15	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/07/15	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/07/15	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/07/15	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/07/15	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/07/15	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/07/15	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/07/15	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/07/15	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/07/15	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/07/15	<0.20		ug/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Thallium (Tl)	2019/07/15	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/07/15	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/07/15	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2019/07/15	<5.0		ug/g	
6227001	DT1	RPD	Acid Extractable Antimony (Sb)	2019/07/16	6.0		%	30
			Acid Extractable Arsenic (As)	2019/07/16	0.88		%	30
			Acid Extractable Barium (Ba)	2019/07/16	3.3		%	30
			Acid Extractable Beryllium (Be)	2019/07/16	5.1		%	30
			Acid Extractable Boron (B)	2019/07/16	6.9		%	30
			Acid Extractable Cadmium (Cd)	2019/07/16	3.8		%	30
			Acid Extractable Chromium (Cr)	2019/07/16	2.8		%	30
			Acid Extractable Cobalt (Co)	2019/07/16	2.1		%	30
			Acid Extractable Copper (Cu)	2019/07/16	2.6		%	30
			Acid Extractable Lead (Pb)	2019/07/16	3.6		%	30
			Acid Extractable Molybdenum (Mo)	2019/07/16	1.5		%	30
			Acid Extractable Nickel (Ni)	2019/07/16	3.8		%	30
			Acid Extractable Selenium (Se)	2019/07/16	3.5		%	30
			Acid Extractable Silver (Ag)	2019/07/16	8.3		%	30
			Acid Extractable Thallium (Tl)	2019/07/16	3.9		%	30
			Acid Extractable Uranium (U)	2019/07/16	4.3		%	30
			Acid Extractable Vanadium (V)	2019/07/16	2.9		%	30
			Acid Extractable Zinc (Zn)	2019/07/16	4.3		%	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

(1) Metals Analysis: Probable matrix interference.

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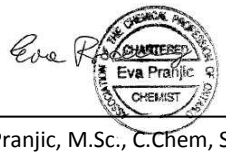
BV Labs Job #: B9J0538
Report Date: 2019/07/16

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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

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

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BV Labs Job #: B9J0538
Report Date: 2019/07/16

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 1791121 (5001)
Your C.O.C. #: 726200-03-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/07/18
Report #: R5803504
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: B9J6545
Received: 2019/07/17, 15:12

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	4	2019/07/18	2019/07/18	CAM SOP-00447	EPA 6020B m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: Ema.Gitej@bvlabs.com
Phone# (905)817-5829

==========

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

BV Labs Job #: B9J6545
Report Date: 2019/07/18

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID			KHE067	KHE068	KHE068	KHE069	KHE070		
Sampling Date			2019/07/16 08:00	2019/07/12 12:00	2019/07/12 12:00	2019/07/12 12:00	2019/07/12 12:00		
COC Number			726200-03-01	726200-03-01	726200-03-01	726200-03-01	726200-03-01		
	UNITS	Criteria	E17	F17	F17 Lab-Dup	G17	DUP S	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	0.49	0.54	0.20	6234299
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.7	1.6	1.8	1.7	1.0	6234299
Acid Extractable Barium (Ba)	ug/g	220	43	43	43	33	32	0.50	6234299
Acid Extractable Beryllium (Be)	ug/g	2.5	0.29	0.29	0.28	0.29	0.28	0.20	6234299
Acid Extractable Boron (B)	ug/g	36	<5.0	5.2	<5.0	<5.0	<5.0	5.0	6234299
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	6234299
Acid Extractable Chromium (Cr)	ug/g	70	11	10	10	10	10	1.0	6234299
Acid Extractable Cobalt (Co)	ug/g	21	3.8	3.8	3.7	3.5	3.5	0.10	6234299
Acid Extractable Copper (Cu)	ug/g	92	7.5	7.4	7.4	6.5	6.4	0.50	6234299
Acid Extractable Lead (Pb)	ug/g	120	5.4	4.8	4.8	5.8	8.0	1.0	6234299
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6234299
Acid Extractable Nickel (Ni)	ug/g	82	8.7	8.4	8.6	8.0	8.0	0.50	6234299
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6234299
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6234299
Acid Extractable Thallium (Tl)	ug/g	1	0.093	0.089	0.10	0.091	0.086	0.050	6234299
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.48	0.49	0.47	0.47	0.050	6234299
Acid Extractable Vanadium (V)	ug/g	86	18	17	17	18	19	5.0	6234299
Acid Extractable Zinc (Zn)	ug/g	290	20	19	20	21	20	5.0	6234299

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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BV Labs Job #: B9J6545
Report Date: 2019/07/18

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AVR

TEST SUMMARY

BV Labs ID: KHE067
Sample ID: E17
Matrix: Soil

Collected: 2019/07/16
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6234299	2019/07/18	2019/07/18	Viviana Canzonieri

BV Labs ID: KHE068
Sample ID: F17
Matrix: Soil

Collected: 2019/07/12
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6234299	2019/07/18	2019/07/18	Viviana Canzonieri

BV Labs ID: KHE068 Dup
Sample ID: F17
Matrix: Soil

Collected: 2019/07/12
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6234299	2019/07/18	2019/07/18	Viviana Canzonieri

BV Labs ID: KHE069
Sample ID: G17
Matrix: Soil

Collected: 2019/07/12
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6234299	2019/07/18	2019/07/18	Viviana Canzonieri

BV Labs ID: KHE070
Sample ID: DUP S
Matrix: Soil

Collected: 2019/07/12
Shipped:
Received: 2019/07/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6234299	2019/07/18	2019/07/18	Viviana Canzonieri

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BV Labs Job #: B9J6545
Report Date: 2019/07/18

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	1.0°C

Revised report (2019/07/18): Criteria is included as requested.

Results relate only to the items tested.

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BV Labs Job #: B9J6545
Report Date: 2019/07/18

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AVR

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6234299	VIV	Matrix Spike [KHE068-01]	Acid Extractable Antimony (Sb)	2019/07/18		93	%	75 - 125
			Acid Extractable Arsenic (As)	2019/07/18		93	%	75 - 125
			Acid Extractable Barium (Ba)	2019/07/18		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/07/18		89	%	75 - 125
			Acid Extractable Boron (B)	2019/07/18		90	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/07/18		93	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/07/18		95	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/07/18		91	%	75 - 125
			Acid Extractable Copper (Cu)	2019/07/18		90	%	75 - 125
			Acid Extractable Lead (Pb)	2019/07/18		89	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/07/18		94	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/07/18		91	%	75 - 125
			Acid Extractable Selenium (Se)	2019/07/18		94	%	75 - 125
			Acid Extractable Silver (Ag)	2019/07/18		92	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/07/18		89	%	75 - 125
			Acid Extractable Uranium (U)	2019/07/18		93	%	75 - 125
			Acid Extractable Vanadium (V)	2019/07/18		100	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/07/18		88	%	75 - 125
6234299	VIV	Spiked Blank	Acid Extractable Antimony (Sb)	2019/07/18		104	%	80 - 120
			Acid Extractable Arsenic (As)	2019/07/18		103	%	80 - 120
			Acid Extractable Barium (Ba)	2019/07/18		101	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/07/18		97	%	80 - 120
			Acid Extractable Boron (B)	2019/07/18		98	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/07/18		102	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/07/18		103	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/07/18		103	%	80 - 120
			Acid Extractable Copper (Cu)	2019/07/18		101	%	80 - 120
			Acid Extractable Lead (Pb)	2019/07/18		103	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/07/18		99	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/07/18		103	%	80 - 120
			Acid Extractable Selenium (Se)	2019/07/18		108	%	80 - 120
			Acid Extractable Silver (Ag)	2019/07/18		101	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/07/18		102	%	80 - 120
			Acid Extractable Uranium (U)	2019/07/18		103	%	80 - 120
			Acid Extractable Vanadium (V)	2019/07/18		101	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/07/18		103	%	80 - 120
6234299	VIV	Method Blank	Acid Extractable Antimony (Sb)	2019/07/18	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/07/18	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/07/18	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/07/18	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/07/18	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/07/18	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/07/18	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/07/18	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/07/18	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/07/18	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/07/18	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/07/18	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/07/18	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/07/18	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/07/18	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/07/18	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/07/18	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2019/07/18	<5.0		ug/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6234299	VIV	RPD [KHE068-01]	Acid Extractable Antimony (Sb)	2019/07/18	NC		%	30
			Acid Extractable Arsenic (As)	2019/07/18	8.5		%	30
			Acid Extractable Barium (Ba)	2019/07/18	1.4		%	30
			Acid Extractable Beryllium (Be)	2019/07/18	3.0		%	30
			Acid Extractable Boron (B)	2019/07/18	3.4		%	30
			Acid Extractable Cadmium (Cd)	2019/07/18	NC		%	30
			Acid Extractable Chromium (Cr)	2019/07/18	0.69		%	30
			Acid Extractable Cobalt (Co)	2019/07/18	3.9		%	30
			Acid Extractable Copper (Cu)	2019/07/18	0.27		%	30
			Acid Extractable Lead (Pb)	2019/07/18	0.11		%	30
			Acid Extractable Molybdenum (Mo)	2019/07/18	NC		%	30
			Acid Extractable Nickel (Ni)	2019/07/18	2.8		%	30
			Acid Extractable Selenium (Se)	2019/07/18	NC		%	30
			Acid Extractable Silver (Ag)	2019/07/18	NC		%	30
			Acid Extractable Thallium (Tl)	2019/07/18	13		%	30
			Acid Extractable Uranium (U)	2019/07/18	2.5		%	30
			Acid Extractable Vanadium (V)	2019/07/18	0.11		%	30
			Acid Extractable Zinc (Zn)	2019/07/18	4.6		%	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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BV Labs Job #: B9J6545
Report Date: 2019/07/18

Golder Associates Ltd
Client Project #: 1791121 (5001)
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

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

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

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Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-10-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/09/09
Report #: R5872147
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9O7335
Received: 2019/09/05, 15:58

Sample Matrix: Soil
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Free (WAD) Cyanide	9	2019/09/05	2019/09/06	CAM SOP-00457	OMOE E3015 m
Moisture	9	N/A	2019/09/07	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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

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

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-10-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/09/09
Report #: R5872147
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: B9O7335
Received: 2019/09/05, 15:58

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: Ema.Gitej@bvlabs.com
Phone# (905)817-5829

==========

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

BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

RESULTS OF ANALYSES OF SOIL

BV Labs ID			KRV100	KRV101	KRV102	KRV103	KRV104		
Sampling Date			2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00		
COC Number			704923-10-01	704923-10-01	704923-10-01	704923-10-01	704923-10-01		
	UNITS	**Criteria**	**HS19-500**	**HS19-501**	**HS19-502**	**HS19-503**	**HS19-504**	**RDL**	**QC Batch**
Inorganics									
Moisture	%	-	11	12	17	9.3	11	1.0	6320565
WAD Cyanide (Free)	ug/g	**0.051**	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	6317101

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

BV Labs ID			KRV105	KRV106	KRV107	KRV108		
Sampling Date			2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00	2019/09/04 14:00		
COC Number			704923-10-01	704923-10-01	704923-10-01	704923-10-01		
	UNITS	**Criteria**	**HS19-505**	**HS19-506**	**HS19-507**	**DUP1**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	-	22	8.3	13	12	1.0	6320565
WAD Cyanide (Free)	ug/g	**0.051**	<0.01	<0.01	<0.01	<0.01	0.01	6317101

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

TEST SUMMARY

BV Labs ID: KRV100
Sample ID: HS19-500
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV101
Sample ID: HS19-501
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV102
Sample ID: HS19-502
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV103
Sample ID: HS19-503
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV104
Sample ID: HS19-504
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV105
Sample ID: HS19-505
Matrix: Soil
Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

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BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

TEST SUMMARY

BV Labs ID: KRV106
Sample ID: HS19-506
Matrix: Soil

Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV107
Sample ID: HS19-507
Matrix: Soil

Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

BV Labs ID: KRV108
Sample ID: DUP1
Matrix: Soil

Collected: 2019/09/04
Shipped:
Received: 2019/09/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6317101	2019/09/05	2019/09/06	Gnana Thomas
Moisture	BAL	6320565	N/A	2019/09/07	Manpreet Kaur

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BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

GENERAL COMMENTS

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

Package 1	2.7°C

Results relate only to the items tested.

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BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6317101	GTO	Matrix Spike	WAD Cyanide (Free)	2019/09/06		96	%	75 - 125
6317101	GTO	Spiked Blank	WAD Cyanide (Free)	2019/09/06		100	%	80 - 120
6317101	GTO	Method Blank	WAD Cyanide (Free)	2019/09/06	<0.01		ug/g	
6317101	GTO	RPD	WAD Cyanide (Free)	2019/09/06	NC		%	35
6320565	JMP	RPD	Moisture	2019/09/07	7.1		%	20

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

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

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

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

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

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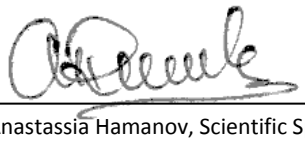
BV Labs Job #: B9O7335
Report Date: 2019/09/09

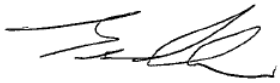
Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist



Brad Newman, Scientific Service Specialist

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BV Labs Job #: B9O7335
Report Date: 2019/09/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AM

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	BV Labs ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-20-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/09
Report #: R5551473
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B902353
Received: 2019/01/04, 12:04

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	7	2019/01/07	2019/01/07	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

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Maxxam Job #: B902353
Report Date: 2019/01/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IRH915	IRH916	IRH917	IRH918	IRH919		
Sampling Date			2019/01/03 14:00	2019/01/03 14:00	2019/01/03 14:00	2019/01/03 14:00	2019/01/03 14:00		
COC Number			696190-20-01	696190-20-01	696190-20-01	696190-20-01	696190-20-01		
	UNITS	Criteria	E21-F21	F21.5-G21.5	G21.5-H21.5	H21-I21	D14-E14	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.55	0.35	<0.20	<0.20	0.20	5917058
Acid Extractable Arsenic (As)	ug/g	18	2.3	2.4	2.5	<1.0	2.3	1.0	5917058
Acid Extractable Barium (Ba)	ug/g	220	65	59	53	9.9	79	0.50	5917058
Acid Extractable Beryllium (Be)	ug/g	2.5	0.53	0.52	0.49	<0.20	0.66	0.20	5917058
Acid Extractable Boron (B)	ug/g	36	<5.0	5.5	<5.0	<5.0	6.2	5.0	5917058
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.14	0.27	0.18	<0.10	0.44	0.10	5917058
Acid Extractable Chromium (Cr)	ug/g	70	19	17	15	4.4	22	1.0	5917058
Acid Extractable Cobalt (Co)	ug/g	21	6.1	5.6	4.9	2.1	6.6	0.10	5917058
Acid Extractable Copper (Cu)	ug/g	92	7.6	12	8.7	3.3	16	0.50	5917058
Acid Extractable Lead (Pb)	ug/g	120	8.6	22	16	2.1	13	1.0	5917058
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5917058
Acid Extractable Nickel (Ni)	ug/g	82	14	13	11	3.7	15	0.50	5917058
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.62	0.50	5917058
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5917058
Acid Extractable Thallium (Tl)	ug/g	1	0.14	0.14	0.11	<0.050	0.16	0.050	5917058
Acid Extractable Uranium (U)	ug/g	2.5	0.56	0.57	0.55	0.35	0.78	0.050	5917058
Acid Extractable Vanadium (V)	ug/g	86	30	28	26	11	34	5.0	5917058
Acid Extractable Zinc (Zn)	ug/g	290	33	57	40	10	60	5.0	5917058

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B902353
Report Date: 2019/01/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IRH920	IRH921		
Sampling Date			2019/01/03 14:00	2019/01/03 14:00		
COC Number			696190-20-01	696190-20-01		
	UNITS	Criteria	D14-D15	D15-D16	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	1.3	1.0	1.2	0.20	5917058
Acid Extractable Arsenic (As)	ug/g	18	2.9	4.5	1.0	5917058
Acid Extractable Barium (Ba)	ug/g	220	59	51	0.50	5917058
Acid Extractable Beryllium (Be)	ug/g	2.5	0.50	0.45	0.20	5917058
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	5.0	5917058
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.15	0.23	0.10	5917058
Acid Extractable Chromium (Cr)	ug/g	70	17	14	1.0	5917058
Acid Extractable Cobalt (Co)	ug/g	21	5.2	4.6	0.10	5917058
Acid Extractable Copper (Cu)	ug/g	92	9.5	9.8	0.50	5917058
Acid Extractable Lead (Pb)	ug/g	120	21	32	1.0	5917058
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	0.50	5917058
Acid Extractable Nickel (Ni)	ug/g	82	11	9.4	0.50	5917058
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	0.50	5917058
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	0.20	5917058
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.11	0.050	5917058
Acid Extractable Uranium (U)	ug/g	2.5	0.53	0.50	0.050	5917058
Acid Extractable Vanadium (V)	ug/g	86	28	24	5.0	5917058
Acid Extractable Zinc (Zn)	ug/g	290	43	51	5.0	5917058

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B902353
Report Date: 2019/01/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IRH915 **Collected:** 2019/01/03
Sample ID: E21-F21 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5917058	2019/01/07	2019/01/07	Viviana Canzonieri

Maxxam ID: IRH916 **Collected:** 2019/01/03
Sample ID: F21.5-G21.5 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5917058	2019/01/07	2019/01/07	Viviana Canzonieri

Maxxam ID: IRH917 **Collected:** 2019/01/03
Sample ID: G21.5-H21.5 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5917058	2019/01/07	2019/01/07	Viviana Canzonieri

Maxxam ID: IRH918 **Collected:** 2019/01/03
Sample ID: H21-I21 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5917058	2019/01/07	2019/01/07	Viviana Canzonieri

Maxxam ID: IRH919 **Collected:** 2019/01/03
Sample ID: D14-E14 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5917058	2019/01/07	2019/01/07	Viviana Canzonieri

Maxxam ID: IRH920 **Collected:** 2019/01/03
Sample ID: D14-D15 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5917058	2019/01/07	2019/01/07	Viviana Canzonieri

Maxxam ID: IRH921 **Collected:** 2019/01/03
Sample ID: D15-D16 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5917058	2019/01/07	2019/01/07	Viviana Canzonieri

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B902353
Report Date: 2019/01/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B902353
Report Date: 2019/01/09

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5917058	Acid Extractable Antimony (Sb)	2019/01/07	106	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5917058	Acid Extractable Arsenic (As)	2019/01/07	105	75 - 125	104	80 - 120	<1.0	ug/g	1.5	30
5917058	Acid Extractable Barium (Ba)	2019/01/07	NC	75 - 125	103	80 - 120	<0.50	ug/g	5.2	30
5917058	Acid Extractable Beryllium (Be)	2019/01/07	104	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
5917058	Acid Extractable Boron (B)	2019/01/07	101	75 - 125	97	80 - 120	<5.0	ug/g	NC	30
5917058	Acid Extractable Cadmium (Cd)	2019/01/07	109	75 - 125	105	80 - 120	<0.10	ug/g	NC	30
5917058	Acid Extractable Chromium (Cr)	2019/01/07	107	75 - 125	103	80 - 120	<1.0	ug/g	20	30
5917058	Acid Extractable Cobalt (Co)	2019/01/07	109	75 - 125	105	80 - 120	<0.10	ug/g	6.3	30
5917058	Acid Extractable Copper (Cu)	2019/01/07	101	75 - 125	104	80 - 120	<0.50	ug/g	3.7	30
5917058	Acid Extractable Lead (Pb)	2019/01/07	103	75 - 125	103	80 - 120	<1.0	ug/g	2.5	30
5917058	Acid Extractable Molybdenum (Mo)	2019/01/07	108	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5917058	Acid Extractable Nickel (Ni)	2019/01/07	109	75 - 125	103	80 - 120	<0.50	ug/g	2.9	30
5917058	Acid Extractable Selenium (Se)	2019/01/07	108	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5917058	Acid Extractable Silver (Ag)	2019/01/07	106	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5917058	Acid Extractable Thallium (Tl)	2019/01/07	103	75 - 125	100	80 - 120	<0.050	ug/g	6.4	30
5917058	Acid Extractable Uranium (U)	2019/01/07	102	75 - 125	102	80 - 120	<0.050	ug/g	23	30
5917058	Acid Extractable Vanadium (V)	2019/01/07	107	75 - 125	105	80 - 120	<5.0	ug/g	5.7	30
5917058	Acid Extractable Zinc (Zn)	2019/01/07	103	75 - 125	107	80 - 120	<5.0	ug/g	7.4	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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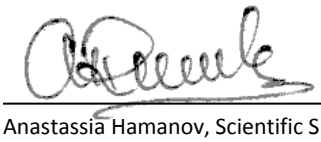
Maxxam Job #: B902353
Report Date: 2019/01/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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RUSH

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			696190
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#696190-20-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEG 20190103 3
(call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PAHs	O.Reg 153 PCBs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 ICPMS Metals							# of Bottles	Comments
1		E21-F21	Jan 3/19	2pm	Soil	N/A				X							1	
2		F21.5-G21.5								X							1	
3		G21.5-H21.5								X							1	
4		H21-I21								X							1	
5		D14-E14								X							1	
6		D14-D15								X							1	
7		D15-D16								X							1	
8																		
9																		
10																		

04-Jan-19 12:04
Ema Gitej
B902353
DSG ENV-1267

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/01/03	5pm	DIPIKA SINGH	2019/01/04	12:04	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Rece	Custody Seal	Yes	No
	3/2/2	Present		
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

90216

Maxxam Job #: B902353
Report Date: 2019/01/09

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-03-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/08
Report #: R5550444
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B902359
Received: 2019/01/04, 12:04

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	4	2019/01/07	2019/01/07	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B902359
Report Date: 2019/01/08

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IRH963	IRH964	IRH965	IRH965	IRH966		
Sampling Date			2019/01/03 14:00	2019/01/03 14:00	2019/01/03 14:00	2019/01/03 14:00	2019/01/03 14:00		
COC Number			696190-03-01	696190-03-01	696190-03-01	696190-03-01	696190-03-01		
	UNITS	Criteria	F21	G21	D14	D14 Lab-Dup	DUP M	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5916444
Acid Extractable Arsenic (As)	ug/g	18	1.3	1.7	1.2	1.4	1.6	1.0	5916444
Acid Extractable Barium (Ba)	ug/g	220	33	33	36	38	36	0.50	5916444
Acid Extractable Beryllium (Be)	ug/g	2.5	0.26	0.29	0.26	0.29	0.26	0.20	5916444
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5916444
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	5916444
Acid Extractable Chromium (Cr)	ug/g	70	9.3	9.4	10	11	9.3	1.0	5916444
Acid Extractable Cobalt (Co)	ug/g	21	3.5	4.1	3.9	4.3	3.3	0.10	5916444
Acid Extractable Copper (Cu)	ug/g	92	6.7	8.9	7.1	7.8	6.9	0.50	5916444
Acid Extractable Lead (Pb)	ug/g	120	4.6	5.3	4.2	4.7	4.4	1.0	5916444
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5916444
Acid Extractable Nickel (Ni)	ug/g	82	7.6	9.5	8.8	10	8.0	0.50	5916444
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5916444
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5916444
Acid Extractable Thallium (Tl)	ug/g	1	0.087	0.11	0.10	0.090	0.085	0.050	5916444
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.48	0.45	0.51	0.45	0.050	5916444
Acid Extractable Vanadium (V)	ug/g	86	17	17	18	20	16	5.0	5916444
Acid Extractable Zinc (Zn)	ug/g	290	21	21	22	22	19	5.0	5916444

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B902359
Report Date: 2019/01/08

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IRH963 **Collected:** 2019/01/03
Sample ID: F21 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5916444	2019/01/07	2019/01/07	Daniel Teclu

Maxxam ID: IRH964 **Collected:** 2019/01/03
Sample ID: G21 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5916444	2019/01/07	2019/01/07	Daniel Teclu

Maxxam ID: IRH965 **Collected:** 2019/01/03
Sample ID: D14 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5916444	2019/01/07	2019/01/07	Daniel Teclu

Maxxam ID: IRH965 Dup **Collected:** 2019/01/03
Sample ID: D14 **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5916444	2019/01/07	2019/01/07	Daniel Teclu

Maxxam ID: IRH966 **Collected:** 2019/01/03
Sample ID: DUP M **Shipped:**
Matrix: Soil **Received:** 2019/01/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5916444	2019/01/07	2019/01/07	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B902359
Report Date: 2019/01/08

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	2.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B902359
Report Date: 2019/01/08

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5916444	Acid Extractable Antimony (Sb)	2019/01/07	93	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5916444	Acid Extractable Arsenic (As)	2019/01/07	96	75 - 125	103	80 - 120	<1.0	ug/g	14	30
5916444	Acid Extractable Barium (Ba)	2019/01/07	NC	75 - 125	100	80 - 120	<0.50	ug/g	5.4	30
5916444	Acid Extractable Beryllium (Be)	2019/01/07	95	75 - 125	98	80 - 120	<0.20	ug/g	10	30
5916444	Acid Extractable Boron (B)	2019/01/07	96	75 - 125	93	80 - 120	<5.0	ug/g	NC	30
5916444	Acid Extractable Cadmium (Cd)	2019/01/07	97	75 - 125	106	80 - 120	<0.10	ug/g	NC	30
5916444	Acid Extractable Chromium (Cr)	2019/01/07	98	75 - 125	108	80 - 120	<1.0	ug/g	12	30
5916444	Acid Extractable Cobalt (Co)	2019/01/07	95	75 - 125	109	80 - 120	<0.10	ug/g	8.5	30
5916444	Acid Extractable Copper (Cu)	2019/01/07	94	75 - 125	101	80 - 120	<0.50	ug/g	8.6	30
5916444	Acid Extractable Lead (Pb)	2019/01/07	98	75 - 125	98	80 - 120	<1.0	ug/g	11	30
5916444	Acid Extractable Molybdenum (Mo)	2019/01/07	94	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5916444	Acid Extractable Nickel (Ni)	2019/01/07	95	75 - 125	109	80 - 120	<0.50	ug/g	13	30
5916444	Acid Extractable Selenium (Se)	2019/01/07	99	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5916444	Acid Extractable Silver (Ag)	2019/01/07	96	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5916444	Acid Extractable Thallium (Tl)	2019/01/07	95	75 - 125	98	80 - 120	<0.050	ug/g	9.9	30
5916444	Acid Extractable Uranium (U)	2019/01/07	95	75 - 125	97	80 - 120	<0.050	ug/g	12	30
5916444	Acid Extractable Vanadium (V)	2019/01/07	99	75 - 125	102	80 - 120	<5.0	ug/g	7.8	30
5916444	Acid Extractable Zinc (Zn)	2019/01/07	92	75 - 125	106	80 - 120	<5.0	ug/g	2.5	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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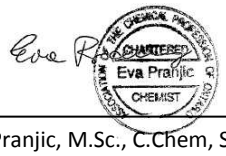
Maxxam Job #: B902359
Report Date: 2019/01/08

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Analytics International Corporation o/a Maxxam Analytics
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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			696190
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#696190-03-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	AVR		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [✓] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ✓

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PAHs	O Reg 153 PCBs	O Reg 153 Metals & Inorganics Pkg	O Reg 153 ICPMS Metals						# of Bottles	Comments
1		F21	Jan 3/19	2pm	Soil	N/A				X						1	
2		G21	↓	↓	↓	↓				X						1	
3		D14								X						1	
4		DUP M								X						1	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

04-Jan-19 12:04
Ema Gitej
B902359
DSG ENV-1158

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/01/03	5pm	DIPIKA SINGH	2019/01/04	12:04	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	3/2/2	Present	✓	
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

90216

Maxxam Job #: B902359
Report Date: 2019/01/08

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121
Site Location: WINDFIELDS
Your C.O.C. #: 697737-01-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/18
Report #: R5562142
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B911863
Received: 2019/01/15, 14:36

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	8	2019/01/17	2019/01/17	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B911863
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			ITJ887	ITJ888	ITJ889	ITJ890	ITJ891		
Sampling Date			2019/01/11 14:00	2019/01/11 14:00	2019/01/11 14:00	2019/01/11 14:00	2019/01/14 16:00		
COC Number			697737-01-01	697737-01-01	697737-01-01	697737-01-01	697737-01-01		
	UNITS	Criteria	H15	H16	H17	DUPN	J11	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.26	0.48	<0.20	<0.20	<0.20	0.20	5933081
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.6	1.6	1.3	1.4	1.0	5933081
Acid Extractable Barium (Ba)	ug/g	220	49	25	39	35	33	0.50	5933081
Acid Extractable Beryllium (Be)	ug/g	2.5	0.27	0.23	0.30	0.27	0.22	0.20	5933081
Acid Extractable Boron (B)	ug/g	36	5.4	<5.0	5.3	<5.0	<5.0	5.0	5933081
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	5933081
Acid Extractable Chromium (Cr)	ug/g	70	11	9.7	10	9.6	9.0	1.0	5933081
Acid Extractable Cobalt (Co)	ug/g	21	4.0	3.2	3.8	3.8	3.5	0.10	5933081
Acid Extractable Copper (Cu)	ug/g	92	7.6	5.4	7.8	7.4	6.8	0.50	5933081
Acid Extractable Lead (Pb)	ug/g	120	6.1	7.1	5.3	4.5	3.8	1.0	5933081
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5933081
Acid Extractable Nickel (Ni)	ug/g	82	8.9	6.1	8.8	8.9	6.9	0.50	5933081
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5933081
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5933081
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.075	0.087	0.10	0.090	0.050	5933081
Acid Extractable Uranium (U)	ug/g	2.5	0.47	0.45	0.48	0.42	0.48	0.050	5933081
Acid Extractable Vanadium (V)	ug/g	86	18	21	18	17	18	5.0	5933081
Acid Extractable Zinc (Zn)	ug/g	290	21	22	23	20	20	5.0	5933081

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B911863
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			ITJ892	ITJ892	ITJ893	ITJ894		
Sampling Date			2019/01/14 16:00	2019/01/14 16:00	2019/01/14 16:00	2019/01/14 16:00		
COC Number			697737-01-01	697737-01-01	697737-01-01	697737-01-01		
	UNITS	Criteria	J12	J12 Lab-Dup	J15	DUPO	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	0.42	0.35	0.46	0.43	0.20	5933081
Acid Extractable Arsenic (As)	ug/g	18	1.5	1.4	1.6	1.5	1.0	5933081
Acid Extractable Barium (Ba)	ug/g	220	30	29	39	38	0.50	5933081
Acid Extractable Beryllium (Be)	ug/g	2.5	0.22	0.22	0.23	0.23	0.20	5933081
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	5.0	5933081
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	0.10	5933081
Acid Extractable Chromium (Cr)	ug/g	70	8.5	8.7	9.3	8.9	1.0	5933081
Acid Extractable Cobalt (Co)	ug/g	21	3.5	3.6	3.6	3.5	0.10	5933081
Acid Extractable Copper (Cu)	ug/g	92	7.3	7.8	8.1	7.6	0.50	5933081
Acid Extractable Lead (Pb)	ug/g	120	5.9	5.8	7.1	6.6	1.0	5933081
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5933081
Acid Extractable Nickel (Ni)	ug/g	82	7.0	7.4	7.5	7.4	0.50	5933081
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5933081
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5933081
Acid Extractable Thallium (Tl)	ug/g	1	0.081	0.088	0.095	0.077	0.050	5933081
Acid Extractable Uranium (U)	ug/g	2.5	0.45	0.47	0.48	0.66	0.050	5933081
Acid Extractable Vanadium (V)	ug/g	86	18	17	18	18	5.0	5933081
Acid Extractable Zinc (Zn)	ug/g	290	18	20	20	19	5.0	5933081

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B911863
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: ITJ887 **Collected:** 2019/01/11
Sample ID: H15 **Shipped:**
Matrix: Soil **Received:** 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5933081	2019/01/17	2019/01/17	Viviana Canzonieri

Maxxam ID: ITJ888 **Collected:** 2019/01/11
Sample ID: H16 **Shipped:**
Matrix: Soil **Received:** 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5933081	2019/01/17	2019/01/17	Viviana Canzonieri

Maxxam ID: ITJ889 **Collected:** 2019/01/11
Sample ID: H17 **Shipped:**
Matrix: Soil **Received:** 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5933081	2019/01/17	2019/01/17	Viviana Canzonieri

Maxxam ID: ITJ890 **Collected:** 2019/01/11
Sample ID: DUPN **Shipped:**
Matrix: Soil **Received:** 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5933081	2019/01/17	2019/01/17	Viviana Canzonieri

Maxxam ID: ITJ891 **Collected:** 2019/01/14
Sample ID: J11 **Shipped:**
Matrix: Soil **Received:** 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5933081	2019/01/17	2019/01/17	Viviana Canzonieri

Maxxam ID: ITJ892 **Collected:** 2019/01/14
Sample ID: J12 **Shipped:**
Matrix: Soil **Received:** 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5933081	2019/01/17	2019/01/17	Viviana Canzonieri

Maxxam ID: ITJ892 Dup **Collected:** 2019/01/14
Sample ID: J12 **Shipped:**
Matrix: Soil **Received:** 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5933081	2019/01/17	2019/01/17	Viviana Canzonieri

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Maxxam Job #: B911863
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: ITJ893
Sample ID: J15
Matrix: Soil

Collected: 2019/01/14
Shipped:
Received: 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5933081	2019/01/17	2019/01/17	Viviana Canzonieri

Maxxam ID: ITJ894
Sample ID: DUPO
Matrix: Soil

Collected: 2019/01/14
Shipped:
Received: 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5933081	2019/01/17	2019/01/17	Viviana Canzonieri

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Maxxam Job #: B911863
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	3.0°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B911863
Report Date: 2019/01/18

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5933081	Acid Extractable Antimony (Sb)	2019/01/17	98	75 - 125	96	80 - 120	<0.20	ug/g	17	30
5933081	Acid Extractable Arsenic (As)	2019/01/17	100	75 - 125	100	80 - 120	<1.0	ug/g	7.9	30
5933081	Acid Extractable Barium (Ba)	2019/01/17	NC	75 - 125	93	80 - 120	<0.50	ug/g	2.3	30
5933081	Acid Extractable Beryllium (Be)	2019/01/17	97	75 - 125	98	80 - 120	<0.20	ug/g	0.29	30
5933081	Acid Extractable Boron (B)	2019/01/17	92	75 - 125	98	80 - 120	<5.0	ug/g	NC	30
5933081	Acid Extractable Cadmium (Cd)	2019/01/17	95	75 - 125	100	80 - 120	<0.10	ug/g	NC	30
5933081	Acid Extractable Chromium (Cr)	2019/01/17	102	75 - 125	99	80 - 120	<1.0	ug/g	1.9	30
5933081	Acid Extractable Cobalt (Co)	2019/01/17	99	75 - 125	100	80 - 120	<0.10	ug/g	3.8	30
5933081	Acid Extractable Copper (Cu)	2019/01/17	93	75 - 125	99	80 - 120	<0.50	ug/g	6.7	30
5933081	Acid Extractable Lead (Pb)	2019/01/17	92	75 - 125	97	80 - 120	<1.0	ug/g	1.9	30
5933081	Acid Extractable Molybdenum (Mo)	2019/01/17	102	75 - 125	98	80 - 120	<0.50	ug/g	NC	30
5933081	Acid Extractable Nickel (Ni)	2019/01/17	98	75 - 125	97	80 - 120	<0.50	ug/g	5.1	30
5933081	Acid Extractable Selenium (Se)	2019/01/17	99	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
5933081	Acid Extractable Silver (Ag)	2019/01/17	96	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5933081	Acid Extractable Thallium (Tl)	2019/01/17	92	75 - 125	96	80 - 120	<0.050	ug/g	8.7	30
5933081	Acid Extractable Uranium (U)	2019/01/17	96	75 - 125	96	80 - 120	<0.050	ug/g	4.2	30
5933081	Acid Extractable Vanadium (V)	2019/01/17	102	75 - 125	99	80 - 120	<5.0	ug/g	4.7	30
5933081	Acid Extractable Zinc (Zn)	2019/01/17	106	75 - 125	94	80 - 120	<5.0	ug/g	9.5	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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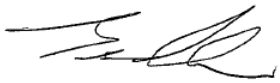
Maxxam Job #: B911863
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	Wind Fields	C#697737-01-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [ ] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O Reg 153 ICPMS Metals	# of Bottles	Comments
1		H15	Jan 11/19	2pm	Soil	N/A	X	1	
2		H16	"	"	"	"	X	1	
3		H17	"	"	"	"	X	1	
4		DUP N	"	"	"	"	X	1	
5		J11	Jan 14/19	4pm	Soil		X	1	
6		J12	"	"	"	"	X	1	
7		J15	"	"	"	"	X	1	
8		DUP O	"	"	"	"	X	1	
9									
10									

15-Jan-19 14:36
Ema Gitej
B911863
FCN ENV-1152

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/01/14	5pm	DIPIKA SINGH	2019/01/15	14:36	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	3/3/3	Present		
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B911863
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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A Bureau Veritas Group Company

Your Project #: 1791121
Site Location: WINDFIELDS
Your C.O.C. #: 697737-02-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/18
Report #: R5562435
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B911871
Received: 2019/01/15, 14:36

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	1	2019/01/17	2019/01/18	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

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Maxxam Job #: B911871
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			ITJ956		
Sampling Date			2019/01/14 16:00		
COC Number			697737-02-01		
	UNITS	Criteria	D16-D17	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	**3.5**	0.20	5932603
Acid Extractable Arsenic (As)	ug/g	18	9.9	1.0	5932603
Acid Extractable Barium (Ba)	ug/g	220	96	0.50	5932603
Acid Extractable Beryllium (Be)	ug/g	2.5	0.47	0.20	5932603
Acid Extractable Boron (B)	ug/g	36	8.4	5.0	5932603
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.46	0.10	5932603
Acid Extractable Chromium (Cr)	ug/g	70	19	1.0	5932603
Acid Extractable Cobalt (Co)	ug/g	21	5.4	0.10	5932603
Acid Extractable Copper (Cu)	ug/g	92	26	0.50	5932603
Acid Extractable Lead (Pb)	ug/g	120	**150**	1.0	5932603
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	5932603
Acid Extractable Nickel (Ni)	ug/g	82	10	0.50	5932603
Acid Extractable Selenium (Se)	ug/g	1.5	0.50	0.50	5932603
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	5932603
Acid Extractable Thallium (Tl)	ug/g	1	0.13	0.050	5932603
Acid Extractable Uranium (U)	ug/g	2.5	0.51	0.050	5932603
Acid Extractable Vanadium (V)	ug/g	86	27	5.0	5932603
Acid Extractable Zinc (Zn)	ug/g	290	150	5.0	5932603

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B911871
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: ITJ956
Sample ID: D16-D17
Matrix: Soil

Collected: 2019/01/14
Shipped:
Received: 2019/01/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5932603	2019/01/17	2019/01/18	Viviana Canzonieri

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Maxxam Job #: B911871
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	3.0°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B911871
Report Date: 2019/01/18

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5932603	Acid Extractable Antimony (Sb)	2019/01/18	99	75 - 125	104	80 - 120	<0.20	ug/g	NC	30
5932603	Acid Extractable Arsenic (As)	2019/01/18	105	75 - 125	105	80 - 120	<1.0	ug/g	NC	30
5932603	Acid Extractable Barium (Ba)	2019/01/18	102	75 - 125	97	80 - 120	<0.50	ug/g	1.3	30
5932603	Acid Extractable Beryllium (Be)	2019/01/18	99	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5932603	Acid Extractable Boron (B)	2019/01/18	96	75 - 125	99	80 - 120	<5.0	ug/g	NC	30
5932603	Acid Extractable Cadmium (Cd)	2019/01/18	103	75 - 125	100	80 - 120	<0.10	ug/g	NC	30
5932603	Acid Extractable Chromium (Cr)	2019/01/18	104	75 - 125	100	80 - 120	<1.0	ug/g	7.1	30
5932603	Acid Extractable Cobalt (Co)	2019/01/18	103	75 - 125	103	80 - 120	<0.10	ug/g	0.64	30
5932603	Acid Extractable Copper (Cu)	2019/01/18	98	75 - 125	103	80 - 120	<0.50	ug/g	12	30
5932603	Acid Extractable Lead (Pb)	2019/01/18	100	75 - 125	101	80 - 120	<1.0	ug/g	7.5	30
5932603	Acid Extractable Molybdenum (Mo)	2019/01/18	102	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5932603	Acid Extractable Nickel (Ni)	2019/01/18	102	75 - 125	103	80 - 120	<0.50	ug/g	6.3	30
5932603	Acid Extractable Selenium (Se)	2019/01/18	101	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5932603	Acid Extractable Silver (Ag)	2019/01/18	97	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5932603	Acid Extractable Thallium (Tl)	2019/01/18	100	75 - 125	99	80 - 120	<0.050	ug/g	NC	30
5932603	Acid Extractable Uranium (U)	2019/01/18	100	75 - 125	99	80 - 120	<0.050	ug/g	6.7	30
5932603	Acid Extractable Vanadium (V)	2019/01/18	104	75 - 125	100	80 - 120	<5.0	ug/g	1.1	30
5932603	Acid Extractable Zinc (Zn)	2019/01/18	94	75 - 125	105	80 - 120	<5.0	ug/g	4.1	30

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

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

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

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

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

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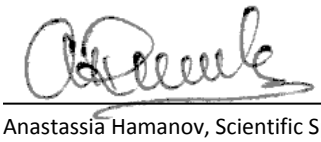
Maxxam Job #: B911871
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	Wolfields	C#697737-02-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O Reg 153 ICPMS Metals	# of Bottles	Comments
1		D16 - D17	Jan14/19	4pm	Soil	N/A	X	1	
2									
3									
4									
5									
6									
7									
8									
9									
10									

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

15-Jan-19 14:36
Ema Gitej
B911871
FCN ENV-1152

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/01/14	5pm	Dipika Singh DIPIKA SINGH	19/01/15	14:36	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	3/3/3	Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B911871
Report Date: 2019/01/18

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
D16-D17	ITJ956-01	Acid Extractable Antimony (Sb)	1.3	3.5	0.20	ug/g
D16-D17	ITJ956-01	Acid Extractable Lead (Pb)	120	150	1.0	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121.5001
Site Location: WINDFIELDS
Your C.O.C. #: 697737-16-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/21
Report #: R5565539
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B915888
Received: 2019/01/18, 14:44

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	1	2019/01/21	2019/01/21	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B915888
Report Date: 2019/01/21

Golder Associates Ltd
Client Project #: 1791121.5001
Site Location: WINDFIELDS
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IUE708		
Sampling Date			2019/01/17 16:00		
COC Number			697737-16-01		
	UNITS	Criteria	EF11-EF12	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	1.2	0.20	5937542
Acid Extractable Arsenic (As)	ug/g	18	2.8	1.0	5937542
Acid Extractable Barium (Ba)	ug/g	220	66	0.50	5937542
Acid Extractable Beryllium (Be)	ug/g	2.5	0.57	0.20	5937542
Acid Extractable Boron (B)	ug/g	36	5.7	5.0	5937542
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.32	0.10	5937542
Acid Extractable Chromium (Cr)	ug/g	70	18	1.0	5937542
Acid Extractable Cobalt (Co)	ug/g	21	5.6	0.10	5937542
Acid Extractable Copper (Cu)	ug/g	92	18	0.50	5937542
Acid Extractable Lead (Pb)	ug/g	120	43	1.0	5937542
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	5937542
Acid Extractable Nickel (Ni)	ug/g	82	13	0.50	5937542
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	5937542
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	5937542
Acid Extractable Thallium (Tl)	ug/g	1	0.14	0.050	5937542
Acid Extractable Uranium (U)	ug/g	2.5	0.54	0.050	5937542
Acid Extractable Vanadium (V)	ug/g	86	28	5.0	5937542
Acid Extractable Zinc (Zn)	ug/g	290	100	5.0	5937542

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B915888
Report Date: 2019/01/21

Golder Associates Ltd
Client Project #: 1791121.5001
Site Location: WINDFIELDS
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IUE708
Sample ID: EF11-EF12
Matrix: Soil

Collected: 2019/01/17
Shipped:
Received: 2019/01/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5937542	2019/01/21	2019/01/21	Daniel Teclu

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Maxxam Job #: B915888
Report Date: 2019/01/21

Golder Associates Ltd
Client Project #: 1791121.5001
Site Location: WINDFIELDS
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	1.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B915888
Report Date: 2019/01/21

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121.5001
Site Location: WINDFIELDS
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5937542	Acid Extractable Antimony (Sb)	2019/01/21	84	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5937542	Acid Extractable Arsenic (As)	2019/01/21	90	75 - 125	106	80 - 120	<1.0	ug/g	10	30
5937542	Acid Extractable Barium (Ba)	2019/01/21	NC	75 - 125	98	80 - 120	<0.50	ug/g	0.031	30
5937542	Acid Extractable Beryllium (Be)	2019/01/21	94	75 - 125	99	80 - 120	<0.20	ug/g	5.5	30
5937542	Acid Extractable Boron (B)	2019/01/21	93	75 - 125	97	80 - 120	<5.0	ug/g	NC	30
5937542	Acid Extractable Cadmium (Cd)	2019/01/21	94	75 - 125	102	80 - 120	<0.10	ug/g	28	30
5937542	Acid Extractable Chromium (Cr)	2019/01/21	93	75 - 125	103	80 - 120	<1.0	ug/g	2.8	30
5937542	Acid Extractable Cobalt (Co)	2019/01/21	93	75 - 125	103	80 - 120	<0.10	ug/g	1.0	30
5937542	Acid Extractable Copper (Cu)	2019/01/21	97	75 - 125	105	80 - 120	<0.50	ug/g	3.4	30
5937542	Acid Extractable Lead (Pb)	2019/01/21	NC	75 - 125	104	80 - 120	<1.0	ug/g	39 (1)	30
5937542	Acid Extractable Molybdenum (Mo)	2019/01/21	92	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5937542	Acid Extractable Nickel (Ni)	2019/01/21	92	75 - 125	103	80 - 120	<0.50	ug/g	3.7	30
5937542	Acid Extractable Selenium (Se)	2019/01/21	99	75 - 125	108	80 - 120	<0.50	ug/g	NC	30
5937542	Acid Extractable Silver (Ag)	2019/01/21	96	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5937542	Acid Extractable Thallium (Tl)	2019/01/21	96	75 - 125	104	80 - 120	<0.050	ug/g	29	30
5937542	Acid Extractable Uranium (U)	2019/01/21	97	75 - 125	102	80 - 120	<0.050	ug/g	8.1	30
5937542	Acid Extractable Vanadium (V)	2019/01/21	NC	75 - 125	105	80 - 120	<5.0	ug/g	1.9	30
5937542	Acid Extractable Zinc (Zn)	2019/01/21	NC	75 - 125	109	80 - 120	<5.0	ug/g	1.4	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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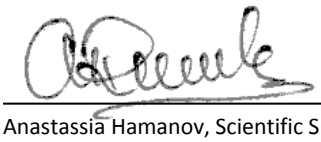
Maxxam Job #: B915888
Report Date: 2019/01/21

Golder Associates Ltd
Client Project #: 1791121.5001
Site Location: WINDFIELDS
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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Maxxam Analytics International Corporation o/a Maxxam Analytics
5740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free:800-563-6266 Fax (905) 817-5777 www.maxxam.ca

RUSH

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:	REPORT TO:	PROJECT INFORMATION:	Laboratory Use Only:
Company Name: #2292 Golder Associates Ltd	Company Name:	Quotation #: B80683	Maxxam Job #: / Bottle Order #: 697737
Attention: Accounts Payable	Attention: Kevan Browne	P.O. #: Facility 187182417	
Address: 100 Scotia Crt, Whitby ON L1N 8Y6	Address:	Project: 1791121 - 50% Windfields	COC #: C#697737-16-01 / Project Manager: Ema Gitej
Tel: (905) 723-2727 Fax: (905) 723-2182	Tel: (905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	
Email: AP_CustomerService@golder.com	Email: Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	
		Sampled By: AVANROON	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558, [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEG20190117 5 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		EF11 - EF12	Jan 17/19	4pm	Soil	N/A	X	1	
2									
3									
4									
5									
6									
7									
8									
9									
10									

18-Jan-19 14:44
Ema Gitej
B915888
ICC ENV-1110

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/01/17	5pm		2019/01/18	14:44	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	11/2/1	Present		
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

MA11-94137

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B915888
Report Date: 2019/01/21

Golder Associates Ltd
Client Project #: 1791121.5001
Site Location: WINDFIELDS
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your P.O. #: Facility 187182417
Your Project #: 1791121
Site Location: WINDFIELDS
Your C.O.C. #: 697737-12-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/22
Report #: R5566494
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B917250
Received: 2019/01/21, 14:00

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	4	2019/01/22	2019/01/22	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

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Maxxam Job #: B917250
Report Date: 2019/01/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: Facility 187182417
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IUM524	IUM525	IUM526	IUM527		
Sampling Date			2019/01/18 16:00	2019/01/18 16:00	2019/01/18 16:00	2019/01/18 16:00		
COC Number			697737-12-01	697737-12-01	697737-12-01	697737-12-01		
	UNITS	Criteria	J20-K20	K20-L20	L20-M20	M20-N20	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	**1.5**	0.71	0.23	0.25	0.20	5939554
Acid Extractable Arsenic (As)	ug/g	18	2.1	2.4	2.0	2.4	1.0	5939554
Acid Extractable Barium (Ba)	ug/g	220	39	45	52	57	0.50	5939554
Acid Extractable Beryllium (Be)	ug/g	2.5	0.42	0.45	0.52	0.56	0.20	5939554
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	5.0	5939554
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.25	0.22	0.30	0.31	0.10	5939554
Acid Extractable Chromium (Cr)	ug/g	70	13	14	17	18	1.0	5939554
Acid Extractable Cobalt (Co)	ug/g	21	4.0	4.5	5.1	5.7	0.10	5939554
Acid Extractable Copper (Cu)	ug/g	92	6.4	8.1	9.9	10	0.50	5939554
Acid Extractable Lead (Pb)	ug/g	120	17	16	10	12	1.0	5939554
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5939554
Acid Extractable Nickel (Ni)	ug/g	82	8.4	9.5	11	12	0.50	5939554
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5939554
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5939554
Acid Extractable Thallium (Tl)	ug/g	1	0.085	0.10	0.12	0.14	0.050	5939554
Acid Extractable Uranium (U)	ug/g	2.5	0.66	0.51	0.64	0.65	0.050	5939554
Acid Extractable Vanadium (V)	ug/g	86	23	24	25	28	5.0	5939554
Acid Extractable Zinc (Zn)	ug/g	290	35	39	43	47	5.0	5939554

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B917250
Report Date: 2019/01/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: Facility 187182417
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IUM524
Sample ID: J20-K20
Matrix: Soil

Collected: 2019/01/18
Shipped:
Received: 2019/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5939554	2019/01/22	2019/01/22	Viviana Canzonieri

Maxxam ID: IUM525
Sample ID: K20-L20
Matrix: Soil

Collected: 2019/01/18
Shipped:
Received: 2019/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5939554	2019/01/22	2019/01/22	Viviana Canzonieri

Maxxam ID: IUM526
Sample ID: L20-M20
Matrix: Soil

Collected: 2019/01/18
Shipped:
Received: 2019/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5939554	2019/01/22	2019/01/22	Viviana Canzonieri

Maxxam ID: IUM527
Sample ID: M20-N20
Matrix: Soil

Collected: 2019/01/18
Shipped:
Received: 2019/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5939554	2019/01/22	2019/01/22	Viviana Canzonieri

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Maxxam Job #: B917250
Report Date: 2019/01/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: Facility 187182417
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	0.0°C

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B917250
Report Date: 2019/01/22

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: Facility 187182417
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5939554	Acid Extractable Antimony (Sb)	2019/01/22	95	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5939554	Acid Extractable Arsenic (As)	2019/01/22	109	75 - 125	100	80 - 120	<1.0	ug/g	21	30
5939554	Acid Extractable Barium (Ba)	2019/01/22	108	75 - 125	95	80 - 120	<0.50	ug/g	3.6	30
5939554	Acid Extractable Beryllium (Be)	2019/01/22	101	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5939554	Acid Extractable Boron (B)	2019/01/22	96	75 - 125	98	80 - 120	<5.0	ug/g	NC	30
5939554	Acid Extractable Cadmium (Cd)	2019/01/22	103	75 - 125	101	80 - 120	<0.10	ug/g	19	30
5939554	Acid Extractable Chromium (Cr)	2019/01/22	102	75 - 125	97	80 - 120	<1.0	ug/g	1.9	30
5939554	Acid Extractable Cobalt (Co)	2019/01/22	104	75 - 125	99	80 - 120	<0.10	ug/g	0.85	30
5939554	Acid Extractable Copper (Cu)	2019/01/22	NC	75 - 125	99	80 - 120	<0.50	ug/g	2.9	30
5939554	Acid Extractable Lead (Pb)	2019/01/22	102	75 - 125	101	80 - 120	<1.0	ug/g	1.6	30
5939554	Acid Extractable Molybdenum (Mo)	2019/01/22	107	75 - 125	102	80 - 120	<0.50	ug/g	2.0	30
5939554	Acid Extractable Nickel (Ni)	2019/01/22	105	75 - 125	102	80 - 120	<0.50	ug/g	12	30
5939554	Acid Extractable Selenium (Se)	2019/01/22	102	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5939554	Acid Extractable Silver (Ag)	2019/01/22	102	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5939554	Acid Extractable Thallium (Tl)	2019/01/22	98	75 - 125	100	80 - 120	<0.050	ug/g	13	30
5939554	Acid Extractable Uranium (U)	2019/01/22	101	75 - 125	100	80 - 120	<0.050	ug/g	3.7	30
5939554	Acid Extractable Vanadium (V)	2019/01/22	106	75 - 125	98	80 - 120	<5.0	ug/g	NC	30
5939554	Acid Extractable Zinc (Zn)	2019/01/22	NC	75 - 125	98	80 - 120	<5.0	ug/g	16	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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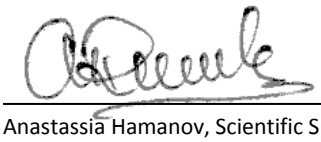
Maxxam Job #: B917250
Report Date: 2019/01/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: Facility 187182417
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	Windfield's	C#697737-12-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEG2019011186 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 ICPMS Metals	# of Bottles	Comments
1		S20-K20	Jan18/19	4pm	Soil	N/A	X	1	
2		K20-L20					X	1	
3		L20-M20					X	1	
4		M20-N20					X	1	
5									
6									
7									
8									
9									
10									

21-Jan-19 14:00
Ema Gitej
B917250
THP ENV-981

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/01/18	5pm		19/01/21	14:00	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	11.3 / -1	Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

↓ 94329

Maxxam Job #: B917250
Report Date: 2019/01/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: Facility 187182417
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
J20-K20	IUM524-01	Acid Extractable Antimony (Sb)	1.3	1.5	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
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Your Project #: 1791121
Site Location: WINDFIELDS
Your C.O.C. #: 697737-14-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/25
Report #: R5570779
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B917380
Received: 2019/01/21, 15:38

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	4	2019/01/23	2019/01/24	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B917380
Report Date: 2019/01/25

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IUN189	IUN190	IUN191	IUN192		
Sampling Date			2019/01/18 16:00	2019/01/18 16:00	2019/01/18 16:00	2019/01/18 16:00		
COC Number			697737-14-01	697737-14-01	697737-14-01	697737-14-01		
	UNITS	Criteria	J19	K19	M19	DUPP	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	0.20	5942198
Acid Extractable Arsenic (As)	ug/g	18	1.5	2.0	1.6	1.7	1.0	5942198
Acid Extractable Barium (Ba)	ug/g	220	33	33	26	33	0.50	5942198
Acid Extractable Beryllium (Be)	ug/g	2.5	0.27	0.33	0.24	0.30	0.20	5942198
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	5.0	5942198
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	0.10	5942198
Acid Extractable Chromium (Cr)	ug/g	70	9.5	11	8.2	10	1.0	5942198
Acid Extractable Cobalt (Co)	ug/g	21	3.4	4.3	3.5	4.4	0.10	5942198
Acid Extractable Copper (Cu)	ug/g	92	7.2	9.4	8.3	9.4	0.50	5942198
Acid Extractable Lead (Pb)	ug/g	120	4.6	5.9	4.7	5.6	1.0	5942198
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5942198
Acid Extractable Nickel (Ni)	ug/g	82	8.6	10	8.5	11	0.50	5942198
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5942198
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5942198
Acid Extractable Thallium (Tl)	ug/g	1	0.095	0.12	0.10	0.12	0.050	5942198
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.56	0.52	0.48	0.050	5942198
Acid Extractable Vanadium (V)	ug/g	86	18	21	17	19	5.0	5942198
Acid Extractable Zinc (Zn)	ug/g	290	19	21	19	23	5.0	5942198

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B917380
Report Date: 2019/01/25

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IUN189 **Collected:** 2019/01/18
Sample ID: J19 **Shipped:**
Matrix: Soil **Received:** 2019/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5942198	2019/01/23	2019/01/24	Daniel Teclu

Maxxam ID: IUN190 **Collected:** 2019/01/18
Sample ID: K19 **Shipped:**
Matrix: Soil **Received:** 2019/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5942198	2019/01/23	2019/01/24	Daniel Teclu

Maxxam ID: IUN191 **Collected:** 2019/01/18
Sample ID: M19 **Shipped:**
Matrix: Soil **Received:** 2019/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5942198	2019/01/23	2019/01/24	Daniel Teclu

Maxxam ID: IUN192 **Collected:** 2019/01/18
Sample ID: DUPP **Shipped:**
Matrix: Soil **Received:** 2019/01/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5942198	2019/01/23	2019/01/24	Daniel Teclu

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Maxxam Job #: B917380
Report Date: 2019/01/25

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	0.0°C

Results relate only to the items tested.

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Maxxam Job #: B917380
Report Date: 2019/01/25

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5942198	Acid Extractable Antimony (Sb)	2019/01/24	102	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5942198	Acid Extractable Arsenic (As)	2019/01/24	109	75 - 125	102	80 - 120	<1.0	ug/g	1.3	30
5942198	Acid Extractable Barium (Ba)	2019/01/24	NC	75 - 125	99	80 - 120	<0.50	ug/g	3.0	30
5942198	Acid Extractable Beryllium (Be)	2019/01/24	106	75 - 125	99	80 - 120	<0.20	ug/g	1.7	30
5942198	Acid Extractable Boron (B)	2019/01/24	102	75 - 125	100	80 - 120	<5.0	ug/g	1.6	30
5942198	Acid Extractable Cadmium (Cd)	2019/01/24	106	75 - 125	102	80 - 120	<0.10	ug/g	NC	30
5942198	Acid Extractable Chromium (Cr)	2019/01/24	109	75 - 125	102	80 - 120	<1.0	ug/g	1.8	30
5942198	Acid Extractable Cobalt (Co)	2019/01/24	108	75 - 125	102	80 - 120	<0.10	ug/g	1.5	30
5942198	Acid Extractable Copper (Cu)	2019/01/24	104	75 - 125	102	80 - 120	<0.50	ug/g	1.2	30
5942198	Acid Extractable Lead (Pb)	2019/01/24	104	75 - 125	104	80 - 120	<1.0	ug/g	0.81	30
5942198	Acid Extractable Molybdenum (Mo)	2019/01/24	108	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5942198	Acid Extractable Nickel (Ni)	2019/01/24	108	75 - 125	102	80 - 120	<0.50	ug/g	4.6	30
5942198	Acid Extractable Selenium (Se)	2019/01/24	108	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5942198	Acid Extractable Silver (Ag)	2019/01/24	105	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
5942198	Acid Extractable Thallium (Tl)	2019/01/24	102	75 - 125	100	80 - 120	<0.050	ug/g	7.7	30
5942198	Acid Extractable Uranium (U)	2019/01/24	103	75 - 125	101	80 - 120	<0.050	ug/g	4.1	30
5942198	Acid Extractable Vanadium (V)	2019/01/24	107	75 - 125	105	80 - 120	<5.0	ug/g	0.41	30
5942198	Acid Extractable Zinc (Zn)	2019/01/24	107	75 - 125	100	80 - 120	<5.0	ug/g	7.6	30

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

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

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

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NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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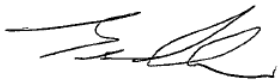
Maxxam Job #: B917380
Report Date: 2019/01/25

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	Windfields 3	C#697737-14-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	AVANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___
(call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals									# of Bottles	Comments
1		J19	Jan 18/19	4pm	Soil	N/A	X									1	
2		K19	↓	↓	↓	↓	X									1	
3		M19					X									1	
4		DUPP					X									1	
5																	
6																	
7																	
8																	
9																	
10																	

21-Jan-19 15:38
Ema Gitej
B917380
THP ENV-1310

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	19/01/18	5pm		19/01/21	1420	0	Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
								1 0 -1	Present		
									Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B917380
Report Date: 2019/01/25

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121
Your C.O.C. #: 697737-11-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/01/30
Report #: R5576983
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B922532
Received: 2019/01/25, 13:31

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	3	2019/01/29	2019/01/30	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B922532
Report Date: 2019/01/30

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IVP124	IVP125	IVP126		
Sampling Date			2019/01/24 16:00	2019/01/24 16:00	2019/01/24 16:00		
COC Number			697737-11-01	697737-11-01	697737-11-01		
	UNITS	Criteria	QR11-QR12	G7-H7	H7-I7	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	0.20	5950277
Acid Extractable Arsenic (As)	ug/g	18	1.7	2.9	2.3	1.0	5950277
Acid Extractable Barium (Ba)	ug/g	220	50	75	70	0.50	5950277
Acid Extractable Beryllium (Be)	ug/g	2.5	0.31	0.55	0.57	0.20	5950277
Acid Extractable Boron (B)	ug/g	36	5.9	<5.0	<5.0	5.0	5950277
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.25	0.18	0.10	5950277
Acid Extractable Chromium (Cr)	ug/g	70	11	21	18	1.0	5950277
Acid Extractable Cobalt (Co)	ug/g	21	4.4	5.7	5.5	0.10	5950277
Acid Extractable Copper (Cu)	ug/g	92	7.6	11	8.0	0.50	5950277
Acid Extractable Lead (Pb)	ug/g	120	4.7	8.5	9.3	1.0	5950277
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	0.50	5950277
Acid Extractable Nickel (Ni)	ug/g	82	9.5	13	12	0.50	5950277
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	0.50	5950277
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	0.20	5950277
Acid Extractable Thallium (Tl)	ug/g	1	0.094	0.15	0.12	0.050	5950277
Acid Extractable Uranium (U)	ug/g	2.5	0.45	0.57	0.75	0.050	5950277
Acid Extractable Vanadium (V)	ug/g	86	19	34	31	5.0	5950277
Acid Extractable Zinc (Zn)	ug/g	290	23	35	37	5.0	5950277

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B922532
Report Date: 2019/01/30

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IVP124
Sample ID: QR11-QR12
Matrix: Soil

Collected: 2019/01/24
Shipped:
Received: 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5950277	2019/01/29	2019/01/30	Thao Nguyen

Maxxam ID: IVP125
Sample ID: G7-H7
Matrix: Soil

Collected: 2019/01/24
Shipped:
Received: 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5950277	2019/01/29	2019/01/30	Thao Nguyen

Maxxam ID: IVP126
Sample ID: H7-I7
Matrix: Soil

Collected: 2019/01/24
Shipped:
Received: 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5950277	2019/01/29	2019/01/30	Thao Nguyen

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B922532
Report Date: 2019/01/30

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	1.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B922532
Report Date: 2019/01/30

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5950277	Acid Extractable Antimony (Sb)	2019/01/30	111	75 - 125	98	80 - 120	<0.20	ug/g	12	30
5950277	Acid Extractable Arsenic (As)	2019/01/30	117	75 - 125	100	80 - 120	<1.0	ug/g	16	30
5950277	Acid Extractable Barium (Ba)	2019/01/30	NC	75 - 125	102	80 - 120	<0.50	ug/g	3.7	30
5950277	Acid Extractable Beryllium (Be)	2019/01/30	117	75 - 125	100	80 - 120	<0.20	ug/g	4.8	30
5950277	Acid Extractable Boron (B)	2019/01/30	111	75 - 125	97	80 - 120	<5.0	ug/g	4.6	30
5950277	Acid Extractable Cadmium (Cd)	2019/01/30	109	75 - 125	96	80 - 120	<0.10	ug/g	4.3	30
5950277	Acid Extractable Chromium (Cr)	2019/01/30	115	75 - 125	101	80 - 120	<1.0	ug/g	1.7	30
5950277	Acid Extractable Cobalt (Co)	2019/01/30	114	75 - 125	99	80 - 120	<0.10	ug/g	6.4	30
5950277	Acid Extractable Copper (Cu)	2019/01/30	112	75 - 125	99	80 - 120	<0.50	ug/g	2.9	30
5950277	Acid Extractable Lead (Pb)	2019/01/30	NC	75 - 125	97	80 - 120	<1.0	ug/g	18	30
5950277	Acid Extractable Molybdenum (Mo)	2019/01/30	114	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5950277	Acid Extractable Nickel (Ni)	2019/01/30	115	75 - 125	99	80 - 120	<0.50	ug/g	6.4	30
5950277	Acid Extractable Selenium (Se)	2019/01/30	112	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5950277	Acid Extractable Silver (Ag)	2019/01/30	109	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
5950277	Acid Extractable Thallium (Tl)	2019/01/30	107	75 - 125	97	80 - 120	<0.050	ug/g	23	30
5950277	Acid Extractable Uranium (U)	2019/01/30	104	75 - 125	94	80 - 120	<0.050	ug/g	7.4	30
5950277	Acid Extractable Vanadium (V)	2019/01/30	115	75 - 125	100	80 - 120	<5.0	ug/g	3.7	30
5950277	Acid Extractable Zinc (Zn)	2019/01/30	NC	75 - 125	99	80 - 120	<5.0	ug/g	1.5	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B922532
Report Date: 2019/01/30

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

25-Jan-19 13:31
Ema Gitej
B922532

Page 1 of 1

RUSH!!

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:			
Company Name:	#2392 Golder Associates Ltd	Company Name:		Quotation #:	B80683	e Only:	
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417	Bottle Order #:	
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121* URE env-1301		697737
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		COC #:	Project Manager:
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:		C#697737-11-01	Ema Gitej
				Sampled By:	AVANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☒ Ind/Comm ☒ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☒ For RSC	☐ MISA Municipality	
☐ Table	☐ PWQO	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3DAY RUSH
Date Required: Time Required:
Rush Confirmation Number: EEG201901245 ☒
(call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals								# of Bottles	Comments
1		QR11-QR12	Jan 24/19	4pm	Soil	N/A	X								1	
2		G7-H7	↓	↓	↓	↓	X								1	
3		H7-I7	↓	↓	↓	↓	X								1	
4																
5																
6																
7																
8																
9																
10																

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	19/01/24	5pm		19/01/25	13:31	0	Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
								12/1	Present		
									Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B922532
Report Date: 2019/01/30

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1791121

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 697737-03-01, 697737-13-01, 697737-05-01

Report Date: 2019/02/05
Report #: R5583004
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B922573
Received: 2019/01/25, 13:31

Sample Matrix: Soil
Samples Received: 30

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	10	2019/01/28	2019/01/30	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	20	2019/01/28	2019/01/31	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: 1791121

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 697737-03-01, 697737-13-01, 697737-05-01

Report Date: 2019/02/05
Report #: R5583004
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B922573
Received: 2019/01/25, 13:31

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IVP335	IVP336	IVP337		IVP338		
Sampling Date			2019/01/22 14:00	2019/01/22 14:00	2019/01/22 14:00		2019/01/22 14:00		
COC Number			697737-03-01	697737-03-01	697737-03-01		697737-03-01		
	UNITS	Criteria	M6	M7	M8	QC Batch	M9	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.39	5948820	0.95	0.20	5949026
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.9	1.5	5948820	1.7	1.0	5949026
Acid Extractable Barium (Ba)	ug/g	220	31	31	82	5948820	71	0.50	5949026
Acid Extractable Beryllium (Be)	ug/g	2.5	0.28	0.28	0.50	5948820	0.47	0.20	5949026
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	7.7	5948820	7.4	5.0	5949026
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	5948820	0.12	0.10	5949026
Acid Extractable Chromium (Cr)	ug/g	70	9.6	9.4	17	5948820	16	1.0	5949026
Acid Extractable Cobalt (Co)	ug/g	21	3.8	3.8	6.2	5948820	5.5	0.10	5949026
Acid Extractable Copper (Cu)	ug/g	92	7.9	7.8	13	5948820	11	0.50	5949026
Acid Extractable Lead (Pb)	ug/g	120	4.7	5.8	10	5948820	22	1.0	5949026
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	5948820	<0.50	0.50	5949026
Acid Extractable Nickel (Ni)	ug/g	82	8.6	8.5	15	5948820	13	0.50	5949026
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	5948820	<0.50	0.50	5949026
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	5948820	<0.20	0.20	5949026
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.097	0.14	5948820	0.13	0.050	5949026
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.45	0.52	5948820	0.48	0.050	5949026
Acid Extractable Vanadium (V)	ug/g	86	18	17	24	5948820	23	5.0	5949026
Acid Extractable Zinc (Zn)	ug/g	290	21	23	31	5948820	33	5.0	5949026

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IVP339	IVP340	IVP341	IVP342		
Sampling Date			2019/01/24 10:00	2019/01/22 14:00	2019/01/22 14:00	2019/01/22 14:00		
COC Number			697737-03-01	697737-03-01	697737-03-01	697737-03-01		
	UNITS	Criteria	M11	J7	J8	K7	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	0.20	5949026
Acid Extractable Arsenic (As)	ug/g	18	2.0	<1.0	1.0	<1.0	1.0	5949026
Acid Extractable Barium (Ba)	ug/g	220	46	16	24	14	0.50	5949026
Acid Extractable Beryllium (Be)	ug/g	2.5	0.34	<0.20	0.20	<0.20	0.20	5949026
Acid Extractable Boron (B)	ug/g	36	5.8	<5.0	<5.0	<5.0	5.0	5949026
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	<0.10	0.10	5949026
Acid Extractable Chromium (Cr)	ug/g	70	12	5.8	7.3	5.2	1.0	5949026
Acid Extractable Cobalt (Co)	ug/g	21	4.4	2.3	2.8	2.2	0.10	5949026
Acid Extractable Copper (Cu)	ug/g	92	7.8	4.0	4.5	3.0	0.50	5949026
Acid Extractable Lead (Pb)	ug/g	120	5.5	2.0	5.3	1.9	1.0	5949026
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5949026
Acid Extractable Nickel (Ni)	ug/g	82	10	3.7	5.0	3.3	0.50	5949026
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5949026
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5949026
Acid Extractable Thallium (Tl)	ug/g	1	0.092	<0.050	<0.050	<0.050	0.050	5949026
Acid Extractable Uranium (U)	ug/g	2.5	0.48	0.32	0.36	0.32	0.050	5949026
Acid Extractable Vanadium (V)	ug/g	86	20	15	18	14	5.0	5949026
Acid Extractable Zinc (Zn)	ug/g	290	23	13	14	12	5.0	5949026

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IVP343	IVP344	IVP406	IVP407		
Sampling Date			2019/01/24 10:00	2019/01/22 14:00	2019/01/22 14:00	2019/01/22 14:00		
COC Number			697737-03-01	697737-03-01	697737-13-01	697737-13-01		
	UNITS	Criteria	K11	Q11	O11	O12	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	<0.20	0.20	5948775
Acid Extractable Arsenic (As)	ug/g	18	1.9	1.9	1.3	2.0	1.0	5948775
Acid Extractable Barium (Ba)	ug/g	220	43	44	60	54	0.50	5948775
Acid Extractable Beryllium (Be)	ug/g	2.5	0.37	0.27	0.35	0.39	0.20	5948775
Acid Extractable Boron (B)	ug/g	36	5.2	5.6	6.0	6.0	5.0	5948775
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	0.12	<0.10	0.10	5948775
Acid Extractable Chromium (Cr)	ug/g	70	12	10	13	14	1.0	5948775
Acid Extractable Cobalt (Co)	ug/g	21	4.6	3.9	4.5	4.9	0.10	5948775
Acid Extractable Copper (Cu)	ug/g	92	7.0	6.9	7.9	10	0.50	5948775
Acid Extractable Lead (Pb)	ug/g	120	6.2	4.8	5.0	5.6	1.0	5948775
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Nickel (Ni)	ug/g	82	10	8.7	10	11	0.50	5948775
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5948775
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.11	0.11	0.11	0.050	5948775
Acid Extractable Uranium (U)	ug/g	2.5	0.48	0.46	0.43	0.51	0.050	5948775
Acid Extractable Vanadium (V)	ug/g	86	23	18	22	23	5.0	5948775
Acid Extractable Zinc (Zn)	ug/g	290	22	22	29	25	5.0	5948775

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IVP408		IVP409	IVP410	IVP411		
Sampling Date			2019/01/22 14:00		2019/01/22 14:00	2019/01/22 14:00	2019/01/22 14:00		
COC Number			697737-13-01		697737-13-01	697737-13-01	697737-13-01		
	UNITS	Criteria	P11	QC Batch	P12	N11	N12	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5948820	0.30	0.27	<0.20	0.20	5948775
Acid Extractable Arsenic (As)	ug/g	18	1.3	5948820	2.2	1.3	2.3	1.0	5948775
Acid Extractable Barium (Ba)	ug/g	220	60	5948820	63	51	43	0.50	5948775
Acid Extractable Beryllium (Be)	ug/g	2.5	0.36	5948820	0.49	0.34	0.34	0.20	5948775
Acid Extractable Boron (B)	ug/g	36	6.8	5948820	5.1	5.6	5.8	5.0	5948775
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5948820	0.18	<0.10	<0.10	0.10	5948775
Acid Extractable Chromium (Cr)	ug/g	70	14	5948820	19	13	12	1.0	5948775
Acid Extractable Cobalt (Co)	ug/g	21	4.7	5948820	6.7	4.2	4.0	0.10	5948775
Acid Extractable Copper (Cu)	ug/g	92	8.6	5948820	8.0	7.5	8.5	0.50	5948775
Acid Extractable Lead (Pb)	ug/g	120	5.7	5948820	9.6	4.9	5.0	1.0	5948775
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5948820	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Nickel (Ni)	ug/g	82	11	5948820	15	9.8	9.8	0.50	5948775
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5948820	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5948820	<0.20	<0.20	<0.20	0.20	5948775
Acid Extractable Thallium (Tl)	ug/g	1	0.11	5948820	0.16	0.095	0.12	0.050	5948775
Acid Extractable Uranium (U)	ug/g	2.5	0.48	5948820	1.6	0.43	0.47	0.050	5948775
Acid Extractable Vanadium (V)	ug/g	86	20	5948820	33	22	20	5.0	5948775
Acid Extractable Zinc (Zn)	ug/g	290	23	5948820	41	24	22	5.0	5948775

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IVP412	IVP413	IVP414	IVP415	IVP464		
Sampling Date			2019/01/24 10:00	2019/01/24 10:00	2019/01/24 10:00	2019/01/24 10:00	2019/01/24 10:00		
COC Number			697737-13-01	697737-13-01	697737-13-01	697737-13-01	697737-05-01		
	UNITS	Criteria	L11	L12	H10	H11	H12	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.77	0.83	<0.20	<0.20	<0.20	0.20	5948775
Acid Extractable Arsenic (As)	ug/g	18	2.0	1.8	2.1	1.9	1.6	1.0	5948775
Acid Extractable Barium (Ba)	ug/g	220	51	45	84	59	44	0.50	5948775
Acid Extractable Beryllium (Be)	ug/g	2.5	0.39	0.34	0.53	0.32	0.30	0.20	5948775
Acid Extractable Boron (B)	ug/g	36	5.6	5.1	7.9	6.5	5.1	5.0	5948775
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	0.13	<0.10	<0.10	0.10	5948775
Acid Extractable Chromium (Cr)	ug/g	70	14	11	18	12	11	1.0	5948775
Acid Extractable Cobalt (Co)	ug/g	21	5.0	5.3	5.7	4.5	3.9	0.10	5948775
Acid Extractable Copper (Cu)	ug/g	92	7.9	6.5	12	7.8	6.6	0.50	5948775
Acid Extractable Lead (Pb)	ug/g	120	15	7.5	7.3	5.0	4.7	1.0	5948775
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Nickel (Ni)	ug/g	82	11	11	13	9.8	9.2	0.50	5948775
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5948775
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.10	0.12	0.12	0.089	0.050	5948775
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.46	0.51	0.45	0.41	0.050	5948775
Acid Extractable Vanadium (V)	ug/g	86	24	22	25	20	18	5.0	5948775
Acid Extractable Zinc (Zn)	ug/g	290	27	21	32	23	22	5.0	5948775

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IVP465	IVP465	IVP466	IVP467	IVP468		
Sampling Date			2019/01/24 10:00	2019/01/24 10:00	2019/01/24 10:00	2019/01/22 14:00	2019/01/22 14:00		
COC Number			697737-05-01	697737-05-01	697737-05-01	697737-05-01	697737-05-01		
	UNITS	Criteria	H13	H13 Lab-Dup	H14	DUP13	DUP14	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	0.43	<0.20	0.20	5948775
Acid Extractable Arsenic (As)	ug/g	18	2.0	1.5	2.2	1.9	1.9	1.0	5948775
Acid Extractable Barium (Ba)	ug/g	220	55	59	56	68	50	0.50	5948775
Acid Extractable Beryllium (Be)	ug/g	2.5	0.33	0.36	0.41	0.44	0.37	0.20	5948775
Acid Extractable Boron (B)	ug/g	36	6.0	6.4	6.4	6.4	5.9	5.0	5948775
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	0.14	<0.10	0.10	5948775
Acid Extractable Chromium (Cr)	ug/g	70	12	13	15	15	13	1.0	5948775
Acid Extractable Cobalt (Co)	ug/g	21	4.9	5.1	5.2	5.5	4.8	0.10	5948775
Acid Extractable Copper (Cu)	ug/g	92	8.1	8.3	8.9	11	9.2	0.50	5948775
Acid Extractable Lead (Pb)	ug/g	120	5.4	5.6	6.6	13	5.3	1.0	5948775
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Nickel (Ni)	ug/g	82	10	11	13	14	12	0.50	5948775
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5948775
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.12	0.15	0.14	0.11	0.050	5948775
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.48	0.48	0.47	0.46	0.050	5948775
Acid Extractable Vanadium (V)	ug/g	86	19	21	25	22	21	5.0	5948775
Acid Extractable Zinc (Zn)	ug/g	290	23	24	28	30	22	5.0	5948775

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IVP469		IVP470	IVP471	IVP472		
Sampling Date			2019/01/24 10:00		2019/01/24 10:00	2019/01/24 10:00	2019/01/24 10:00		
COC Number			697737-05-01		697737-05-01	697737-05-01	697737-05-01		
	UNITS	Criteria	I4	QC Batch	I5	J3	J4	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	5948820	<0.20	<0.20	<0.20	0.20	5948775
Acid Extractable Arsenic (As)	ug/g	18	<1.0	5948820	<1.0	<1.0	<1.0	1.0	5948775
Acid Extractable Barium (Ba)	ug/g	220	14	5948820	14	14	11	0.50	5948775
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	5948820	<0.20	<0.20	<0.20	0.20	5948775
Acid Extractable Boron (B)	ug/g	36	<5.0	5948820	<5.0	<5.0	<5.0	5.0	5948775
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	5948820	<0.10	<0.10	<0.10	0.10	5948775
Acid Extractable Chromium (Cr)	ug/g	70	6.0	5948820	6.3	6.9	6.1	1.0	5948775
Acid Extractable Cobalt (Co)	ug/g	21	2.1	5948820	2.2	2.3	2.2	0.10	5948775
Acid Extractable Copper (Cu)	ug/g	92	2.3	5948820	2.4	2.2	2.3	0.50	5948775
Acid Extractable Lead (Pb)	ug/g	120	2.2	5948820	2.0	2.1	2.0	1.0	5948775
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	5948820	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Nickel (Ni)	ug/g	82	3.5	5948820	3.6	3.4	3.5	0.50	5948775
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	5948820	<0.50	<0.50	<0.50	0.50	5948775
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	5948820	<0.20	<0.20	<0.20	0.20	5948775
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	5948820	<0.050	<0.050	<0.050	0.050	5948775
Acid Extractable Uranium (U)	ug/g	2.5	0.36	5948820	0.35	0.39	0.38	0.050	5948775
Acid Extractable Vanadium (V)	ug/g	86	15	5948820	17	16	16	5.0	5948775
Acid Extractable Zinc (Zn)	ug/g	290	10	5948820	9.6	10	11	5.0	5948775

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IVP473		
Sampling Date			2019/01/24 10:00		
COC Number			697737-05-01		
	UNITS	Criteria	K3	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.20	5948775
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.0	5948775
Acid Extractable Barium (Ba)	ug/g	220	12	0.50	5948775
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.20	5948775
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	5948775
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	5948775
Acid Extractable Chromium (Cr)	ug/g	70	5.8	1.0	5948775
Acid Extractable Cobalt (Co)	ug/g	21	2.2	0.10	5948775
Acid Extractable Copper (Cu)	ug/g	92	2.6	0.50	5948775
Acid Extractable Lead (Pb)	ug/g	120	2.0	1.0	5948775
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	5948775
Acid Extractable Nickel (Ni)	ug/g	82	3.7	0.50	5948775
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	5948775
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	5948775
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.050	5948775
Acid Extractable Uranium (U)	ug/g	2.5	0.31	0.050	5948775
Acid Extractable Vanadium (V)	ug/g	86	16	5.0	5948775
Acid Extractable Zinc (Zn)	ug/g	290	9.7	5.0	5948775

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IVP335 **Collected:** 2019/01/22
Sample ID: M6 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948820	2019/01/28	2019/01/30	Thao Nguyen

Maxxam ID: IVP336 **Collected:** 2019/01/22
Sample ID: M7 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948820	2019/01/28	2019/01/30	Thao Nguyen

Maxxam ID: IVP337 **Collected:** 2019/01/22
Sample ID: M8 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948820	2019/01/28	2019/01/30	Thao Nguyen

Maxxam ID: IVP338 **Collected:** 2019/01/22
Sample ID: M9 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5949026	2019/01/28	2019/01/30	Thao Nguyen

Maxxam ID: IVP339 **Collected:** 2019/01/24
Sample ID: M11 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5949026	2019/01/28	2019/01/30	Thao Nguyen

Maxxam ID: IVP340 **Collected:** 2019/01/22
Sample ID: J7 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5949026	2019/01/28	2019/01/30	Thao Nguyen

Maxxam ID: IVP341 **Collected:** 2019/01/22
Sample ID: J8 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5949026	2019/01/28	2019/01/30	Thao Nguyen

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IVP342 **Collected:** 2019/01/22
Sample ID: K7 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5949026	2019/01/28	2019/01/30	Thao Nguyen

Maxxam ID: IVP343 **Collected:** 2019/01/24
Sample ID: K11 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP344 **Collected:** 2019/01/22
Sample ID: Q11 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP406 **Collected:** 2019/01/22
Sample ID: O11 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP407 **Collected:** 2019/01/22
Sample ID: O12 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP408 **Collected:** 2019/01/22
Sample ID: P11 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948820	2019/01/28	2019/01/30	Thao Nguyen

Maxxam ID: IVP409 **Collected:** 2019/01/22
Sample ID: P12 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IVP410 **Collected:** 2019/01/22
Sample ID: N11 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP411 **Collected:** 2019/01/22
Sample ID: N12 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP412 **Collected:** 2019/01/24
Sample ID: L11 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP413 **Collected:** 2019/01/24
Sample ID: L12 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP414 **Collected:** 2019/01/24
Sample ID: H10 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP415 **Collected:** 2019/01/24
Sample ID: H11 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP464 **Collected:** 2019/01/24
Sample ID: H12 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IVP465 **Collected:** 2019/01/24
Sample ID: H13 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP465 Dup **Collected:** 2019/01/24
Sample ID: H13 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP466 **Collected:** 2019/01/24
Sample ID: H14 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP467 **Collected:** 2019/01/22
Sample ID: DUP13 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP468 **Collected:** 2019/01/22
Sample ID: DUP14 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP469 **Collected:** 2019/01/24
Sample ID: I4 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948820	2019/01/28	2019/01/30	Thao Nguyen

Maxxam ID: IVP470 **Collected:** 2019/01/24
Sample ID: I5 **Shipped:**
Matrix: Soil **Received:** 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

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Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IVP471
Sample ID: J3
Matrix: Soil

Collected: 2019/01/24
Shipped:
Received: 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP472
Sample ID: J4
Matrix: Soil

Collected: 2019/01/24
Shipped:
Received: 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

Maxxam ID: IVP473
Sample ID: K3
Matrix: Soil

Collected: 2019/01/24
Shipped:
Received: 2019/01/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5948775	2019/01/28	2019/01/31	Thao Nguyen

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Maxxam Job #: B922573
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Client Project #: 1791121
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	1.3°C

Revised report (2019/02/05): Sample ID N12 has been amended.

Results relate only to the items tested.

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Maxxam Job #: B922573
Report Date: 2019/02/05

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5948775	Acid Extractable Antimony (Sb)	2019/01/31	100	75 - 125	104	80 - 120	<0.20	ug/g	NC	30
5948775	Acid Extractable Arsenic (As)	2019/01/31	99	75 - 125	103	80 - 120	<1.0	ug/g	29	30
5948775	Acid Extractable Barium (Ba)	2019/01/31	NC	75 - 125	102	80 - 120	<0.50	ug/g	6.9	30
5948775	Acid Extractable Beryllium (Be)	2019/01/31	106	75 - 125	105	80 - 120	<0.20	ug/g	10	30
5948775	Acid Extractable Boron (B)	2019/01/31	103	75 - 125	106	80 - 120	<5.0	ug/g	5.6	30
5948775	Acid Extractable Cadmium (Cd)	2019/01/31	101	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
5948775	Acid Extractable Chromium (Cr)	2019/01/31	104	75 - 125	104	80 - 120	<1.0	ug/g	5.5	30
5948775	Acid Extractable Cobalt (Co)	2019/01/31	104	75 - 125	103	80 - 120	<0.10	ug/g	2.4	30
5948775	Acid Extractable Copper (Cu)	2019/01/31	100	75 - 125	103	80 - 120	<0.50	ug/g	1.7	30
5948775	Acid Extractable Lead (Pb)	2019/01/31	98	75 - 125	100	80 - 120	<1.0	ug/g	3.0	30
5948775	Acid Extractable Molybdenum (Mo)	2019/01/31	105	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5948775	Acid Extractable Nickel (Ni)	2019/01/31	104	75 - 125	104	80 - 120	<0.50	ug/g	4.8	30
5948775	Acid Extractable Selenium (Se)	2019/01/31	103	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5948775	Acid Extractable Silver (Ag)	2019/01/31	104	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5948775	Acid Extractable Thallium (Tl)	2019/01/31	98	75 - 125	100	80 - 120	<0.050	ug/g	1.4	30
5948775	Acid Extractable Uranium (U)	2019/01/31	94	75 - 125	93	80 - 120	<0.050	ug/g	4.0	30
5948775	Acid Extractable Vanadium (V)	2019/01/31	107	75 - 125	103	80 - 120	<5.0	ug/g	7.5	30
5948775	Acid Extractable Zinc (Zn)	2019/01/31	104	75 - 125	98	80 - 120	<5.0	ug/g	4.6	30
5948820	Acid Extractable Antimony (Sb)	2019/01/30	101	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5948820	Acid Extractable Arsenic (As)	2019/01/30	96	75 - 125	99	80 - 120	<1.0	ug/g	10	30
5948820	Acid Extractable Barium (Ba)	2019/01/30	NC	75 - 125	100	80 - 120	<0.50	ug/g	1.3	30
5948820	Acid Extractable Beryllium (Be)	2019/01/30	107	75 - 125	105	80 - 120	<0.20	ug/g	5.7	30
5948820	Acid Extractable Boron (B)	2019/01/30	103	75 - 125	103	80 - 120	<5.0	ug/g	2.2	30
5948820	Acid Extractable Cadmium (Cd)	2019/01/30	101	75 - 125	99	80 - 120	<0.10	ug/g	NC	30
5948820	Acid Extractable Chromium (Cr)	2019/01/30	103	75 - 125	100	80 - 120	<1.0	ug/g	14	30
5948820	Acid Extractable Cobalt (Co)	2019/01/30	104	75 - 125	102	80 - 120	<0.10	ug/g	1.4	30
5948820	Acid Extractable Copper (Cu)	2019/01/30	103	75 - 125	103	80 - 120	<0.50	ug/g	5.4	30
5948820	Acid Extractable Lead (Pb)	2019/01/30	98	75 - 125	100	80 - 120	<1.0	ug/g	1.5	30
5948820	Acid Extractable Molybdenum (Mo)	2019/01/30	107	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5948820	Acid Extractable Nickel (Ni)	2019/01/30	108	75 - 125	102	80 - 120	<0.50	ug/g	2.6	30
5948820	Acid Extractable Selenium (Se)	2019/01/30	104	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5948820	Acid Extractable Silver (Ag)	2019/01/30	102	75 - 125	98	80 - 120	<0.20	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5948820	Acid Extractable Thallium (Tl)	2019/01/30	98	75 - 125	99	80 - 120	<0.050	ug/g	6.9	30
5948820	Acid Extractable Uranium (U)	2019/01/30	94	75 - 125	94	80 - 120	<0.050	ug/g	2.7	30
5948820	Acid Extractable Vanadium (V)	2019/01/30	105	75 - 125	102	80 - 120	<5.0	ug/g	1.3	30
5948820	Acid Extractable Zinc (Zn)	2019/01/30	NC	75 - 125	102	80 - 120	<5.0	ug/g	6.6	30
5949026	Acid Extractable Antimony (Sb)	2019/01/30	93	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
5949026	Acid Extractable Arsenic (As)	2019/01/30	102	75 - 125	102	80 - 120	<1.0	ug/g	24	30
5949026	Acid Extractable Barium (Ba)	2019/01/30	NC	75 - 125	104	80 - 120	<0.50	ug/g	9.1	30
5949026	Acid Extractable Beryllium (Be)	2019/01/30	109	75 - 125	106	80 - 120	<0.20	ug/g	2.7	30
5949026	Acid Extractable Boron (B)	2019/01/30	104	75 - 125	103	80 - 120	<5.0	ug/g	2.9	30
5949026	Acid Extractable Cadmium (Cd)	2019/01/30	102	75 - 125	100	80 - 120	<0.10	ug/g	NC	30
5949026	Acid Extractable Chromium (Cr)	2019/01/30	101	75 - 125	104	80 - 120	<1.0	ug/g	4.9	30
5949026	Acid Extractable Cobalt (Co)	2019/01/30	105	75 - 125	103	80 - 120	<0.10	ug/g	1.5	30
5949026	Acid Extractable Copper (Cu)	2019/01/30	99	75 - 125	104	80 - 120	<0.50	ug/g	5.9	30
5949026	Acid Extractable Lead (Pb)	2019/01/30	102	75 - 125	102	80 - 120	<1.0	ug/g	9.7	30
5949026	Acid Extractable Molybdenum (Mo)	2019/01/30	104	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5949026	Acid Extractable Nickel (Ni)	2019/01/30	106	75 - 125	104	80 - 120	<0.50	ug/g	1.3	30
5949026	Acid Extractable Selenium (Se)	2019/01/30	103	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5949026	Acid Extractable Silver (Ag)	2019/01/30	100	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5949026	Acid Extractable Thallium (Tl)	2019/01/30	96	75 - 125	102	80 - 120	<0.050	ug/g	2.3	30
5949026	Acid Extractable Uranium (U)	2019/01/30	95	75 - 125	95	80 - 120	<0.050	ug/g	0.84	30
5949026	Acid Extractable Vanadium (V)	2019/01/30	NC	75 - 125	102	80 - 120	<5.0	ug/g	5.7	30
5949026	Acid Extractable Zinc (Zn)	2019/01/30	NC	75 - 125	104	80 - 120	<5.0	ug/g	4.5	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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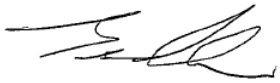
Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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25-Jan-19 13:31

Ema Gitej

B922573

Page 1 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Only:
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417	697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 URE ENV-1280	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:		COC #: C#697737-03-01
				Sampled By:	AVANROON	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☒ Ind/Comm ☒ Coarse ☐ Table 3 ☐ Agri/Other ☒ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required

Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O Reg 153 ICPMS Metals	# of Bottles	Comments
1		M6	Jan 22/19	2pm	Soil	N/A	X	1	
2		M7	↓	↓	↓	↓	X	1	
3		M8					X	1	
4		M9					X	1	
5		M11	Jan 24/19	10am			X	1	
6		J7	Jan 22/19	2pm			X	1	
7		J8	↓	↓			X	1	
8		K7					X	1	
9		K11	Jan 24/19	10am			X	1	
10		Q11	Jan 22/19	2pm	↓	↓	X	1	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/01/24	5pm	Rosey Rosey M/Received	19/01/25	13:31	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal Present	Yes	No
	17.11	Intact	✓	

White: Maxxam Yellow: Client

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

MWH 9.5444

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CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#697737-13-01	Ema Gilej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	K VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine ☐ Table 2 ☒ Ind/Comm ☒ Coarse ☐ Table 3 ☒ Agri/Other ☒ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals								# of Bottles	Comments
1		O11	Jan 24/19	2pm	Soil	N/A	X								1	
2		O12	↓	↓	↓	↓	X								1	
3		P11					X								1	
4		P12					X								1	
5		N11					X								1	
6		N12	↓	↓			X								1	
7		L11	Jan 24/19	10 am			X								1	
8		L12	↓	↓			X								1	
9		H10					X								1	
10		H11	↓	↓	↓	↓	X								1	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	19/01/24	5pm	See 91			0	Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
									Present		
									Intact		

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CHAIN OF CUSTODY RECORD

Page 3 of 3

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#697737-05-01	Ema Giter
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine ☐ Table 2 ☒ Ind/Comm ☒ Coarse ☐ Table 3 ☐ Agr/Other ☒ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality: ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:

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Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O.Reg 153 (ICP/MS Metals)									# of Bottles	Comments
1		H12	Jan 24/19	10am	Soil	N/A	X									1	
2		H13	"	"	"	"	X									1	
3		H14	"	"	"	"	X									1	
4		DUP13	Jan 24/19	2pm	"	"	X									1	
5		DUP14	"	"	"	"	X									1	
6		I4	Jan 24/19	4pm	"	"	X									1	
7		I5	"	"	"	"	X									1	
8		J3	"	"	"	"	X									1	
9		J4	"	"	"	"	X									1	
10		K3	"	"	"	"	X									1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	19/01/24	5pm	Seal 91			Ø	Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
									Intact		

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Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B922573
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121
Site Location: WINDFIELDS
Your C.O.C. #: 697737-04-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/02/04
Report #: R5581964
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B927302
Received: 2019/01/31, 13:02

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	1	2019/02/01	2019/02/01	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B927302
Report Date: 2019/02/04

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IWP759		
Sampling Date			2019/01/30 10:00		
COC Number			697737-04-01		
	UNITS	Criteria	J20-K20 (2)	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.20	5956456
Acid Extractable Arsenic (As)	ug/g	18	1.7	1.0	5956456
Acid Extractable Barium (Ba)	ug/g	220	33	0.50	5956456
Acid Extractable Beryllium (Be)	ug/g	2.5	0.34	0.20	5956456
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	5956456
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	5956456
Acid Extractable Chromium (Cr)	ug/g	70	12	1.0	5956456
Acid Extractable Cobalt (Co)	ug/g	21	4.4	0.10	5956456
Acid Extractable Copper (Cu)	ug/g	92	8.6	0.50	5956456
Acid Extractable Lead (Pb)	ug/g	120	5.6	1.0	5956456
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	5956456
Acid Extractable Nickel (Ni)	ug/g	82	9.8	0.50	5956456
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	5956456
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	5956456
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.050	5956456
Acid Extractable Uranium (U)	ug/g	2.5	0.48	0.050	5956456
Acid Extractable Vanadium (V)	ug/g	86	21	5.0	5956456
Acid Extractable Zinc (Zn)	ug/g	290	22	5.0	5956456

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B927302
Report Date: 2019/02/04

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IWP759
Sample ID: J20-K20 (2)
Matrix: Soil

Collected: 2019/01/30
Shipped:
Received: 2019/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5956456	2019/02/01	2019/02/01	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B927302
Report Date: 2019/02/04

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	0.0°C

Results relate only to the items tested.

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Maxxam Job #: B927302
Report Date: 2019/02/04

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5956456	Acid Extractable Antimony (Sb)	2019/02/01	102	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
5956456	Acid Extractable Arsenic (As)	2019/02/01	103	75 - 125	101	80 - 120	<1.0	ug/g	9.3	30
5956456	Acid Extractable Barium (Ba)	2019/02/01	101	75 - 125	95	80 - 120	<0.50	ug/g	5.3	30
5956456	Acid Extractable Beryllium (Be)	2019/02/01	101	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5956456	Acid Extractable Boron (B)	2019/02/01	100	75 - 125	100	80 - 120	<5.0	ug/g	NC	30
5956456	Acid Extractable Cadmium (Cd)	2019/02/01	101	75 - 125	103	80 - 120	<0.10	ug/g	NC	30
5956456	Acid Extractable Chromium (Cr)	2019/02/01	102	75 - 125	99	80 - 120	<1.0	ug/g	11	30
5956456	Acid Extractable Cobalt (Co)	2019/02/01	100	75 - 125	99	80 - 120	<0.10	ug/g	0.98	30
5956456	Acid Extractable Copper (Cu)	2019/02/01	101	75 - 125	99	80 - 120	<0.50	ug/g	3.4	30
5956456	Acid Extractable Lead (Pb)	2019/02/01	97	75 - 125	100	80 - 120	<1.0	ug/g	0.80	30
5956456	Acid Extractable Molybdenum (Mo)	2019/02/01	106	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5956456	Acid Extractable Nickel (Ni)	2019/02/01	98	75 - 125	100	80 - 120	<0.50	ug/g	9.4	30
5956456	Acid Extractable Selenium (Se)	2019/02/01	101	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5956456	Acid Extractable Silver (Ag)	2019/02/01	101	75 - 125	104	80 - 120	<0.20	ug/g	NC	30
5956456	Acid Extractable Thallium (Tl)	2019/02/01	97	75 - 125	100	80 - 120	<0.050	ug/g	NC	30
5956456	Acid Extractable Uranium (U)	2019/02/01	96	75 - 125	98	80 - 120	<0.050	ug/g	4.1	30
5956456	Acid Extractable Vanadium (V)	2019/02/01	104	75 - 125	98	80 - 120	<5.0	ug/g	3.1	30
5956456	Acid Extractable Zinc (Zn)	2019/02/01	97	75 - 125	100	80 - 120	<5.0	ug/g	1.6	30

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

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

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

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

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

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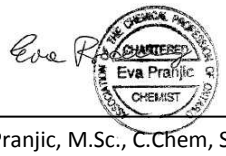
Maxxam Job #: B927302
Report Date: 2019/02/04

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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

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31-Jan-19 13:02
Ema Gitej
B927302
URE ENV-598

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	Windfields
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	
				Sampled By:	AVANROON

Bottle Order #: 697737
COC #: C#697737-04-01
Project Manager: Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☒ Ind/Comm ☒ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☒ For RSC	☐ MISA Municipality	
☐ Table ___	☐ PWQO	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH ☐
Date Required: Time Required:
Rush Confirmation Number: EEG2019013O2 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals									# of Bottles	Comments
1		J20-K20(2)	Jan 30/19	10am	Soil	N/A	X									1	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	19/01/30	5pm		2019/01/31	12:02		Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes ✓	No
								0/0/C	Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

MW #A6903

Maxxam Job #: B927302
Report Date: 2019/02/04

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121
Site Location: WINDFIELDS
Your C.O.C. #: 697737-06-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/02/05
Report #: R5583027
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B927304
Received: 2019/01/31, 13:02

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	3	2019/02/04	2019/02/04	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B927304
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IWP767	IWP768	IWP769		
Sampling Date			2019/01/30 10:00	2019/01/30 10:00	2019/01/30 10:00		
COC Number			697737-06-01	697737-06-01	697737-06-01		
	UNITS	Criteria	O6	P6	Q6	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	0.20	5958550
Acid Extractable Arsenic (As)	ug/g	18	1.7	1.8	1.7	1.0	5958550
Acid Extractable Barium (Ba)	ug/g	220	32	34	30	0.50	5958550
Acid Extractable Beryllium (Be)	ug/g	2.5	0.32	0.32	0.29	0.20	5958550
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	5.0	5958550
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	<0.10	0.10	5958550
Acid Extractable Chromium (Cr)	ug/g	70	11	11	10	1.0	5958550
Acid Extractable Cobalt (Co)	ug/g	21	3.9	4.0	3.9	0.10	5958550
Acid Extractable Copper (Cu)	ug/g	92	8.9	8.6	7.9	0.50	5958550
Acid Extractable Lead (Pb)	ug/g	120	5.8	5.3	5.0	1.0	5958550
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	0.50	5958550
Acid Extractable Nickel (Ni)	ug/g	82	9.3	10	8.6	0.50	5958550
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	0.50	5958550
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	0.20	5958550
Acid Extractable Thallium (Tl)	ug/g	1	0.096	0.12	0.11	0.050	5958550
Acid Extractable Uranium (U)	ug/g	2.5	0.50	0.53	0.45	0.050	5958550
Acid Extractable Vanadium (V)	ug/g	86	19	20	19	5.0	5958550
Acid Extractable Zinc (Zn)	ug/g	290	23	22	23	5.0	5958550

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B927304
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: IWP767 **Collected:** 2019/01/30
Sample ID: O6 **Shipped:**
Matrix: Soil **Received:** 2019/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5958550	2019/02/04	2019/02/04	Daniel Teclu

Maxxam ID: IWP768 **Collected:** 2019/01/30
Sample ID: P6 **Shipped:**
Matrix: Soil **Received:** 2019/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5958550	2019/02/04	2019/02/04	Daniel Teclu

Maxxam ID: IWP769 **Collected:** 2019/01/30
Sample ID: Q6 **Shipped:**
Matrix: Soil **Received:** 2019/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5958550	2019/02/04	2019/02/04	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B927304
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	0.0°C

Results relate only to the items tested.

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Maxxam Job #: B927304
Report Date: 2019/02/05

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5958550	Acid Extractable Antimony (Sb)	2019/02/04	103	75 - 125	102	80 - 120	<0.20	ug/g	15	30
5958550	Acid Extractable Arsenic (As)	2019/02/04	107	75 - 125	101	80 - 120	<1.0	ug/g	1.1	30
5958550	Acid Extractable Barium (Ba)	2019/02/04	NC	75 - 125	100	80 - 120	<0.50	ug/g	2.2	30
5958550	Acid Extractable Beryllium (Be)	2019/02/04	108	75 - 125	101	80 - 120	<0.20	ug/g	0.53	30
5958550	Acid Extractable Boron (B)	2019/02/04	96	75 - 125	99	80 - 120	<5.0	ug/g	6.1	30
5958550	Acid Extractable Cadmium (Cd)	2019/02/04	104	75 - 125	100	80 - 120	<0.10	ug/g	6.3	30
5958550	Acid Extractable Chromium (Cr)	2019/02/04	106	75 - 125	104	80 - 120	<1.0	ug/g	0.11	30
5958550	Acid Extractable Cobalt (Co)	2019/02/04	104	75 - 125	101	80 - 120	<0.10	ug/g	3.8	30
5958550	Acid Extractable Copper (Cu)	2019/02/04	NC	75 - 125	104	80 - 120	<0.50	ug/g	1.2	30
5958550	Acid Extractable Lead (Pb)	2019/02/04	NC	75 - 125	99	80 - 120	<1.0	ug/g	17	30
5958550	Acid Extractable Molybdenum (Mo)	2019/02/04	107	75 - 125	99	80 - 120	<0.50	ug/g	6.8	30
5958550	Acid Extractable Nickel (Ni)	2019/02/04	100	75 - 125	102	80 - 120	<0.50	ug/g	1.2	30
5958550	Acid Extractable Selenium (Se)	2019/02/04	103	75 - 125	98	80 - 120	<0.50	ug/g	NC	30
5958550	Acid Extractable Silver (Ag)	2019/02/04	103	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5958550	Acid Extractable Thallium (Tl)	2019/02/04	102	75 - 125	100	80 - 120	<0.050	ug/g	17	30
5958550	Acid Extractable Uranium (U)	2019/02/04	103	75 - 125	97	80 - 120	<0.050	ug/g	0.91	30
5958550	Acid Extractable Vanadium (V)	2019/02/04	NC	75 - 125	100	80 - 120	<5.0	ug/g	1.2	30
5958550	Acid Extractable Zinc (Zn)	2019/02/04	NC	75 - 125	108	80 - 120	<5.0	ug/g	4.6	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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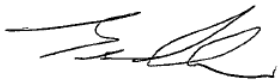
Maxxam Job #: B927304
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist

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CHAIN OF CUSTODY RECORD

Page 6 of 7

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	Windfields	C#697737-06-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☒ Ind/Comm ☒ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☒ Agri/Other ☒ For RSC	☐ MISA Municipality ____	
☐ Table ____	☐ PWQO	
	☐ Other ____	
Include Criteria on Certificate of Analysis (Y/N)? Y		

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____ ☐
Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		O6	Jan 30/19	10am	Soil	N/A	X	1	
2		P6	↓	↓	↓	↓	X	1	
3		Q6	↓	↓	↓	↓	X	1	
4									
5									
6									
7									
8									
9									
10									

31-Jan-19 13:02
Ema Gitej
B927304
URE ENV-1341

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	19/01/30	5pm		2019/01/31	13:02	Ø	Time Sensitive	Temperature (°C) on Recei 6 / 6 / 6	Custody Seal Present / Intact	Yes ✓	No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

MW HB MJS

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B927304
Report Date: 2019/02/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121
Your C.O.C. #: 697737-10-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/02/06
Report #: R5584771
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B929936
Received: 2019/02/04, 12:53

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	2	2019/02/06	2019/02/06	CAM SOP-00447	EPA 6020B m

Remarks:

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

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Maxxam Job #: B929936
Report Date: 2019/02/06

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IXD853	IXD854		
Sampling Date			2019/02/01 10:00	2019/02/01 10:00		
COC Number			697737-10-01	697737-10-01		
	UNITS	Criteria	P10	Q10	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.20	5962120
Acid Extractable Arsenic (As)	ug/g	18	1.6	1.7	1.0	5962120
Acid Extractable Barium (Ba)	ug/g	220	54	60	0.50	5962120
Acid Extractable Beryllium (Be)	ug/g	2.5	0.37	0.40	0.20	5962120
Acid Extractable Boron (B)	ug/g	36	6.4	7.2	5.0	5962120
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	0.10	5962120
Acid Extractable Chromium (Cr)	ug/g	70	14	15	1.0	5962120
Acid Extractable Cobalt (Co)	ug/g	21	4.4	4.8	0.10	5962120
Acid Extractable Copper (Cu)	ug/g	92	8.2	11	0.50	5962120
Acid Extractable Lead (Pb)	ug/g	120	5.1	5.7	1.0	5962120
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	0.50	5962120
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Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.55	0.050	5962120
Acid Extractable Vanadium (V)	ug/g	86	22	22	5.0	5962120
Acid Extractable Zinc (Zn)	ug/g	290	25	29	5.0	5962120

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B929936
Report Date: 2019/02/06

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IXD853
Sample ID: P10
Matrix: Soil

Collected: 2019/02/01
Shipped:
Received: 2019/02/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5962120	2019/02/06	2019/02/06	Matthew Ritenburg

Maxxam ID: IXD854
Sample ID: Q10
Matrix: Soil

Collected: 2019/02/01
Shipped:
Received: 2019/02/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5962120	2019/02/06	2019/02/06	Matthew Ritenburg

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B929936
Report Date: 2019/02/06

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	0.7°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B929936
Report Date: 2019/02/06

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5962120	Acid Extractable Antimony (Sb)	2019/02/06	112	75 - 125	106	80 - 120	<0.20	ug/g	NC	30
5962120	Acid Extractable Arsenic (As)	2019/02/06	110	75 - 125	103	80 - 120	<1.0	ug/g	2.0	30
5962120	Acid Extractable Barium (Ba)	2019/02/06	NC	75 - 125	95	80 - 120	<0.50	ug/g	4.4	30
5962120	Acid Extractable Beryllium (Be)	2019/02/06	112	75 - 125	101	80 - 120	<0.20	ug/g	0.18	30
5962120	Acid Extractable Boron (B)	2019/02/06	111	75 - 125	100	80 - 120	<5.0	ug/g	3.1	30
5962120	Acid Extractable Cadmium (Cd)	2019/02/06	109	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
5962120	Acid Extractable Chromium (Cr)	2019/02/06	117	75 - 125	98	80 - 120	<1.0	ug/g	0.35	30
5962120	Acid Extractable Cobalt (Co)	2019/02/06	110	75 - 125	101	80 - 120	<0.10	ug/g	0.16	30
5962120	Acid Extractable Copper (Cu)	2019/02/06	108	75 - 125	100	80 - 120	<0.50	ug/g	2.0	30
5962120	Acid Extractable Lead (Pb)	2019/02/06	108	75 - 125	101	80 - 120	<1.0	ug/g	0.60	30
5962120	Acid Extractable Molybdenum (Mo)	2019/02/06	115	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5962120	Acid Extractable Nickel (Ni)	2019/02/06	111	75 - 125	105	80 - 120	<0.50	ug/g	3.2	30
5962120	Acid Extractable Selenium (Se)	2019/02/06	110	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5962120	Acid Extractable Silver (Ag)	2019/02/06	112	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
5962120	Acid Extractable Thallium (Tl)	2019/02/06	108	75 - 125	100	80 - 120	<0.050	ug/g	7.7	30
5962120	Acid Extractable Uranium (U)	2019/02/06	108	75 - 125	100	80 - 120	<0.050	ug/g	0.034	30
5962120	Acid Extractable Vanadium (V)	2019/02/06	NC	75 - 125	100	80 - 120	<5.0	ug/g	1.8	30
5962120	Acid Extractable Zinc (Zn)	2019/02/06	NC	75 - 125	102	80 - 120	<5.0	ug/g	1.5	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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Maxxam Job #: B929936
Report Date: 2019/02/06

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

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

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#697737-10-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	AVANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☒ Ind/Comm ☒ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☒ For RSC	☐ MISA Municipality ____	
☐ Table ____	☐ PWQO	
	☐ Other ____	

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____ ☐
Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals									# of Bottles	Comments
1		P10	Feb1/19	10am	Soil	N/A	X									1	
2		Q10	"	"	"		X									1	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

04-Feb-19 12:53
Ema Gitej
B929936
JCC ENV-593

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	19/02/04	8am		2019/02/04	12:53		Time Sensitive	Temperature (°C) on Recei 0 | 2 | 0 ICE	Custody Seal Present / Intact	Yes ✓ ✓	No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

96762

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B929936
Report Date: 2019/02/06

Golder Associates Ltd
Client Project #: 1791121
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121
Site Location: WINDFIELDS
Your C.O.C. #: 697737-09-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/02/22
Report #: R5603303
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B941782
Received: 2019/02/15, 13:35

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	3	2019/02/21	2019/02/21	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B941782
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			IZP197	IZP197	IZP198	IZP199		
Sampling Date			2019/02/14 15:00	2019/02/14 15:00	2019/02/14 15:00	2019/02/14 15:00		
COC Number			697737-09-01	697737-09-01	697737-09-01	697737-09-01		
	UNITS	Criteria	O10	O10 Lab-Dup	N10	DUP15	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	1.3	0.80	0.74	0.67	0.25	0.20	5984112
Acid Extractable Arsenic (As)	ug/g	18	2.6	2.2	1.7	1.7	1.0	5984112
Acid Extractable Barium (Ba)	ug/g	220	100	100	76	77	0.50	5984112
Acid Extractable Beryllium (Be)	ug/g	2.5	0.59	0.61	0.45	0.43	0.20	5984112
Acid Extractable Boron (B)	ug/g	36	9.3	9.7	8.4	8.5	5.0	5984112
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.11	0.14	<0.10	<0.10	0.10	5984112
Acid Extractable Chromium (Cr)	ug/g	70	21	20	16	15	1.0	5984112
Acid Extractable Cobalt (Co)	ug/g	21	7.1	7.4	5.6	5.4	0.10	5984112
Acid Extractable Copper (Cu)	ug/g	92	14	14	10	9.8	0.50	5984112
Acid Extractable Lead (Pb)	ug/g	120	16	16	14	6.2	1.0	5984112
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	0.50	5984112
Acid Extractable Nickel (Ni)	ug/g	82	17	18	13	13	0.50	5984112
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	0.50	5984112
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	0.20	5984112
Acid Extractable Thallium (Tl)	ug/g	1	0.18	0.19	0.14	0.12	0.050	5984112
Acid Extractable Uranium (U)	ug/g	2.5	0.55	0.53	0.48	0.50	0.050	5984112
Acid Extractable Vanadium (V)	ug/g	86	29	29	23	22	5.0	5984112
Acid Extractable Zinc (Zn)	ug/g	290	35	35	28	27	5.0	5984112

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B941782
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: IZP197 **Collected:** 2019/02/14
Sample ID: O10 **Shipped:**
Matrix: Soil **Received:** 2019/02/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5984112	2019/02/21	2019/02/21	Daniel Teclu

Maxxam ID: IZP197 Dup **Collected:** 2019/02/14
Sample ID: O10 **Shipped:**
Matrix: Soil **Received:** 2019/02/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5984112	2019/02/21	2019/02/21	Daniel Teclu

Maxxam ID: IZP198 **Collected:** 2019/02/14
Sample ID: N10 **Shipped:**
Matrix: Soil **Received:** 2019/02/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5984112	2019/02/21	2019/02/21	Daniel Teclu

Maxxam ID: IZP199 **Collected:** 2019/02/14
Sample ID: DUP15 **Shipped:**
Matrix: Soil **Received:** 2019/02/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5984112	2019/02/21	2019/02/21	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B941782
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	0.7°C

Results relate only to the items tested.

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Maxxam Job #: B941782
Report Date: 2019/02/22

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5984112	Acid Extractable Antimony (Sb)	2019/02/21	107	75 - 125	106	80 - 120	<0.20	ug/g	8.8	30
5984112	Acid Extractable Arsenic (As)	2019/02/21	107	75 - 125	102	80 - 120	<1.0	ug/g	17	30
5984112	Acid Extractable Barium (Ba)	2019/02/21	NC	75 - 125	102	80 - 120	<0.50	ug/g	3.0	30
5984112	Acid Extractable Beryllium (Be)	2019/02/21	116	75 - 125	105	80 - 120	<0.20	ug/g	2.3	30
5984112	Acid Extractable Boron (B)	2019/02/21	123	75 - 125	102	80 - 120	<5.0	ug/g	4.3	30
5984112	Acid Extractable Cadmium (Cd)	2019/02/21	111	75 - 125	103	80 - 120	<0.10	ug/g	28	30
5984112	Acid Extractable Chromium (Cr)	2019/02/21	118	75 - 125	105	80 - 120	<1.0	ug/g	4.1	30
5984112	Acid Extractable Cobalt (Co)	2019/02/21	115	75 - 125	104	80 - 120	<0.10	ug/g	4.0	30
5984112	Acid Extractable Copper (Cu)	2019/02/21	112	75 - 125	106	80 - 120	<0.50	ug/g	2.9	30
5984112	Acid Extractable Lead (Pb)	2019/02/21	108	75 - 125	102	80 - 120	<1.0	ug/g	2.4	30
5984112	Acid Extractable Molybdenum (Mo)	2019/02/21	115	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5984112	Acid Extractable Nickel (Ni)	2019/02/21	116	75 - 125	108	80 - 120	<0.50	ug/g	3.3	30
5984112	Acid Extractable Selenium (Se)	2019/02/21	107	75 - 125	108	80 - 120	<0.50	ug/g	NC	30
5984112	Acid Extractable Silver (Ag)	2019/02/21	108	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
5984112	Acid Extractable Thallium (Tl)	2019/02/21	107	75 - 125	102	80 - 120	<0.050	ug/g	7.2	30
5984112	Acid Extractable Uranium (U)	2019/02/21	107	75 - 125	99	80 - 120	<0.050	ug/g	4.4	30
5984112	Acid Extractable Vanadium (V)	2019/02/21	NC	75 - 125	102	80 - 120	<5.0	ug/g	1.2	30
5984112	Acid Extractable Zinc (Zn)	2019/02/21	NC	75 - 125	109	80 - 120	<5.0	ug/g	0.74	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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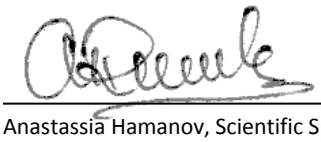
Maxxam Job #: B941782
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2482	Project Name:	Windfields	C#697737-09-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
[X] Table 1 [X] Res/Park [ ] Medium/Fine	[ ] CCME [ ] Sanitary Sewer Bylaw	
[ ] Table 2 [X] Ind/Comm [X] Coarse	[ ] Reg 558 [ ] Storm Sewer Bylaw	
[ ] Table 3 [ ] Agri/Other [ ] For RSC	[ ] MISA Municipality	
[ ] Table	[ ] PWQO	
	[ ] Other	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals								# of Bottles	Comments
1		~~DUP~~ 010	Feb 14/19	3pm	Soil	N/A	X								1	
2		N10	"	"	"	"	X								1	
3		DUP15	"	"	"	"	X								1	
4																
5																
6																
7																
8																
9																
10																

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ [ ]
Rush Confirmation Number: _____ *(call lab for #)*

15-Feb-19 13:35
Ema Gitej
B941782
KVG ENV-1224

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/02/14	5pm			13:35	0

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Rece: 7.1/1.0	Custody Seal Present	Yes	No
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B941782
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your P.O. #: 187182417
Your Project #: 1791121
Site Location: WINDFIELDS
Your C.O.C. #: 697737-07-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/02/22
Report #: R5604006
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B944688
Received: 2019/02/20, 13:20

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	3	2019/02/22	2019/02/22	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B944688
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: 187182417
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			JAF811	JAF812	JAF813		
Sampling Date			2019/02/19 14:00	2019/02/19 14:00	2019/02/19 14:00		
COC Number			697737-07-01	697737-07-01	697737-07-01		
	UNITS	Criteria	P14-P15	P15-P16	P16-P17	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	0.36	0.29	0.20	5986374
Acid Extractable Arsenic (As)	ug/g	18	3.2	1.8	1.8	1.0	5986374
Acid Extractable Barium (Ba)	ug/g	220	66	49	41	0.50	5986374
Acid Extractable Beryllium (Be)	ug/g	2.5	0.63	0.38	0.32	0.20	5986374
Acid Extractable Boron (B)	ug/g	36	5.9	6.3	6.0	5.0	5986374
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.12	0.11	<0.10	0.10	5986374
Acid Extractable Chromium (Cr)	ug/g	70	19	13	11	1.0	5986374
Acid Extractable Cobalt (Co)	ug/g	21	6.4	4.8	4.2	0.10	5986374
Acid Extractable Copper (Cu)	ug/g	92	12	8.8	8.0	0.50	5986374
Acid Extractable Lead (Pb)	ug/g	120	8.8	8.7	6.7	1.0	5986374
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	0.50	5986374
Acid Extractable Nickel (Ni)	ug/g	82	15	10	9.4	0.50	5986374
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	0.50	5986374
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	0.20	5986374
Acid Extractable Thallium (Tl)	ug/g	1	0.18	0.13	0.11	0.050	5986374
Acid Extractable Uranium (U)	ug/g	2.5	0.54	0.49	0.45	0.050	5986374
Acid Extractable Vanadium (V)	ug/g	86	32	23	21	5.0	5986374
Acid Extractable Zinc (Zn)	ug/g	290	33	25	22	5.0	5986374

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B944688
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: 187182417
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: JAF811 **Collected:** 2019/02/19
Sample ID: P14-P15 **Shipped:**
Matrix: Soil **Received:** 2019/02/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5986374	2019/02/22	2019/02/22	Daniel Teclu

Maxxam ID: JAF812 **Collected:** 2019/02/19
Sample ID: P15-P16 **Shipped:**
Matrix: Soil **Received:** 2019/02/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5986374	2019/02/22	2019/02/22	Daniel Teclu

Maxxam ID: JAF813 **Collected:** 2019/02/19
Sample ID: P16-P17 **Shipped:**
Matrix: Soil **Received:** 2019/02/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5986374	2019/02/22	2019/02/22	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B944688
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: 187182417
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	1.7°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B944688
Report Date: 2019/02/22

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: 187182417
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5986374	Acid Extractable Antimony (Sb)	2019/02/22	89	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5986374	Acid Extractable Arsenic (As)	2019/02/22	88	75 - 125	107	80 - 120	<1.0	ug/g	24	30
5986374	Acid Extractable Barium (Ba)	2019/02/22	NC	75 - 125	108	80 - 120	<0.50	ug/g	1.4	30
5986374	Acid Extractable Beryllium (Be)	2019/02/22	99	75 - 125	108	80 - 120	<0.20	ug/g	1.3	30
5986374	Acid Extractable Boron (B)	2019/02/22	95	75 - 125	106	80 - 120	<5.0	ug/g	2.2	30
5986374	Acid Extractable Cadmium (Cd)	2019/02/22	92	75 - 125	101	80 - 120	<0.10	ug/g	NC	30
5986374	Acid Extractable Chromium (Cr)	2019/02/22	94	75 - 125	103	80 - 120	<1.0	ug/g	5.2	30
5986374	Acid Extractable Cobalt (Co)	2019/02/22	93	75 - 125	103	80 - 120	<0.10	ug/g	1.8	30
5986374	Acid Extractable Copper (Cu)	2019/02/22	90	75 - 125	102	80 - 120	<0.50	ug/g	2.0	30
5986374	Acid Extractable Lead (Pb)	2019/02/22	90	75 - 125	102	80 - 120	<1.0	ug/g	4.3	30
5986374	Acid Extractable Molybdenum (Mo)	2019/02/22	96	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5986374	Acid Extractable Nickel (Ni)	2019/02/22	91	75 - 125	103	80 - 120	<0.50	ug/g	1.4	30
5986374	Acid Extractable Selenium (Se)	2019/02/22	97	75 - 125	107	80 - 120	<0.50	ug/g	NC	30
5986374	Acid Extractable Silver (Ag)	2019/02/22	95	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
5986374	Acid Extractable Thallium (Tl)	2019/02/22	90	75 - 125	101	80 - 120	<0.050	ug/g	4.2	30
5986374	Acid Extractable Uranium (U)	2019/02/22	88	75 - 125	96	80 - 120	<0.050	ug/g	0.87	30
5986374	Acid Extractable Vanadium (V)	2019/02/22	NC	75 - 125	105	80 - 120	<5.0	ug/g	1.5	30
5986374	Acid Extractable Zinc (Zn)	2019/02/22	NC	75 - 125	113	80 - 120	<5.0	ug/g	3.4	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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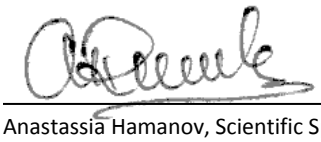
Maxxam Job #: B944688
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: 187182417
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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RUSH

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:	Facility 187182417		697737
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:	Windfields	C#697737-07-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:			
				Sampled By:	A VANROON		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☒ Ind/Comm ☒ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☒ For RSC	☐ MISA Municipality	
☐ Table ___	☐ PWQO	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 ICPMS Metals									# of Bottles	Comments
1		P14-P15	Feb19/19	2pm	Soil	N/A	X									1	
2		P15-P16	↓	↓	↓	↓	X									1	
3		P16-P17	↓	↓	↓	↓	X									1	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) 3 DAY RUSH
Date Required: ___ Time Required: ___
Rush Confirmation Number: EEG201902193 *(call lab for #)*

20-Feb-19 13:20
Ema Gitej
B944688
CA2 ENV-674

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/02/19	5pm	DIPIKA SINGH	2019/02/20	13:20	0

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	2/0/3	Present	✓	
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

10/5/17

Maxxam Job #: B944688
Report Date: 2019/02/22

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Your P.O. #: 187182417
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-01-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/03/05
Report #: R5616424
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B954480
Received: 2019/03/01, 13:55

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	1	2019/03/04	2019/03/04	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

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* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

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Maxxam Job #: B954480
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			JCG181		
Sampling Date			2019/02/27 14:00		
COC Number			704923-01-01		
	UNITS	Criteria	R7-R8	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	1.3	0.48	0.20	6000439
Acid Extractable Arsenic (As)	ug/g	18	2.1	1.0	6000439
Acid Extractable Barium (Ba)	ug/g	220	58	0.50	6000439
Acid Extractable Beryllium (Be)	ug/g	2.5	0.47	0.20	6000439
Acid Extractable Boron (B)	ug/g	36	<5.0	5.0	6000439
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.19	0.10	6000439
Acid Extractable Chromium (Cr)	ug/g	70	16	1.0	6000439
Acid Extractable Cobalt (Co)	ug/g	21	5.0	0.10	6000439
Acid Extractable Copper (Cu)	ug/g	92	7.5	0.50	6000439
Acid Extractable Lead (Pb)	ug/g	120	15	1.0	6000439
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	0.50	6000439
Acid Extractable Nickel (Ni)	ug/g	82	10	0.50	6000439
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	6000439
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	6000439
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.050	6000439
Acid Extractable Uranium (U)	ug/g	2.5	0.55	0.050	6000439
Acid Extractable Vanadium (V)	ug/g	86	29	5.0	6000439
Acid Extractable Zinc (Zn)	ug/g	290	40	5.0	6000439

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B954480
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: JCG181
Sample ID: R7-R8
Matrix: Soil

Collected: 2019/02/27
Shipped:
Received: 2019/03/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6000439	2019/03/04	2019/03/04	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B954480
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	1.7°C

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B954480
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6000439	DT1	Matrix Spike	Acid Extractable Antimony (Sb)	2019/03/04		91	%	75 - 125
			Acid Extractable Arsenic (As)	2019/03/04		111	%	75 - 125
			Acid Extractable Barium (Ba)	2019/03/04		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/03/04		112	%	75 - 125
			Acid Extractable Boron (B)	2019/03/04		110	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/03/04		110	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/03/04		NC	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/03/04		110	%	75 - 125
			Acid Extractable Copper (Cu)	2019/03/04		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2019/03/04		115	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/03/04		107	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/03/04		NC	%	75 - 125
			Acid Extractable Selenium (Se)	2019/03/04		113	%	75 - 125
			Acid Extractable Silver (Ag)	2019/03/04		111	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/03/04		111	%	75 - 125
			Acid Extractable Uranium (U)	2019/03/04		123	%	75 - 125
			Acid Extractable Vanadium (V)	2019/03/04		NC	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/03/04		NC	%	75 - 125
6000439	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2019/03/04		106	%	80 - 120
			Acid Extractable Arsenic (As)	2019/03/04		103	%	80 - 120
			Acid Extractable Barium (Ba)	2019/03/04		102	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/03/04		104	%	80 - 120
			Acid Extractable Boron (B)	2019/03/04		106	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/03/04		105	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/03/04		101	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/03/04		103	%	80 - 120
			Acid Extractable Copper (Cu)	2019/03/04		100	%	80 - 120
			Acid Extractable Lead (Pb)	2019/03/04		109	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/03/04		102	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/03/04		101	%	80 - 120
			Acid Extractable Selenium (Se)	2019/03/04		108	%	80 - 120
			Acid Extractable Silver (Ag)	2019/03/04		103	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/03/04		108	%	80 - 120
			Acid Extractable Uranium (U)	2019/03/04		112	%	80 - 120
			Acid Extractable Vanadium (V)	2019/03/04		98	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/03/04		106	%	80 - 120
6000439	DT1	Method Blank	Acid Extractable Antimony (Sb)	2019/03/04	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/03/04	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/03/04	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/03/04	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/03/04	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/03/04	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/03/04	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/03/04	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/03/04	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/03/04	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/03/04	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/03/04	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/03/04	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/03/04	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/03/04	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/03/04	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/03/04	<5.0		ug/g	

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Maxxam Job #: B954480
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Zinc (Zn)	2019/03/04	<5.0		ug/g	
6000439	DT1	RPD	Acid Extractable Antimony (Sb)	2019/03/04	NC		%	30
			Acid Extractable Arsenic (As)	2019/03/04	1.1		%	30
			Acid Extractable Barium (Ba)	2019/03/04	3.0		%	30
			Acid Extractable Beryllium (Be)	2019/03/04	0.88		%	30
			Acid Extractable Boron (B)	2019/03/04	2.9		%	30
			Acid Extractable Cadmium (Cd)	2019/03/04	NC		%	30
			Acid Extractable Chromium (Cr)	2019/03/04	0.50		%	30
			Acid Extractable Cobalt (Co)	2019/03/04	1.7		%	30
			Acid Extractable Copper (Cu)	2019/03/04	1.7		%	30
			Acid Extractable Lead (Pb)	2019/03/04	0.41		%	30
			Acid Extractable Molybdenum (Mo)	2019/03/04	NC		%	30
			Acid Extractable Nickel (Ni)	2019/03/04	1.2		%	30
			Acid Extractable Selenium (Se)	2019/03/04	NC		%	30
			Acid Extractable Silver (Ag)	2019/03/04	NC		%	30
			Acid Extractable Thallium (Tl)	2019/03/04	1.7		%	30
			Acid Extractable Uranium (U)	2019/03/04	3.8		%	30
			Acid Extractable Vanadium (V)	2019/03/04	1.0		%	30
			Acid Extractable Zinc (Zn)	2019/03/04	0.71		%	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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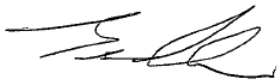
Maxxam Job #: B954480
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Job #: B954480
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121
Site Location: WINDFIELDS
Your C.O.C. #: 697737-08-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/03/05
Report #: R5616897
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B954490
Received: 2019/03/01, 13:35

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	2	2019/03/04	2019/03/05	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B954490
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			JCG230	JCG231	JCG231		
Sampling Date			2019/02/27 14:00	2019/02/28 15:00	2019/02/28 15:00		
COC Number			697737-08-01	697737-08-01	697737-08-01		
	UNITS	Criteria	K5(2)	013	013 Lab-Dup	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	1.3	0.27	0.24	<0.20	0.20	6000440
Acid Extractable Arsenic (As)	ug/g	18	1.1	1.5	1.6	1.0	6000440
Acid Extractable Barium (Ba)	ug/g	220	15	32	32	0.50	6000440
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.25	0.27	0.20	6000440
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	5.0	6000440
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	0.10	6000440
Acid Extractable Chromium (Cr)	ug/g	70	7.4	9.7	9.7	1.0	6000440
Acid Extractable Cobalt (Co)	ug/g	21	2.2	3.7	3.6	0.10	6000440
Acid Extractable Copper (Cu)	ug/g	92	2.9	6.1	6.4	0.50	6000440
Acid Extractable Lead (Pb)	ug/g	120	3.4	5.3	5.6	1.0	6000440
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	0.50	6000440
Acid Extractable Nickel (Ni)	ug/g	82	3.9	8.1	8.3	0.50	6000440
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	0.50	6000440
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	0.20	6000440
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.088	0.090	0.050	6000440
Acid Extractable Uranium (U)	ug/g	2.5	0.45	0.50	0.50	0.050	6000440
Acid Extractable Vanadium (V)	ug/g	86	18	22	23	5.0	6000440
Acid Extractable Zinc (Zn)	ug/g	290	12	20	20	5.0	6000440

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B954490
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: JCG230 **Collected:** 2019/02/27
Sample ID: K5(2) **Shipped:**
Matrix: Soil **Received:** 2019/03/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6000440	2019/03/04	2019/03/05	Daniel Teclu

Maxxam ID: JCG231 **Collected:** 2019/02/28
Sample ID: 013 **Shipped:**
Matrix: Soil **Received:** 2019/03/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6000440	2019/03/04	2019/03/05	Daniel Teclu

Maxxam ID: JCG231 Dup **Collected:** 2019/02/28
Sample ID: 013 **Shipped:**
Matrix: Soil **Received:** 2019/03/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6000440	2019/03/04	2019/03/05	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B954490
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

GENERAL COMMENTS

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

Package 1	1.7°C

Results relate only to the items tested.

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Maxxam Job #: B954490
Report Date: 2019/03/05

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6000440	Acid Extractable Antimony (Sb)	2019/03/05	104	75 - 125	109	80 - 120	<0.20	ug/g	19	30
6000440	Acid Extractable Arsenic (As)	2019/03/05	105	75 - 125	109	80 - 120	<1.0	ug/g	3.8	30
6000440	Acid Extractable Barium (Ba)	2019/03/05	NC	75 - 125	107	80 - 120	<0.50	ug/g	0.79	30
6000440	Acid Extractable Beryllium (Be)	2019/03/05	103	75 - 125	104	80 - 120	<0.20	ug/g	6.5	30
6000440	Acid Extractable Boron (B)	2019/03/05	100	75 - 125	99	80 - 120	<5.0	ug/g	NC	30
6000440	Acid Extractable Cadmium (Cd)	2019/03/05	102	75 - 125	103	80 - 120	<0.10	ug/g	NC	30
6000440	Acid Extractable Chromium (Cr)	2019/03/05	100	75 - 125	107	80 - 120	<1.0	ug/g	0.99	30
6000440	Acid Extractable Cobalt (Co)	2019/03/05	103	75 - 125	106	80 - 120	<0.10	ug/g	2.9	30
6000440	Acid Extractable Copper (Cu)	2019/03/05	100	75 - 125	104	80 - 120	<0.50	ug/g	5.2	30
6000440	Acid Extractable Lead (Pb)	2019/03/05	101	75 - 125	102	80 - 120	<1.0	ug/g	5.1	30
6000440	Acid Extractable Molybdenum (Mo)	2019/03/05	104	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
6000440	Acid Extractable Nickel (Ni)	2019/03/05	100	75 - 125	106	80 - 120	<0.50	ug/g	2.0	30
6000440	Acid Extractable Selenium (Se)	2019/03/05	102	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
6000440	Acid Extractable Silver (Ag)	2019/03/05	101	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
6000440	Acid Extractable Thallium (Tl)	2019/03/05	100	75 - 125	103	80 - 120	<0.050	ug/g	1.6	30
6000440	Acid Extractable Uranium (U)	2019/03/05	103	75 - 125	102	80 - 120	<0.050	ug/g	1.2	30
6000440	Acid Extractable Vanadium (V)	2019/03/05	102	75 - 125	106	80 - 120	<5.0	ug/g	4.5	30
6000440	Acid Extractable Zinc (Zn)	2019/03/05	96	75 - 125	105	80 - 120	<5.0	ug/g	2.5	30

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

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

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

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

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

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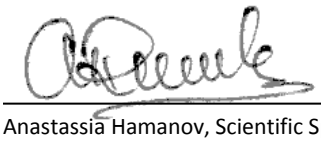
Maxxam Job #: B954490
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:

Company Name: #2292 Golder Associates Ltd
Attention: Accounts Payable
Address: 100 Scotia Crt
Whitby ON L1N 8Y6
Tel: (905) 723-2727 Fax: (905) 723-2182
Email: AP_CustomerService@golder.com

REPORT TO:

Company Name:
Attention: Kevan Browne
Address:
Tel: (905) 723-5491 Ext: 6677 Fax: (905) 723-2182
Email: Kevan_Browne@golder.com, Andrew_VanRoon@golde

PROJECT INFORMATION:

Quotation #: B80683
P.O. #: Facility 187182417
Project: 1791121
Project Name:
Site #: Whitefield S
Sampled By: A VANROON

Laboratory Use Only:

Maxxam Job #:
Bottle Order #: 697737
COC #: C#697737-08-01
Project Manager: Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [ ] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [X] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (If applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals	# of Bottles	Comments
1		K5(2)	Feb27/19	2pm	Soil	N/A	X	1	
2		013	Feb28/19	3pm	Soil	↓	X	1	
3									
4									
5									
6									
7									
8									
9									
10									

01-Mar-19 13:35
Ema Gitej
B954490
CA2 ENV-637

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/02/28	5pm	Cynthia Ayo Cynthia Ayo	19/03/01	13:35	6

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	1/4/0	Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

MW#

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B954490
Report Date: 2019/03/05

Golder Associates Ltd
Client Project #: 1791121
Site Location: WINDFIELDS
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 704923-15-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/03/11
Report #: R5623731
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B958435
Received: 2019/03/06, 14:00

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	7	2019/03/08	2019/03/08	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B958435
Report Date: 2019/03/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			JDB997	JDB998	JDB998	JDB999	JDC000		
Sampling Date			2019/03/05 14:00	2019/03/05 14:00	2019/03/05 14:00	2019/03/05 14:00	2019/03/05 14:00		
COC Number			704923-15-01	704923-15-01	704923-15-01	704923-15-01	704923-15-01		
	UNITS	Criteria	03	08	08 Lab-Dup	09	N3	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	1.3	0.72	0.35	0.30	0.22	0.69	0.20	6008806
Acid Extractable Arsenic (As)	ug/g	18	2.1	1.7	1.9	1.8	1.9	1.0	6008806
Acid Extractable Barium (Ba)	ug/g	220	15	44	42	41	18	0.50	6008806
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.34	0.32	0.28	<0.20	0.20	6008806
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	6008806
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.12	<0.10	0.10	<0.10	0.10	6008806
Acid Extractable Chromium (Cr)	ug/g	70	7.3	11	11	10	8.5	1.0	6008806
Acid Extractable Cobalt (Co)	ug/g	21	2.0	3.8	3.9	3.6	2.8	0.10	6008806
Acid Extractable Copper (Cu)	ug/g	92	6.4	7.2	6.9	7.4	6.2	0.50	6008806
Acid Extractable Lead (Pb)	ug/g	120	7.8	6.4	6.4	6.0	4.9	1.0	6008806
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6008806
Acid Extractable Nickel (Ni)	ug/g	82	4.5	8.8	8.4	8.7	5.8	0.50	6008806
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6008806
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6008806
Acid Extractable Thallium (Tl)	ug/g	1	0.053	0.091	0.096	0.089	0.068	0.050	6008806
Acid Extractable Uranium (U)	ug/g	2.5	0.40	0.47	0.48	0.44	0.54	0.050	6008806
Acid Extractable Vanadium (V)	ug/g	86	15	21	21	19	21	5.0	6008806
Acid Extractable Zinc (Zn)	ug/g	290	12	24	23	21	13	5.0	6008806

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B958435
Report Date: 2019/03/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			JDC001	JDC002	JDC003		
Sampling Date			2019/03/05 14:00	2019/03/05 14:00	2019/03/05 14:00		
COC Number			704923-15-01	704923-15-01	704923-15-01		
	UNITS	Criteria	P8	P9	DUP16	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	1.3	0.24	<0.20	0.71	0.20	6008806
Acid Extractable Arsenic (As)	ug/g	18	2.0	1.6	1.4	1.0	6008806
Acid Extractable Barium (Ba)	ug/g	220	48	48	46	0.50	6008806
Acid Extractable Beryllium (Be)	ug/g	2.5	0.43	0.28	0.36	0.20	6008806
Acid Extractable Boron (B)	ug/g	36	<5.0	5.2	<5.0	5.0	6008806
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	0.10	6008806
Acid Extractable Chromium (Cr)	ug/g	70	14	10	12	1.0	6008806
Acid Extractable Cobalt (Co)	ug/g	21	4.6	3.9	4.4	0.10	6008806
Acid Extractable Copper (Cu)	ug/g	92	7.4	7.1	8.0	0.50	6008806
Acid Extractable Lead (Pb)	ug/g	120	7.0	4.6	8.5	1.0	6008806
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	0.50	6008806
Acid Extractable Nickel (Ni)	ug/g	82	10	8.7	10	0.50	6008806
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	0.50	6008806
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	0.20	6008806
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.088	0.092	0.050	6008806
Acid Extractable Uranium (U)	ug/g	2.5	0.46	0.44	0.46	0.050	6008806
Acid Extractable Vanadium (V)	ug/g	86	23	18	23	5.0	6008806
Acid Extractable Zinc (Zn)	ug/g	290	24	25	24	5.0	6008806

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B958435
Report Date: 2019/03/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: JDB997 **Collected:** 2019/03/05
Sample ID: 03 **Shipped:**
Matrix: Soil **Received:** 2019/03/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6008806	2019/03/08	2019/03/08	Viviana Canzonieri

Maxxam ID: JDB998 **Collected:** 2019/03/05
Sample ID: 08 **Shipped:**
Matrix: Soil **Received:** 2019/03/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6008806	2019/03/08	2019/03/08	Viviana Canzonieri

Maxxam ID: JDB998 Dup **Collected:** 2019/03/05
Sample ID: 08 **Shipped:**
Matrix: Soil **Received:** 2019/03/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6008806	2019/03/08	2019/03/08	Viviana Canzonieri

Maxxam ID: JDB999 **Collected:** 2019/03/05
Sample ID: 09 **Shipped:**
Matrix: Soil **Received:** 2019/03/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6008806	2019/03/08	2019/03/08	Viviana Canzonieri

Maxxam ID: JDC000 **Collected:** 2019/03/05
Sample ID: N3 **Shipped:**
Matrix: Soil **Received:** 2019/03/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6008806	2019/03/08	2019/03/08	Viviana Canzonieri

Maxxam ID: JDC001 **Collected:** 2019/03/05
Sample ID: P8 **Shipped:**
Matrix: Soil **Received:** 2019/03/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6008806	2019/03/08	2019/03/08	Viviana Canzonieri

Maxxam ID: JDC002 **Collected:** 2019/03/05
Sample ID: P9 **Shipped:**
Matrix: Soil **Received:** 2019/03/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6008806	2019/03/08	2019/03/08	Viviana Canzonieri

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B958435
Report Date: 2019/03/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: JDC003
Sample ID: DUP16
Matrix: Soil

Collected: 2019/03/05
Shipped:
Received: 2019/03/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6008806	2019/03/08	2019/03/08	Viviana Canzonieri

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B958435
Report Date: 2019/03/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

GENERAL COMMENTS

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

Package 1	0.3°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B958435
Report Date: 2019/03/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6008806	VIV	Matrix Spike [JDB998-01]	Acid Extractable Antimony (Sb)	2019/03/08		94	%	75 - 125
			Acid Extractable Arsenic (As)	2019/03/08		98	%	75 - 125
			Acid Extractable Barium (Ba)	2019/03/08		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/03/08		99	%	75 - 125
			Acid Extractable Boron (B)	2019/03/08		96	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/03/08		97	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/03/08		100	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/03/08		98	%	75 - 125
			Acid Extractable Copper (Cu)	2019/03/08		94	%	75 - 125
			Acid Extractable Lead (Pb)	2019/03/08		91	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/03/08		96	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/03/08		99	%	75 - 125
			Acid Extractable Selenium (Se)	2019/03/08		96	%	75 - 125
			Acid Extractable Silver (Ag)	2019/03/08		95	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/03/08		92	%	75 - 125
			Acid Extractable Uranium (U)	2019/03/08		90	%	75 - 125
			Acid Extractable Vanadium (V)	2019/03/08		101	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/03/08		96	%	75 - 125
6008806	VIV	Spiked Blank	Acid Extractable Antimony (Sb)	2019/03/08		103	%	80 - 120
			Acid Extractable Arsenic (As)	2019/03/08		108	%	80 - 120
			Acid Extractable Barium (Ba)	2019/03/08		107	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/03/08		103	%	80 - 120
			Acid Extractable Boron (B)	2019/03/08		100	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/03/08		96	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/03/08		105	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/03/08		101	%	80 - 120
			Acid Extractable Copper (Cu)	2019/03/08		99	%	80 - 120
			Acid Extractable Lead (Pb)	2019/03/08		99	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/03/08		101	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/03/08		103	%	80 - 120
			Acid Extractable Selenium (Se)	2019/03/08		101	%	80 - 120
			Acid Extractable Silver (Ag)	2019/03/08		101	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/03/08		98	%	80 - 120
			Acid Extractable Uranium (U)	2019/03/08		97	%	80 - 120
			Acid Extractable Vanadium (V)	2019/03/08		104	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/03/08		105	%	80 - 120
6008806	VIV	Method Blank	Acid Extractable Antimony (Sb)	2019/03/08	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/03/08	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/03/08	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/03/08	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/03/08	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/03/08	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/03/08	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/03/08	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/03/08	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/03/08	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/03/08	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/03/08	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/03/08	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/03/08	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/03/08	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/03/08	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/03/08	<5.0		ug/g	

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Maxxam Job #: B958435
Report Date: 2019/03/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Zinc (Zn)	2019/03/08	<5.0		ug/g	
6008806	VIV	RPD [JDB998-01]	Acid Extractable Antimony (Sb)	2019/03/08	13		%	30
			Acid Extractable Arsenic (As)	2019/03/08	12		%	30
			Acid Extractable Barium (Ba)	2019/03/08	4.3		%	30
			Acid Extractable Beryllium (Be)	2019/03/08	5.5		%	30
			Acid Extractable Boron (B)	2019/03/08	NC		%	30
			Acid Extractable Cadmium (Cd)	2019/03/08	14		%	30
			Acid Extractable Chromium (Cr)	2019/03/08	2.2		%	30
			Acid Extractable Cobalt (Co)	2019/03/08	0.58		%	30
			Acid Extractable Copper (Cu)	2019/03/08	3.8		%	30
			Acid Extractable Lead (Pb)	2019/03/08	0.48		%	30
			Acid Extractable Molybdenum (Mo)	2019/03/08	NC		%	30
			Acid Extractable Nickel (Ni)	2019/03/08	5.5		%	30
			Acid Extractable Selenium (Se)	2019/03/08	NC		%	30
			Acid Extractable Silver (Ag)	2019/03/08	NC		%	30
			Acid Extractable Thallium (Tl)	2019/03/08	5.2		%	30
			Acid Extractable Uranium (U)	2019/03/08	1.7		%	30
			Acid Extractable Vanadium (V)	2019/03/08	1.5		%	30
			Acid Extractable Zinc (Zn)	2019/03/08	5.4		%	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

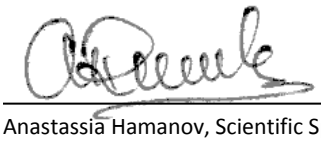
Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B958435
Report Date: 2019/03/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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Maxxam Job #: B958435
Report Date: 2019/03/11

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-24-01

Attention:
Kevan Browne (Project 1791121)

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/03/12
Report #: R5625363
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B961239
Received: 2019/03/08, 13:24

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	3	2019/03/11	2019/03/11	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

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Maxxam Job #: B961239
Report Date: 2019/03/12

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			JDQ796	JDQ797	JDQ798		
Sampling Date			2019/03/06 14:00	2019/03/07 16:00	2019/03/07 16:00		
COC Number			696190-24-01	696190-24-01	696190-24-01		
	UNITS	Criteria	N9	L6	L7	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	0.24	0.20	6011485
Acid Extractable Arsenic (As)	ug/g	18	1.9	1.6	<1.0	1.0	6011485
Acid Extractable Barium (Ba)	ug/g	220	64	70	15	0.50	6011485
Acid Extractable Beryllium (Be)	ug/g	2.5	0.39	0.46	<0.20	0.20	6011485
Acid Extractable Boron (B)	ug/g	36	6.8	7.6	<5.0	5.0	6011485
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.12	<0.10	<0.10	0.10	6011485
Acid Extractable Chromium (Cr)	ug/g	70	13	16	6.2	1.0	6011485
Acid Extractable Cobalt (Co)	ug/g	21	5.0	5.3	2.1	0.10	6011485
Acid Extractable Copper (Cu)	ug/g	92	9.3	11	2.8	0.50	6011485
Acid Extractable Lead (Pb)	ug/g	120	5.9	6.2	3.0	1.0	6011485
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	0.50	6011485
Acid Extractable Nickel (Ni)	ug/g	82	11	13	3.6	0.50	6011485
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	0.50	6011485
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	0.20	6011485
Acid Extractable Thallium (Tl)	ug/g	1	0.12	0.12	<0.050	0.050	6011485
Acid Extractable Uranium (U)	ug/g	2.5	0.49	0.51	0.45	0.050	6011485
Acid Extractable Vanadium (V)	ug/g	86	22	22	17	5.0	6011485
Acid Extractable Zinc (Zn)	ug/g	290	26	28	10	5.0	6011485

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B961239
Report Date: 2019/03/12

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

TEST SUMMARY

Maxxam ID: JDQ796 **Collected:** 2019/03/06
Sample ID: N9 **Shipped:**
Matrix: Soil **Received:** 2019/03/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6011485	2019/03/11	2019/03/11	Daniel Teclu

Maxxam ID: JDQ797 **Collected:** 2019/03/07
Sample ID: L6 **Shipped:**
Matrix: Soil **Received:** 2019/03/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6011485	2019/03/11	2019/03/11	Daniel Teclu

Maxxam ID: JDQ798 **Collected:** 2019/03/07
Sample ID: L7 **Shipped:**
Matrix: Soil **Received:** 2019/03/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6011485	2019/03/11	2019/03/11	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B961239
Report Date: 2019/03/12

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
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GENERAL COMMENTS

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

Package 1	-0.7°C

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B961239
Report Date: 2019/03/12

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6011485	DT1	Matrix Spike	Acid Extractable Antimony (Sb)	2019/03/11		89	%	75 - 125
			Acid Extractable Arsenic (As)	2019/03/11		96	%	75 - 125
			Acid Extractable Barium (Ba)	2019/03/11		NC	%	75 - 125
			Acid Extractable Beryllium (Be)	2019/03/11		96	%	75 - 125
			Acid Extractable Boron (B)	2019/03/11		93	%	75 - 125
			Acid Extractable Cadmium (Cd)	2019/03/11		94	%	75 - 125
			Acid Extractable Chromium (Cr)	2019/03/11		95	%	75 - 125
			Acid Extractable Cobalt (Co)	2019/03/11		NC	%	75 - 125
			Acid Extractable Copper (Cu)	2019/03/11		91	%	75 - 125
			Acid Extractable Lead (Pb)	2019/03/11		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2019/03/11		96	%	75 - 125
			Acid Extractable Nickel (Ni)	2019/03/11		NC	%	75 - 125
			Acid Extractable Selenium (Se)	2019/03/11		96	%	75 - 125
			Acid Extractable Silver (Ag)	2019/03/11		94	%	75 - 125
			Acid Extractable Thallium (Tl)	2019/03/11		88	%	75 - 125
			Acid Extractable Uranium (U)	2019/03/11		91	%	75 - 125
			Acid Extractable Vanadium (V)	2019/03/11		94	%	75 - 125
			Acid Extractable Zinc (Zn)	2019/03/11		NC	%	75 - 125
6011485	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2019/03/11		105	%	80 - 120
			Acid Extractable Arsenic (As)	2019/03/11		101	%	80 - 120
			Acid Extractable Barium (Ba)	2019/03/11		106	%	80 - 120
			Acid Extractable Beryllium (Be)	2019/03/11		102	%	80 - 120
			Acid Extractable Boron (B)	2019/03/11		100	%	80 - 120
			Acid Extractable Cadmium (Cd)	2019/03/11		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2019/03/11		99	%	80 - 120
			Acid Extractable Cobalt (Co)	2019/03/11		98	%	80 - 120
			Acid Extractable Copper (Cu)	2019/03/11		99	%	80 - 120
			Acid Extractable Lead (Pb)	2019/03/11		96	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2019/03/11		98	%	80 - 120
			Acid Extractable Nickel (Ni)	2019/03/11		96	%	80 - 120
			Acid Extractable Selenium (Se)	2019/03/11		101	%	80 - 120
			Acid Extractable Silver (Ag)	2019/03/11		96	%	80 - 120
			Acid Extractable Thallium (Tl)	2019/03/11		97	%	80 - 120
			Acid Extractable Uranium (U)	2019/03/11		95	%	80 - 120
			Acid Extractable Vanadium (V)	2019/03/11		101	%	80 - 120
			Acid Extractable Zinc (Zn)	2019/03/11		102	%	80 - 120
6011485	DT1	Method Blank	Acid Extractable Antimony (Sb)	2019/03/11	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2019/03/11	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2019/03/11	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2019/03/11	<0.20		ug/g	
			Acid Extractable Boron (B)	2019/03/11	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2019/03/11	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2019/03/11	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2019/03/11	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2019/03/11	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2019/03/11	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2019/03/11	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2019/03/11	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2019/03/11	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2019/03/11	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2019/03/11	<0.050		ug/g	
			Acid Extractable Uranium (U)	2019/03/11	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2019/03/11	<5.0		ug/g	

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Maxxam Job #: B961239
Report Date: 2019/03/12

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Zinc (Zn)	2019/03/11	<5.0		ug/g	
6011485	DT1	RPD	Acid Extractable Antimony (Sb)	2019/03/11	17		%	30
			Acid Extractable Arsenic (As)	2019/03/11	7.3		%	30
			Acid Extractable Barium (Ba)	2019/03/11	5.9		%	30
			Acid Extractable Beryllium (Be)	2019/03/11	1.8		%	30
			Acid Extractable Boron (B)	2019/03/11	6.3		%	30
			Acid Extractable Cadmium (Cd)	2019/03/11	23		%	30
			Acid Extractable Chromium (Cr)	2019/03/11	9.8		%	30
			Acid Extractable Cobalt (Co)	2019/03/11	2.7		%	30
			Acid Extractable Copper (Cu)	2019/03/11	2.1		%	30
			Acid Extractable Lead (Pb)	2019/03/11	0.81		%	30
			Acid Extractable Molybdenum (Mo)	2019/03/11	6.9		%	30
			Acid Extractable Nickel (Ni)	2019/03/11	0.83		%	30
			Acid Extractable Selenium (Se)	2019/03/11	NC		%	30
			Acid Extractable Silver (Ag)	2019/03/11	NC		%	30
			Acid Extractable Thallium (Tl)	2019/03/11	2.5		%	30
			Acid Extractable Uranium (U)	2019/03/11	5.3		%	30
			Acid Extractable Vanadium (V)	2019/03/11	0.63		%	30
			Acid Extractable Zinc (Zn)	2019/03/11	7.5		%	30

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

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

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

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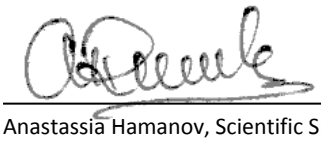
Maxxam Job #: B961239
Report Date: 2019/03/12

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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Maxxam Job #: B961239
Report Date: 2019/03/12

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AVR

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Your C.O.C. #: 696190-27-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2019/03/20
Report #: R5635970
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B966626
Received: 2019/03/14, 14:20

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	2	2019/03/15	2019/03/15	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

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Maxxam Job #: B966626
Report Date: 2019/03/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			JET797	JET798	JET798		
Sampling Date			2019/03/13 09:00	2019/03/13 09:00	2019/03/13 09:00		
COC Number			696190-27-01	696190-27-01	696190-27-01		
	UNITS	Criteria	04	05	05 Lab-Dup	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	1.3	<0.20	<0.20	<0.20	0.20	6020714
Acid Extractable Arsenic (As)	ug/g	18	<1.0	1.1	1.2	1.0	6020714
Acid Extractable Barium (Ba)	ug/g	220	16	26	29	0.50	6020714
Acid Extractable Beryllium (Be)	ug/g	2.5	<0.20	0.22	0.24	0.20	6020714
Acid Extractable Boron (B)	ug/g	36	<5.0	<5.0	<5.0	5.0	6020714
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	<0.10	<0.10	0.10	6020714
Acid Extractable Chromium (Cr)	ug/g	70	6.7	8.7	8.8	1.0	6020714
Acid Extractable Cobalt (Co)	ug/g	21	2.1	2.9	2.8	0.10	6020714
Acid Extractable Copper (Cu)	ug/g	92	2.4	4.5	4.9	0.50	6020714
Acid Extractable Lead (Pb)	ug/g	120	2.4	4.1	4.1	1.0	6020714
Acid Extractable Molybdenum (Mo)	ug/g	2	<0.50	<0.50	<0.50	0.50	6020714
Acid Extractable Nickel (Ni)	ug/g	82	3.7	5.4	5.9	0.50	6020714
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	<0.50	<0.50	0.50	6020714
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	<0.20	<0.20	0.20	6020714
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.057	0.055	0.050	6020714
Acid Extractable Uranium (U)	ug/g	2.5	0.40	0.40	0.41	0.050	6020714
Acid Extractable Vanadium (V)	ug/g	86	17	18	19	5.0	6020714
Acid Extractable Zinc (Zn)	ug/g	290	10	16	17	5.0	6020714

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B966626
Report Date: 2019/03/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

TEST SUMMARY

Maxxam ID: JET797 **Collected:** 2019/03/13
Sample ID: 04 **Shipped:**
Matrix: Soil **Received:** 2019/03/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6020714	2019/03/15	2019/03/15	Daniel Teclu

Maxxam ID: JET798 **Collected:** 2019/03/13
Sample ID: 05 **Shipped:**
Matrix: Soil **Received:** 2019/03/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6020714	2019/03/15	2019/03/15	Daniel Teclu

Maxxam ID: JET798 Dup **Collected:** 2019/03/13
Sample ID: 05 **Shipped:**
Matrix: Soil **Received:** 2019/03/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6020714	2019/03/15	2019/03/15	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

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GENERAL COMMENTS

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

Package 1	0.3°C

Results relate only to the items tested.

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Maxxam Job #: B966626
Report Date: 2019/03/20

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6020714	Acid Extractable Antimony (Sb)	2019/03/15	97	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
6020714	Acid Extractable Arsenic (As)	2019/03/15	102	75 - 125	100	80 - 120	<1.0	ug/g	9.5	30
6020714	Acid Extractable Barium (Ba)	2019/03/15	NC	75 - 125	102	80 - 120	<0.50	ug/g	12	30
6020714	Acid Extractable Beryllium (Be)	2019/03/15	101	75 - 125	98	80 - 120	<0.20	ug/g	6.0	30
6020714	Acid Extractable Boron (B)	2019/03/15	101	75 - 125	100	80 - 120	<5.0	ug/g	NC	30
6020714	Acid Extractable Cadmium (Cd)	2019/03/15	100	75 - 125	101	80 - 120	<0.10	ug/g	NC	30
6020714	Acid Extractable Chromium (Cr)	2019/03/15	102	75 - 125	101	80 - 120	<1.0	ug/g	0.81	30
6020714	Acid Extractable Cobalt (Co)	2019/03/15	98	75 - 125	100	80 - 120	<0.10	ug/g	2.8	30
6020714	Acid Extractable Copper (Cu)	2019/03/15	97	75 - 125	100	80 - 120	<0.50	ug/g	8.2	30
6020714	Acid Extractable Lead (Pb)	2019/03/15	100	75 - 125	101	80 - 120	<1.0	ug/g	0.36	30
6020714	Acid Extractable Molybdenum (Mo)	2019/03/15	103	75 - 125	99	80 - 120	<0.50	ug/g	NC	30
6020714	Acid Extractable Nickel (Ni)	2019/03/15	101	75 - 125	101	80 - 120	<0.50	ug/g	9.0	30
6020714	Acid Extractable Selenium (Se)	2019/03/15	99	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
6020714	Acid Extractable Silver (Ag)	2019/03/15	101	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
6020714	Acid Extractable Thallium (Tl)	2019/03/15	99	75 - 125	101	80 - 120	<0.050	ug/g	3.0	30
6020714	Acid Extractable Uranium (U)	2019/03/15	98	75 - 125	100	80 - 120	<0.050	ug/g	2.7	30
6020714	Acid Extractable Vanadium (V)	2019/03/15	104	75 - 125	99	80 - 120	<5.0	ug/g	2.5	30
6020714	Acid Extractable Zinc (Zn)	2019/03/15	101	75 - 125	101	80 - 120	<5.0	ug/g	4.8	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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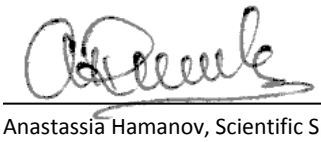
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			696190
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (5001)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Project Name:		C#696190-27-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com, Andrew_VanRoon@golde	Site #:	Windfields Farm		
				Sampled By:	A VanRoon		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☒ Ind/Comm ☒ Coarse ☐ Table 3 ☐ Agri/Other ☒ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? Y

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O. Reg 153 PAHs	O. Reg 153 PCBs	O. Reg 153 Metals & Inorganics Pkg	O. Reg 153 ICPMS Metals	# of Bottles	Comments
1		04	March 13/19	9am	Soil	N/A				X	1	
2		05	"	"	"	"				X	1	
3												
4												
5												
6												
7												
8												
9												
10												

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 5 DAY TAT ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

14-Mar-19 14:20
Ema Gitej
B966626
URE ENV-643

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	19/03/13	9:30am		2019/03/14	14:20	0

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes ✓	No
	0 / 0 / 1	Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B966626
Report Date: 2019/03/20

Golder Associates Ltd
Client Project #: 1791121 (5001)
Site Location: WINDFIELDS FARM
Sampler Initials: AV

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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APPENDIX C

TCPL Remediation Report

August, 2019 Project No. 1791121 (4000)

Mr. Stuart Craig, Vice President Development
RioCan Realty Inv. Partner 11LP
2300 Yonge Street, Suite 500
Toronto, Ontario
M4P 1EP

TRANSCANADA PIPELINE EASEMENT, CONFIRMATION SAMPLING RESULTS, WINDFIELDS FARM DEVELOPMENT, OSHAWA, ONTARIO

Dear Mr. Craig,

1.0 INTRODUCTION

Golder Associates Ltd. ("Golder") was retained by RioCan Realty Inv. Partner 11LP ("RioCan") to monitor the removal of shallow impacted soil from within a portion of the TransCanada Pipeline ("TCPL") easement within the Windfields Farm Development property (the "Site" or the "Phase Two Property"). The Site is located at the southeast corner of the intersection of Simcoe Street North and Winchester Road West in Oshawa, Ontario.

TCPL planned to replace the section of their pipeline which traversed the Phase Two Property from northwest to southeast, which would involve stripping of topsoil, excavation of soils above and around the pipeline, and subsequently backfilling to grade. As part of the excavation program, topsoil materials previously identified to be impacted with lead and antimony were to be segregated and stockpiled by TCPL for future management by RioCan. Golder was retained by RioCan to monitor the excavation of the shallow impacted soil and to collect soil samples from the walls and floors of the remedial excavation for field screening and analytical testing to confirm that the materials left in place satisfied the applicable site condition standards.

This report has been prepared to document the remedial activities and verification sample results from within the TCPL easement.

1.1 Site Description

The location and boundaries of the Site are shown on Figure 1. The Site consists largely of vacant former agricultural fields and horse paddocks, with a woodlot in the northwest corner, and is traversed from northwest to southeast by the TCPL easement. RioCan proposes to redevelop the Site for mixed uses, including residential, commercial, and parkland.

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1.2 Areas of Remediation and Contaminants of Concern

Golder previously completed soil sampling from test pits within the surrounding areas of the Phase Two Property, the results of which were summarized in Golder Report No. 1791121 (2000) entitled "*Environmental Test Pit Investigation, Windfields Farm Development, Northeast Block, Oshawa, Ontario*", dated February 20, 2018 ("Environmental Test Pit Investigation").

The sampling detailed in the Environmental Test Pit Investigation Report determined that the topsoil and underlining transitional layer contained concentrations of lead and/or antimony above the Table 1 Full Depth Background Site Condition Standards presented in the Ministry of Environment ("MOE[1]") document "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*", dated April 15, 2011 ("Table 1 Standards").

Groundwater impacts were not identified at the Site.

1.3 Objectives

The objectives for the remediation were to remove all soils known to contain exceedances of the Table 1 Standards from the TCPL easement.

Soil excavation, temporary stockpiling, and off-Site disposal was the remedial option selected based on the nature and distribution of the impacts (i.e. within the topsoil), as well as the intended use of the Site. In addition, the contaminants of concern were not considered amenable to treatment options that were likely to be effective within the proposed development schedule.

2.0 REMEDIAL ACTIONS

Activities completed at the Site included the excavation and stockpiling of impacted topsoil elsewhere on the adjacent portions of the Phase Two Property (i.e., outside of the TCPL easement) for future management by RioCan. Given the additional TCPL work required in the area, backfilling of the excavation was completed by TCPL with material sourced within the Phase Two Property. No soil was imported to the Phase Two property.

2.1 Remedial Preparation

Prior to the excavation works, TCPL conducted necessary preparations to allow for effective and safe remediation activities. The works conducted consisted of Site preparation, locates, and health and safety planning. Golder completed a sampling and analysis plan which was provided to TCPL. The work was done collaboratively with Golder and TCPL.

With the exception of the TCPL and Enbridge pipelines, there are no other active underground services in the area of impacts.

[1] MOE was renamed the Ministry of the Environment, Conservation and Parks ("MECP"); however, the generic site condition standards and associated guidance documents were released by the MOE and the standards are still referred to as the MOE standard.

2.1.1 Permitting and Site Preparation

Prior to commencement discussions were held between TCPL, RioCan, and Golder to define the limits of the work area and confirm the proposed methodology. It was determined that in addition to the actual easement itself, TCLP required an adjacent working area (along the south edge of the easement) as well as a separate laydown pad for pipe sections. TCPL would strip impacted topsoil from the adjacent working zone concurrently with work within the easement. Construction mats were placed on top of the topsoil (and subsequently removed) on the proposed pipe laydown area, which was located to the northeast of the easement, within the Phase Two Property (and predominantly outside the known zone of impact). No other Site preparation works were required in advance of soil excavation activities.

TCPL was responsible for obtaining any permits or approvals required for the completion of the work.

2.1.2 Health and Safety

Prior to the work being conducted Golder and TCPL prepared Health and Safety Plans for their respective staff and subcontractors. These were reviewed with all staff prior to work on-Site. A daily tail gate meeting was also held on each day of work to discuss work for the day, any changes to Site conditions, and associated risks.

2.1.3 Sampling and Analysis Plan

A Sampling and Analysis Plan (“SAP”) was prepared to guide the confirmation sampling and to ensure compliance with the requirements of O. Reg. 153/04. This plan detailed the sampling and analysis requirements, the Golder SOPs to be implemented and the QA/QC requirements. A copy of the SAP is included in Appendix C.

2.2 Soil Excavation

Excavation and removal of impacted topsoil occurred between July 19, 2018 and September 7, 2018. Golder provided monitoring, field screening, and verification sampling services. TCPL provided equipment and labour for the project. TCPL used an excavator to remove material in 0.3 meter-below-ground-surface (“mbgs”) cuts from within the impacted area of the easement and the adjacent working zone. Excavation began at the western boundary and continued eastward along the easement. Material was removed from the easement as it was excavated and stockpiled elsewhere within the Phase Two Property for future off-site disposal by RioCan.

Horizontally, the excavation was extended to limits identified as “clean” by means of confirmation sampling east and west within the easement, and to the TCPL easement boundaries to the north and south. The confirmation sample results indicated no further impacts were present exceeding the Table 1 standards within the TCPL easement.

Vertically, the excavation was extended to limits identified as “clean” by means of confirmation sampling within the easement. The confirmation sample results indicated no further impacts were present exceeding the Table 1 standards.

The excavation limits are is shown in plan on Figure 1. The remedial excavation ceased below the transition layer below the topsoil, and ranged from approximately 0.3 m bgs to 0.6 m bgs in total depth. TCPL initially excavated only the upper 0.3 m of topsoil across the easement and working zone, but based on verification sampling the excavation was ultimately deepened within the easement to remove all material from within the identified

impacted portion of the easement, to approximately 0.6 m bgs. Some residual impacted materials were identified within the working zone outside the easement; it was determined that the residual materials would be removed at a later date in conjunction with the future remediation activities planned for the balance of the Phase Two Property. The field screening and laboratory results of the sampling are discussed in Sections 3.0 and 3.1.

2.3 Soil Waste Management

As noted above, the excavated soil was placed into temporary stockpiles within the Phase Two Property for future off-Site disposal by RioCan in conjunction with the remedial activities planned for the remainder of the Site.

3.0 CONFIRMATION SAMPLING AND ANALYSIS

The confirmation sampling and analysis program consisted of the collection of soil screening samples on a 14 m x 10 m (east-west, north-south) grid pattern on the floor and 10 m x 10m grid pattern on the walls of the excavations, and sampling to provide coverage of each excavation.

The soil conditions of the confirmation samples were logged in terms of soil materials, texture and the presence of staining, odour and debris, if any. A portion of the sample was placed into laboratory-supplied sampling containers for possible subsequent chemical analysis.

Confirmation soil samples were submitted for chemical analysis of Metals and Hydride Forming Metals. Samples submitted for chemical analyses were stored in a cooler with ice and delivered under chain-of-custody procedures to Bureau Veritas Laboratories[2] (“BV Labs”) in Mississauga, Ontario.

The total remedial area measured approximately 50 m by 380 m and was comprised of both the easement, and the TCPL working area located immediately adjacent to the south of the easement (refer to Figure 1). The completed excavation totalled approximately 19,000 m^2 in area, and ranged from 0.3 m to approximately 0.6 mbgs. Sampling distribution and frequency was conducted in general accordance with O.Reg 153/04, Schedule E, Table 3. Although this table does not indicate the number of floor and sidewall samples for an excavation of this area, the requirements for a 750 m^2 to 1,000 m^2 excavation were used to calculate a conservative frequency of sampling given the contaminants of concern.

3.1 Soil Analysis

All confirmation soil samples submitted to BV Labs were analysed for Metals and Hydride Forming Metals. As mentioned in section 1.3, the analytical results for the soil samples collected were compared to the Table 1 Standards.

The confirmation soil samples representative of the final limits of excavation within the easement (as identified in Figure 1) were found to satisfy the Table 1 Standards for the parameters analysed. A summary of the soil samples submitted for laboratory analysis, including quality assurance/quality control (“QA/QC”) samples is included in Table 1 in Appendix B. A summary of all confirmatory analytical results is provided in Table 1. Laboratory certificates of analysis are provided in Appendix D.

[2] Bureau Veritas Laboratories was previously named Maxxam Analytics, prior to January 2019.

4.0 SOIL EXCAVATED AT OR BROUGHT TO THE PHASE TWO PROPERTY

No soil was imported to the Site. Approximately 11,400 m^3 of surficial soil was excavated and removed from the easement and adjacent working zone for future off-Site disposal. Once the upper shallow materials were removed, and base verification sampling confirmed that the underlying materials met the Table 1 Standards, TCPL continued with excavation within the easement to facilitate the pipeline replacement work. The underlying clean native soils were excavated and temporarily stockpiled, and then replaced in the excavation after pipeline replacement. No imported backfill was required. Where "topping up" of the excavation was required for site grading, borrow material was sourced from other non-impacted areas of the Phase Two Property.

5.0 CONCLUSIONS

Golder monitored the excavation of impacted soil from the TCPL easement. A total of approximately 11,400 m^3 of soil was excavated from the inferred areas of impact based on the previous investigation findings, and removed from the TCPL easement and stockpiled elsewhere within the Phase Two Property for future off-site disposal by RioCan. Confirmatory soil sampling was conducted within the easement in general accordance with Table 2, Schedule E of O.Reg. 153/04. A total of 159 floor samples (including 15 duplicate samples) were submitted for analysis of Metals and Hydride Forming Metals. The results of all final confirmation sample analyses within the easement satisfied the Table 1 Standards for the parameters tested.

6.0 LIMITATIONS

This report was prepared for the exclusive use of RioCan Realty Inv. Partner 11LP. This report is based on data and information collected during the excavation program and is based solely on Site conditions encountered at that time. In preparing this report, Golder evaluated only conditions on the Site, as noted above. Only limited chemical analyses of soil samples were completed. It should be noted that the verification sampling results should, in no way, be construed as a warranty that the Site is free from any and all contamination from past or current practices.

This document provides a professional opinion and, therefore, no warranty is either expressed, implied, or made as to the conclusions, advice and recommendations offered in this document. This document does not provide a legal opinion regarding compliance with applicable laws. With respect to regulatory compliance issues, it should be noted that regulatory statutes and the interpretation of regulatory statutes are subject to change.

Further this report considers the subsurface environmental conditions at the Site only in the context of the MOE "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*" dated April 15, 2011. Golder's professional services for this assignment addressed only the geo-environmental (chemical) aspects of the subsurface conditions at a limited number of locations at the Site. The potential environmental impact of Site development or local biological, hydrological and hydrogeological functions and the like has not been investigated or addressed. The geotechnical (physical) aspects, including engineering recommendations for the design and construction of building foundations, pavements, underground servicing and the like are outside the terms of reference for this report and are addressed under separate cover.

We trust that this information is sufficient for your purposes. If we can be of additional assistance in this regard, please contact the undersigned.

Yours truly,

Golder Associates Ltd.

Kevan Browne, B.A.
Project Manager, Contaminated Sites

Ryan J. Smith, P.Eng.
Senior Environmental Engineer, Associate

AVR/KDB/RJS/js

Attachments: Appendix A – Figure 1
Appendix B – Table 1
Appendix C – Sample and Analysis Plan
Appendix D – Certificates of Analysis

https://golderassociates.sharepoint.com/sites/20914g/deliverables/06. phase two esa/appendix b - remediation report/appendix c - tcpl report/1791121 let 2019'08 tcpl remediation (final).docx

APPENDIX A

Figure 1

STATION ORIGIN:
C/L BRIDLE ROAD
17+728.40 (581+64.0 LINE 100-2 COMPLETION DRAWING No. A10-7133-L2-04)

CHECKED IN:
C/L REGIONAL ROAD No. 3 KNOWN AS WINCHESTER ROAD
16+897.8 (554+39.0 LINE 100-2 COMPLETION DRAWING No. A10-7133-L2-04)

NOTES:
1. METRIC: DISTANCES AND STATIONS SHOWN ON THIS SKETCH ARE IN METRES.
2. UNDERGROUND SERVICES, UTILITY AND ROAD DESIGN PREPARED BY MMM GROUP 10-10621-P7 & UCB (DATED 06/16/2017 AND COMPILED FROM AVAILABLE INFORMATION. FOR PLACEMENT.

LEGEND

- CONFIRMATION SAMPLE
- INFERRED LIMIT OF SHALLOW SOIL IMPACT
- OPEN EXCAVATION
- PROPOSED EXCAVATION AREA

REFERENCE(S)

1. BASE PLAN PROVIDED IN DIGITAL FORMAT BY RIOCAN, DRAWING FILE NO. "A1-132.dwg", RECEIVED FEBRUARY 7, 2017.
2. EXISTING GROUND SURFACE PROVIDED IN DIGITAL FORMAT BY MMM, DRAWING FILE NO. "ACAD-10613 GRADING.dwg", RECEIVED JANUARY 23, 2017.

NOTE(S)

1. BASE PLAN WAS PLACED APPROXIMATELY DUE TO UNRECOGNIZED COORDINATE SYSTEM USED IN SOURCE DRAWING "A1-132.dwg".

0 40 80
1:800 METRES

REV.	YYYY-MM-DD	DESCRIPTION	DESIGNED	PREPARED	REVIEWED	APPROVED
A	2017-12-21	DESCRIPTION		MR/MK		

CLIENT
RIOCAN REALTY INV PARTNER 11LP

CONSULTANT
GOLDER
GREATER TORONTO AREA
100 SCOTIA COURT
WHITBY, ONTARIO L1N 8Y6
CANADA
[+1] (905) 723 2727
www.golder.com

PROJECT
TEST PIT INVESTIGATION
NORTHEAST BLOCK
WINDFIELDS FARM, OSHAWA, ONTARIO

TITLE
IMPACTED AREAS

PROJECT NO.	CONTROL	REV.	of	FIGURE
1791121		A.1		1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI D

0 25 mm

APPENDIX B

Table 1

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	A1	A33		B1	B10		
		Sample Name	A1	A33	DUP1	B1	B10	B10A	B10C
		Sample Depth (mbgs)	0.3	0.3		0.3	0.3	0.6	1.0
		Sample Date	2018/07/18	2018/07/19		2018/07/18	2018/07/18	2018/08/08	2018/09/07
Parameter	**Table 1**	**Unit**							
Total Antimony (Sb)	1.3	ug/g	0.31	< 0.20	< 0.20	< 0.20	**13**	1.3	0.57
Total Arsenic (As)	18	ug/g	2.2	1.5	1.7	2.3	4.6	1.9	3
Total Barium (Ba)	220	ug/g	44	46	46	41	57	36	110
Total Beryllium (Be)	2.5	ug/g	0.43	0.41	0.45	0.42	0.43	0.3	0.83
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.2	8.3
Total Cadmium (Cd)	1.2	ug/g	0.17	0.13	0.15	0.14	0.19	< 0.10	0.16
Total Chromium (Cr)	70	ug/g	14	14	14	14	15	11	26
Total Cobalt (Co)	21	ug/g	4.6	4.6	4.9	4.9	4.8	3.5	7.8
Total Copper (Cu)	92	ug/g	8.3	5.4	6.8	8.7	7.4	7.2	14
Total Lead (Pb)	120	ug/g	11	6	8.2	8.6	**150**	12	10
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50
Total Nickel (Ni)	82	ug/g	11	9	8.7	10	9.2	8	18
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	<0.20
Total Thallium (Tl)	1	ug/g	0.11	0.071	0.083	0.13	0.11	0.11	0.21
Total Uranium (U)	2.5	ug/g	0.6	0.41	0.5	0.63	0.51	0.45	0.62
Total Vanadium (V)	86	ug/g	26	26	28	26	27	20	39
Total Zinc (Zn)	290	ug/g	32	25	34	31	33	30	46

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	B11				B12			
		Sample Name	B11	B11A	B11C	DUP2	B12	B12A	B12C	B12-T
		Sample Depth (mbgs)	0.3	0.6	1.0		0.3	0.6	1.0	1.5
		Sample Date	2018/07/18	2018/08/08	2018/09/07		2018/07/18	2018/08/08	2018/09/07	2018/08/10
Parameter	**Table 1**	**Unit**								
Total Antimony (Sb)	1.3	ug/g	**14**	0.86	0.98	0.89	**15**	0.95	0.88	< 0.20
Total Arsenic (As)	18	ug/g	4.6	1.8	2.2	2	4.7	1.8	1.8	< 1.0
Total Barium (Ba)	220	ug/g	70	53	68	67	48	45	51	21
Total Beryllium (Be)	2.5	ug/g	0.54	0.37	0.53	0.5	0.38	0.37	0.41	< 0.20
Boron	36	ug/g	< 5.0	7.3	6.6	6.9	< 5.0	5.9	6.4	< 5.0
Total Cadmium (Cd)	1.2	ug/g	0.18	< 0.10	<0.10	0.1	0.17	0.1	0.13	< 0.10
Total Chromium (Cr)	70	ug/g	17	14	17	17	14	14	15	6.5
Total Cobalt (Co)	21	ug/g	5.6	4.6	5.1	5.4	4.3	4.2	4.7	2.6
Total Copper (Cu)	92	ug/g	8.9	8.6	10	10	7.9	7.2	7.7	4.5
Total Lead (Pb)	120	ug/g	**140**	8	11	11	**150**	10	11	2.2
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	<0.50	<0.50	< 0.50	< 0.50	<0.50	< 0.50
Total Nickel (Ni)	82	ug/g	10	10	12	12	8.9	9.3	10	4
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	<0.50	<0.50	< 0.50	< 0.50	<0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	<0.20	<0.20	< 0.20	< 0.20	<0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.12	0.11	0.12	0.13	0.1	0.099	0.1	< 0.050
Total Uranium (U)	2.5	ug/g	0.46	0.46	0.49	0.49	0.52	0.45	0.57	0.32
Total Vanadium (V)	86	ug/g	28	22	28	29	25	26	23	16
Total Zinc (Zn)	290	ug/g	38	24	31	31	33	24	24	14

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500	Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	B13			B14			B15		
		Sample Name	B13	B13A	B13C	B14	B14A	B14C	B15	B15A	B15C
		Sample Depth (mbgs)	0.3	0.6	1.0	0.3	0.6	1.0	0.3	0.6	1.0
		Sample Date	2018/07/18	2018/08/08	2018/09/07	2018/07/18	2018/08/08	2018/09/07	2018/07/18	2018/08/08	2018/09/07
Parameter	Table 1	Unit									
Total Antimony (Sb)	1.3	ug/g	**16**	0.51	0.41	**7.5**	< 0.20	<0.20	**1.7**	0.5	0.39
Total Arsenic (As)	18	ug/g	6	2.3	2.3	3.6	2.1	2.4	2.2	2.1	1.6
Total Barium (Ba)	220	ug/g	54	61	82	54	51	53	62	50	45
Total Beryllium (Be)	2.5	ug/g	0.49	0.58	0.54	0.48	0.43	0.48	0.49	0.43	0.42
Boron	36	ug/g	< 5.0	6.6	6.9	< 5.0	5.3	6.4	< 5.0	5.5	<5.0
Total Cadmium (Cd)	1.2	ug/g	0.25	0.17	0.21	0.22	0.14	0.17	0.17	0.1	0.12
Total Chromium (Cr)	70	ug/g	17	21	23	16	17	18	17	18	16
Total Cobalt (Co)	21	ug/g	4.9	5.5	7.2	4.5	5.1	5.4	4.7	4	4.3
Total Copper (Cu)	92	ug/g	10	11	7.1	11	5.9	7.1	11	8.3	6
Total Lead (Pb)	120	ug/g	**250**	8.9	8.2	99	7.5	6.8	20	10	6.8
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<0.50	< 0.50	0.73	<0.50
Total Nickel (Ni)	82	ug/g	10	14	14	9.7	10	12	10	9.4	9
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	<0.20	< 0.20	< 0.20	<0.20	< 0.20	< 0.20	<0.20
Total Thallium (Tl)	1	ug/g	0.15	0.15	0.16	0.11	0.12	0.13	0.092	0.092	0.097
Total Uranium (U)	2.5	ug/g	0.55	0.64	0.55	0.45	0.48	0.58	0.54	0.49	0.53
Total Vanadium (V)	86	ug/g	28	32	34	27	30	31	27	26	27
Total Zinc (Zn)	290	ug/g	43	41	46	43	38	37	39	31	33

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500	Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	B16				B17			B18		
		Sample Name	B16	B16A	B16C	B16-T	B17	B17A	B17C	B18	B18A	B18C
		Sample Depth (mbgs)	0.3	0.6	1.0	1.5	0.3	0.6	1.0	0.3	0.6	1.0
		Sample Date	2018/07/18	2018/08/08	2018/09/07	2018/08/10	2018/07/18	2018/08/08	2018/09/07	2018/07/18	2018/08/08	2018/09/07
Parameter	Table 1	Unit										
Total Antimony (Sb)	1.3	ug/g	1.2	0.22	0.24	< 0.20	1	< 0.20	0.29	**2.4**	< 0.20	<0.20
Total Arsenic (As)	18	ug/g	2.1	1.6	2.2	1.6	2.4	1.7	2	2.4	2	1.9
Total Barium (Ba)	220	ug/g	91	82	80	63	91	70	99	58	64	42
Total Beryllium (Be)	2.5	ug/g	0.6	0.41	0.51	0.35	0.61	0.41	0.57	0.42	0.44	0.32
Boron	36	ug/g	< 5.0	9.1	8.4	< 5.0	5.3	8.5	10	< 5.0	6.7	5.1
Total Cadmium (Cd)	1.2	ug/g	0.15	< 0.10	0.11	< 0.10	0.32	< 0.10	0.14	0.16	< 0.10	<0.10
Total Chromium (Cr)	70	ug/g	20	17	17	13	21	17	21	15	15	11
Total Cobalt (Co)	21	ug/g	5.7	4.9	5.4	4.5	6	4.5	6.6	4.7	4.4	3.8
Total Copper (Cu)	92	ug/g	11	9.5	10	9.5	12	8.3	11	8	9	6.8
Total Lead (Pb)	120	ug/g	18	7.1	8.1	6.4	26	5.8	8.5	39	6.4	5.4
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<0.50
Total Nickel (Ni)	82	ug/g	13	12	13	11	12	11	15	9.8	11	9.3
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	<0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	< 0.20	<0.20
Total Thallium (Tl)	1	ug/g	0.13	0.14	0.14	0.12	0.14	0.11	0.16	0.11	0.13	0.099
Total Uranium (U)	2.5	ug/g	0.46	0.5	0.52	0.39	0.64	0.48	0.54	0.53	0.46	0.52
Total Vanadium (V)	86	ug/g	30	23	24	20	32	22	30	24	25	20
Total Zinc (Zn)	290	ug/g	38	28	29	25	45	28	36	36	29	21

Notes:

1. < = Not detected above method detection limit
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3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	B19			B2	B20				
		Sample Name	B19	B19A	B19C	B2	B20	B20A	DUP1	B20C	B20-T
		Sample Depth (mbgs)	0.3	0.6	1.0	0.3	0.3	0.6		1.0	1.5
		Sample Date	2018/07/18	2018/08/08	2018/09/07	2018/07/18	2018/07/18	2018/08/08		2018/09/07	2018/08/10
Parameter	Table 1	Unit									
Total Antimony (Sb)	1.3	ug/g	**1.7**	< 0.20	<0.20	< 0.20	0.21	< 0.20	< 0.20	<0.20	< 0.20
Total Arsenic (As)	18	ug/g	2.5	1.8	1.8	1.8	1.8	2.1	2.2	1.8	1.2
Total Barium (Ba)	220	ug/g	76	58	39	36	55	74	77	43	28
Total Beryllium (Be)	2.5	ug/g	0.54	0.37	0.35	0.34	0.49	0.55	0.58	0.37	< 0.20
Boron	36	ug/g	5.4	7.7	<5.0	< 5.0	< 5.0	5.7	5.2	5.8	< 5.0
Total Cadmium (Cd)	1.2	ug/g	0.24	< 0.10	<0.10	0.11	< 0.10	0.11	0.17	<0.10	< 0.10
Total Chromium (Cr)	70	ug/g	18	14	11	12	16	19	20	12	8
Total Cobalt (Co)	21	ug/g	6	4.4	3.9	4.5	6.1	4.9	5.3	4	2.7
Total Copper (Cu)	92	ug/g	11	9.3	8.7	8.3	8.8	10	10	7.7	4.7
Total Lead (Pb)	120	ug/g	24	6.2	5.8	7.6	7.7	6.6	6.8	5.4	3.5
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50
Total Nickel (Ni)	82	ug/g	13	11	9.8	9.6	11	11	12	9.4	5
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	<0.20	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.13	0.12	0.12	0.13	0.1	0.12	0.12	0.11	0.065
Total Uranium (U)	2.5	ug/g	0.57	0.47	0.49	0.54	0.51	0.45	0.44	0.51	0.42
Total Vanadium (V)	86	ug/g	28	21	20	23	32	31	31	21	18
Total Zinc (Zn)	290	ug/g	40	26	24	27	36	30	28	25	17

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500	Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	B21				B22			B23			
		Sample Name	B21	DUP10	B21A	B21C	B22	B22A	B22C	B23	B23A	B23C	B23-T
		Sample Depth (mbgs)	0.3		0.6	1.0	0.3	0.6	1.0	0.3	0.6	1.0	1.5
		Sample Date	2018/07/19		2018/08/08	2018/09/07	2018/07/19	2018/08/08	2018/09/07	2018/07/19	2018/08/08	2018/09/07	2018/08/10
Parameter	**Table 1**	**Unit**											
Total Antimony (Sb)	1.3	ug/g	1.3	**1.4**	< 0.20	<0.20	0.96	0.21	0.37	1	< 0.20	<0.20	< 0.20
Total Arsenic (As)	18	ug/g	2	2.1	1.6	1.2	1.9	2	1.6	1.8	1.2	1	1.1
Total Barium (Ba)	220	ug/g	44	44	56	33	44	42	33	41	26	21	16
Total Beryllium (Be)	2.5	ug/g	0.35	0.33	0.45	0.26	0.4	0.37	0.29	0.38	0.22	<0.20	< 0.20
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	<5.0	< 5.0
Total Cadmium (Cd)	1.2	ug/g	0.19	0.24	0.27	0.12	0.14	< 0.10	<0.10	0.19	< 0.10	<0.10	< 0.10
Total Chromium (Cr)	70	ug/g	13	13	17	10	12	14	11	14	7.8	7	5.4
Total Cobalt (Co)	21	ug/g	4.2	4.1	4.5	3.2	3.9	4.4	3.5	4.2	2.7	2.4	2
Total Copper (Cu)	92	ug/g	87	75	8.6	4	6.1	8.2	5.4	6.1	5.4	4.1	3.4
Total Lead (Pb)	120	ug/g	27	29	6.1	3.8	16	5.5	5.3	15	3.4	2.9	1.8
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	<0.50	< 0.50	0.93	<0.50	< 0.50	< 0.50	<0.50	< 0.50
Total Nickel (Ni)	82	ug/g	8.2	8.4	8.6	6	8.1	8.3	6.9	8.5	5.1	4.3	3.1
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	0.55	<0.50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	<0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	< 0.20	<0.20	< 0.20	< 0.20	<0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.096	0.077	0.083	0.068	0.092	0.077	0.076	0.092	< 0.050	<0.050	< 0.050
Total Uranium (U)	2.5	ug/g	0.47	0.46	0.69	0.44	0.53	0.49	0.53	0.52	0.39	0.45	0.36
Total Vanadium (V)	86	ug/g	23	24	28	21	24	25	24	25	18	18	15
Total Zinc (Zn)	290	ug/g	130	130	41	21	27	27	19	27	16	14	11

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	B24				B25				B26			
		Sample Name	B24	B24A	B24C	DUP1	B25	DUP7	B25A	B25C	B26	B26A	DUP2	B26C
		Sample Depth (mbgs)	0.3	0.6	1.0		0.3		0.6	1.0	0.3	0.6		1.0
		Sample Date	2018/07/19	2018/08/08	2018/09/07		2018/07/19		2018/08/08	2018/09/07	2018/07/19	2018/08/08		2018/09/07
Parameter	Table 1	Unit												
Total Antimony (Sb)	1.3	ug/g	**1.5**	< 0.20	<0.20	<0.20	0.55	0.79	< 0.20	<0.20	< 0.20	< 0.20	< 0.20	<0.20
Total Arsenic (As)	18	ug/g	2.2	< 1.0	1	<1.0	1.6	1.5	1.1	1.8	1.8	1.7	1.8	1.8
Total Barium (Ba)	220	ug/g	42	17	16	16	33	38	26	40	54	53	52	42
Total Beryllium (Be)	2.5	ug/g	0.39	< 0.20	<0.20	<0.20	0.31	0.33	0.21	0.38	0.47	0.37	0.36	0.41
Boron	36	ug/g	< 5.0	< 5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
Total Cadmium (Cd)	1.2	ug/g	0.22	< 0.10	<0.10	<0.10	0.13	0.13	< 0.10	0.13	0.24	0.12	< 0.10	0.1
Total Chromium (Cr)	70	ug/g	14	6.6	7	6.9	11	11	8.4	12	14	13	13	13
Total Cobalt (Co)	21	ug/g	4.5	2.1	2.1	2.3	3.4	3.4	2.9	3.9	4.4	4.4	4.3	4
Total Copper (Cu)	92	ug/g	5.9	2.7	2.8	2.9	4.3	4.7	2.7	5.9	7.1	4.3	4.4	5.3
Total Lead (Pb)	120	ug/g	28	2.1	2.2	2.4	11	11	2.8	4.8	7.2	4.4	4.5	4.5
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	<0.50	<0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	<0.50
Total Nickel (Ni)	82	ug/g	8.5	3.4	3.7	4.2	6	6.5	5	8.2	7.6	8.1	8.3	8.1
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	<0.50	<0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	<0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	<0.20	<0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	< 0.20	< 0.20	<0.20
Total Thallium (Tl)	1	ug/g	0.087	< 0.050	<0.050	<0.050	0.062	0.063	< 0.050	0.081	0.095	0.081	0.072	0.095
Total Uranium (U)	2.5	ug/g	0.53	0.33	0.41	0.42	0.5	0.47	0.43	0.46	0.69	0.48	0.45	0.53
Total Vanadium (V)	86	ug/g	26	18	18	18	23	23	22	24	27	27	27	26
Total Zinc (Zn)	290	ug/g	31	12	11	12	22	24	14	21	32	21	22	23

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	B27	B28		B29	B3	B30	B31	B32	B33	B4	B5	B6
		Sample Name	B27	B28	DUP5	B29	B3	B30	B31	B32	B33	B4	B5	B6
		Sample Depth (mbgs)	0.3	0.3		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
		Sample Date	2018/07/19	2018/07/19		2018/07/19	2018/07/18	2018/07/19	2018/07/19	2018/07/19	2018/07/19	2018/07/18	2018/07/18	2018/07/18
Parameter	**Table 1**	**Unit**												
Total Antimony (Sb)	1.3	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.51	0.51
Total Arsenic (As)	18	ug/g	1.6	1.4	1.8	1.1	2.5	2	2.5	2.3	1.9	2.2	2.1	1.9
Total Barium (Ba)	220	ug/g	43	43	41	29	48	49	36	96	61	46	44	51
Total Beryllium (Be)	2.5	ug/g	0.39	0.36	0.36	0.33	0.55	0.43	0.36	0.77	0.51	0.49	0.4	0.41
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.6	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	ug/g	0.17	0.13	0.18	< 0.10	0.1	0.2	0.18	0.26	< 0.10	0.16	0.22	0.25
Total Chromium (Cr)	70	ug/g	13	14	13	11	16	14	12	24	18	14	12	14
Total Cobalt (Co)	21	ug/g	4.4	4.2	4.3	4	5.5	4.6	3.9	8.2	6.2	4.5	4.3	4.3
Total Copper (Cu)	92	ug/g	4.6	4.7	5.5	3.5	9.7	6.6	6.9	14	6.8	7.9	7.4	8.2
Total Lead (Pb)	120	ug/g	5.4	5.8	5.9	3.8	8	8.9	8.1	12	7.9	7.7	12	10
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	ug/g	7.7	7	7.1	6.1	13	8.9	8.2	18	12	9.7	9.1	9.3
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.079	0.086	0.082	0.06	0.14	0.094	0.092	0.21	0.1	0.1	0.09	0.1
Total Uranium (U)	2.5	ug/g	0.5	0.54	0.52	0.37	0.58	0.45	0.48	0.53	0.47	0.48	0.46	0.49
Total Vanadium (V)	86	ug/g	26	27	27	24	28	26	24	35	31	27	22	24
Total Zinc (Zn)	290	ug/g	32	31	35	19	31	34	35	53	34	31	32	38

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	B7	B8	B9				C1	C10	C11	C12	C13	C14
		Sample Name	B7	B8	B9	B9A	B9C	B9-T	C1	C10	C11	C12	C13	C14
		Sample Depth (mbgs)	0.3	0.3	0.3	0.6	1.0	1.5	0.3	0.3	0.3	0.3	0.3	0.3
		Sample Date	2018/07/18	2018/07/18	2018/07/18	2018/08/08	2018/09/07	2018/08/10	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18
Parameter	**Table 1**	**Unit**												
Total Antimony (Sb)	1.3	ug/g	**1.7**	**3.1**	**10**	0.74	0.45	< 0.20	< 0.20	**11**	**5.4**	**9.8**	**9.7**	0.79
Total Arsenic (As)	18	ug/g	2.6	1.7	4.6	2.3	2.6	< 1.0	2.2	4.6	3.4	3.6	4.1	1.6
Total Barium (Ba)	220	ug/g	49	36	48	70	66	33	55	56	77	53	65	47
Total Beryllium (Be)	2.5	ug/g	0.44	0.37	0.4	0.54	0.6	< 0.20	0.51	0.48	0.66	0.5	0.5	0.37
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	6.2	5.6	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	ug/g	0.19	0.16	0.2	0.12	0.16	< 0.10	0.24	0.28	0.25	0.2	0.18	0.13
Total Chromium (Cr)	70	ug/g	13	12	13	18	19	7.7	16	15	23	18	20	15
Total Cobalt (Co)	21	ug/g	4.3	4.2	4.3	5	5.7	3.3	5.3	4.8	6.6	4.7	5.2	4
Total Copper (Cu)	92	ug/g	7.3	4.8	6.7	8.9	8.9	6.4	10	7.5	11	13	8.6	6.1
Total Lead (Pb)	120	ug/g	16	18	110	9	11	4.5	8.9	**210**	100	92	**210**	10
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	ug/g	9.3	7.4	8	12	13	5.4	11	8.6	14	10	11	8.4
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.51	< 0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	<0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.098	0.076	0.088	0.13	0.13	0.066	0.13	0.11	0.16	0.11	0.16	0.09
Total Uranium (U)	2.5	ug/g	0.5	0.42	0.44	0.48	0.58	0.47	0.78	0.52	0.68	0.65	0.59	0.42
Total Vanadium (V)	86	ug/g	25	24	23	30	36	18	27	27	36	26	29	24
Total Zinc (Zn)	290	ug/g	32	27	33	35	32	18	36	38	43	35	49	38

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	C15	C16	C17	C18	C19	C2	C20	C21	C22		C23	C24
		Sample Name	C15	C16	C17	C18	C19	C2	C20	C21	C22	DUP9	C23	C24
		Sample Depth (mbgs)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3		0.3	0.3
		Sample Date	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/19	2018/07/19	2018/07/19		2018/07/19	2018/07/19
Parameter	**Table 1**	**Unit**												
Total Antimony (Sb)	1.3	ug/g	**5.4**	1.1	0.56	**1.8**	1.1	< 0.20	**2.2**	**2.8**	0.84	0.74	0.71	**2.3**
Total Arsenic (As)	18	ug/g	2.9	2.7	2.6	2.6	2.1	1.9	2.1	3	1.9	1.9	1.6	2
Total Barium (Ba)	220	ug/g	62	110	140	71	54	41	47	49	54	49	41	45
Total Beryllium (Be)	2.5	ug/g	0.46	0.72	0.8	0.57	0.48	0.46	0.43	0.41	0.43	0.4	0.43	0.39
Boron	36	ug/g	< 5.0	5.2	7.6	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	ug/g	0.14	0.18	0.25	0.22	0.19	0.16	0.18	0.26	0.28	0.21	0.13	0.17
Total Chromium (Cr)	70	ug/g	17	23	30	19	16	14	14	15	14	15	14	14
Total Cobalt (Co)	21	ug/g	4.9	6.5	9.4	6.2	5.1	4.8	4.6	4.6	4.1	4	4.4	4.5
Total Copper (Cu)	92	ug/g	8.2	9.4	15	8	6.8	6.9	7.6	8.8	9.3	7.1	4.8	5.4
Total Lead (Pb)	120	ug/g	59	13	14	31	13	8.5	30	59	10	11	9.3	31
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	ug/g	9.9	15	20	12	9.3	9.5	9.6	9.6	8.3	7.8	7.9	8.3
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.1	0.15	0.22	0.14	0.12	0.099	0.099	0.11	0.089	0.083	0.077	0.086
Total Uranium (U)	2.5	ug/g	0.53	0.54	0.73	0.66	0.55	0.57	0.48	0.52	0.61	0.5	0.47	0.45
Total Vanadium (V)	86	ug/g	28	36	40	31	28	26	25	25	24	26	26	25
Total Zinc (Zn)	290	ug/g	33	41	57	42	36	29	33	45	32	29	29	30

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500	Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	C25	C26		C27	C28	C29	C3	C30	C31		C32	C33
		Sample Name	C25	C26	DUP6	C27	C28	C29	C3	C30	C31	DUP3	C32	C33
		Sample Depth (mbgs)	0.3	0.3		0.3	0.3	0.3	0.3	0.3	0.3		0.3	0.3
		Sample Date	2018/07/19	2018/07/19		2018/07/19	2018/07/19	2018/07/19	2018/07/18	2018/07/19	2018/07/19		2018/07/19	2018/07/19
Parameter	**Table 1**	**Unit**												
Total Antimony (Sb)	1.3	ug/g	0.36	0.82	0.81	< 0.20	0.3	< 0.20	0.32	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	ug/g	1.2	1.9	1.8	1.5	1.9	1.5	2.1	1.7	1.4	1.5	1.5	2.5
Total Barium (Ba)	220	ug/g	29	39	37	35	49	49	43	42	38	40	38	84
Total Beryllium (Be)	2.5	ug/g	0.33	0.34	0.33	0.38	0.42	0.43	0.42	0.34	0.32	0.34	0.32	0.63
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	5.9
Total Cadmium (Cd)	1.2	ug/g	0.1	0.26	0.21	0.15	0.24	0.21	0.17	0.18	0.15	0.12	0.16	0.33
Total Chromium (Cr)	70	ug/g	11	12	12	12	14	14	14	12	13	12	11	20
Total Cobalt (Co)	21	ug/g	3.3	3.6	3.6	4.8	4.3	4.7	4.5	4.1	3.9	4	3.7	7
Total Copper (Cu)	92	ug/g	3.3	5.8	5.5	6.1	6	6.8	7.9	6.8	5	5.3	6.3	13
Total Lead (Pb)	120	ug/g	5.4	16	19	6	10	7.9	11	6.9	6.5	6.4	6.2	13
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	ug/g	5.6	6.5	6.2	7	7.9	8.9	9.8	8	7.6	7.7	7.4	15
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.056	0.078	0.066	0.066	0.08	0.1	0.1	0.082	0.068	0.078	0.095	0.15
Total Uranium (U)	2.5	ug/g	0.46	0.6	0.58	0.49	0.61	0.49	0.48	0.41	0.38	0.37	0.41	0.5
Total Vanadium (V)	86	ug/g	23	24	22	27	28	28	24	23	26	25	22	30
Total Zinc (Zn)	290	ug/g	20	30	30	23	32	32	35	30	37	34	25	48

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	C4	C5	C6	C7	C8	C9	D1	D10	D11	D12	D13	D14
		Sample Name	C4	C5	C6	C7	C8	C9	D1	D10	D11	D12	D13	D14
		Sample Depth (mbgs)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
		Sample Date	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18
Parameter	**Table 1**	**Unit**												
Total Antimony (Sb)	1.3	ug/g	0.22	0.29	0.35	0.6	**1.6**	**2**	< 0.20	**8.9**	**22**	**22**	**2.6**	**5.2**
Total Arsenic (As)	18	ug/g	2.2	2.1	2.2	2.2	2.3	1.8	2.1	3.7	7.1	6.4	2.6	2.7
Total Barium (Ba)	220	ug/g	45	47	51	45	41	36	38	42	54	51	65	61
Total Beryllium (Be)	2.5	ug/g	0.4	0.42	0.46	0.45	0.41	0.39	0.4	0.39	0.46	0.47	0.46	0.46
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	ug/g	0.26	0.24	0.14	0.15	0.11	0.15	0.2	0.2	0.28	0.27	0.16	0.14
Total Chromium (Cr)	70	ug/g	14	13	15	14	13	13	13	13	17	17	21	18
Total Cobalt (Co)	21	ug/g	4.3	4.4	4.8	4.7	4	4.1	4.4	4.1	5.1	4.6	5.9	5.2
Total Copper (Cu)	92	ug/g	8.4	8	8.2	7.1	5.6	4.4	7.4	7.6	9.9	12	9.2	7.8
Total Lead (Pb)	120	ug/g	9	11	9.5	11	14	13	9.2	110	**290**	**260**	62	44
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	ug/g	9.1	9.8	11	9.9	8.1	6.8	9.4	7.8	9.6	9.5	12	11
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.67	< 0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.093	0.1	0.11	0.1	0.085	0.07	0.11	0.082	0.15	0.12	0.13	0.11
Total Uranium (U)	2.5	ug/g	0.49	0.5	0.51	0.5	0.48	0.51	0.55	0.65	0.66	0.66	0.56	0.54
Total Vanadium (V)	86	ug/g	24	24	26	25	25	26	23	24	31	26	31	28
Total Zinc (Zn)	290	ug/g	36	36	32	26	26	24	30	34	47	46	62	40

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	D15	D16	D17	D18	D19	D2	D20		D21	D22	D23	
		Sample Name	D15	D16	D17	D18	D19	D2	D20	DUP11	D21	D22	D23	DUP8
		Sample Depth (mbgs)	0.3	0.3	0.3	0.3	0.3	0.3	0.3		0.3	0.3	0.3	
		Sample Date	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/19		2018/07/19	2018/07/19	2018/07/19	
Parameter	**Table 1**	**Unit**												
Total Antimony (Sb)	1.3	ug/g	**9.8**	**16**	**17**	**6.3**	1.3	< 0.20	**5.1**	**5**	0.48	**5.1**	**12**	**12**
Total Arsenic (As)	18	ug/g	4.1	5	6.1	3.4	2.1	2	3.1	2.9	1.6	2.9	4.4	4.5
Total Barium (Ba)	220	ug/g	110	74	80	64	58	36	49	51	40	51	45	45
Total Beryllium (Be)	2.5	ug/g	0.7	0.54	0.58	0.58	0.5	0.44	0.42	0.43	0.38	0.4	0.37	0.39
Boron	36	ug/g	5.3	< 5.0	6	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	ug/g	0.25	0.18	0.23	0.22	0.28	0.1	0.19	0.23	< 0.10	0.3	0.16	0.24
Total Chromium (Cr)	70	ug/g	23	17	19	17	16	15	13	14	13	16	13	13
Total Cobalt (Co)	21	ug/g	7.3	5.5	6	5.4	5.1	5.2	4.4	4.6	3.5	4.4	3.9	4
Total Copper (Cu)	92	ug/g	13	9.5	10	9.8	8.1	6.6	7.2	7.7	6.7	6.7	6.6	6.6
Total Lead (Pb)	120	ug/g	93	**160**	**260**	72	12	7.6	78	56	8.9	60	**160**	**160**
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	ug/g	17	11	12	12	9.9	9.8	8.4	8.3	7.4	8.2	7.4	7.5
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.16	0.14	0.16	0.14	0.11	0.11	0.1	0.1	0.08	0.096	0.087	0.1
Total Uranium (U)	2.5	ug/g	0.58	0.57	0.62	0.63	0.58	0.53	0.43	0.42	0.42	0.59	0.59	0.59
Total Vanadium (V)	86	ug/g	33	29	29	28	30	27	25	25	25	28	24	25
Total Zinc (Zn)	290	ug/g	50	42	46	42	40	27	35	36	26	38	33	31

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	D24	D25	D26	D27	D28	D29		D3	D30	D31	D32
		Sample Name	D24	D25	D26	D27	D28	D29	DUP4	D3	D30	D31	D32
		Sample Depth (mbgs)	0.3	0.3	0.3	0.3	0.3	0.3		0.3	0.3	0.3	0.3
		Sample Date	2018/07/19	2018/07/19	2018/07/19	2018/07/19	2018/07/19	2018/07/19		2018/07/18	2018/07/19	2018/07/19	2018/07/19
Parameter	**Table 1**	**Unit**											
Total Antimony (Sb)	1.3	ug/g	**1.9**	**1.9**	0.8	< 0.20	0.25	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Arsenic (As)	18	ug/g	1.4	1.6	1.6	1.5	2	1.7	2.1	2.2	2.3	2.2	1.6
Total Barium (Ba)	220	ug/g	29	31	28	43	44	45	65	40	61	58	51
Total Beryllium (Be)	2.5	ug/g	0.36	0.34	0.37	0.4	0.42	0.41	0.59	0.4	0.56	0.53	0.45
Boron	36	ug/g	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Cadmium (Cd)	1.2	ug/g	0.12	0.18	0.16	0.14	0.25	0.2	0.15	0.21	0.18	0.22	0.12
Total Chromium (Cr)	70	ug/g	11	12	12	14	15	13	19	14	17	17	16
Total Cobalt (Co)	21	ug/g	3.6	3.8	3.7	4.5	4.3	4.4	6	4.4	5.7	5.5	4.8
Total Copper (Cu)	92	ug/g	3.6	4.7	4.5	4.6	6.3	6.2	8.4	6.8	7.6	8.7	6.7
Total Lead (Pb)	120	ug/g	17	23	11	6.7	8.9	7.5	8.3	7.3	10	10	5.8
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	ug/g	6	6.1	6.6	7.2	7.8	8.7	14	8.8	10	11	9.3
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	ug/g	< 0.050	0.072	0.065	0.07	0.087	0.09	0.12	0.094	0.099	0.11	0.091
Total Uranium (U)	2.5	ug/g	0.48	0.46	0.47	0.57	0.61	0.47	0.48	0.55	0.54	0.53	0.5
Total Vanadium (V)	86	ug/g	23	26	25	28	27	27	32	26	30	29	28
Total Zinc (Zn)	290	ug/g	21	27	24	25	33	32	32	31	39	38	39

Notes:

1. < = Not detected above method detection limit
2. mbgs = metres below ground surface
3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

Table 1 - TCPL Easement Confirmation Sampling
Soil Analytical Results - Metals, Hydride Forming Metals
Southeast Corner of Winchester Road West and Simcoe Steeet North, Oshawa, Ontario

		Location	D33		D4	D5	D6	D7	D8	D9	E1	E33
		Sample Name	D33	DUP2	D4	D5	D6	D7	D8	D9	E1	E33
		Sample Depth (mbgs)	0.3		0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
		Sample Date	2018/07/19		2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/18	2018/07/19
Parameter	**Table 1**	**Unit**										
Total Antimony (Sb)	1.3	ug/g	< 0.20	< 0.20	0.37	< 0.20	< 0.20	< 0.20	**1.7**	**3.6**	0.26	< 0.20
Total Arsenic (As)	18	ug/g	2.3	2.2	2.1	1.8	1.9	1.9	2.9	3	2.8	2.6
Total Barium (Ba)	220	ug/g	84	82	45	48	49	45	53	47	43	73
Total Beryllium (Be)	2.5	ug/g	0.66	0.64	0.44	0.44	0.41	0.52	0.4	0.4	0.45	0.57
Boron	36	ug/g	6.6	6.1	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	6.9
Total Cadmium (Cd)	1.2	ug/g	0.28	0.28	0.2	0.21	0.17	0.16	0.18	0.18	0.28	0.38
Total Chromium (Cr)	70	ug/g	24	23	14	14	14	16	14	13	14	21
Total Cobalt (Co)	21	ug/g	6.3	6	4.5	4.5	4.5	4.8	4.5	4.3	5	5.9
Total Copper (Cu)	92	ug/g	16	15	7.9	7.1	7.8	6.7	7.8	7.3	9.5	13
Total Lead (Pb)	120	ug/g	11	11	12	8.9	7	7	27	44	13	17
Total Molybdenum (Mo)	2	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Nickel (Ni)	82	ug/g	15	15	9.2	9.4	10	9.9	8.6	8.7	11	13
Total Selenium (Se)	1.5	ug/g	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total Silver (Ag)	0.5	ug/g	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Total Thallium (Tl)	1	ug/g	0.15	0.14	0.1	0.093	0.1	0.097	0.093	0.094	0.14	0.13
Total Uranium (U)	2.5	ug/g	0.55	0.52	0.54	0.52	0.54	0.57	0.5	0.53	0.59	0.53
Total Vanadium (V)	86	ug/g	32	31	25	25	24	29	25	25	26	30
Total Zinc (Zn)	290	ug/g	60	59	37	36	31	32	34	35	40	80

Notes:

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3. µg/g = microgram per gram
4. MOECC Table 1 = Ontario Ministry of the Environment (MOE; now Ontario Ministry of the Environment, Conservation and Parks or MECP), "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", Table 1 Standards for residential/parkland/institutional/industrial/commercial/community.
5. Table to be read in conjunction with accompanying report

500 Exceeds MOECC Table 1 Standards (subsequently removed)

Prepared By: LL
Checked By: AVR

APPENDIX C

Sampling and Analysis Plan

TECHNICAL MEMORANDUM

DATE July 18, 2018 **Project No.** 1791121 (4000)

TO Field Crew
Golder Associates Ltd.

FROM Kevan Browne/
Ryan Smith

**EMAIL kbrowne@golder.com/
rsmith@golder.com**

SAMPLING AND ANALYSIS PLAN, TRANSCANADA PIPELINE REMEDIATION, WINDFIELDS FARM

Objective

As required by Ontario Regulation (O.Reg.) 153/04, this site-specific sampling and analysis plan ("SAP") is to be addressed during the upcoming remediation and confirmation sampling program at the above referenced site (the "Site").

The objective of this remediation confirmation sampling program is to investigate the presence or absence of remaining environmental impacts to soil associated with the previously identified lead and antimony impacts in Topsoil at the Site, following the removal of the impacted topsoil by TransCanada Pipeline ("TCPL") and/or their contractor

APEC	Location of APEC on Site	Potentially Contaminating Activity	Location of PCA	Contaminants of Potential Concern	Media Potentially Impacted
APEC 1 Lead and Antimony impacted Topsoil	**Field south of the former residential dwelling, east/central portion of the Site, north of proposed Windfields Farm Drive and southeast of the forested area.**	***#30 Importation of Fill Material of Unknown Quality***	**On-Site**	**ICPMS Metals**	**Soil**
APEC 3 Inferred former use of the property as a private shooting range	**South central portion of the Site.**	***#21 Explosives and Firing Range***	**On-Site**	**Metals, Hydride-Forming Metals**	**Soil**

*Metals and inorganics are proposed as baseline analyses as these impacts (if present) are not typically evident based on field observation. Should evidence of other potential contaminants impacts be identified during sampling (e.g. staining or odours), SAP is to be modified accordingly.

*Note- The bold text indicates the APECs that affect the Phase Two ESA Property.

GENERAL PROJECT INFORMATION AND REQUIREMENTS

- **Contact:**
  - General project questions – Kevan Browne 905-723-2727 (ext. 6677) (office) / 905-409-1650 (cell)
  - General project questions/environmental senior support – Ryan Smith (905) 903-6102 (Cell)
- Follow standard operating procedures, as a Record of Site Condition will be required.
- Complete a Daily Log for every day of fieldwork. Use standard field forms.
- Initial calibration of field equipment should be performed at the start of each field program.
  - Clean disposable Nitrile™ gloves will be used at each sampling location to prevent cross-contamination.
  - Any shared sampling equipment (shovels, trowels, etc.) shall be cleaned with a brush; washed with a laboratory-grade detergent solution (e.g., Alconox) and thoroughly rinsed with distilled waterbetween each sample location.

Soil Sampling

It is understood that an approximately 200 m (east to west) by 50 metre (north to south) excavation has been completed (by TCPL). Testing locations to be established at an approximate 14-metre spacing (east to west) by approximately 10-metre spacing (north to south). Wall samples to be collected from each of the east and west final walls of the excavation at an approximate 10-metre spacing (north to south).

All samples are to be collected from fresh face (approximately 0.006 to 0.015 m below existing grade) as a composite of material from within 2 metres of the sampling locations, from at least 3 discreet grab locations. Samples are to be consolidated in a soil headspace bag and promptly placed into soil sampling jars and stored on ice, in a cooler, until delivery to MAXXAM Laboratories in Mississauga for analysis.

Headspace testing is not required unless obvious evidence of environmental impact is noted (objectionable odour, noticeable sheet or staining in the soil samples). Please contact Kevan or Ryan should this be encountered.

- A summary of soil samples including Quality Assurance/Quality Control (“QA/QC”) samples is summarized in Table 1, below. The duplicate soil samples should be labelled in a manner in which the laboratory cannot identify the sample as a duplicate.

A summary of the number of soil samples (including QA/CQ samples) is provided in the table below.

Summary of Soil samples Including QA/QC Samples

Parameter	Sample Location	Soil samples	Duplicate samples
Metals, Hydride-Forming Metals	Floor of Excavation	56	6 Aerial coverage east to west
Metals, Hydride-Forming Metals	East and West Walls of Excavation	8	2 (one from each wall)

Kevan Browne, B.A.
Project Manager, Contaminated Sites

R.J. Smith, P.Eng., QP_{ESA}
Associate, Contaminated Sites

JS/KDB/RJS/js/ksb

https://golderassociates.sharepoint.com/sites/20914g/deliverables/04. remediation/02. report (site)/appendix c - tcpl report/1791121 (4000) sap tcpl july 2018.docx

APPENDIX D

Certificates of Analysis

Your Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 669722-07-01, C#662334-04-01, C#662334-08-01, C#662334-10-01, C#669722-05-01, C#662334-09-01

Report Date: 2018/07/20
Report #: R5305856
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8I1437
Received: 2018/07/19, 12:42

Sample Matrix: Soil
Samples Received: 60

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	60	2018/07/20	2018/07/20	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

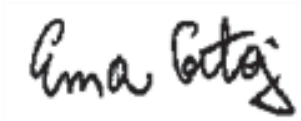
Your C.O.C. #: 669722-07-01, C#662334-04-01, C#662334-08-01, C#662334-10-01, C#669722-05-01, C#662334-09-01

Report Date: 2018/07/20
Report #: R5305856
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8I1437
Received: 2018/07/19, 12:42

Encryption Key



Ema Gitej
Senior Project Manager
20 Jul 2018 18:43:58

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ732	HGJ733		HGJ734	HGJ735		
Sampling Date			2018/07/18 17:30	2018/07/18 17:30		2018/07/18 18:30	2018/07/18 18:30		
COC Number			669722-07-01	669722-07-01		669722-07-01	669722-07-01		
	UNITS	Criteria	D3	B4	QC Batch	C4	D4	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	5639073	0.22	0.37	0.20	5639044
Acid Extractable Arsenic (As)	ug/g	**18**	2.2	2.2	5639073	2.2	2.1	1.0	5639044
Acid Extractable Barium (Ba)	ug/g	**220**	40	46	5639073	45	45	0.50	5639044
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.40	0.49	5639073	0.40	0.44	0.20	5639044
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5639073	<5.0	<5.0	5.0	5639044
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.21	0.16	5639073	0.26	0.20	0.10	5639044
Acid Extractable Chromium (Cr)	ug/g	**70**	14	14	5639073	14	14	1.0	5639044
Acid Extractable Cobalt (Co)	ug/g	**21**	4.4	4.5	5639073	4.3	4.5	0.10	5639044
Acid Extractable Copper (Cu)	ug/g	**92**	6.8	7.9	5639073	8.4	7.9	0.50	5639044
Acid Extractable Lead (Pb)	ug/g	**120**	7.3	7.7	5639073	9.0	12	1.0	5639044
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	5639073	<0.50	<0.50	0.50	5639044
Acid Extractable Nickel (Ni)	ug/g	**82**	8.8	9.7	5639073	9.1	9.2	0.50	5639044
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	5639073	<0.50	<0.50	0.50	5639044
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	5639073	<0.20	<0.20	0.20	5639044
Acid Extractable Thallium (Tl)	ug/g	**1**	0.094	0.10	5639073	0.093	0.10	0.050	5639044
Acid Extractable Uranium (U)	ug/g	**2.5**	0.55	0.48	5639073	0.49	0.54	0.050	5639044
Acid Extractable Vanadium (V)	ug/g	**86**	26	27	5639073	24	25	5.0	5639044
Acid Extractable Zinc (Zn)	ug/g	**290**	31	31	5639073	36	37	5.0	5639044

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ736	HGJ737		HGJ738	HGJ739		
Sampling Date			2018/07/18 18:30	2018/07/18 18:30		2018/07/18 18:30	2018/07/18 18:30		
COC Number			669722-07-01	669722-07-01		669722-07-01	669722-07-01		
	UNITS	Criteria	B5	C5	QC Batch	D5	B6	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.51	0.29	5639073	<0.20	0.51	0.20	5639044
Acid Extractable Arsenic (As)	ug/g	**18**	2.1	2.1	5639073	1.8	1.9	1.0	5639044
Acid Extractable Barium (Ba)	ug/g	**220**	44	47	5639073	48	51	0.50	5639044
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.40	0.42	5639073	0.44	0.41	0.20	5639044
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5639073	<5.0	<5.0	5.0	5639044
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.22	0.24	5639073	0.21	0.25	0.10	5639044
Acid Extractable Chromium (Cr)	ug/g	**70**	12	13	5639073	14	14	1.0	5639044
Acid Extractable Cobalt (Co)	ug/g	**21**	4.3	4.4	5639073	4.5	4.3	0.10	5639044
Acid Extractable Copper (Cu)	ug/g	**92**	7.4	8.0	5639073	7.1	8.2	0.50	5639044
Acid Extractable Lead (Pb)	ug/g	**120**	12	11	5639073	8.9	10	1.0	5639044
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	5639073	<0.50	<0.50	0.50	5639044
Acid Extractable Nickel (Ni)	ug/g	**82**	9.1	9.8	5639073	9.4	9.3	0.50	5639044
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	5639073	<0.50	<0.50	0.50	5639044
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	5639073	<0.20	<0.20	0.20	5639044
Acid Extractable Thallium (Tl)	ug/g	**1**	0.090	0.10	5639073	0.093	0.10	0.050	5639044
Acid Extractable Uranium (U)	ug/g	**2.5**	0.46	0.50	5639073	0.52	0.49	0.050	5639044
Acid Extractable Vanadium (V)	ug/g	**86**	22	24	5639073	25	24	5.0	5639044
Acid Extractable Zinc (Zn)	ug/g	**290**	32	36	5639073	36	38	5.0	5639044

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ740	HGJ740		HGJ741		
Sampling Date			2018/07/18 18:30	2018/07/18 18:30		2018/07/18 18:30		
COC Number			669722-07-01	669722-07-01		669722-07-01		
	UNITS	Criteria	C6	C6 Lab-Dup	QC Batch	D6	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.35	0.34	5639073	<0.20	0.20	5639044
Acid Extractable Arsenic (As)	ug/g	**18**	2.2	2.2	5639073	1.9	1.0	5639044
Acid Extractable Barium (Ba)	ug/g	**220**	51	54	5639073	49	0.50	5639044
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.46	0.47	5639073	0.41	0.20	5639044
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5639073	<5.0	5.0	5639044
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.14	0.20	5639073	0.17	0.10	5639044
Acid Extractable Chromium (Cr)	ug/g	**70**	15	15	5639073	14	1.0	5639044
Acid Extractable Cobalt (Co)	ug/g	**21**	4.8	5.1	5639073	4.5	0.10	5639044
Acid Extractable Copper (Cu)	ug/g	**92**	8.2	8.6	5639073	7.8	0.50	5639044
Acid Extractable Lead (Pb)	ug/g	**120**	9.5	9.5	5639073	7.0	1.0	5639044
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	5639073	<0.50	0.50	5639044
Acid Extractable Nickel (Ni)	ug/g	**82**	11	11	5639073	10	0.50	5639044
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	5639073	<0.50	0.50	5639044
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	5639073	<0.20	0.20	5639044
Acid Extractable Thallium (Tl)	ug/g	**1**	0.11	0.11	5639073	0.10	0.050	5639044
Acid Extractable Uranium (U)	ug/g	**2.5**	0.51	0.55	5639073	0.54	0.050	5639044
Acid Extractable Vanadium (V)	ug/g	**86**	26	26	5639073	24	5.0	5639044
Acid Extractable Zinc (Zn)	ug/g	**290**	32	33	5639073	31	5.0	5639044

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ742	HGJ743	HGJ744	HGJ745		
Sampling Date			2018/07/18 18:30	2018/07/18 18:30	2018/07/18 18:30	2018/07/18 18:30		
COC Number			C#662334-04-01	C#662334-04-01	C#662334-04-01	C#662334-04-01		
	UNITS	Criteria	B7	C7	D7	B8	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**1.7**	0.60	<0.20	**3.1**	0.20	5639073
Acid Extractable Arsenic (As)	ug/g	**18**	2.6	2.2	1.9	1.7	1.0	5639073
Acid Extractable Barium (Ba)	ug/g	**220**	49	45	45	36	0.50	5639073
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.44	0.45	0.52	0.37	0.20	5639073
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	5639073
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.19	0.15	0.16	0.16	0.10	5639073
Acid Extractable Chromium (Cr)	ug/g	**70**	13	14	16	12	1.0	5639073
Acid Extractable Cobalt (Co)	ug/g	**21**	4.3	4.7	4.8	4.2	0.10	5639073
Acid Extractable Copper (Cu)	ug/g	**92**	7.3	7.1	6.7	4.8	0.50	5639073
Acid Extractable Lead (Pb)	ug/g	**120**	16	11	7.0	18	1.0	5639073
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	5639073
Acid Extractable Nickel (Ni)	ug/g	**82**	9.3	9.9	9.9	7.4	0.50	5639073
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	5639073
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	5639073
Acid Extractable Thallium (Tl)	ug/g	**1**	0.098	0.10	0.097	0.076	0.050	5639073
Acid Extractable Uranium (U)	ug/g	**2.5**	0.50	0.50	0.57	0.42	0.050	5639073
Acid Extractable Vanadium (V)	ug/g	**86**	25	25	29	24	5.0	5639073
Acid Extractable Zinc (Zn)	ug/g	**290**	32	26	32	27	5.0	5639073

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
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Golder Associates Ltd
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Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ746	HGJ747	HGJ748	HGJ749		
Sampling Date			2018/07/18 19:15	2018/07/18 19:15	2018/07/18 19:15	2018/07/18 19:15		
COC Number			C#662334-04-01	C#662334-04-01	C#662334-04-01	C#662334-04-01		
	UNITS	Criteria	C8	D8	B9	C9	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**1.6**	**1.7**	**10**	**2.0**	0.20	5639073
Acid Extractable Arsenic (As)	ug/g	**18**	2.3	2.9	4.6	1.8	1.0	5639073
Acid Extractable Barium (Ba)	ug/g	**220**	41	53	48	36	0.50	5639073
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.41	0.40	0.40	0.39	0.20	5639073
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	5639073
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.11	0.18	0.20	0.15	0.10	5639073
Acid Extractable Chromium (Cr)	ug/g	**70**	13	14	13	13	1.0	5639073
Acid Extractable Cobalt (Co)	ug/g	**21**	4.0	4.5	4.3	4.1	0.10	5639073
Acid Extractable Copper (Cu)	ug/g	**92**	5.6	7.8	6.7	4.4	0.50	5639073
Acid Extractable Lead (Pb)	ug/g	**120**	14	27	110	13	1.0	5639073
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	5639073
Acid Extractable Nickel (Ni)	ug/g	**82**	8.1	8.6	8.0	6.8	0.50	5639073
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	5639073
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	5639073
Acid Extractable Thallium (Tl)	ug/g	**1**	0.085	0.093	0.088	0.070	0.050	5639073
Acid Extractable Uranium (U)	ug/g	**2.5**	0.48	0.50	0.44	0.51	0.050	5639073
Acid Extractable Vanadium (V)	ug/g	**86**	25	25	23	26	5.0	5639073
Acid Extractable Zinc (Zn)	ug/g	**290**	26	34	33	24	5.0	5639073

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Report Date: 2018/07/20

Golder Associates Ltd
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O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ750		HGJ751	HGJ752		
Sampling Date			2018/07/18 19:15		2018/07/18 19:15	2018/07/18 19:45		
COC Number			C#662334-04-01		C#662334-04-01	C#662334-08-01		
	UNITS	Criteria	D9	QC Batch	B10	D13	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**3.6**	5639279	**13**	**2.6**	0.20	5639073
Acid Extractable Arsenic (As)	ug/g	**18**	3.0	5639279	4.6	2.6	1.0	5639073
Acid Extractable Barium (Ba)	ug/g	**220**	47	5639279	57	65	0.50	5639073
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.40	5639279	0.43	0.46	0.20	5639073
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5639279	<5.0	<5.0	5.0	5639073
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	5639279	0.19	0.16	0.10	5639073
Acid Extractable Chromium (Cr)	ug/g	**70**	13	5639279	15	21	1.0	5639073
Acid Extractable Cobalt (Co)	ug/g	**21**	4.3	5639279	4.8	5.9	0.10	5639073
Acid Extractable Copper (Cu)	ug/g	**92**	7.3	5639279	7.4	9.2	0.50	5639073
Acid Extractable Lead (Pb)	ug/g	**120**	44	5639279	**150**	62	1.0	5639073
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639279	<0.50	<0.50	0.50	5639073
Acid Extractable Nickel (Ni)	ug/g	**82**	8.7	5639279	9.2	12	0.50	5639073
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639279	<0.50	<0.50	0.50	5639073
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639279	<0.20	<0.20	0.20	5639073
Acid Extractable Thallium (Tl)	ug/g	**1**	0.094	5639279	0.11	0.13	0.050	5639073
Acid Extractable Uranium (U)	ug/g	**2.5**	0.53	5639279	0.51	0.56	0.050	5639073
Acid Extractable Vanadium (V)	ug/g	**86**	25	5639279	27	31	5.0	5639073
Acid Extractable Zinc (Zn)	ug/g	**290**	35	5639279	33	62	5.0	5639073

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ753	HGJ754	HGJ755		
Sampling Date			2018/07/18 19:45	2018/07/18 19:45	2018/07/18 19:45		
COC Number			C#662334-08-01	C#662334-08-01	C#662334-08-01		
	UNITS	Criteria	B14	C14	D14	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**7.5**	0.79	**5.2**	0.20	5639073
Acid Extractable Arsenic (As)	ug/g	**18**	3.6	1.6	2.7	1.0	5639073
Acid Extractable Barium (Ba)	ug/g	**220**	54	47	61	0.50	5639073
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.48	0.37	0.46	0.20	5639073
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.0	5639073
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.22	0.13	0.14	0.10	5639073
Acid Extractable Chromium (Cr)	ug/g	**70**	16	15	18	1.0	5639073
Acid Extractable Cobalt (Co)	ug/g	**21**	4.5	4.0	5.2	0.10	5639073
Acid Extractable Copper (Cu)	ug/g	**92**	11	6.1	7.8	0.50	5639073
Acid Extractable Lead (Pb)	ug/g	**120**	99	10	44	1.0	5639073
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	5639073
Acid Extractable Nickel (Ni)	ug/g	**82**	9.7	8.4	11	0.50	5639073
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	5639073
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	5639073
Acid Extractable Thallium (Tl)	ug/g	**1**	0.11	0.090	0.11	0.050	5639073
Acid Extractable Uranium (U)	ug/g	**2.5**	0.45	0.42	0.54	0.050	5639073
Acid Extractable Vanadium (V)	ug/g	**86**	27	24	28	5.0	5639073
Acid Extractable Zinc (Zn)	ug/g	**290**	43	38	40	5.0	5639073

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ756		HGJ757		HGJ758		
Sampling Date			2018/07/18 19:45		2018/07/18 19:45		2018/07/18 19:45		
COC Number			C#662334-08-01		C#662334-08-01		C#662334-08-01		
	UNITS	Criteria	B15	QC Batch	C15	QC Batch	D15	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**1.7**	5639279	**5.4**	5639160	**9.8**	0.20	5639073
Acid Extractable Arsenic (As)	ug/g	**18**	2.2	5639279	2.9	5639160	4.1	1.0	5639073
Acid Extractable Barium (Ba)	ug/g	**220**	62	5639279	62	5639160	110	0.50	5639073
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.49	5639279	0.46	5639160	0.70	0.20	5639073
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5639279	<5.0	5639160	5.3	5.0	5639073
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.17	5639279	0.14	5639160	0.25	0.10	5639073
Acid Extractable Chromium (Cr)	ug/g	**70**	17	5639279	17	5639160	23	1.0	5639073
Acid Extractable Cobalt (Co)	ug/g	**21**	4.7	5639279	4.9	5639160	7.3	0.10	5639073
Acid Extractable Copper (Cu)	ug/g	**92**	11	5639279	8.2	5639160	13	0.50	5639073
Acid Extractable Lead (Pb)	ug/g	**120**	20	5639279	59	5639160	93	1.0	5639073
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639279	<0.50	5639160	<0.50	0.50	5639073
Acid Extractable Nickel (Ni)	ug/g	**82**	10	5639279	9.9	5639160	17	0.50	5639073
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639279	<0.50	5639160	<0.50	0.50	5639073
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639279	<0.20	5639160	<0.20	0.20	5639073
Acid Extractable Thallium (Tl)	ug/g	**1**	0.092	5639279	0.10	5639160	0.16	0.050	5639073
Acid Extractable Uranium (U)	ug/g	**2.5**	0.54	5639279	0.53	5639160	0.58	0.050	5639073
Acid Extractable Vanadium (V)	ug/g	**86**	27	5639279	28	5639160	33	5.0	5639073
Acid Extractable Zinc (Zn)	ug/g	**290**	39	5639279	33	5639160	50	5.0	5639073

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ759	HGJ760		HGJ761		
Sampling Date			2018/07/18 19:45	2018/07/18 20:15		2018/07/18 20:15		
COC Number			C#662334-08-01	C#662334-08-01		C#662334-08-01		
	UNITS	Criteria	B16	C16	QC Batch	D16	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	1.2	1.1	5639160	**16**	0.20	5639073
Acid Extractable Arsenic (As)	ug/g	**18**	2.1	2.7	5639160	5.0	1.0	5639073
Acid Extractable Barium (Ba)	ug/g	**220**	91	110	5639160	74	0.50	5639073
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.60	0.72	5639160	0.54	0.20	5639073
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5.2	5639160	<5.0	5.0	5639073
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.15	0.18	5639160	0.18	0.10	5639073
Acid Extractable Chromium (Cr)	ug/g	**70**	20	23	5639160	17	1.0	5639073
Acid Extractable Cobalt (Co)	ug/g	**21**	5.7	6.5	5639160	5.5	0.10	5639073
Acid Extractable Copper (Cu)	ug/g	**92**	11	9.4	5639160	9.5	0.50	5639073
Acid Extractable Lead (Pb)	ug/g	**120**	18	13	5639160	**160**	1.0	5639073
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	5639160	<0.50	0.50	5639073
Acid Extractable Nickel (Ni)	ug/g	**82**	13	15	5639160	11	0.50	5639073
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	5639160	<0.50	0.50	5639073
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	5639160	<0.20	0.20	5639073
Acid Extractable Thallium (Tl)	ug/g	**1**	0.13	0.15	5639160	0.14	0.050	5639073
Acid Extractable Uranium (U)	ug/g	**2.5**	0.46	0.54	5639160	0.57	0.050	5639073
Acid Extractable Vanadium (V)	ug/g	**86**	30	36	5639160	29	5.0	5639073
Acid Extractable Zinc (Zn)	ug/g	**290**	38	41	5639160	42	5.0	5639073

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ762	HGJ763	HGJ764		
Sampling Date			2018/07/18 19:15	2018/07/18 19:15	2018/07/18 19:15		
COC Number			C#662334-10-01	C#662334-10-01	C#662334-10-01		
	UNITS	Criteria	C10	D10	B11	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**11**	**8.9**	**14**	0.20	5639160
Acid Extractable Arsenic (As)	ug/g	**18**	4.6	3.7	4.6	1.0	5639160
Acid Extractable Barium (Ba)	ug/g	**220**	56	42	70	0.50	5639160
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.48	0.39	0.54	0.20	5639160
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.0	5639160
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.28	0.20	0.18	0.10	5639160
Acid Extractable Chromium (Cr)	ug/g	**70**	15	13	17	1.0	5639160
Acid Extractable Cobalt (Co)	ug/g	**21**	4.8	4.1	5.6	0.10	5639160
Acid Extractable Copper (Cu)	ug/g	**92**	7.5	7.6	8.9	0.50	5639160
Acid Extractable Lead (Pb)	ug/g	**120**	**210**	110	**140**	1.0	5639160
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	5639160
Acid Extractable Nickel (Ni)	ug/g	**82**	8.6	7.8	10	0.50	5639160
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	5639160
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	5639160
Acid Extractable Thallium (Tl)	ug/g	**1**	0.11	0.082	0.12	0.050	5639160
Acid Extractable Uranium (U)	ug/g	**2.5**	0.52	0.65	0.46	0.050	5639160
Acid Extractable Vanadium (V)	ug/g	**86**	27	24	28	5.0	5639160
Acid Extractable Zinc (Zn)	ug/g	**290**	38	34	38	5.0	5639160

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ765	HGJ766	HGJ767		
Sampling Date			2018/07/18 19:15	2018/07/18 19:15	2018/07/18 19:15		
COC Number			C#662334-10-01	C#662334-10-01	C#662334-10-01		
	UNITS	Criteria	C11	D11	B12	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**5.4**	**22**	**15**	0.20	5639008
Acid Extractable Arsenic (As)	ug/g	**18**	3.4	7.1	4.7	1.0	5639008
Acid Extractable Barium (Ba)	ug/g	**220**	77	54	48	0.50	5639008
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.66	0.46	0.38	0.20	5639008
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.0	5639008
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.25	0.28	0.17	0.10	5639008
Acid Extractable Chromium (Cr)	ug/g	**70**	23	17	14	1.0	5639008
Acid Extractable Cobalt (Co)	ug/g	**21**	6.6	5.1	4.3	0.10	5639008
Acid Extractable Copper (Cu)	ug/g	**92**	11	9.9	7.9	0.50	5639008
Acid Extractable Lead (Pb)	ug/g	**120**	100	**290**	**150**	1.0	5639008
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	5639008
Acid Extractable Nickel (Ni)	ug/g	**82**	14	9.6	8.9	0.50	5639008
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	5639008
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	5639008
Acid Extractable Thallium (Tl)	ug/g	**1**	0.16	0.15	0.10	0.050	5639008
Acid Extractable Uranium (U)	ug/g	**2.5**	0.68	0.66	0.52	0.050	5639008
Acid Extractable Vanadium (V)	ug/g	**86**	36	31	25	5.0	5639008
Acid Extractable Zinc (Zn)	ug/g	**290**	43	47	33	5.0	5639008

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ768		HGJ769	HGJ770		
Sampling Date			2018/07/18 19:45		2018/07/18 19:45	2018/07/18 19:45		
COC Number			C#662334-10-01		C#662334-10-01	C#662334-10-01		
	UNITS	Criteria	C12	QC Batch	D12	B13	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**9.8**	5639160	**22**	**16**	0.20	5639008
Acid Extractable Arsenic (As)	ug/g	**18**	3.6	5639160	6.4	6.0	1.0	5639008
Acid Extractable Barium (Ba)	ug/g	**220**	53	5639160	51	54	0.50	5639008
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.50	5639160	0.47	0.49	0.20	5639008
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5639160	<5.0	<5.0	5.0	5639008
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.20	5639160	0.27	0.25	0.10	5639008
Acid Extractable Chromium (Cr)	ug/g	**70**	18	5639160	17	17	1.0	5639008
Acid Extractable Cobalt (Co)	ug/g	**21**	4.7	5639160	4.6	4.9	0.10	5639008
Acid Extractable Copper (Cu)	ug/g	**92**	13	5639160	12	10	0.50	5639008
Acid Extractable Lead (Pb)	ug/g	**120**	92	5639160	**260**	**250**	1.0	5639008
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639160	<0.50	<0.50	0.50	5639008
Acid Extractable Nickel (Ni)	ug/g	**82**	10	5639160	9.5	10	0.50	5639008
Acid Extractable Selenium (Se)	ug/g	**1.5**	0.51	5639160	0.67	<0.50	0.50	5639008
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639160	<0.20	<0.20	0.20	5639008
Acid Extractable Thallium (Tl)	ug/g	**1**	0.11	5639160	0.12	0.15	0.050	5639008
Acid Extractable Uranium (U)	ug/g	**2.5**	0.65	5639160	0.66	0.55	0.050	5639008
Acid Extractable Vanadium (V)	ug/g	**86**	26	5639160	26	28	5.0	5639008
Acid Extractable Zinc (Zn)	ug/g	**290**	35	5639160	46	43	5.0	5639008

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ771	HGJ772	HGJ773	HGJ774		
Sampling Date			2018/07/18 19:45	2018/07/18 17:30	2018/07/18 17:30	2018/07/18 17:30		
COC Number			C#662334-10-01	C#669722-05-01	C#669722-05-01	C#669722-05-01		
	UNITS	Criteria	C13	A1	B1	C1	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**9.7**	0.31	<0.20	<0.20	0.20	5639008
Acid Extractable Arsenic (As)	ug/g	**18**	4.1	2.2	2.3	2.2	1.0	5639008
Acid Extractable Barium (Ba)	ug/g	**220**	65	44	41	55	0.50	5639008
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.50	0.43	0.42	0.51	0.20	5639008
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	5639008
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	0.17	0.14	0.24	0.10	5639008
Acid Extractable Chromium (Cr)	ug/g	**70**	20	14	14	16	1.0	5639008
Acid Extractable Cobalt (Co)	ug/g	**21**	5.2	4.6	4.9	5.3	0.10	5639008
Acid Extractable Copper (Cu)	ug/g	**92**	8.6	8.3	8.7	10	0.50	5639008
Acid Extractable Lead (Pb)	ug/g	**120**	**210**	11	8.6	8.9	1.0	5639008
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	5639008
Acid Extractable Nickel (Ni)	ug/g	**82**	11	11	10	11	0.50	5639008
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	5639008
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	5639008
Acid Extractable Thallium (Tl)	ug/g	**1**	0.16	0.11	0.13	0.13	0.050	5639008
Acid Extractable Uranium (U)	ug/g	**2.5**	0.59	0.60	0.63	0.78	0.050	5639008
Acid Extractable Vanadium (V)	ug/g	**86**	29	26	26	27	5.0	5639008
Acid Extractable Zinc (Zn)	ug/g	**290**	49	32	31	36	5.0	5639008

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ775	HGJ776	HGJ777		
Sampling Date			2018/07/18 17:30	2018/07/18 17:30	2018/07/18 17:30		
COC Number			C#669722-05-01	C#669722-05-01	C#669722-05-01		
	UNITS	Criteria	D1	E1	B2	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	0.26	<0.20	0.20	5639008
Acid Extractable Arsenic (As)	ug/g	**18**	2.1	2.8	1.8	1.0	5639008
Acid Extractable Barium (Ba)	ug/g	**220**	38	43	36	0.50	5639008
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.40	0.45	0.34	0.20	5639008
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.0	5639008
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.20	0.28	0.11	0.10	5639008
Acid Extractable Chromium (Cr)	ug/g	**70**	13	14	12	1.0	5639008
Acid Extractable Cobalt (Co)	ug/g	**21**	4.4	5.0	4.5	0.10	5639008
Acid Extractable Copper (Cu)	ug/g	**92**	7.4	9.5	8.3	0.50	5639008
Acid Extractable Lead (Pb)	ug/g	**120**	9.2	13	7.6	1.0	5639008
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	5639008
Acid Extractable Nickel (Ni)	ug/g	**82**	9.4	11	9.6	0.50	5639008
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	5639008
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	5639008
Acid Extractable Thallium (Tl)	ug/g	**1**	0.11	0.14	0.13	0.050	5639008
Acid Extractable Uranium (U)	ug/g	**2.5**	0.55	0.59	0.54	0.050	5639008
Acid Extractable Vanadium (V)	ug/g	**86**	23	26	23	5.0	5639008
Acid Extractable Zinc (Zn)	ug/g	**290**	30	40	27	5.0	5639008

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ778		HGJ779	HGJ780		
Sampling Date			2018/07/18 17:30		2018/07/18 17:30	2018/07/18 17:30		
COC Number			C#669722-05-01		C#669722-05-01	C#669722-05-01		
	UNITS	Criteria	C2	QC Batch	D2	B3	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	5639044	<0.20	<0.20	0.20	5639008
Acid Extractable Arsenic (As)	ug/g	**18**	1.9	5639044	2.0	2.5	1.0	5639008
Acid Extractable Barium (Ba)	ug/g	**220**	41	5639044	36	48	0.50	5639008
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.46	5639044	0.44	0.55	0.20	5639008
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5639044	<5.0	<5.0	5.0	5639008
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.16	5639044	0.10	0.10	0.10	5639008
Acid Extractable Chromium (Cr)	ug/g	**70**	14	5639044	15	16	1.0	5639008
Acid Extractable Cobalt (Co)	ug/g	**21**	4.8	5639044	5.2	5.5	0.10	5639008
Acid Extractable Copper (Cu)	ug/g	**92**	6.9	5639044	6.6	9.7	0.50	5639008
Acid Extractable Lead (Pb)	ug/g	**120**	8.5	5639044	7.6	8.0	1.0	5639008
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639044	<0.50	<0.50	0.50	5639008
Acid Extractable Nickel (Ni)	ug/g	**82**	9.5	5639044	9.8	13	0.50	5639008
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639044	<0.50	<0.50	0.50	5639008
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639044	<0.20	<0.20	0.20	5639008
Acid Extractable Thallium (Tl)	ug/g	**1**	0.099	5639044	0.11	0.14	0.050	5639008
Acid Extractable Uranium (U)	ug/g	**2.5**	0.57	5639044	0.53	0.58	0.050	5639008
Acid Extractable Vanadium (V)	ug/g	**86**	26	5639044	27	28	5.0	5639008
Acid Extractable Zinc (Zn)	ug/g	**290**	29	5639044	27	31	5.0	5639008

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ781	HGJ781	HGJ782		
Sampling Date			2018/07/18 17:30	2018/07/18 17:30	2018/07/18 20:15		
COC Number			C#669722-05-01	C#669722-05-01	C#662334-09-01		
	UNITS	Criteria	C3	C3 Lab-Dup	B17	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.32	0.25	1.0	0.20	5639044
Acid Extractable Arsenic (As)	ug/g	**18**	2.1	2.0	2.4	1.0	5639044
Acid Extractable Barium (Ba)	ug/g	**220**	43	43	91	0.50	5639044
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.42	0.42	0.61	0.20	5639044
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.3	5.0	5639044
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.17	0.18	0.32	0.10	5639044
Acid Extractable Chromium (Cr)	ug/g	**70**	14	13	21	1.0	5639044
Acid Extractable Cobalt (Co)	ug/g	**21**	4.5	4.4	6.0	0.10	5639044
Acid Extractable Copper (Cu)	ug/g	**92**	7.9	7.7	12	0.50	5639044
Acid Extractable Lead (Pb)	ug/g	**120**	11	11	26	1.0	5639044
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	5639044
Acid Extractable Nickel (Ni)	ug/g	**82**	9.8	9.1	12	0.50	5639044
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	5639044
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	5639044
Acid Extractable Thallium (Tl)	ug/g	**1**	0.10	0.10	0.14	0.050	5639044
Acid Extractable Uranium (U)	ug/g	**2.5**	0.48	0.65	0.64	0.050	5639044
Acid Extractable Vanadium (V)	ug/g	**86**	24	24	32	5.0	5639044
Acid Extractable Zinc (Zn)	ug/g	**290**	35	34	45	5.0	5639044

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ783		HGJ784		HGJ785		
Sampling Date			2018/07/18 20:15		2018/07/18 20:15		2018/07/18 20:15		
COC Number			C#662334-09-01		C#662334-09-01		C#662334-09-01		
	UNITS	Criteria	C17	QC Batch	D17	QC Batch	B18	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.56	5639008	**17**	5639044	**2.4**	0.20	5639008
Acid Extractable Arsenic (As)	ug/g	**18**	2.6	5639008	6.1	5639044	2.4	1.0	5639008
Acid Extractable Barium (Ba)	ug/g	**220**	140	5639008	80	5639044	58	0.50	5639008
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.80	5639008	0.58	5639044	0.42	0.20	5639008
Acid Extractable Boron (B)	ug/g	**36**	7.6	5639008	6.0	5639044	<5.0	5.0	5639008
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.25	5639008	0.23	5639044	0.16	0.10	5639008
Acid Extractable Chromium (Cr)	ug/g	**70**	30	5639008	19	5639044	15	1.0	5639008
Acid Extractable Cobalt (Co)	ug/g	**21**	9.4	5639008	6.0	5639044	4.7	0.10	5639008
Acid Extractable Copper (Cu)	ug/g	**92**	15	5639008	10	5639044	8.0	0.50	5639008
Acid Extractable Lead (Pb)	ug/g	**120**	14	5639008	**260**	5639044	39	1.0	5639008
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639008	<0.50	5639044	<0.50	0.50	5639008
Acid Extractable Nickel (Ni)	ug/g	**82**	20	5639008	12	5639044	9.8	0.50	5639008
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639008	<0.50	5639044	<0.50	0.50	5639008
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639008	<0.20	5639044	<0.20	0.20	5639008
Acid Extractable Thallium (Tl)	ug/g	**1**	0.22	5639008	0.16	5639044	0.11	0.050	5639008
Acid Extractable Uranium (U)	ug/g	**2.5**	0.73	5639008	0.62	5639044	0.53	0.050	5639008
Acid Extractable Vanadium (V)	ug/g	**86**	40	5639008	29	5639044	24	5.0	5639008
Acid Extractable Zinc (Zn)	ug/g	**290**	57	5639008	46	5639044	36	5.0	5639008

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ786	HGJ787		HGJ788		
Sampling Date			2018/07/18 20:15	2018/07/18 20:15		2018/07/18 20:15		
COC Number			C#662334-09-01	C#662334-09-01		C#662334-09-01		
	UNITS	Criteria	C18	D18	QC Batch	B19	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**1.8**	**6.3**	5639008	**1.7**	0.20	5639044
Acid Extractable Arsenic (As)	ug/g	**18**	2.6	3.4	5639008	2.5	1.0	5639044
Acid Extractable Barium (Ba)	ug/g	**220**	71	64	5639008	76	0.50	5639044
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.57	0.58	5639008	0.54	0.20	5639044
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5639008	5.4	5.0	5639044
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.22	0.22	5639008	0.24	0.10	5639044
Acid Extractable Chromium (Cr)	ug/g	**70**	19	17	5639008	18	1.0	5639044
Acid Extractable Cobalt (Co)	ug/g	**21**	6.2	5.4	5639008	6.0	0.10	5639044
Acid Extractable Copper (Cu)	ug/g	**92**	8.0	9.8	5639008	11	0.50	5639044
Acid Extractable Lead (Pb)	ug/g	**120**	31	72	5639008	24	1.0	5639044
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	5639008	<0.50	0.50	5639044
Acid Extractable Nickel (Ni)	ug/g	**82**	12	12	5639008	13	0.50	5639044
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	5639008	<0.50	0.50	5639044
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	5639008	<0.20	0.20	5639044
Acid Extractable Thallium (Tl)	ug/g	**1**	0.14	0.14	5639008	0.13	0.050	5639044
Acid Extractable Uranium (U)	ug/g	**2.5**	0.66	0.63	5639008	0.57	0.050	5639044
Acid Extractable Vanadium (V)	ug/g	**86**	31	28	5639008	28	5.0	5639044
Acid Extractable Zinc (Zn)	ug/g	**290**	42	42	5639008	40	5.0	5639044

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ789	HGJ790	HGJ790		
Sampling Date			2018/07/18 20:15	2018/07/18 20:15	2018/07/18 20:15		
COC Number			C#662334-09-01	C#662334-09-01	C#662334-09-01		
	UNITS	Criteria	C19	D19	D19 Lab-Dup	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	**1.3**	1.1	1.3	**1.7**	0.20	5639008
Acid Extractable Arsenic (As)	ug/g	**18**	2.1	2.1	2.2	1.0	5639008
Acid Extractable Barium (Ba)	ug/g	**220**	54	58	58	0.50	5639008
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.48	0.50	0.52	0.20	5639008
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.0	5639008
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.19	0.28	0.19	0.10	5639008
Acid Extractable Chromium (Cr)	ug/g	**70**	16	16	16	1.0	5639008
Acid Extractable Cobalt (Co)	ug/g	**21**	5.1	5.1	5.2	0.10	5639008
Acid Extractable Copper (Cu)	ug/g	**92**	6.8	8.1	8.0	0.50	5639008
Acid Extractable Lead (Pb)	ug/g	**120**	13	12	15	1.0	5639008
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	5639008
Acid Extractable Nickel (Ni)	ug/g	**82**	9.3	9.9	9.8	0.50	5639008
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	5639008
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	5639008
Acid Extractable Thallium (Tl)	ug/g	**1**	0.12	0.11	0.13	0.050	5639008
Acid Extractable Uranium (U)	ug/g	**2.5**	0.55	0.58	0.65	0.050	5639008
Acid Extractable Vanadium (V)	ug/g	**86**	28	30	32	5.0	5639008
Acid Extractable Zinc (Zn)	ug/g	**290**	36	40	41	5.0	5639008

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGJ791	HGJ791		
Sampling Date			2018/07/18 20:15	2018/07/18 20:15		
COC Number			C#662334-09-01	C#662334-09-01		
	UNITS	Criteria	B20	B20 Lab-Dup	RDL	QC Batch
Metals						
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.21	0.27	0.20	5639279
Acid Extractable Arsenic (As)	ug/g	**18**	1.8	1.6	1.0	5639279
Acid Extractable Barium (Ba)	ug/g	**220**	55	56	0.50	5639279
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.49	0.45	0.20	5639279
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5.0	5639279
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	0.10	0.10	5639279
Acid Extractable Chromium (Cr)	ug/g	**70**	16	16	1.0	5639279
Acid Extractable Cobalt (Co)	ug/g	**21**	6.1	6.1	0.10	5639279
Acid Extractable Copper (Cu)	ug/g	**92**	8.8	8.9	0.50	5639279
Acid Extractable Lead (Pb)	ug/g	**120**	7.7	7.7	1.0	5639279
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	0.50	5639279
Acid Extractable Nickel (Ni)	ug/g	**82**	11	11	0.50	5639279
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	0.50	5639279
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	0.20	5639279
Acid Extractable Thallium (Tl)	ug/g	**1**	0.10	0.098	0.050	5639279
Acid Extractable Uranium (U)	ug/g	**2.5**	0.51	0.46	0.050	5639279
Acid Extractable Vanadium (V)	ug/g	**86**	32	32	5.0	5639279
Acid Extractable Zinc (Zn)	ug/g	**290**	36	34	5.0	5639279

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGJ732 **Collected:** 2018/07/18
Sample ID: D3 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ733 **Collected:** 2018/07/18
Sample ID: B4 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ734 **Collected:** 2018/07/18
Sample ID: C4 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ735 **Collected:** 2018/07/18
Sample ID: D4 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ736 **Collected:** 2018/07/18
Sample ID: B5 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ737 **Collected:** 2018/07/18
Sample ID: C5 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ738 **Collected:** 2018/07/18
Sample ID: D5 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGJ739 **Collected:** 2018/07/18
Sample ID: B6 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ740 **Collected:** 2018/07/18
Sample ID: C6 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ740 Dup **Collected:** 2018/07/18
Sample ID: C6 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ741 **Collected:** 2018/07/18
Sample ID: D6 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ742 **Collected:** 2018/07/18
Sample ID: B7 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ743 **Collected:** 2018/07/18
Sample ID: C7 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ744 **Collected:** 2018/07/18
Sample ID: D7 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGJ745 **Collected:** 2018/07/18
Sample ID: B8 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ746 **Collected:** 2018/07/18
Sample ID: C8 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ747 **Collected:** 2018/07/18
Sample ID: D8 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ748 **Collected:** 2018/07/18
Sample ID: B9 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ749 **Collected:** 2018/07/18
Sample ID: C9 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ750 **Collected:** 2018/07/18
Sample ID: D9 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639279	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ751 **Collected:** 2018/07/18
Sample ID: B10 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGJ752 **Collected:** 2018/07/18
Sample ID: D13 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ753 **Collected:** 2018/07/18
Sample ID: B14 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ754 **Collected:** 2018/07/18
Sample ID: C14 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ755 **Collected:** 2018/07/18
Sample ID: D14 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ756 **Collected:** 2018/07/18
Sample ID: B15 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639279	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ757 **Collected:** 2018/07/18
Sample ID: C15 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ758 **Collected:** 2018/07/18
Sample ID: D15 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

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TEST SUMMARY

Maxxam ID: HGJ759 **Collected:** 2018/07/18
Sample ID: B16 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ760 **Collected:** 2018/07/18
Sample ID: C16 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ761 **Collected:** 2018/07/18
Sample ID: D16 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639073	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ762 **Collected:** 2018/07/18
Sample ID: C10 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ763 **Collected:** 2018/07/18
Sample ID: D10 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ764 **Collected:** 2018/07/18
Sample ID: B11 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ765 **Collected:** 2018/07/18
Sample ID: C11 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGJ766 **Collected:** 2018/07/18
Sample ID: D11 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ767 **Collected:** 2018/07/18
Sample ID: B12 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ768 **Collected:** 2018/07/18
Sample ID: C12 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ769 **Collected:** 2018/07/18
Sample ID: D12 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ770 **Collected:** 2018/07/18
Sample ID: B13 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ771 **Collected:** 2018/07/18
Sample ID: C13 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ772 **Collected:** 2018/07/18
Sample ID: A1 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGJ773 **Collected:** 2018/07/18
Sample ID: B1 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ774 **Collected:** 2018/07/18
Sample ID: C1 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ775 **Collected:** 2018/07/18
Sample ID: D1 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ776 **Collected:** 2018/07/18
Sample ID: E1 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ777 **Collected:** 2018/07/18
Sample ID: B2 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ778 **Collected:** 2018/07/18
Sample ID: C2 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ779 **Collected:** 2018/07/18
Sample ID: D2 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGJ780 **Collected:** 2018/07/18
Sample ID: B3 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ781 **Collected:** 2018/07/18
Sample ID: C3 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ781 Dup **Collected:** 2018/07/18
Sample ID: C3 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ782 **Collected:** 2018/07/18
Sample ID: B17 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ783 **Collected:** 2018/07/18
Sample ID: C17 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ784 **Collected:** 2018/07/18
Sample ID: D17 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ785 **Collected:** 2018/07/18
Sample ID: B18 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGJ786 **Collected:** 2018/07/18
Sample ID: C18 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ787 **Collected:** 2018/07/18
Sample ID: D18 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ788 **Collected:** 2018/07/18
Sample ID: B19 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639044	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGJ789 **Collected:** 2018/07/18
Sample ID: C19 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ790 **Collected:** 2018/07/18
Sample ID: D19 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ790 Dup **Collected:** 2018/07/18
Sample ID: D19 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639008	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGJ791 **Collected:** 2018/07/18
Sample ID: B20 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639279	2018/07/20	2018/07/20	Thao Nguyen

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGJ791 Dup
Sample ID: B20
Matrix: Soil

Collected: 2018/07/18
Shipped:
Received: 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639279	2018/07/20	2018/07/20	Thao Nguyen

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

GENERAL COMMENTS

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

Package 1	4.7°C
Package 2	5.0°C
Package 3	4.0°C

Results relate only to the items tested.

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5639008	Acid Extractable Antimony (Sb)	2018/07/20	88	75 - 125	103	80 - 120	<0.20	ug/g	27	30
5639008	Acid Extractable Arsenic (As)	2018/07/20	97	75 - 125	106	80 - 120	<1.0	ug/g	7.0	30
5639008	Acid Extractable Barium (Ba)	2018/07/20	NC	75 - 125	106	80 - 120	<0.50	ug/g	1.4	30
5639008	Acid Extractable Beryllium (Be)	2018/07/20	95	75 - 125	98	80 - 120	<0.20	ug/g	5.2	30
5639008	Acid Extractable Boron (B)	2018/07/20	89	75 - 125	92	80 - 120	<5.0	ug/g	NC	30
5639008	Acid Extractable Cadmium (Cd)	2018/07/20	94	75 - 125	101	80 - 120	<0.10	ug/g	NC	30
5639008	Acid Extractable Chromium (Cr)	2018/07/20	94	75 - 125	105	80 - 120	<1.0	ug/g	0.34	30
5639008	Acid Extractable Cobalt (Co)	2018/07/20	96	75 - 125	102	80 - 120	<0.10	ug/g	1.9	30
5639008	Acid Extractable Copper (Cu)	2018/07/20	94	75 - 125	102	80 - 120	<0.50	ug/g	0.75	30
5639008	Acid Extractable Lead (Pb)	2018/07/20	98	75 - 125	104	80 - 120	<1.0	ug/g	20	30
5639008	Acid Extractable Molybdenum (Mo)	2018/07/20	97	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
5639008	Acid Extractable Nickel (Ni)	2018/07/20	98	75 - 125	105	80 - 120	<0.50	ug/g	1.5	30
5639008	Acid Extractable Selenium (Se)	2018/07/20	95	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5639008	Acid Extractable Silver (Ag)	2018/07/20	94	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5639008	Acid Extractable Thallium (Tl)	2018/07/20	95	75 - 125	105	80 - 120	<0.050	ug/g	18	30
5639008	Acid Extractable Uranium (U)	2018/07/20	94	75 - 125	101	80 - 120	<0.050	ug/g	12	30
5639008	Acid Extractable Vanadium (V)	2018/07/20	NC	75 - 125	102	80 - 120	<5.0	ug/g	7.4	30
5639008	Acid Extractable Zinc (Zn)	2018/07/20	NC	75 - 125	104	80 - 120	<5.0	ug/g	3.2	30
5639044	Acid Extractable Antimony (Sb)	2018/07/20	104	75 - 125	102	80 - 120	<0.20	ug/g	25	30
5639044	Acid Extractable Arsenic (As)	2018/07/20	107	75 - 125	104	80 - 120	<1.0	ug/g	3.5	30
5639044	Acid Extractable Barium (Ba)	2018/07/20	NC	75 - 125	105	80 - 120	<0.50	ug/g	0.47	30
5639044	Acid Extractable Beryllium (Be)	2018/07/20	111	75 - 125	104	80 - 120	<0.20	ug/g	1.5	30
5639044	Acid Extractable Boron (B)	2018/07/20	104	75 - 125	104	80 - 120	<5.0	ug/g	NC	30
5639044	Acid Extractable Cadmium (Cd)	2018/07/20	108	75 - 125	103	80 - 120	<0.10	ug/g	7.3	30
5639044	Acid Extractable Chromium (Cr)	2018/07/20	103	75 - 125	104	80 - 120	<1.0	ug/g	5.9	30
5639044	Acid Extractable Cobalt (Co)	2018/07/20	105	75 - 125	105	80 - 120	<0.10	ug/g	2.6	30
5639044	Acid Extractable Copper (Cu)	2018/07/20	109	75 - 125	105	80 - 120	<0.50	ug/g	2.8	30
5639044	Acid Extractable Lead (Pb)	2018/07/20	105	75 - 125	103	80 - 120	<1.0	ug/g	1.1	30
5639044	Acid Extractable Molybdenum (Mo)	2018/07/20	108	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
5639044	Acid Extractable Nickel (Ni)	2018/07/20	108	75 - 125	103	80 - 120	<0.50	ug/g	8.2	30
5639044	Acid Extractable Selenium (Se)	2018/07/20	106	75 - 125	103	80 - 120	<0.50	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5639044	Acid Extractable Silver (Ag)	2018/07/20	103	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5639044	Acid Extractable Thallium (Tl)	2018/07/20	105	75 - 125	102	80 - 120	<0.050	ug/g	1.9	30
5639044	Acid Extractable Uranium (U)	2018/07/20	104	75 - 125	100	80 - 120	<0.050	ug/g	30	30
5639044	Acid Extractable Vanadium (V)	2018/07/20	106	75 - 125	103	80 - 120	<5.0	ug/g	0.18	30
5639044	Acid Extractable Zinc (Zn)	2018/07/20	NC	75 - 125	104	80 - 120	<5.0	ug/g	3.5	30
5639073	Acid Extractable Antimony (Sb)	2018/07/20	92	75 - 125	104	80 - 120	<0.20	ug/g	3.0	30
5639073	Acid Extractable Arsenic (As)	2018/07/20	98	75 - 125	105	80 - 120	<1.0	ug/g	0.81	30
5639073	Acid Extractable Barium (Ba)	2018/07/20	NC	75 - 125	102	80 - 120	<0.50	ug/g	5.2	30
5639073	Acid Extractable Beryllium (Be)	2018/07/20	101	75 - 125	104	80 - 120	<0.20	ug/g	2.9	30
5639073	Acid Extractable Boron (B)	2018/07/20	95	75 - 125	102	80 - 120	<5.0	ug/g	NC	30
5639073	Acid Extractable Cadmium (Cd)	2018/07/20	95	75 - 125	99	80 - 120	<0.10	ug/g	NC	30
5639073	Acid Extractable Chromium (Cr)	2018/07/20	97	75 - 125	102	80 - 120	<1.0	ug/g	2.1	30
5639073	Acid Extractable Cobalt (Co)	2018/07/20	96	75 - 125	101	80 - 120	<0.10	ug/g	5.4	30
5639073	Acid Extractable Copper (Cu)	2018/07/20	96	75 - 125	105	80 - 120	<0.50	ug/g	4.3	30
5639073	Acid Extractable Lead (Pb)	2018/07/20	90	75 - 125	100	80 - 120	<1.0	ug/g	0.22	30
5639073	Acid Extractable Molybdenum (Mo)	2018/07/20	98	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5639073	Acid Extractable Nickel (Ni)	2018/07/20	96	75 - 125	101	80 - 120	<0.50	ug/g	4.8	30
5639073	Acid Extractable Selenium (Se)	2018/07/20	97	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5639073	Acid Extractable Silver (Ag)	2018/07/20	93	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5639073	Acid Extractable Thallium (Tl)	2018/07/20	92	75 - 125	99	80 - 120	<0.050	ug/g	1.1	30
5639073	Acid Extractable Uranium (U)	2018/07/20	93	75 - 125	98	80 - 120	<0.050	ug/g	6.7	30
5639073	Acid Extractable Vanadium (V)	2018/07/20	NC	75 - 125	105	80 - 120	<5.0	ug/g	1.7	30
5639073	Acid Extractable Zinc (Zn)	2018/07/20	NC	75 - 125	107	80 - 120	<5.0	ug/g	3.2	30
5639160	Acid Extractable Antimony (Sb)	2018/07/20	94	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5639160	Acid Extractable Arsenic (As)	2018/07/20	103	75 - 125	106	80 - 120	<1.0	ug/g	6.4	30
5639160	Acid Extractable Barium (Ba)	2018/07/20	NC	75 - 125	104	80 - 120	<0.50	ug/g	0.18	30
5639160	Acid Extractable Beryllium (Be)	2018/07/20	106	75 - 125	105	80 - 120	<0.20	ug/g	0.25	30
5639160	Acid Extractable Boron (B)	2018/07/20	101	75 - 125	98	80 - 120	<5.0	ug/g	NC	30
5639160	Acid Extractable Cadmium (Cd)	2018/07/20	100	75 - 125	101	80 - 120	<0.10	ug/g	20	30
5639160	Acid Extractable Chromium (Cr)	2018/07/20	106	75 - 125	103	80 - 120	<1.0	ug/g	2.4	30
5639160	Acid Extractable Cobalt (Co)	2018/07/20	102	75 - 125	102	80 - 120	<0.10	ug/g	4.1	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5639160	Acid Extractable Copper (Cu)	2018/07/20	106	75 - 125	105	80 - 120	<0.50	ug/g	1.1	30
5639160	Acid Extractable Lead (Pb)	2018/07/20	99	75 - 125	98	80 - 120	<1.0	ug/g	1.0	30
5639160	Acid Extractable Molybdenum (Mo)	2018/07/20	102	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5639160	Acid Extractable Nickel (Ni)	2018/07/20	104	75 - 125	102	80 - 120	<0.50	ug/g	7.2	30
5639160	Acid Extractable Selenium (Se)	2018/07/20	100	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5639160	Acid Extractable Silver (Ag)	2018/07/20	101	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5639160	Acid Extractable Thallium (Tl)	2018/07/20	99	75 - 125	98	80 - 120	<0.050	ug/g	20	30
5639160	Acid Extractable Uranium (U)	2018/07/20	99	75 - 125	98	80 - 120	<0.050	ug/g	2.0	30
5639160	Acid Extractable Vanadium (V)	2018/07/20	NC	75 - 125	102	80 - 120	<5.0	ug/g	1.2	30
5639160	Acid Extractable Zinc (Zn)	2018/07/20	NC	75 - 125	106	80 - 120	<5.0	ug/g	1.4	30
5639279	Acid Extractable Antimony (Sb)	2018/07/20	91	75 - 125	100	80 - 120	<0.20	ug/g	23	30
5639279	Acid Extractable Arsenic (As)	2018/07/20	111	75 - 125	106	80 - 120	<1.0	ug/g	13	30
5639279	Acid Extractable Barium (Ba)	2018/07/20	NC	75 - 125	99	80 - 120	<0.50	ug/g	1.6	30
5639279	Acid Extractable Beryllium (Be)	2018/07/20	113	75 - 125	104	80 - 120	<0.20	ug/g	7.6	30
5639279	Acid Extractable Boron (B)	2018/07/20	104	75 - 125	102	80 - 120	<5.0	ug/g	NC	30
5639279	Acid Extractable Cadmium (Cd)	2018/07/20	108	75 - 125	100	80 - 120	<0.10	ug/g	3.2	30
5639279	Acid Extractable Chromium (Cr)	2018/07/20	114	75 - 125	105	80 - 120	<1.0	ug/g	1.1	30
5639279	Acid Extractable Cobalt (Co)	2018/07/20	111	75 - 125	104	80 - 120	<0.10	ug/g	0.31	30
5639279	Acid Extractable Copper (Cu)	2018/07/20	113	75 - 125	104	80 - 120	<0.50	ug/g	0.97	30
5639279	Acid Extractable Lead (Pb)	2018/07/20	106	75 - 125	100	80 - 120	<1.0	ug/g	0.16	30
5639279	Acid Extractable Molybdenum (Mo)	2018/07/20	109	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5639279	Acid Extractable Nickel (Ni)	2018/07/20	112	75 - 125	108	80 - 120	<0.50	ug/g	3.9	30
5639279	Acid Extractable Selenium (Se)	2018/07/20	110	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5639279	Acid Extractable Silver (Ag)	2018/07/20	107	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5639279	Acid Extractable Thallium (Tl)	2018/07/20	105	75 - 125	100	80 - 120	<0.050	ug/g	6.5	30
5639279	Acid Extractable Uranium (U)	2018/07/20	105	75 - 125	100	80 - 120	<0.050	ug/g	12	30
5639279	Acid Extractable Vanadium (V)	2018/07/20	NC	75 - 125	102	80 - 120	<5.0	ug/g	1.7	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5639279	Acid Extractable Zinc (Zn)	2018/07/20	NC	75 - 125	106	80 - 120	<5.0	ug/g	3.5	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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CHAIN OF CUSTODY RECORD Page 1 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	~~Kimberley Rose~~ Kevan Browne	P.O. #:			669722
Address:	100 Scotia Crt	Address:		Project:	~~10-1188-0012~~ 1791121(4000)	COC #:	Project Manager:
	Whitby ON L1N 8Y6		6677	Project Name:	RioCan Windfields	C#669722-07-01	Ema Gitej
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: ~~6677~~ Fax: (905) 723-2182	Site #:			
Email:	AP_CustomerService@golder.com	Email:	~~Kimberley_Rose@golder.com~~ Kevan_Browne@golder	Sampled By:	O. Whately / J. Dale.		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [X] Medium/Fine [ ] Table 2 [X] Ind/Comm [ ] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ___ [ ] PWQO [ ] Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; O Reg 153 VOCs by HS & F1-F4; O Reg 153 PAHs; O Reg 153 Metals & Inorganics Pkg; ICPMS Metals

Turnaround Time (TAT) Required: Please provide advance notice for rush projects

Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) Date Required: Fri, July 20th Time Required: EOB [X]
Rush Confirmation Number: EE620180718S (call lab for #)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	O Reg 153 VOCs by HS & F1-F4	O Reg 153 PAHs	O Reg 153 Metals & Inorganics Pkg	ICPMS Metals	# of Bottles	Comments
1		D3	2018/07/18	17:30	SOIL	N/A			~~X~~	X	1	
2		B4	↓	17:30	SOIL	N/A			~~X~~	X	1	
3		C4	↓	18:30	SOIL	N/A			~~X~~	X	1	
4		D4	↓	↓	SOIL	N/A			~~X~~	X	1	
5		B5	↓	↓	SOIL	N/A				X	1	19-Jul-18 12:42
6		C5	↓	↓	↓	N/A				X	1	Ema Gitej
7		D5	↓	↓	↓	N/A				X	1	B8I1437
8		B6	↓	↓	↓	N/A				X	1	PS4 ENV-1157
9		C6	↓	↓	↓	N/A				X	1	
10		D6	↓	↓	↓	N/A				X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Time Sensitive	Laboratory Use Only
J. Dale	18/07/18	21:20	Vlada Markevich	2018/07/19	12:42			Temperature (°C) on Recei: 4/4/6 5/3/7; Custody Seal Present / Intact: Yes / No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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4/5/3 4/8/2/4

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CHAIN OF CUSTODY RECORD

Page 2 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	~~B60298~~ B80065
Attention:	Accounts Payable	Attention:	~~Kimberley Rose~~ Kevin Browne	P.O. #:	
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	~~1659043.24000~~ 1791121(4000)
Tel:	(905) 723-2727 x	Tel:	(905) 723-5491 x~~6644~~ 601	Project Name:	RioCan Windfields
Fax:	(905) 723-2182 x	Fax:	(905) 723-2182 x	Site #:	
Email:	AP_CustomerService@golder.com	Email:	~~Kimberley_Rose@golder.com~~ kbrowne@golder.com	Sampled By:	O. Whateley/J. Dale

Laboratory Use Only: Maxxam Job #: | Bottle Order #: 662334 | COC #: C#662334-04-01 | Project Manager: Ema Gitej

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [X] Medium/Fine [ ] Table 2 [X] Ind/Comm [ ] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ______ [ ] PWQO [ ] Other

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; O Reg 153 VOCs by HS & F1-F4; O Reg 153 PAHs; O Reg 153 Metals & Inorganics Pkg; O Reg 558 TCLP Volatile Organics HS; O Reg 558 TCLP PCBs; O Reg 558 TCLP Benzo(a)pyrene; Ignitability; 10PHS Metals

Turnaround Time (TAT) Required: Please provide advance notice for rush projects

Regular (Standard) TAT: (will be applied if Rush TAT is not specified). Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) Date Required: MON JUL 30 Time Required: EOB [X] Rush Confirmation Number: EE62018071855 (call lab for #)

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	VOCs by HS & F1-F4	PAHs	Metals & Inorganics Pkg	TCLP Volatile Organics HS	TCLP PCBs	TCLP Benzo(a)pyrene	Ignitability	10PHS Metals			# of Bottles	Comments
1		B7	2018/07/18	18:30	SOIL	N/A								X			1	
2		C7	2018/07/18	18:30	SOIL	N/A								X			1	
3		D7	2018/07/18	18:30	SOIL	N/A								X			1	
4		B8	2018/07/18	18:30	SOIL	N/A								X			1	
5		C8	2018/07/18	19:15	SOIL	N/A								X			1	
6		D8	2018/07/18	19:15	SOIL	N/A								X			1	
7		B9	2018/07/18	19:15	SOIL	N/A								X			1	
8		C9	2018/07/18	19:15	SOIL	N/A								X			1	
9		D9	2018/07/18	19:15	SOIL	N/A								X			1	
10		B10	2018/07/18	19:15	SOIL	N/A								X			1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
[signature]	18/07/19	1000	See p1			0

Laboratory Use Only: Time Sensitive | Temperature (°C) on Recei | Custody Seal Present / Intact | Yes | No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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CHAIN OF CUSTODY RECORD

Page 3 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	~~B60298~~ B02065	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	~~Kimberley Rose~~ KEVAN BROWNE	P.O. #:			662334
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:	6677	Project:	~~1659043.24000~~ 17911211 (4001)	COC #:	Project Manager:
Tel:	(905) 723-2727 x Fax: (905) 723-2182 x	Tel:	(905) 723-5491 ~~x6644~~ Fax: (905) 723-2182 x	Project Name:	ELDCAN WOODFIELDS	C#662334-08-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	kbrowne ~~Kimberley_Rose~~@golder.com	Site #:			
				Sampled By:	DW/SD		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [X] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [ ] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 VOCs by HS & F1-F4	O Reg 153 PAHs	O Reg 153 Metals & Inorganics Pkg	O Reg 558 TCLP Volatile Organics HS	O Reg 558 TCLP PCBs	O Reg 558 TCLP Benzo(a)pyrene	Ignitability	ICPMS METALS			# of Bottles	Comments
1		D13	2018/07/18	1945	SOIL	N/A								X			1	
2		B14	2018/07/18	1945	SOIL	N/A								X			1	
3		C14	2018/07/18	1945	SOIL	N/A								X			1	
4		D14	2018/07/18	1945	SOIL	N/A								X			1	
5		B15	2018/07/18	1945	SOIL	N/A								X			1	
6		C15	2018/07/18	1945	SOIL	N/A								X			1	
7		D15	2018/07/18	1945	SOIL	N/A								X			1	
8		B16	2018/07/18	1945	SOIL	N/A								X			1	
9		C16	2018/07/18	2015	SOIL	N/A								X			1	
10		D16	2018/07/18	2015	SOIL	N/A								X			1	

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [ ]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note. Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (If applies to entire submission)
Date Required: FRI July 20/18 Time Required: EOB [X]
Rush Confirmation Number: EEG 20180718 5 *(call lab for #)*

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/07/19	1000	See p1			0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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CHAIN OF CUSTODY RECORD

Page 1 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	~~B60298~~ B02065	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	~~Kimberley Rose~~ KEVAN BROWNE	P.O. #:			662334
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:	6677	Project:	~~1659043.24000~~ 17112/(4004)	COC #:	Project Manager:
Tel:	(905) 723-2727 x Fax: (905) 723-2182 x	Tel:	(905) 723-5491 x~~6644~~ Fax: (905) 723-2182 x	Project Name:	RioCan Windfields	C#662334-10-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kimberley_Rose@golder.com KBrowne@golder.com	Site #:			
				Sampled By:	OW/JD		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [X] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [ ] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified).
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: FRI JUL 20/18 Time Required: EOB [X]
Rush Confirmation Number: EEG 20180718 5
(call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O.Reg 153 VOCs by HS & F1-F4	O.Reg 153 PAHs	O.Reg 153 Metals & Inorganics Pkg	O.Reg 558 TCLP Volatile Organics HS	O.Reg 558 TCLP PCBs	O.Reg 558 TCLP Benzo(a)pyrene	Ignitability	ICPMS METALS			# of Bottles	Comments
1		C10	2018/07/18	1915	SOIL	N/A								X			1	
2		D10	2018/07/18	1915	SOIL	N/A								X			1	
3		B11	2018/07/18	1915	SOIL	N/A								X			1	
4		C11	2018/07/18	1915	SOIL	N/A								X			1	
5		D11	2018/07/18	1915	SOIL	N/A								X			1	
6		B12	2018/07/18	1915	SOIL	N/A								X			1	
7		C12	2018/07/18	1945	SOIL	N/A								X			1	
8		D12	2018/07/18	1945	SOIL	N/A								X			1	
9		B13	2018/07/18	1945	SOIL	N/A								X			1	
10		C13	2018/07/18	1945	SOIL	N/A								X			1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	18/07/19	1000	see p1			0			Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 5 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	[redacted] / Kevan Browne	P.O. #:			669722
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:	6677	Project:	[redacted] 7911121 (4000)	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 0644 Fax: (905) 723-2182	Project Name:	RioCan Windfields	C#669722-05-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	[redacted] / Kevan_Browne@golder.com	Site #:			
				Sampled By:	O. Whately / J. Dale		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☑ Table 1 ☒ Res/Park ☒ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☒ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☒ For RSC	☐ MISA Municipality ____	
☐ Table ___	☐ PWQO	
	☐ Other ____	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Fri. July 20th Time Required: EOB ☒
Rush Confirmation Number: EEG20180718 5 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 VOCs by HS & F1-F4	O Reg 153 PAHs	O Reg 153 Metals & Inorganics Pkg	ICPMS Metals						# of Bottles	Comments
1		A1	2018/07/18	17 30	SOIL	N/A			[redacted]	X						1	
2		B1	2018/07/18		SOIL	N/A			[redacted]	X						1	
3		C1	2018/07/18		SOIL	N/A			[redacted]	X						1	
4		D1			SOIL	N/A			[redacted]	X						1	
5		E1			SOIL	N/A			[redacted]	X						1	
6		B2			SOIL	N/A			[redacted]	X						1	
7		C2			SOIL	N/A			[redacted]	X						1	
8		D2			SOIL	N/A			[redacted]	X						1	
9		B3			SOIL	N/A			[redacted]	X						1	
10		C3	↓	↓	SOIL	N/A			[redacted]	X						1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
[redacted]	18/07/18	[redacted]	See p1			0	Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
									Present		
									Intact		

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6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 6 of 6

INVOICE TO:	REPORT TO:	PROJECT INFORMATION:	Laboratory Use Only:
Company Name: #2292 Golder Associates Ltd	Company Name:	Quotation #: ~~B60298~~ B02065	Maxxam Job #: / Bottle Order #:
Attention: Accounts Payable	Attention: ~~Kimberley Rose~~ KevanBrowne	P.O. #:	662334
Address: 100 Scotia Crt, Whitby ON L1N 8Y6	Address:	Project: ~~1659043.24000~~ 1791624 (4000)	COC #: / Project Manager:
Tel: (905) 723-2727 x Fax: (905) 723-2182 x	Tel: (905) 723-5491 x~~6644~~ 6017 Fax: (905) 723-2182 x	Project Name: RioCan Winthrop	C#662334-09-01 / Ema Gitej
Email: AP_CustomerService@golder.com	Email: ~~Kimberley_Rose@golder.com~~ kbrowne@golder.com	Site #: Whitby, Ontario	
		Sampled By:	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

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Job Specific Rush TAT (if applies to entire submission)
Date Required: JUL 20 Time Required: EOB ☒
Rush Confirmation Number: EE6620180718S
(call lab for #)

Regulation 153 (2011)
☒ Table 1 ☒ Res/Park ☒ Medium/Fine
☐ Table 2 ☒ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other ☒ For RSC
☐ Table ___

Other Regulations
☐ CCME ☐ Sanitary Sewer Bylaw
☐ Reg 558 ☐ Storm Sewer Bylaw
☐ MISA Municipality ___
☐ PWQO
☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 VOCs by HS & F1-F4	O Reg 153 PAHs	O Reg 153 Metals & Inorganics Pkg	O Reg 558 TCLP Volatile Organics HS	O Reg 558 TCLP PCBs	O Reg 558 TCLP Benzo(a)pyrene	Ignitability	CCME Metals		# of Bottles	Comments
1		2018/07/18 B17		20:15	SOIL	N/A								X		1	
2		2018/07/18 C17		20:15	SOIL	N/A								X		1	
3		2018/07/18 D17		20:15	SOIL	N/A								X		1	
4		2018/07/18 B18		20:15	SOIL	N/A								X		1	
5		2018/07/18 C18		20:15	SOIL	N/A								X		1	
6		2018/07/18 D18		20:15	SOIL	N/A								X		1	
7		2018/07/18 B19		20:15	SOIL	N/A								X		1	
8		2018/07/18 C19		20:15	SOIL	N/A								X		1	
9		2018/07/18 D19		20:15	SOIL	N/A								X		1	
10		2018/07/18 B20		20:15	SOIL	N/A								X		1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
	18/07/19	1000				0	Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
			See p.1						Present		
									Intact		

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8I1437
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
B7	HGJ742-01	Acid Extractable Antimony (Sb)	1.3	1.7	0.20	ug/g
B8	HGJ745-01	Acid Extractable Antimony (Sb)	1.3	3.1	0.20	ug/g
C8	HGJ746-01	Acid Extractable Antimony (Sb)	1.3	1.6	0.20	ug/g
D8	HGJ747-01	Acid Extractable Antimony (Sb)	1.3	1.7	0.20	ug/g
B9	HGJ748-01	Acid Extractable Antimony (Sb)	1.3	10	0.20	ug/g
C9	HGJ749-01	Acid Extractable Antimony (Sb)	1.3	2.0	0.20	ug/g
D9	HGJ750-01	Acid Extractable Antimony (Sb)	1.3	3.6	0.20	ug/g
B10	HGJ751-01	Acid Extractable Antimony (Sb)	1.3	13	0.20	ug/g
B10	HGJ751-01	Acid Extractable Lead (Pb)	120	150	1.0	ug/g
D13	HGJ752-01	Acid Extractable Antimony (Sb)	1.3	2.6	0.20	ug/g
B14	HGJ753-01	Acid Extractable Antimony (Sb)	1.3	7.5	0.20	ug/g
D14	HGJ755-01	Acid Extractable Antimony (Sb)	1.3	5.2	0.20	ug/g
B15	HGJ756-01	Acid Extractable Antimony (Sb)	1.3	1.7	0.20	ug/g
C15	HGJ757-01	Acid Extractable Antimony (Sb)	1.3	5.4	0.20	ug/g
D15	HGJ758-01	Acid Extractable Antimony (Sb)	1.3	9.8	0.20	ug/g
D16	HGJ761-01	Acid Extractable Antimony (Sb)	1.3	16	0.20	ug/g
D16	HGJ761-01	Acid Extractable Lead (Pb)	120	160	1.0	ug/g
C10	HGJ762-01	Acid Extractable Antimony (Sb)	1.3	11	0.20	ug/g
C10	HGJ762-01	Acid Extractable Lead (Pb)	120	210	1.0	ug/g
D10	HGJ763-01	Acid Extractable Antimony (Sb)	1.3	8.9	0.20	ug/g
B11	HGJ764-01	Acid Extractable Antimony (Sb)	1.3	14	0.20	ug/g
B11	HGJ764-01	Acid Extractable Lead (Pb)	120	140	1.0	ug/g
C11	HGJ765-01	Acid Extractable Antimony (Sb)	1.3	5.4	0.20	ug/g
D11	HGJ766-01	Acid Extractable Antimony (Sb)	1.3	22	0.20	ug/g
D11	HGJ766-01	Acid Extractable Lead (Pb)	120	290	1.0	ug/g
B12	HGJ767-01	Acid Extractable Antimony (Sb)	1.3	15	0.20	ug/g
B12	HGJ767-01	Acid Extractable Lead (Pb)	120	150	1.0	ug/g
C12	HGJ768-01	Acid Extractable Antimony (Sb)	1.3	9.8	0.20	ug/g
D12	HGJ769-01	Acid Extractable Antimony (Sb)	1.3	22	0.20	ug/g
D12	HGJ769-01	Acid Extractable Lead (Pb)	120	260	1.0	ug/g
B13	HGJ770-01	Acid Extractable Antimony (Sb)	1.3	16	0.20	ug/g
B13	HGJ770-01	Acid Extractable Lead (Pb)	120	250	1.0	ug/g
C13	HGJ771-01	Acid Extractable Antimony (Sb)	1.3	9.7	0.20	ug/g
C13	HGJ771-01	Acid Extractable Lead (Pb)	120	210	1.0	ug/g
D17	HGJ784-01	Acid Extractable Antimony (Sb)	1.3	17	0.20	ug/g
D17	HGJ784-01	Acid Extractable Lead (Pb)	120	260	1.0	ug/g
B18	HGJ785-01	Acid Extractable Antimony (Sb)	1.3	2.4	0.20	ug/g
C18	HGJ786-01	Acid Extractable Antimony (Sb)	1.3	1.8	0.20	ug/g
D18	HGJ787-01	Acid Extractable Antimony (Sb)	1.3	6.3	0.20	ug/g
B19	HGJ788-01	Acid Extractable Antimony (Sb)	1.3	1.7	0.20	ug/g
D19	HGJ790-01-Lab Dup	Acid Extractable Antimony (Sb)	1.3	1.7	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 643216-17-01, C#655418-02-01, C#643216-20-01, C#643216-18-01, C#655418-03-01, C#643216-19-01, n/a

Report Date: 2018/07/20
Report #: R5305858
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8I1575
Received: 2018/07/19, 14:04

Sample Matrix: Soil
Samples Received: 54

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	54	2018/07/20	2018/07/20	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Maxxam, unless otherwise agreed in writing.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

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Your Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Your C.O.C. #: 643216-17-01, C#655418-02-01, C#643216-20-01, C#643216-18-01, C#655418-03-01, C#643216-19-01, n/a

Report Date: 2018/07/20
Report #: R5305858
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8I1575
Received: 2018/07/19, 14:04

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK631	HGK632	HGK633	HGK634		
Sampling Date			2018/07/19 07:15	2018/07/19 07:15	2018/07/19 07:15	2018/07/19 07:15		
COC Number			643216-17-01	643216-17-01	643216-17-01	643216-17-01		
	UNITS	Criteria	C20	D20	B21	C21	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**2.2**	**5.1**	1.3	**2.8**	0.20	5639203
Acid Extractable Arsenic (As)	ug/g	**18**	2.1	3.1	2.0	3.0	1.0	5639203
Acid Extractable Barium (Ba)	ug/g	**220**	47	49	44	49	0.50	5639203
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.43	0.42	0.35	0.41	0.20	5639203
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	5639203
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	0.19	0.19	0.26	0.10	5639203
Acid Extractable Chromium (Cr)	ug/g	**70**	14	13	13	15	1.0	5639203
Acid Extractable Cobalt (Co)	ug/g	**21**	4.6	4.4	4.2	4.6	0.10	5639203
Acid Extractable Copper (Cu)	ug/g	**92**	7.6	7.2	87	8.8	0.50	5639203
Acid Extractable Lead (Pb)	ug/g	**120**	30	78	27	59	1.0	5639203
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	5639203
Acid Extractable Nickel (Ni)	ug/g	**82**	9.6	8.4	8.2	9.6	0.50	5639203
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	5639203
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	5639203
Acid Extractable Thallium (Tl)	ug/g	**1**	0.099	0.10	0.096	0.11	0.050	5639203
Acid Extractable Uranium (U)	ug/g	**2.5**	0.48	0.43	0.47	0.52	0.050	5639203
Acid Extractable Vanadium (V)	ug/g	**86**	25	25	23	25	5.0	5639203
Acid Extractable Zinc (Zn)	ug/g	**290**	33	35	130	45	5.0	5639203

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK635		HGK636		HGK637		
Sampling Date			2018/07/19 07:15		2018/07/19 07:15		2018/07/19 07:15		
COC Number			643216-17-01		643216-17-01		643216-17-01		
	UNITS	Criteria	D21	QC Batch	B22	QC Batch	C22	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.48	5639241	0.96	5639203	0.84	0.20	5639160
Acid Extractable Arsenic (As)	ug/g	**18**	1.6	5639241	1.9	5639203	1.9	1.0	5639160
Acid Extractable Barium (Ba)	ug/g	**220**	40	5639241	44	5639203	54	0.50	5639160
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.38	5639241	0.40	5639203	0.43	0.20	5639160
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5639241	<5.0	5639203	<5.0	5.0	5639160
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	5639241	0.14	5639203	0.28	0.10	5639160
Acid Extractable Chromium (Cr)	ug/g	**70**	13	5639241	12	5639203	14	1.0	5639160
Acid Extractable Cobalt (Co)	ug/g	**21**	3.5	5639241	3.9	5639203	4.1	0.10	5639160
Acid Extractable Copper (Cu)	ug/g	**92**	6.7	5639241	6.1	5639203	9.3	0.50	5639160
Acid Extractable Lead (Pb)	ug/g	**120**	8.9	5639241	16	5639203	10	1.0	5639160
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639241	<0.50	5639203	<0.50	0.50	5639160
Acid Extractable Nickel (Ni)	ug/g	**82**	7.4	5639241	8.1	5639203	8.3	0.50	5639160
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639241	<0.50	5639203	<0.50	0.50	5639160
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639241	<0.20	5639203	<0.20	0.20	5639160
Acid Extractable Thallium (Tl)	ug/g	**1**	0.080	5639241	0.092	5639203	0.089	0.050	5639160
Acid Extractable Uranium (U)	ug/g	**2.5**	0.42	5639241	0.53	5639203	0.61	0.050	5639160
Acid Extractable Vanadium (V)	ug/g	**86**	25	5639241	24	5639203	24	5.0	5639160
Acid Extractable Zinc (Zn)	ug/g	**290**	26	5639241	27	5639203	32	5.0	5639160

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK638	HGK639		HGK640		
Sampling Date			2018/07/19 07:45	2018/07/19 07:45		2018/07/19 07:45		
COC Number			643216-17-01	643216-17-01		643216-17-01		
	UNITS	Criteria	D22	B23	QC Batch	C23	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**5.1**	1.0	5639203	0.71	0.20	5639160
Acid Extractable Arsenic (As)	ug/g	**18**	2.9	1.8	5639203	1.6	1.0	5639160
Acid Extractable Barium (Ba)	ug/g	**220**	51	41	5639203	41	0.50	5639160
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.40	0.38	5639203	0.43	0.20	5639160
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5639203	<5.0	5.0	5639160
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.30	0.19	5639203	0.13	0.10	5639160
Acid Extractable Chromium (Cr)	ug/g	**70**	16	14	5639203	14	1.0	5639160
Acid Extractable Cobalt (Co)	ug/g	**21**	4.4	4.2	5639203	4.4	0.10	5639160
Acid Extractable Copper (Cu)	ug/g	**92**	6.7	6.1	5639203	4.8	0.50	5639160
Acid Extractable Lead (Pb)	ug/g	**120**	60	15	5639203	9.3	1.0	5639160
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	5639203	<0.50	0.50	5639160
Acid Extractable Nickel (Ni)	ug/g	**82**	8.2	8.5	5639203	7.9	0.50	5639160
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	5639203	<0.50	0.50	5639160
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	5639203	<0.20	0.20	5639160
Acid Extractable Thallium (Tl)	ug/g	**1**	0.096	0.092	5639203	0.077	0.050	5639160
Acid Extractable Uranium (U)	ug/g	**2.5**	0.59	0.52	5639203	0.47	0.050	5639160
Acid Extractable Vanadium (V)	ug/g	**86**	28	25	5639203	26	5.0	5639160
Acid Extractable Zinc (Zn)	ug/g	**290**	38	27	5639203	29	5.0	5639160

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK641		HGK642		HGK643		
Sampling Date			2018/07/19 07:45		2018/07/19 07:45		2018/07/19 07:45		
COC Number			C#655418-02-01		C#655418-02-01		C#655418-02-01		
	UNITS	Criteria	D23	QC Batch	B24	QC Batch	C24	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**12**	5639241	**1.5**	5639203	**2.3**	0.20	5639160
Acid Extractable Arsenic (As)	ug/g	**18**	4.4	5639241	2.2	5639203	2.0	1.0	5639160
Acid Extractable Barium (Ba)	ug/g	**220**	45	5639241	42	5639203	45	0.50	5639160
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.37	5639241	0.39	5639203	0.39	0.20	5639160
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5639241	<5.0	5639203	<5.0	5.0	5639160
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.16	5639241	0.22	5639203	0.17	0.10	5639160
Acid Extractable Chromium (Cr)	ug/g	**70**	13	5639241	14	5639203	14	1.0	5639160
Acid Extractable Cobalt (Co)	ug/g	**21**	3.9	5639241	4.5	5639203	4.5	0.10	5639160
Acid Extractable Copper (Cu)	ug/g	**92**	6.6	5639241	5.9	5639203	5.4	0.50	5639160
Acid Extractable Lead (Pb)	ug/g	**120**	**160**	5639241	28	5639203	31	1.0	5639160
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639241	<0.50	5639203	<0.50	0.50	5639160
Acid Extractable Nickel (Ni)	ug/g	**82**	7.4	5639241	8.5	5639203	8.3	0.50	5639160
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639241	<0.50	5639203	<0.50	0.50	5639160
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639241	<0.20	5639203	<0.20	0.20	5639160
Acid Extractable Thallium (Tl)	ug/g	**1**	0.087	5639241	0.087	5639203	0.086	0.050	5639160
Acid Extractable Uranium (U)	ug/g	**2.5**	0.59	5639241	0.53	5639203	0.45	0.050	5639160
Acid Extractable Vanadium (V)	ug/g	**86**	24	5639241	26	5639203	25	5.0	5639160
Acid Extractable Zinc (Zn)	ug/g	**290**	33	5639241	31	5639203	30	5.0	5639160

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK644	HGK645	HGK646		
Sampling Date			2018/07/19 07:45	2018/07/19 07:45	2018/07/19 07:45		
COC Number			C#655418-02-01	C#655418-02-01	C#655418-02-01		
	UNITS	Criteria	D24	B25	C25	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**1.9**	0.55	0.36	0.20	5639160
Acid Extractable Arsenic (As)	ug/g	**18**	1.4	1.6	1.2	1.0	5639160
Acid Extractable Barium (Ba)	ug/g	**220**	29	33	29	0.50	5639160
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.36	0.31	0.33	0.20	5639160
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.0	5639160
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.12	0.13	0.10	0.10	5639160
Acid Extractable Chromium (Cr)	ug/g	**70**	11	11	11	1.0	5639160
Acid Extractable Cobalt (Co)	ug/g	**21**	3.6	3.4	3.3	0.10	5639160
Acid Extractable Copper (Cu)	ug/g	**92**	3.6	4.3	3.3	0.50	5639160
Acid Extractable Lead (Pb)	ug/g	**120**	17	11	5.4	1.0	5639160
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	5639160
Acid Extractable Nickel (Ni)	ug/g	**82**	6.0	6.0	5.6	0.50	5639160
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	5639160
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	5639160
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	0.062	0.056	0.050	5639160
Acid Extractable Uranium (U)	ug/g	**2.5**	0.48	0.50	0.46	0.050	5639160
Acid Extractable Vanadium (V)	ug/g	**86**	23	23	23	5.0	5639160
Acid Extractable Zinc (Zn)	ug/g	**290**	21	22	20	5.0	5639160

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK647		HGK648	HGK649		
Sampling Date			2018/07/19 07:45		2018/07/19 07:45	2018/07/19 07:45		
COC Number			C#655418-02-01		C#655418-02-01	C#655418-02-01		
	UNITS	Criteria	D25	QC Batch	B26	C26	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**1.9**	5639203	<0.20	0.82	0.20	5639160
Acid Extractable Arsenic (As)	ug/g	**18**	1.6	5639203	1.8	1.9	1.0	5639160
Acid Extractable Barium (Ba)	ug/g	**220**	31	5639203	54	39	0.50	5639160
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.34	5639203	0.47	0.34	0.20	5639160
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5639203	<5.0	<5.0	5.0	5639160
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	5639203	0.24	0.26	0.10	5639160
Acid Extractable Chromium (Cr)	ug/g	**70**	12	5639203	14	12	1.0	5639160
Acid Extractable Cobalt (Co)	ug/g	**21**	3.8	5639203	4.4	3.6	0.10	5639160
Acid Extractable Copper (Cu)	ug/g	**92**	4.7	5639203	7.1	5.8	0.50	5639160
Acid Extractable Lead (Pb)	ug/g	**120**	23	5639203	7.2	16	1.0	5639160
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639203	<0.50	<0.50	0.50	5639160
Acid Extractable Nickel (Ni)	ug/g	**82**	6.1	5639203	7.6	6.5	0.50	5639160
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639203	<0.50	<0.50	0.50	5639160
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639203	<0.20	<0.20	0.20	5639160
Acid Extractable Thallium (Tl)	ug/g	**1**	0.072	5639203	0.095	0.078	0.050	5639160
Acid Extractable Uranium (U)	ug/g	**2.5**	0.46	5639203	0.69	0.60	0.050	5639160
Acid Extractable Vanadium (V)	ug/g	**86**	26	5639203	27	24	5.0	5639160
Acid Extractable Zinc (Zn)	ug/g	**290**	27	5639203	32	30	5.0	5639160

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK650	HGK651	HGK651	HGK652		
Sampling Date			2018/07/19 08:15	2018/07/19 08:15	2018/07/19 08:15	2018/07/19 08:15		
COC Number			C#655418-02-01	C#643216-20-01	C#643216-20-01	C#643216-20-01		
	UNITS	Criteria	D26	B27	B27 Lab-Dup	C27	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.80	<0.20	<0.20	<0.20	0.20	5639160
Acid Extractable Arsenic (As)	ug/g	**18**	1.6	1.6	1.7	1.5	1.0	5639160
Acid Extractable Barium (Ba)	ug/g	**220**	28	43	43	35	0.50	5639160
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.37	0.39	0.39	0.38	0.20	5639160
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	5639160
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.16	0.17	0.14	0.15	0.10	5639160
Acid Extractable Chromium (Cr)	ug/g	**70**	12	13	12	12	1.0	5639160
Acid Extractable Cobalt (Co)	ug/g	**21**	3.7	4.4	4.2	4.8	0.10	5639160
Acid Extractable Copper (Cu)	ug/g	**92**	4.5	4.6	4.6	6.1	0.50	5639160
Acid Extractable Lead (Pb)	ug/g	**120**	11	5.4	5.3	6.0	1.0	5639160
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	5639160
Acid Extractable Nickel (Ni)	ug/g	**82**	6.6	7.7	7.1	7.0	0.50	5639160
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	5639160
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	5639160
Acid Extractable Thallium (Tl)	ug/g	**1**	0.065	0.079	0.065	0.066	0.050	5639160
Acid Extractable Uranium (U)	ug/g	**2.5**	0.47	0.50	0.49	0.49	0.050	5639160
Acid Extractable Vanadium (V)	ug/g	**86**	25	26	25	27	5.0	5639160
Acid Extractable Zinc (Zn)	ug/g	**290**	24	32	32	23	5.0	5639160

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK653	HGK654	HGK655	HGK656		
Sampling Date			2018/07/19 08:15	2018/07/19 08:15	2018/07/19 08:15	2018/07/19 08:15		
COC Number			C#643216-20-01	C#643216-20-01	C#643216-20-01	C#643216-20-01		
	UNITS	Criteria	D27	B28	C28	D28	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	0.30	0.25	0.20	5639203
Acid Extractable Arsenic (As)	ug/g	**18**	1.5	1.4	1.9	2.0	1.0	5639203
Acid Extractable Barium (Ba)	ug/g	**220**	43	43	49	44	0.50	5639203
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.40	0.36	0.42	0.42	0.20	5639203
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	5639203
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.14	0.13	0.24	0.25	0.10	5639203
Acid Extractable Chromium (Cr)	ug/g	**70**	14	14	14	15	1.0	5639203
Acid Extractable Cobalt (Co)	ug/g	**21**	4.5	4.2	4.3	4.3	0.10	5639203
Acid Extractable Copper (Cu)	ug/g	**92**	4.6	4.7	6.0	6.3	0.50	5639203
Acid Extractable Lead (Pb)	ug/g	**120**	6.7	5.8	10	8.9	1.0	5639203
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	5639203
Acid Extractable Nickel (Ni)	ug/g	**82**	7.2	7.0	7.9	7.8	0.50	5639203
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	5639203
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	5639203
Acid Extractable Thallium (Tl)	ug/g	**1**	0.070	0.086	0.080	0.087	0.050	5639203
Acid Extractable Uranium (U)	ug/g	**2.5**	0.57	0.54	0.61	0.61	0.050	5639203
Acid Extractable Vanadium (V)	ug/g	**86**	28	27	28	27	5.0	5639203
Acid Extractable Zinc (Zn)	ug/g	**290**	25	31	32	33	5.0	5639203

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK657		HGK658	HGK659		
Sampling Date			2018/07/19 08:15		2018/07/19 08:15	2018/07/19 08:15		
COC Number			C#643216-20-01		C#643216-20-01	C#643216-20-01		
	UNITS	Criteria	B29	QC Batch	C29	D29	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	5639160	<0.20	<0.20	0.20	5639203
Acid Extractable Arsenic (As)	ug/g	**18**	1.1	5639160	1.5	1.7	1.0	5639203
Acid Extractable Barium (Ba)	ug/g	**220**	29	5639160	49	45	0.50	5639203
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.33	5639160	0.43	0.41	0.20	5639203
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5639160	<5.0	<5.0	5.0	5639203
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	5639160	0.21	0.20	0.10	5639203
Acid Extractable Chromium (Cr)	ug/g	**70**	11	5639160	14	13	1.0	5639203
Acid Extractable Cobalt (Co)	ug/g	**21**	4.0	5639160	4.7	4.4	0.10	5639203
Acid Extractable Copper (Cu)	ug/g	**92**	3.5	5639160	6.8	6.2	0.50	5639203
Acid Extractable Lead (Pb)	ug/g	**120**	3.8	5639160	7.9	7.5	1.0	5639203
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639160	<0.50	<0.50	0.50	5639203
Acid Extractable Nickel (Ni)	ug/g	**82**	6.1	5639160	8.9	8.7	0.50	5639203
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639160	<0.50	<0.50	0.50	5639203
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639160	<0.20	<0.20	0.20	5639203
Acid Extractable Thallium (Tl)	ug/g	**1**	0.060	5639160	0.10	0.090	0.050	5639203
Acid Extractable Uranium (U)	ug/g	**2.5**	0.37	5639160	0.49	0.47	0.050	5639203
Acid Extractable Vanadium (V)	ug/g	**86**	24	5639160	28	27	5.0	5639203
Acid Extractable Zinc (Zn)	ug/g	**290**	19	5639160	32	32	5.0	5639203

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK660		HGK661	HGK662		
Sampling Date			2018/07/19 09:30		2018/07/19 09:30	2018/07/19 09:30		
COC Number			C#643216-18-01		C#643216-18-01	C#643216-18-01		
	UNITS	Criteria	D30	QC Batch	B31	C31	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	5639160	<0.20	<0.20	0.20	5639203
Acid Extractable Arsenic (As)	ug/g	**18**	2.3	5639160	2.5	1.4	1.0	5639203
Acid Extractable Barium (Ba)	ug/g	**220**	61	5639160	36	38	0.50	5639203
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.56	5639160	0.36	0.32	0.20	5639203
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5639160	<5.0	<5.0	5.0	5639203
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	5639160	0.18	0.15	0.10	5639203
Acid Extractable Chromium (Cr)	ug/g	**70**	17	5639160	12	13	1.0	5639203
Acid Extractable Cobalt (Co)	ug/g	**21**	5.7	5639160	3.9	3.9	0.10	5639203
Acid Extractable Copper (Cu)	ug/g	**92**	7.6	5639160	6.9	5.0	0.50	5639203
Acid Extractable Lead (Pb)	ug/g	**120**	10	5639160	8.1	6.5	1.0	5639203
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639160	<0.50	<0.50	0.50	5639203
Acid Extractable Nickel (Ni)	ug/g	**82**	10	5639160	8.2	7.6	0.50	5639203
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639160	<0.50	<0.50	0.50	5639203
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639160	<0.20	<0.20	0.20	5639203
Acid Extractable Thallium (Tl)	ug/g	**1**	0.099	5639160	0.092	0.068	0.050	5639203
Acid Extractable Uranium (U)	ug/g	**2.5**	0.54	5639160	0.48	0.38	0.050	5639203
Acid Extractable Vanadium (V)	ug/g	**86**	30	5639160	24	26	5.0	5639203
Acid Extractable Zinc (Zn)	ug/g	**290**	39	5639160	35	37	5.0	5639203

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK663	HGK663		HGK664		
Sampling Date			2018/07/19 09:30	2018/07/19 09:30		2018/07/19 09:30		
COC Number			C#643216-18-01	C#643216-18-01		C#643216-18-01		
	UNITS	Criteria	D31	D31 Lab-Dup	QC Batch	B32	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	5639203	<0.20	0.20	5639241
Acid Extractable Arsenic (As)	ug/g	**18**	2.2	1.9	5639203	2.3	1.0	5639241
Acid Extractable Barium (Ba)	ug/g	**220**	58	60	5639203	96	0.50	5639241
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.53	0.53	5639203	0.77	0.20	5639241
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5639203	6.6	5.0	5639241
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.22	0.19	5639203	0.26	0.10	5639241
Acid Extractable Chromium (Cr)	ug/g	**70**	17	17	5639203	24	1.0	5639241
Acid Extractable Cobalt (Co)	ug/g	**21**	5.5	5.5	5639203	8.2	0.10	5639241
Acid Extractable Copper (Cu)	ug/g	**92**	8.7	9.0	5639203	14	0.50	5639241
Acid Extractable Lead (Pb)	ug/g	**120**	10	10	5639203	12	1.0	5639241
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	5639203	<0.50	0.50	5639241
Acid Extractable Nickel (Ni)	ug/g	**82**	11	11	5639203	18	0.50	5639241
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	5639203	<0.50	0.50	5639241
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	5639203	<0.20	0.20	5639241
Acid Extractable Thallium (Tl)	ug/g	**1**	0.11	0.11	5639203	0.21	0.050	5639241
Acid Extractable Uranium (U)	ug/g	**2.5**	0.53	0.55	5639203	0.53	0.050	5639241
Acid Extractable Vanadium (V)	ug/g	**86**	29	30	5639203	35	5.0	5639241
Acid Extractable Zinc (Zn)	ug/g	**290**	38	39	5639203	53	5.0	5639241

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK665	HGK666		HGK667		
Sampling Date			2018/07/19 09:30	2018/07/19 09:30		2018/07/19 09:30		
COC Number			C#643216-18-01	C#643216-18-01		C#643216-18-01		
	UNITS	Criteria	C32	D32	QC Batch	B33	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	5639203	<0.20	0.20	5639241
Acid Extractable Arsenic (As)	ug/g	**18**	1.5	1.6	5639203	1.9	1.0	5639241
Acid Extractable Barium (Ba)	ug/g	**220**	38	51	5639203	61	0.50	5639241
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.32	0.45	5639203	0.51	0.20	5639241
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	5639203	<5.0	5.0	5639241
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.16	0.12	5639203	<0.10	0.10	5639241
Acid Extractable Chromium (Cr)	ug/g	**70**	11	16	5639203	18	1.0	5639241
Acid Extractable Cobalt (Co)	ug/g	**21**	3.7	4.8	5639203	6.2	0.10	5639241
Acid Extractable Copper (Cu)	ug/g	**92**	6.3	6.7	5639203	6.8	0.50	5639241
Acid Extractable Lead (Pb)	ug/g	**120**	6.2	5.8	5639203	7.9	1.0	5639241
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	5639203	<0.50	0.50	5639241
Acid Extractable Nickel (Ni)	ug/g	**82**	7.4	9.3	5639203	12	0.50	5639241
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	5639203	<0.50	0.50	5639241
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	5639203	<0.20	0.20	5639241
Acid Extractable Thallium (Tl)	ug/g	**1**	0.095	0.091	5639203	0.10	0.050	5639241
Acid Extractable Uranium (U)	ug/g	**2.5**	0.41	0.50	5639203	0.47	0.050	5639241
Acid Extractable Vanadium (V)	ug/g	**86**	22	28	5639203	31	5.0	5639241
Acid Extractable Zinc (Zn)	ug/g	**290**	25	39	5639203	34	5.0	5639241

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK668		HGK669	HGK670		
Sampling Date			2018/07/19 09:30		2018/07/19 09:30	2018/07/19 09:30		
COC Number			C#643216-18-01		C#643216-18-01	C#655418-03-01		
	UNITS	Criteria	C33	QC Batch	D33	E33	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	5639279	<0.20	<0.20	0.20	5639241
Acid Extractable Arsenic (As)	ug/g	**18**	2.5	5639279	2.3	2.6	1.0	5639241
Acid Extractable Barium (Ba)	ug/g	**220**	84	5639279	84	73	0.50	5639241
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.63	5639279	0.66	0.57	0.20	5639241
Acid Extractable Boron (B)	ug/g	**36**	5.9	5639279	6.6	6.9	5.0	5639241
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.33	5639279	0.28	0.38	0.10	5639241
Acid Extractable Chromium (Cr)	ug/g	**70**	20	5639279	24	21	1.0	5639241
Acid Extractable Cobalt (Co)	ug/g	**21**	7.0	5639279	6.3	5.9	0.10	5639241
Acid Extractable Copper (Cu)	ug/g	**92**	13	5639279	16	13	0.50	5639241
Acid Extractable Lead (Pb)	ug/g	**120**	13	5639279	11	17	1.0	5639241
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	5639279	<0.50	<0.50	0.50	5639241
Acid Extractable Nickel (Ni)	ug/g	**82**	15	5639279	15	13	0.50	5639241
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	5639279	<0.50	<0.50	0.50	5639241
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	5639279	<0.20	<0.20	0.20	5639241
Acid Extractable Thallium (Tl)	ug/g	**1**	0.15	5639279	0.15	0.13	0.050	5639241
Acid Extractable Uranium (U)	ug/g	**2.5**	0.50	5639279	0.55	0.53	0.050	5639241
Acid Extractable Vanadium (V)	ug/g	**86**	30	5639279	32	30	5.0	5639241
Acid Extractable Zinc (Zn)	ug/g	**290**	48	5639279	60	80	5.0	5639241

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK671	HGK672	HGK673	HGK674		
Sampling Date			2018/07/19	2018/07/19	2018/07/19	2018/07/19		
COC Number			C#655418-03-01	C#655418-03-01	C#655418-03-01	C#655418-03-01		
	UNITS	Criteria	DUP1	DUP2	DUP3	DUP4	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	<0.20	<0.20	0.20	5639241
Acid Extractable Arsenic (As)	ug/g	**18**	1.7	2.2	1.5	2.1	1.0	5639241
Acid Extractable Barium (Ba)	ug/g	**220**	46	82	40	65	0.50	5639241
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.45	0.64	0.34	0.59	0.20	5639241
Acid Extractable Boron (B)	ug/g	**36**	<5.0	6.1	<5.0	<5.0	5.0	5639241
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.15	0.28	0.12	0.15	0.10	5639241
Acid Extractable Chromium (Cr)	ug/g	**70**	14	23	12	19	1.0	5639241
Acid Extractable Cobalt (Co)	ug/g	**21**	4.9	6.0	4.0	6.0	0.10	5639241
Acid Extractable Copper (Cu)	ug/g	**92**	6.8	15	5.3	8.4	0.50	5639241
Acid Extractable Lead (Pb)	ug/g	**120**	8.2	11	6.4	8.3	1.0	5639241
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	5639241
Acid Extractable Nickel (Ni)	ug/g	**82**	8.7	15	7.7	14	0.50	5639241
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	5639241
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	5639241
Acid Extractable Thallium (Tl)	ug/g	**1**	0.083	0.14	0.078	0.12	0.050	5639241
Acid Extractable Uranium (U)	ug/g	**2.5**	0.50	0.52	0.37	0.48	0.050	5639241
Acid Extractable Vanadium (V)	ug/g	**86**	28	31	25	32	5.0	5639241
Acid Extractable Zinc (Zn)	ug/g	**290**	34	59	34	32	5.0	5639241

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK675	HGK676	HGK677	HGK678		
Sampling Date			2018/07/19	2018/07/19	2018/07/19	2018/07/19		
COC Number			C#655418-03-01	C#655418-03-01	C#655418-03-01	C#655418-03-01		
	UNITS	Criteria	DUP5	DUP6	DUP7	DUP8	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	0.81	0.79	**12**	0.20	5639241
Acid Extractable Arsenic (As)	ug/g	**18**	1.8	1.8	1.5	4.5	1.0	5639241
Acid Extractable Barium (Ba)	ug/g	**220**	41	37	38	45	0.50	5639241
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.36	0.33	0.33	0.39	0.20	5639241
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	5639241
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.18	0.21	0.13	0.24	0.10	5639241
Acid Extractable Chromium (Cr)	ug/g	**70**	13	12	11	13	1.0	5639241
Acid Extractable Cobalt (Co)	ug/g	**21**	4.3	3.6	3.4	4.0	0.10	5639241
Acid Extractable Copper (Cu)	ug/g	**92**	5.5	5.5	4.7	6.6	0.50	5639241
Acid Extractable Lead (Pb)	ug/g	**120**	5.9	19	11	**160**	1.0	5639241
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	5639241
Acid Extractable Nickel (Ni)	ug/g	**82**	7.1	6.2	6.5	7.5	0.50	5639241
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	5639241
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	5639241
Acid Extractable Thallium (Tl)	ug/g	**1**	0.082	0.066	0.063	0.10	0.050	5639241
Acid Extractable Uranium (U)	ug/g	**2.5**	0.52	0.58	0.47	0.59	0.050	5639241
Acid Extractable Vanadium (V)	ug/g	**86**	27	22	23	25	5.0	5639241
Acid Extractable Zinc (Zn)	ug/g	**290**	35	30	24	31	5.0	5639241

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK678	HGK679	HGK680	HGK681		
Sampling Date			2018/07/19	2018/07/19	2018/07/19 08:15	2018/07/19 08:15		
COC Number			C#655418-03-01	C#655418-03-01	C#643216-19-01	C#643216-19-01		
	UNITS	Criteria	DUP8 Lab-Dup	DUP9	B30	C30	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**12**	0.74	<0.20	<0.20	0.20	5639241
Acid Extractable Arsenic (As)	ug/g	**18**	4.4	1.9	2.0	1.7	1.0	5639241
Acid Extractable Barium (Ba)	ug/g	**220**	47	49	49	42	0.50	5639241
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.42	0.40	0.43	0.34	0.20	5639241
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.0	5639241
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.20	0.21	0.20	0.18	0.10	5639241
Acid Extractable Chromium (Cr)	ug/g	**70**	13	15	14	12	1.0	5639241
Acid Extractable Cobalt (Co)	ug/g	**21**	4.2	4.0	4.6	4.1	0.10	5639241
Acid Extractable Copper (Cu)	ug/g	**92**	6.6	7.1	6.6	6.8	0.50	5639241
Acid Extractable Lead (Pb)	ug/g	**120**	**160**	11	8.9	6.9	1.0	5639241
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.50	5639241
Acid Extractable Nickel (Ni)	ug/g	**82**	7.6	7.8	8.9	8.0	0.50	5639241
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	0.50	5639241
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	0.20	5639241
Acid Extractable Thallium (Tl)	ug/g	**1**	0.096	0.083	0.094	0.082	0.050	5639241
Acid Extractable Uranium (U)	ug/g	**2.5**	0.61	0.50	0.45	0.41	0.050	5639241
Acid Extractable Vanadium (V)	ug/g	**86**	25	26	26	23	5.0	5639241
Acid Extractable Zinc (Zn)	ug/g	**290**	33	29	34	30	5.0	5639241

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HGK682	HGK683	HGK684		
Sampling Date			2018/07/19	2018/07/19	2018/07/19 09:30		
COC Number			C#643216-19-01	C#643216-19-01	n/a		
	UNITS	Criteria	DUP10	DUP11	A33	RDL	QC Batch
Metals							
Acid Extractable Antimony (Sb)	ug/g	**1.3**	**1.4**	**5.0**	<0.20	0.20	5639241
Acid Extractable Arsenic (As)	ug/g	**18**	2.1	2.9	1.5	1.0	5639241
Acid Extractable Barium (Ba)	ug/g	**220**	44	51	46	0.50	5639241
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.33	0.43	0.41	0.20	5639241
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	5.0	5639241
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.24	0.23	0.13	0.10	5639241
Acid Extractable Chromium (Cr)	ug/g	**70**	13	14	14	1.0	5639241
Acid Extractable Cobalt (Co)	ug/g	**21**	4.1	4.6	4.6	0.10	5639241
Acid Extractable Copper (Cu)	ug/g	**92**	75	7.7	5.4	0.50	5639241
Acid Extractable Lead (Pb)	ug/g	**120**	29	56	6.0	1.0	5639241
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	0.50	5639241
Acid Extractable Nickel (Ni)	ug/g	**82**	8.4	8.3	9.0	0.50	5639241
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.50	5639241
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	0.20	5639241
Acid Extractable Thallium (Tl)	ug/g	**1**	0.077	0.10	0.071	0.050	5639241
Acid Extractable Uranium (U)	ug/g	**2.5**	0.46	0.42	0.41	0.050	5639241
Acid Extractable Vanadium (V)	ug/g	**86**	24	25	26	5.0	5639241
Acid Extractable Zinc (Zn)	ug/g	**290**	130	36	25	5.0	5639241

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGK631 **Collected:** 2018/07/19
Sample ID: C20 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK632 **Collected:** 2018/07/19
Sample ID: D20 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK633 **Collected:** 2018/07/19
Sample ID: B21 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK634 **Collected:** 2018/07/19
Sample ID: C21 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK635 **Collected:** 2018/07/19
Sample ID: D21 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK636 **Collected:** 2018/07/19
Sample ID: B22 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK637 **Collected:** 2018/07/19
Sample ID: C22 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGK638 **Collected:** 2018/07/19
Sample ID: D22 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK639 **Collected:** 2018/07/19
Sample ID: B23 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK640 **Collected:** 2018/07/19
Sample ID: C23 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK641 **Collected:** 2018/07/19
Sample ID: D23 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK642 **Collected:** 2018/07/19
Sample ID: B24 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK643 **Collected:** 2018/07/19
Sample ID: C24 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK644 **Collected:** 2018/07/19
Sample ID: D24 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

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Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGK645 **Collected:** 2018/07/19
Sample ID: B25 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK646 **Collected:** 2018/07/19
Sample ID: C25 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK647 **Collected:** 2018/07/19
Sample ID: D25 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK648 **Collected:** 2018/07/19
Sample ID: B26 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK649 **Collected:** 2018/07/19
Sample ID: C26 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK650 **Collected:** 2018/07/19
Sample ID: D26 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK651 **Collected:** 2018/07/19
Sample ID: B27 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

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Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGK651 Dup
Sample ID: B27
Matrix: Soil
Collected: 2018/07/19
Shipped:
Received: 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK652
Sample ID: C27
Matrix: Soil
Collected: 2018/07/19
Shipped:
Received: 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK653
Sample ID: D27
Matrix: Soil
Collected: 2018/07/19
Shipped:
Received: 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK654
Sample ID: B28
Matrix: Soil
Collected: 2018/07/19
Shipped:
Received: 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK655
Sample ID: C28
Matrix: Soil
Collected: 2018/07/19
Shipped:
Received: 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK656
Sample ID: D28
Matrix: Soil
Collected: 2018/07/19
Shipped:
Received: 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK657
Sample ID: B29
Matrix: Soil
Collected: 2018/07/19
Shipped:
Received: 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

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Report Date: 2018/07/20

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Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGK658 **Collected:** 2018/07/19
Sample ID: C29 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK659 **Collected:** 2018/07/19
Sample ID: D29 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK660 **Collected:** 2018/07/19
Sample ID: D30 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639160	2018/07/20	2018/07/20	Daniel Teclu

Maxxam ID: HGK661 **Collected:** 2018/07/19
Sample ID: B31 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK662 **Collected:** 2018/07/19
Sample ID: C31 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK663 **Collected:** 2018/07/19
Sample ID: D31 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK663 Dup **Collected:** 2018/07/19
Sample ID: D31 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

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Golder Associates Ltd
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TEST SUMMARY

Maxxam ID: HGK664 **Collected:** 2018/07/19
Sample ID: B32 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK665 **Collected:** 2018/07/19
Sample ID: C32 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK666 **Collected:** 2018/07/19
Sample ID: D32 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639203	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK667 **Collected:** 2018/07/19
Sample ID: B33 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK668 **Collected:** 2018/07/19
Sample ID: C33 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639279	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK669 **Collected:** 2018/07/19
Sample ID: D33 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK670 **Collected:** 2018/07/19
Sample ID: E33 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

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TEST SUMMARY

Maxxam ID: HGK671 **Collected:** 2018/07/19
Sample ID: DUP1 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK672 **Collected:** 2018/07/19
Sample ID: DUP2 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK673 **Collected:** 2018/07/19
Sample ID: DUP3 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK674 **Collected:** 2018/07/19
Sample ID: DUP4 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK675 **Collected:** 2018/07/19
Sample ID: DUP5 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK676 **Collected:** 2018/07/19
Sample ID: DUP6 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK677 **Collected:** 2018/07/19
Sample ID: DUP7 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGK678 **Collected:** 2018/07/19
Sample ID: DUP8 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK678 Dup **Collected:** 2018/07/19
Sample ID: DUP8 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK679 **Collected:** 2018/07/19
Sample ID: DUP9 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK680 **Collected:** 2018/07/19
Sample ID: B30 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK681 **Collected:** 2018/07/19
Sample ID: C30 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK682 **Collected:** 2018/07/19
Sample ID: DUP10 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

Maxxam ID: HGK683 **Collected:** 2018/07/19
Sample ID: DUP11 **Shipped:**
Matrix: Soil **Received:** 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HGK684
Sample ID: A33
Matrix: Soil

Collected: 2018/07/19
Shipped:
Received: 2018/07/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5639241	2018/07/20	2018/07/20	Thao Nguyen

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

GENERAL COMMENTS

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

Package 1	10.3°C
Package 2	6.3°C
Package 3	6.0°C

Sample HGK684 [A33] : Sample analysed for Reg. 153 ICPMS Metals as per client request.

Results relate only to the items tested.

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5639160	Acid Extractable Antimony (Sb)	2018/07/20	94	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5639160	Acid Extractable Arsenic (As)	2018/07/20	103	75 - 125	106	80 - 120	<1.0	ug/g	6.4	30
5639160	Acid Extractable Barium (Ba)	2018/07/20	NC	75 - 125	104	80 - 120	<0.50	ug/g	0.18	30
5639160	Acid Extractable Beryllium (Be)	2018/07/20	106	75 - 125	105	80 - 120	<0.20	ug/g	0.25	30
5639160	Acid Extractable Boron (B)	2018/07/20	101	75 - 125	98	80 - 120	<5.0	ug/g	NC	30
5639160	Acid Extractable Cadmium (Cd)	2018/07/20	100	75 - 125	101	80 - 120	<0.10	ug/g	20	30
5639160	Acid Extractable Chromium (Cr)	2018/07/20	106	75 - 125	103	80 - 120	<1.0	ug/g	2.4	30
5639160	Acid Extractable Cobalt (Co)	2018/07/20	102	75 - 125	102	80 - 120	<0.10	ug/g	4.1	30
5639160	Acid Extractable Copper (Cu)	2018/07/20	106	75 - 125	105	80 - 120	<0.50	ug/g	1.1	30
5639160	Acid Extractable Lead (Pb)	2018/07/20	99	75 - 125	98	80 - 120	<1.0	ug/g	1.0	30
5639160	Acid Extractable Molybdenum (Mo)	2018/07/20	102	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5639160	Acid Extractable Nickel (Ni)	2018/07/20	104	75 - 125	102	80 - 120	<0.50	ug/g	7.2	30
5639160	Acid Extractable Selenium (Se)	2018/07/20	100	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5639160	Acid Extractable Silver (Ag)	2018/07/20	101	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5639160	Acid Extractable Thallium (Tl)	2018/07/20	99	75 - 125	98	80 - 120	<0.050	ug/g	20	30
5639160	Acid Extractable Uranium (U)	2018/07/20	99	75 - 125	98	80 - 120	<0.050	ug/g	2.0	30
5639160	Acid Extractable Vanadium (V)	2018/07/20	NC	75 - 125	102	80 - 120	<5.0	ug/g	1.2	30
5639160	Acid Extractable Zinc (Zn)	2018/07/20	NC	75 - 125	106	80 - 120	<5.0	ug/g	1.4	30
5639203	Acid Extractable Antimony (Sb)	2018/07/20	92	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
5639203	Acid Extractable Arsenic (As)	2018/07/20	98	75 - 125	103	80 - 120	<1.0	ug/g	12	30
5639203	Acid Extractable Barium (Ba)	2018/07/20	NC	75 - 125	104	80 - 120	<0.50	ug/g	3.4	30
5639203	Acid Extractable Beryllium (Be)	2018/07/20	102	75 - 125	103	80 - 120	<0.20	ug/g	1.1	30
5639203	Acid Extractable Boron (B)	2018/07/20	95	75 - 125	97	80 - 120	<5.0	ug/g	NC	30
5639203	Acid Extractable Cadmium (Cd)	2018/07/20	96	75 - 125	102	80 - 120	<0.10	ug/g	19	30
5639203	Acid Extractable Chromium (Cr)	2018/07/20	102	75 - 125	104	80 - 120	<1.0	ug/g	2.9	30
5639203	Acid Extractable Cobalt (Co)	2018/07/20	97	75 - 125	104	80 - 120	<0.10	ug/g	0.12	30
5639203	Acid Extractable Copper (Cu)	2018/07/20	101	75 - 125	104	80 - 120	<0.50	ug/g	3.2	30
5639203	Acid Extractable Lead (Pb)	2018/07/20	96	75 - 125	101	80 - 120	<1.0	ug/g	1.7	30
5639203	Acid Extractable Molybdenum (Mo)	2018/07/20	99	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5639203	Acid Extractable Nickel (Ni)	2018/07/20	103	75 - 125	103	80 - 120	<0.50	ug/g	0.58	30
5639203	Acid Extractable Selenium (Se)	2018/07/20	100	75 - 125	102	80 - 120	<0.50	ug/g	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5639203	Acid Extractable Silver (Ag)	2018/07/20	94	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5639203	Acid Extractable Thallium (Tl)	2018/07/20	95	75 - 125	101	80 - 120	<0.050	ug/g	2.0	30
5639203	Acid Extractable Uranium (U)	2018/07/20	95	75 - 125	99	80 - 120	<0.050	ug/g	3.0	30
5639203	Acid Extractable Vanadium (V)	2018/07/20	NC	75 - 125	104	80 - 120	<5.0	ug/g	0.71	30
5639203	Acid Extractable Zinc (Zn)	2018/07/20	NC	75 - 125	100	80 - 120	<5.0	ug/g	0.50	30
5639241	Acid Extractable Antimony (Sb)	2018/07/20	95	75 - 125	99	80 - 120	<0.20	ug/g	3.5	30
5639241	Acid Extractable Arsenic (As)	2018/07/20	100	75 - 125	102	80 - 120	<1.0	ug/g	1.3	30
5639241	Acid Extractable Barium (Ba)	2018/07/20	NC	75 - 125	106	80 - 120	<0.50	ug/g	2.7	30
5639241	Acid Extractable Beryllium (Be)	2018/07/20	101	75 - 125	102	80 - 120	<0.20	ug/g	7.5	30
5639241	Acid Extractable Boron (B)	2018/07/20	94	75 - 125	98	80 - 120	<5.0	ug/g	NC	30
5639241	Acid Extractable Cadmium (Cd)	2018/07/20	96	75 - 125	99	80 - 120	<0.10	ug/g	21	30
5639241	Acid Extractable Chromium (Cr)	2018/07/20	104	75 - 125	104	80 - 120	<1.0	ug/g	2.4	30
5639241	Acid Extractable Cobalt (Co)	2018/07/20	98	75 - 125	101	80 - 120	<0.10	ug/g	3.4	30
5639241	Acid Extractable Copper (Cu)	2018/07/20	104	75 - 125	105	80 - 120	<0.50	ug/g	0.48	30
5639241	Acid Extractable Lead (Pb)	2018/07/20	NC	75 - 125	98	80 - 120	<1.0	ug/g	5.3	30
5639241	Acid Extractable Molybdenum (Mo)	2018/07/20	98	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5639241	Acid Extractable Nickel (Ni)	2018/07/20	102	75 - 125	104	80 - 120	<0.50	ug/g	2.4	30
5639241	Acid Extractable Selenium (Se)	2018/07/20	95	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5639241	Acid Extractable Silver (Ag)	2018/07/20	94	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
5639241	Acid Extractable Thallium (Tl)	2018/07/20	94	75 - 125	99	80 - 120	<0.050	ug/g	3.8	30
5639241	Acid Extractable Uranium (U)	2018/07/20	93	75 - 125	97	80 - 120	<0.050	ug/g	3.1	30
5639241	Acid Extractable Vanadium (V)	2018/07/20	NC	75 - 125	103	80 - 120	<5.0	ug/g	0.63	30
5639241	Acid Extractable Zinc (Zn)	2018/07/20	NC	75 - 125	100	80 - 120	<5.0	ug/g	4.8	30
5639279	Acid Extractable Antimony (Sb)	2018/07/20	91	75 - 125	100	80 - 120	<0.20	ug/g	23	30
5639279	Acid Extractable Arsenic (As)	2018/07/20	111	75 - 125	106	80 - 120	<1.0	ug/g	13	30
5639279	Acid Extractable Barium (Ba)	2018/07/20	NC	75 - 125	99	80 - 120	<0.50	ug/g	1.6	30
5639279	Acid Extractable Beryllium (Be)	2018/07/20	113	75 - 125	104	80 - 120	<0.20	ug/g	7.6	30
5639279	Acid Extractable Boron (B)	2018/07/20	104	75 - 125	102	80 - 120	<5.0	ug/g	NC	30
5639279	Acid Extractable Cadmium (Cd)	2018/07/20	108	75 - 125	100	80 - 120	<0.10	ug/g	3.2	30
5639279	Acid Extractable Chromium (Cr)	2018/07/20	114	75 - 125	105	80 - 120	<1.0	ug/g	1.1	30
5639279	Acid Extractable Cobalt (Co)	2018/07/20	111	75 - 125	104	80 - 120	<0.10	ug/g	0.31	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5639279	Acid Extractable Copper (Cu)	2018/07/20	113	75 - 125	104	80 - 120	<0.50	ug/g	0.97	30
5639279	Acid Extractable Lead (Pb)	2018/07/20	106	75 - 125	100	80 - 120	<1.0	ug/g	0.16	30
5639279	Acid Extractable Molybdenum (Mo)	2018/07/20	109	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5639279	Acid Extractable Nickel (Ni)	2018/07/20	112	75 - 125	108	80 - 120	<0.50	ug/g	3.9	30
5639279	Acid Extractable Selenium (Se)	2018/07/20	110	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5639279	Acid Extractable Silver (Ag)	2018/07/20	107	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
5639279	Acid Extractable Thallium (Tl)	2018/07/20	105	75 - 125	100	80 - 120	<0.050	ug/g	6.5	30
5639279	Acid Extractable Uranium (U)	2018/07/20	105	75 - 125	100	80 - 120	<0.050	ug/g	12	30
5639279	Acid Extractable Vanadium (V)	2018/07/20	NC	75 - 125	102	80 - 120	<5.0	ug/g	1.7	30
5639279	Acid Extractable Zinc (Zn)	2018/07/20	NC	75 - 125	106	80 - 120	<5.0	ug/g	3.5	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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RUSH!

CHAIN OF CUSTODY RECORD

Page 1 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:		Quotation #:	B70916	Maxxam Job #:	Bottle Order #: 643216
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	1791121 (4000)	COC #:	Project Manager:
Tel:	(905) 723-2727 x Fax: (905) 723-2182 x	Tel:	Fax:	Project Name:	BioCan Windfields	C#643216-17-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	KBrowne@golder.com.	Site #:			
				Sampled By:	O. Whately / J. Doyle.		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Fri, July 20 Time Required: ☒
Rush Confirmation Number: EEG2018 07185 *(call lab for #)*

Regulation 153 (2011)
☒ Table 1 ☒ Res/Park ☒ Medium/Fine
☐ Table 2 ☒ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other ☒ For RSC
☐ Table ___

Other Regulations
☐ CCME ☐ Sanitary Sewer Bylaw
☐ Reg 558 ☐ Storm Sewer Bylaw
☐ MISA Municipality ___
☐ PWQO
☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ICP MS Metals	19-Jul-18 14:04 Ema Gitej B8I1575 PS4 ENV-1409	# of Bottles	Comments
1		C20	2018/07/19	7:15	SOIL		X		1	
2		D20	2018/07/19	7:15	SOIL		X		1	
3		B21	2018/07/19	7:15	SOIL		X		1	
4		C21	2018/07/19	7:15	SOIL		X		1	
5		D21	2018/07/19	7:15	SOIL		X		1	
6		B22	2018/07/19	7:15	SOIL		X		1	
7		C22	2018/07/19	7:15	SOIL		X		1	
8		D22	2018/07/19	7:45	SOIL		X		1	
9		B23	2018/07/19	7:45	SOIL		X		1	
10		C23	2018/07/19	7:45	SOIL		X		1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only			
J. Doyle	18/07/18	12:30	[illegible]	2018/07/19	14:04		Time Sensitive	Temperature (°C) on Recei 13/8/10	Custody Seal Present / Intact	Yes / No ✓

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

9/5/5 5/7/6

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CHAIN OF CUSTODY RECORD

Page 7 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:	Golder	Quotation #:	B80683	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			655418
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:		Project:	~~1894499-3000~~ 791121 (4000)	COC #:	Project Manager:
Tel:	(905) 723-2727 x Fax: (905) 723-2182 x	Tel:	Fax:	Project Name:	RioCan Windfields	C#655418-02-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	KBrowne@golder.com	Site #:			
				Sampled By:	O. Whately / J. Dale		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [X] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [ ] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Fri, July 20th Time Required: [X]
Rush Confirmation Number: EEG20180718S (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 Metals & Inorganics Pkg	O Reg 153 Petroleum Hydrocarbons, BTEX/F1-F4	O Reg 153 VOCs by HS	Sieve, 75um	ICPMS Metals	# of Bottles	Comments
1		D23	2018/07/19	7:45	SOIL						X	1	
2		B24	2018/07/19	7:45	SOIL						X	1	
3		C24	2018/07/19	7:45	SOIL						X	1	
4		D24	2018/07/19	7:45	SOIL						X	1	
5		B25	2018/07/19	7:45	SOIL						X	1	
6		C25	2018/07/19	7:45	SOIL						X	1	
7		D25	2018/07/19	7:45	SOIL						X	1	
8		B26	2018/07/19	7:45	SOIL						X	1	
9		C26	2018/07/19	7:45	SOIL						X	1	
10		D26	2018/07/19	8:15	SOIL						X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	18/07/19	17:00	Seefg1			

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

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6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 36

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:	Golder	Quotation #:	B70916	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:		P.O. #:			643216
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:	Kevan Browne	Project:	17-1121 (4000)	COC #:	Project Manager:
Tel:	(905) 723-2727 x Fax: (905) 723-2182 x	Tel:	Fax:	Project Name:	Rio Can Windfields	C#643216-20-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	KBrowne@golder.com	Site #:			
				Sampled By:	O. Whately / J. Dale		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [X] Medium/Fine
- [ ] Table 2 [X] Ind/Comm [ ] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? X

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Fri, July 20 Time Required: ___ [X]
Rush Confirmation Number: EEC20187185 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ICPHS Metals	# of Bottles	Comments
1		D26	2018/07/19	8:15	Soil		X	1	
2		B27	2018/07/19	8:15	Soil		X	1	
3		C27	2018/07/19	8:15	Soil		X	1	
4		D27	2018/07/19	8:15	Soil		X	1	
5		B28	2018/07/19	8:15	Soil		X	1	
6		C28	2018/07/19	8:15	Soil		X	1	
7		B D28	2018/07/19	8:15	Soil		X	1	
8		B29	2018/07/19	8:15	Soil		X	1	
9		C29	2018/07/19	8:15	Soil		X	1	
10		D29	2018/07/19	8:15	Soil		X	1	

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
J. Dale	18/07/18	12:30	See Pg-1			

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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CHAIN OF CUSTODY RECORD

Page 4 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:	Golder Associates	Quotation #:	B70916	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			643216
Address:	100 Scotia Crt	Address:	100 Scotia Crt	Project:	1791121 (4000)	COC #:	Project Manager:
	Whitby ON L1N 8Y6			Project Name:	Rio Can Windfields	C#643216-18-01	Ema Gitej
Tel:	(905) 723-2727 x Fax: (905) 723-2182 x	Tel:	Fax:	Site #:			
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com	Sampled By:	D.Whatley, J. Pate		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [X] Table 1 [X] Res/Park [X] Medium/Fine
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- [ ] Table 3 [ ] Agri/Other [X] For RSC
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Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [ ]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Fri. July 20/18 Time Required: ___ [X]
Rush Confirmation Number: EEG20180718S (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	MCPMS Metals								# of Bottles	Comments
1		D30	July 19/18	9:30	Soil		X								1	
2		B31	07/19/18	9:30	Soil		X								1	
3		C31	07/19/18	9:30	Soil		X								1	
4		D31	07/19/18	9:30	Soil		X								1	
5		B32	07/19/18	9:30	Soil		X								1	
6		C32	07/19/18	9:30	Soil		X								1	
7		D32	07/19/18	9:30	Soil		X								1	
8		B33	07/19/18	9:30	Soil		X								1	
9		C33	07/19/18	9:30	Soil		X								1	
10		D33	07/19/18	9:30	Soil		X								1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Rece	Custody Seal	Yes	No
[signature]	18/07/18	14:00	See Pg-1						Present		
									Intact		

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CHAIN OF CUSTODY RECORD

Page 5 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name	#2292 Golder Associates Ltd	Company Name	Golder Associates	Quotation #	B80683	Maxxam Job #:	Bottle Order #: 655418
Attention	Accounts Payable	Attention	Kevan Brown	P.O. #			
Address	100 Scotia Crt, Whitby ON L1N 8Y6	Address	100 Scotia Crt	Project	~~1894499-3000~~ 1791121 (4000)	COC #: C#655418-03-01	Project Manager: Ema Gitej
Tel	(905) 723-2727 x	Tel		Project Name	Rio Can Windfields		
Fax	(905) 723-2182 x	Fax		Site #			
Email	AP_CustomerService@golder.com	Email	kevan_brown@golder.com	Sampled By	D. Wlatky, J. Dale		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [X] Medium/Fine [ ] Table 2 [X] Ind/Comm [ ] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ___ [ ] PWQO [ ] Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; O Reg 153 Metals & Inorganics Pkg; O Reg 153 Petroleum Hydrocarbons BTEX/F1-F4; O Reg 153 VOCs by HS; Sieve, 75um; ICPMS Metals

Turnaround Time (TAT) Required: Please provide advance notice for rush projects

Regular (Standard) TAT: [ ]
(will be applied if Rush TAT is not specified).
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Fri. July 20/18 Time Required: [X]
Rush Confirmation Number: 2018072185 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	Metals & Inorganics	PHC BTEX/F1-F4	VOCs by HS	Sieve, 75um	ICPMS Metals	# of Bottles	Comments
1		E33	07/19/18	9:30	SOIL						X	1	
2		DUP1	07/19/18	–	SOIL						X	1	
3		DUP2	07/19/18	–	SOIL						X	1	
4		DUP3	07/19/18	–	Soil						X	1	
5		DUP4	07/19/18	–	Soil						X	1	
6		DUP5	07/19/18	–	Soil						X	1	
7		DUP6	07/19/18	–	Soil						X	1	
8		DUP7	07/19/18	–	Soil						X	1	
9		DUP8	07/19/18	–	Soil						X	1	
10		DUP9	07/19/18	–	Soil						X	1	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Time Sensitive	Laboratory Use Only: Temperature (°C) on Recei	Custody Seal	Yes	No
J. Dale	18/07/18	14:00	See Pg-1						Present		
									Intact		

White: Maxxa Yellow: Client

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CHAIN OF CUSTODY RECORD

Page 6 of 6

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:	Golder Associates	Quotation #:	B70916	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Kevan Brouse	P.O. #:			643216
Address:	100 Scotia Crt	Address:	100 Scotia Crt	Project:	179121 (4000)	COC #:	Project Manager:
	Whitby ON L1N 8Y6			Project Name:	B.o Can Windfields	C#643216-19-01	Ema Gitej
Tel:	(905) 723-2727 x Fax: (905) 723-2182 x	Tel:	Fax:	Site #:			
Email:	AP_CustomerService@golder.com	Email:	Kevan_Brouse@golder.com	Sampled By:	D. Whitby, J. Dale		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
[X] Table 1 [X] Res/Park [X] Medium/Fine	[ ] CCME [ ] Sanitary Sewer Bylaw	
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[ ] Table 3 [ ] Agri/Other [X] For RSC	[ ] MISA Municipality ____	
[ ] Table ____	[ ] PWQO	
	[ ] Other ____	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:
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(will be applied if Rush TAT is not specified):
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Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Fri July 20/18 Time Required: ____ [X]
Rush Confirmation Number: 15EB 20180719-5
(call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ICPMS Metals	# of Bottles	Comments
1		B30	07/19/18	8:15	Soil		X	1	
2		C30	07/19/18	8:15	Soil		X	1	
3		DUP10	07/19/18	—	Soil		X	1	
4		DUP11	07/19/18	—	Soil		X	1	
5									
6									
7									
8									
9									
10									

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
J. Dale	18/07/18	14:00	See Pg-1				Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
									Present		
									Intact		

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Maxxam Job #: B8I1575
Report Date: 2018/07/20

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
C20	HGK631-01	Acid Extractable Antimony (Sb)	1.3	2.2	0.20	ug/g
D20	HGK632-01	Acid Extractable Antimony (Sb)	1.3	5.1	0.20	ug/g
C21	HGK634-01	Acid Extractable Antimony (Sb)	1.3	2.8	0.20	ug/g
D22	HGK638-01	Acid Extractable Antimony (Sb)	1.3	5.1	0.20	ug/g
D23	HGK641-01	Acid Extractable Antimony (Sb)	1.3	12	0.20	ug/g
D23	HGK641-01	Acid Extractable Lead (Pb)	120	160	1.0	ug/g
B24	HGK642-01	Acid Extractable Antimony (Sb)	1.3	1.5	0.20	ug/g
C24	HGK643-01	Acid Extractable Antimony (Sb)	1.3	2.3	0.20	ug/g
D24	HGK644-01	Acid Extractable Antimony (Sb)	1.3	1.9	0.20	ug/g
D25	HGK647-01	Acid Extractable Antimony (Sb)	1.3	1.9	0.20	ug/g
DUP8	HGK678-01	Acid Extractable Antimony (Sb)	1.3	12	0.20	ug/g
DUP8	HGK678-01-Lab Dup	Acid Extractable Antimony (Sb)	1.3	12	0.20	ug/g
DUP8	HGK678-01	Acid Extractable Lead (Pb)	120	160	1.0	ug/g
DUP8	HGK678-01-Lab Dup	Acid Extractable Lead (Pb)	120	160	1.0	ug/g
DUP10	HGK682-01	Acid Extractable Antimony (Sb)	1.3	1.4	0.20	ug/g
DUP11	HGK683-01	Acid Extractable Antimony (Sb)	1.3	5.0	0.20	ug/g

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Your C.O.C. #: 677116-01-01, 677116-02-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/08/09
Report #: R5350238
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8K1230
Received: 2018/08/08, 16:40

Sample Matrix: Soil
Samples Received: 20

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	20	2018/08/09	2018/08/09	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HKQ206	HKQ207	HKQ208	HKQ209	HKQ210		
Sampling Date			2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00		
COC Number			677116-01-01	677116-01-01	677116-01-01	677116-01-01	677116-01-01		
	UNITS	Criteria	B9A	B10A	B11A	B12A	B13A	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	0.74	1.3	0.86	0.95	0.51	0.20	5670459
Acid Extractable Arsenic (As)	ug/g	**18**	2.3	1.9	1.8	1.8	2.3	1.0	5670459
Acid Extractable Barium (Ba)	ug/g	**220**	70	36	53	45	61	0.50	5670459
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.54	0.30	0.37	0.37	0.58	0.20	5670459
Acid Extractable Boron (B)	ug/g	**36**	6.2	5.2	7.3	5.9	6.6	5.0	5670459
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.12	<0.10	<0.10	0.10	0.17	0.10	5670459
Acid Extractable Chromium (Cr)	ug/g	**70**	18	11	14	14	21	1.0	5670459
Acid Extractable Cobalt (Co)	ug/g	**21**	5.0	3.5	4.6	4.2	5.5	0.10	5670459
Acid Extractable Copper (Cu)	ug/g	**92**	8.9	7.2	8.6	7.2	11	0.50	5670459
Acid Extractable Lead (Pb)	ug/g	**120**	9.0	12	8.0	10	8.9	1.0	5670459
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5670459
Acid Extractable Nickel (Ni)	ug/g	**82**	12	8.0	10	9.3	14	0.50	5670459
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5670459
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5670459
Acid Extractable Thallium (Tl)	ug/g	**1**	0.13	0.11	0.11	0.099	0.15	0.050	5670459
Acid Extractable Uranium (U)	ug/g	**2.5**	0.48	0.45	0.46	0.45	0.64	0.050	5670459
Acid Extractable Vanadium (V)	ug/g	**86**	30	20	22	26	32	5.0	5670459
Acid Extractable Zinc (Zn)	ug/g	**290**	35	30	24	24	41	5.0	5670459

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HKQ211	HKQ212	HKQ212	HKQ213	HKQ214		
Sampling Date			2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00		
COC Number			677116-01-01	677116-01-01	677116-01-01	677116-01-01	677116-01-01		
	UNITS	Criteria	B14A	B15A	B15A Lab-Dup	B16A	B17A	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	0.50	0.41	0.22	<0.20	0.20	5670459
Acid Extractable Arsenic (As)	ug/g	**18**	2.1	2.1	2.3	1.6	1.7	1.0	5670459
Acid Extractable Barium (Ba)	ug/g	**220**	51	50	49	82	70	0.50	5670459
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.43	0.43	0.45	0.41	0.41	0.20	5670459
Acid Extractable Boron (B)	ug/g	**36**	5.3	5.5	5.6	9.1	8.5	5.0	5670459
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	0.14	0.10	0.11	<0.10	<0.10	0.10	5670459
Acid Extractable Chromium (Cr)	ug/g	**70**	17	18	17	17	17	1.0	5670459
Acid Extractable Cobalt (Co)	ug/g	**21**	5.1	4.0	4.0	4.9	4.5	0.10	5670459
Acid Extractable Copper (Cu)	ug/g	**92**	5.9	8.3	8.5	9.5	8.3	0.50	5670459
Acid Extractable Lead (Pb)	ug/g	**120**	7.5	10	11	7.1	5.8	1.0	5670459
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	0.73	1.0	<0.50	<0.50	0.50	5670459
Acid Extractable Nickel (Ni)	ug/g	**82**	10	9.4	9.3	12	11	0.50	5670459
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5670459
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5670459
Acid Extractable Thallium (Tl)	ug/g	**1**	0.12	0.092	0.097	0.14	0.11	0.050	5670459
Acid Extractable Uranium (U)	ug/g	**2.5**	0.48	0.49	0.47	0.50	0.48	0.050	5670459
Acid Extractable Vanadium (V)	ug/g	**86**	30	26	26	23	22	5.0	5670459
Acid Extractable Zinc (Zn)	ug/g	**290**	38	31	32	28	28	5.0	5670459

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HKQ215	HKQ216	HKQ217	HKQ218	HKQ219		
Sampling Date			2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00		
COC Number			677116-01-01	677116-02-01	677116-02-01	677116-02-01	677116-02-01		
	UNITS	Criteria	B18A	B19A	B20A	B21A	B22A	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	<0.20	<0.20	0.21	0.20	5670459
Acid Extractable Arsenic (As)	ug/g	**18**	2.0	1.8	2.1	1.6	2.0	1.0	5670459
Acid Extractable Barium (Ba)	ug/g	**220**	64	58	74	56	42	0.50	5670459
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.44	0.37	0.55	0.45	0.37	0.20	5670459
Acid Extractable Boron (B)	ug/g	**36**	6.7	7.7	5.7	<5.0	<5.0	5.0	5670459
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	<0.10	0.11	0.27	<0.10	0.10	5670459
Acid Extractable Chromium (Cr)	ug/g	**70**	15	14	19	17	14	1.0	5670459
Acid Extractable Cobalt (Co)	ug/g	**21**	4.4	4.4	4.9	4.5	4.4	0.10	5670459
Acid Extractable Copper (Cu)	ug/g	**92**	9.0	9.3	10	8.6	8.2	0.50	5670459
Acid Extractable Lead (Pb)	ug/g	**120**	6.4	6.2	6.6	6.1	5.5	1.0	5670459
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	0.93	0.50	5670459
Acid Extractable Nickel (Ni)	ug/g	**82**	11	11	11	8.6	8.3	0.50	5670459
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	0.55	<0.50	0.50	5670459
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5670459
Acid Extractable Thallium (Tl)	ug/g	**1**	0.13	0.12	0.12	0.083	0.077	0.050	5670459
Acid Extractable Uranium (U)	ug/g	**2.5**	0.46	0.47	0.45	0.69	0.49	0.050	5670459
Acid Extractable Vanadium (V)	ug/g	**86**	25	21	31	28	25	5.0	5670459
Acid Extractable Zinc (Zn)	ug/g	**290**	29	26	30	41	27	5.0	5670459

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HKQ220	HKQ221	HKQ222	HKQ223	HKQ224		
Sampling Date			2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00	2018/08/08 09:00		
COC Number			677116-02-01	677116-02-01	677116-02-01	677116-02-01	677116-02-01		
	UNITS	Criteria	B23A	B24A	B25A	B26A	DUP1	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5670459
Acid Extractable Arsenic (As)	ug/g	**18**	1.2	<1.0	1.1	1.7	2.2	1.0	5670459
Acid Extractable Barium (Ba)	ug/g	**220**	26	17	26	53	77	0.50	5670459
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.22	<0.20	0.21	0.37	0.58	0.20	5670459
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	5.2	5.0	5670459
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	<0.10	<0.10	0.12	0.17	0.10	5670459
Acid Extractable Chromium (Cr)	ug/g	**70**	7.8	6.6	8.4	13	20	1.0	5670459
Acid Extractable Cobalt (Co)	ug/g	**21**	2.7	2.1	2.9	4.4	5.3	0.10	5670459
Acid Extractable Copper (Cu)	ug/g	**92**	5.4	2.7	2.7	4.3	10	0.50	5670459
Acid Extractable Lead (Pb)	ug/g	**120**	3.4	2.1	2.8	4.4	6.8	1.0	5670459
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5670459
Acid Extractable Nickel (Ni)	ug/g	**82**	5.1	3.4	5.0	8.1	12	0.50	5670459
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5670459
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5670459
Acid Extractable Thallium (Tl)	ug/g	**1**	<0.050	<0.050	<0.050	0.081	0.12	0.050	5670459
Acid Extractable Uranium (U)	ug/g	**2.5**	0.39	0.33	0.43	0.48	0.44	0.050	5670459
Acid Extractable Vanadium (V)	ug/g	**86**	18	18	22	27	31	5.0	5670459
Acid Extractable Zinc (Zn)	ug/g	**290**	16	12	14	21	28	5.0	5670459

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HKQ225		
Sampling Date			2018/08/08 09:00		
COC Number			677116-02-01		
	UNITS	Criteria	DUP2	RDL	QC Batch
Metals					
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	0.20	5670459
Acid Extractable Arsenic (As)	ug/g	**18**	1.8	1.0	5670459
Acid Extractable Barium (Ba)	ug/g	**220**	52	0.50	5670459
Acid Extractable Beryllium (Be)	ug/g	**2.5**	0.36	0.20	5670459
Acid Extractable Boron (B)	ug/g	**36**	<5.0	5.0	5670459
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	0.10	5670459
Acid Extractable Chromium (Cr)	ug/g	**70**	13	1.0	5670459
Acid Extractable Cobalt (Co)	ug/g	**21**	4.3	0.10	5670459
Acid Extractable Copper (Cu)	ug/g	**92**	4.4	0.50	5670459
Acid Extractable Lead (Pb)	ug/g	**120**	4.5	1.0	5670459
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	0.50	5670459
Acid Extractable Nickel (Ni)	ug/g	**82**	8.3	0.50	5670459
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	0.50	5670459
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	0.20	5670459
Acid Extractable Thallium (Tl)	ug/g	**1**	0.072	0.050	5670459
Acid Extractable Uranium (U)	ug/g	**2.5**	0.45	0.050	5670459
Acid Extractable Vanadium (V)	ug/g	**86**	27	5.0	5670459
Acid Extractable Zinc (Zn)	ug/g	**290**	22	5.0	5670459

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HKQ206 **Collected:** 2018/08/08
Sample ID: B9A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ207 **Collected:** 2018/08/08
Sample ID: B10A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ208 **Collected:** 2018/08/08
Sample ID: B11A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ209 **Collected:** 2018/08/08
Sample ID: B12A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ210 **Collected:** 2018/08/08
Sample ID: B13A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ211 **Collected:** 2018/08/08
Sample ID: B14A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ212 **Collected:** 2018/08/08
Sample ID: B15A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

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Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HKQ212 Dup
Sample ID: B15A
Matrix: Soil
Collected: 2018/08/08
Shipped:
Received: 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ213
Sample ID: B16A
Matrix: Soil
Collected: 2018/08/08
Shipped:
Received: 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ214
Sample ID: B17A
Matrix: Soil
Collected: 2018/08/08
Shipped:
Received: 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ215
Sample ID: B18A
Matrix: Soil
Collected: 2018/08/08
Shipped:
Received: 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ216
Sample ID: B19A
Matrix: Soil
Collected: 2018/08/08
Shipped:
Received: 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ217
Sample ID: B20A
Matrix: Soil
Collected: 2018/08/08
Shipped:
Received: 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ218
Sample ID: B21A
Matrix: Soil
Collected: 2018/08/08
Shipped:
Received: 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

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Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

TEST SUMMARY

Maxxam ID: HKQ219 **Collected:** 2018/08/08
Sample ID: B22A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ220 **Collected:** 2018/08/08
Sample ID: B23A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ221 **Collected:** 2018/08/08
Sample ID: B24A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ222 **Collected:** 2018/08/08
Sample ID: B25A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ223 **Collected:** 2018/08/08
Sample ID: B26A **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ224 **Collected:** 2018/08/08
Sample ID: DUP1 **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

Maxxam ID: HKQ225 **Collected:** 2018/08/08
Sample ID: DUP2 **Shipped:**
Matrix: Soil **Received:** 2018/08/08

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5670459	2018/08/09	2018/08/09	Viviana Canzonieri

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Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

GENERAL COMMENTS

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

Package 1	0.3°C

Results relate only to the items tested.

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Maxxam Job #: B8K1230
Report Date: 2018/08/09

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5670459	Acid Extractable Antimony (Sb)	2018/08/09	82	75 - 125	102	80 - 120	<0.20	ug/g	21	30
5670459	Acid Extractable Arsenic (As)	2018/08/09	102	75 - 125	106	80 - 120	<1.0	ug/g	6.5	30
5670459	Acid Extractable Barium (Ba)	2018/08/09	NC	75 - 125	100	80 - 120	<0.50	ug/g	0.11	30
5670459	Acid Extractable Beryllium (Be)	2018/08/09	102	75 - 125	98	80 - 120	<0.20	ug/g	4.0	30
5670459	Acid Extractable Boron (B)	2018/08/09	94	75 - 125	104	80 - 120	<5.0	ug/g	1.9	30
5670459	Acid Extractable Cadmium (Cd)	2018/08/09	96	75 - 125	99	80 - 120	<0.10	ug/g	9.3	30
5670459	Acid Extractable Chromium (Cr)	2018/08/09	98	75 - 125	103	80 - 120	<1.0	ug/g	2.4	30
5670459	Acid Extractable Cobalt (Co)	2018/08/09	98	75 - 125	100	80 - 120	<0.10	ug/g	0.95	30
5670459	Acid Extractable Copper (Cu)	2018/08/09	99	75 - 125	101	80 - 120	<0.50	ug/g	2.4	30
5670459	Acid Extractable Lead (Pb)	2018/08/09	96	75 - 125	99	80 - 120	<1.0	ug/g	12	30
5670459	Acid Extractable Molybdenum (Mo)	2018/08/09	99	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5670459	Acid Extractable Nickel (Ni)	2018/08/09	100	75 - 125	101	80 - 120	<0.50	ug/g	0.73	30
5670459	Acid Extractable Selenium (Se)	2018/08/09	103	75 - 125	104	80 - 120	<0.50	ug/g	NC	30
5670459	Acid Extractable Silver (Ag)	2018/08/09	94	75 - 125	96	80 - 120	<0.20	ug/g	NC	30
5670459	Acid Extractable Thallium (Tl)	2018/08/09	96	75 - 125	99	80 - 120	<0.050	ug/g	5.3	30
5670459	Acid Extractable Uranium (U)	2018/08/09	93	75 - 125	95	80 - 120	<0.050	ug/g	4.9	30
5670459	Acid Extractable Vanadium (V)	2018/08/09	NC	75 - 125	103	80 - 120	<5.0	ug/g	0.80	30
5670459	Acid Extractable Zinc (Zn)	2018/08/09	NC	75 - 125	106	80 - 120	<5.0	ug/g	3.8	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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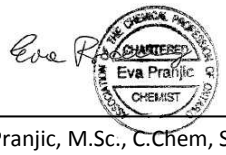
Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



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

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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RUSH!!

CHAIN OF CUSTODY RECORD

Page 1 of 2

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name	#2292 Golder Associates Ltd	Company Name		Quotation #	B70916	Maxxam Job #:	Bottle Order #: 677116
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #			
Address	100 Scotia Crt Whitby ON L1N 8Y6	Address		Project	1791121	COC #: C#677116-01-01	Project Manager: Ema Gitej
Tel	(905) 723-2727 Fax (905) 723-2182	Tel	(905) 723-5491 Ext: 6677 Fax (905) 723-2182	Project Name	RioCan Windfields		
Email	AP_CustomerService@golder.com	Email	Kevan_Browne@golder.com	Site #			
				Sampled By	D.Whatley / J. Dale		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): [X] Table 1 [X] Res/Park [X] Medium/Fine; [ ] Table 2 [X] Ind/Comm [ ] Coarse; [ ] Table 3 [ ] Agri/Other [X] For RSC; [ ] Table ___

Other Regulations: [ ] CCME [ ] Sanitary Sewer Bylaw; [ ] Reg 558 [ ] Storm Sewer Bylaw; [ ] MISA Municipality ______; [ ] PWQO; [ ] Other

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? ____

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; O.Reg 153 ICPMS Metals (Soil)

Turnaround Time (TAT) Required: Please provide advance notice for rush projects

Regular (Standard) TAT: [ ]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Thurs. Aug 9 Time Required: [X]
Rush Confirmation Number: EEG201308083 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	O.Reg 153 ICPMS Metals (Soil)	# of Bottles	Comments
1		B9a	08/08/18	9:00	Soil		X	1	
2		B10a	08/08/18	9:00	Soil		X	1	
3		B11a	08/08/18	9:00	Soil		X	1	
4		B12a	08/08/18	9:00	Soil		X	1	
5		B13a	08/08/18	9:00	Soil		X	1	
6		B14a	08/09/18	9:00	Soil		X	1	
7		B15a	08/08/18	9:00	Soil		X	1	
8		B16a	08/08/18	9:00	Soil		X	1	
9		B17a	08/08/18	9:00	Soil		X	1	
10		B18a	08/08/18	9:00	Soil		X	1	

08-Aug-18 16:40
Ema Gitej
B8K1230
HGL ENV-420

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
J. Dale	18/08/08	11:20	Harjit Gill	2018/08/08	16:40			0/0/1	Present	✓	
									Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

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RUSH

Maxxam Analytics International Corporation o/a Maxxam Analytics
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CHAIN OF CUSTODY RECORD

Page 2 of 2

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name	#2292 Golder Associates Ltd	Company Name		Quotation #:	B70916	Maxxam Job #:	Bottle Order #:
Attention	Accounts Payable	Attention	Kevan Browne	P.O. #			577116
Address	100 Scotia Crt	Address		Project	1791121 (1000)		
	Whitby ON L1N 8Y6			Project Name	Zircan Windfields	COC #:	Project Manager:
Tel	(905) 723-2727 Fax (905) 723-2182	Tel	(905) 723-5491 Ext: 6677 Fax (905) 723-2182	Site #		C#577116-02-01	Erna Gitej
Email	AP_CustomerService@golder.com	Email	Kevan_Browne@golder.com	Sampled By	D. Wheatley / J. Dale		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☒ Table 1 ☒ Res/Park ☒ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☒ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agr/Other ☒ For RSC	☐ MISA Municipality	
☐ Table ___	☐ PWQO	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)? ____

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details

Job Specific Rush TAT (if applies to entire submission)
Date Required: Aug. 9/2018 Time Required: ____
Rush Confirmation Number: EEG20180808083 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 ICP/MS Metals (Soil)	# of Bottles	Comments
1		B19a	2018/08/08	9:00	Soil		X	1	
2		B20a	2018/08/08	9:00	~~Soil~~ Silt		X	1	
3		B21a	2018/08/08	9:00	Soil		X	1	
4		B22a	2018/08/08	9:00	Soil		X	1	
5		B23a	2018/08/08	9:00	Soil		X	1	
6		B24a	2018/08/08	9:00	Soil		X	1	
7		B25a	2018/08/08	9:00	Soil		X	1	
8		B26a	2018/08/08	9:00	Soil		X	1	
9		Dup 1	2018/08/08	9:00	Soil		X	1	
10		Dup 2	2018/08/08	9:00	Soil		X	1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
Jon Dale	18/08/08	11:20	[illegible]	2018/08/08	16:40			0/0/1	Present		
									Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

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Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8K1230
Report Date: 2018/08/09

Golder Associates Ltd
Client Project #: 1791121 (4000)
Site Location: RIOCAN WINDFIELDS
Sampler Initials: OW

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 1791121
Site Location: RIOCAN
Your C.O.C. #: 677116-08-01

Attention: Kevan Browne

Golder Associates Ltd
100 Scotia Crt
Whitby, ON
CANADA L1N 8Y6

Report Date: 2018/08/16
Report #: R5359542
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8K6822
Received: 2018/08/14, 12:41

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Strong Acid Leachable Metals by ICPMS	5	2018/08/15	2018/08/15	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

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

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

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

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ema Gitej, Senior Project Manager
Email: EGitej@maxxam.ca
Phone# (905)817-5829

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8K6822
Report Date: 2018/08/16

Golder Associates Ltd
Client Project #: 1791121
Site Location: RIOCAN
Sampler Initials: JD

O.REG 153 ICPMS METALS (SOIL)

Maxxam ID			HLU375	HLU376	HLU377	HLU378	HLU379		
Sampling Date			2018/08/10 15:30	2018/08/10 12:55	2018/08/10 12:05	2018/08/10 09:30	2018/08/10 08:15		
COC Number			677116-08-01	677116-08-01	677116-08-01	677116-08-01	677116-08-01		
	UNITS	Criteria	B9-T	B12-T	B16-T	B20-T	B23-T	RDL	QC Batch
Metals									
Acid Extractable Antimony (Sb)	ug/g	**1.3**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5681500
Acid Extractable Arsenic (As)	ug/g	**18**	<1.0	<1.0	1.6	1.2	1.1	1.0	5681500
Acid Extractable Barium (Ba)	ug/g	**220**	33	21	63	28	16	0.50	5681500
Acid Extractable Beryllium (Be)	ug/g	**2.5**	<0.20	<0.20	0.35	<0.20	<0.20	0.20	5681500
Acid Extractable Boron (B)	ug/g	**36**	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	5681500
Acid Extractable Cadmium (Cd)	ug/g	**1.2**	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	5681500
Acid Extractable Chromium (Cr)	ug/g	**70**	7.7	6.5	13	8.0	5.4	1.0	5681500
Acid Extractable Cobalt (Co)	ug/g	**21**	3.3	2.6	4.5	2.7	2.0	0.10	5681500
Acid Extractable Copper (Cu)	ug/g	**92**	6.4	4.5	9.5	4.7	3.4	0.50	5681500
Acid Extractable Lead (Pb)	ug/g	**120**	4.5	2.2	6.4	3.5	1.8	1.0	5681500
Acid Extractable Molybdenum (Mo)	ug/g	**2**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5681500
Acid Extractable Nickel (Ni)	ug/g	**82**	5.4	4.0	11	5.0	3.1	0.50	5681500
Acid Extractable Selenium (Se)	ug/g	**1.5**	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	5681500
Acid Extractable Silver (Ag)	ug/g	**0.5**	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	5681500
Acid Extractable Thallium (Tl)	ug/g	**1**	0.066	<0.050	0.12	0.065	<0.050	0.050	5681500
Acid Extractable Uranium (U)	ug/g	**2.5**	0.47	0.32	0.39	0.42	0.36	0.050	5681500
Acid Extractable Vanadium (V)	ug/g	**86**	18	16	20	18	15	5.0	5681500
Acid Extractable Zinc (Zn)	ug/g	**290**	18	14	25	17	11	5.0	5681500

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 1: Full Depth Background Site Condition Standards
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

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Maxxam Job #: B8K6822
Report Date: 2018/08/16

Golder Associates Ltd
Client Project #: 1791121
Site Location: RIOCAN
Sampler Initials: JD

TEST SUMMARY

Maxxam ID: HLU375 **Collected:** 2018/08/10
Sample ID: B9-T **Shipped:**
Matrix: Soil **Received:** 2018/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5681500	2018/08/15	2018/08/15	Daniel Teclu

Maxxam ID: HLU376 **Collected:** 2018/08/10
Sample ID: B12-T **Shipped:**
Matrix: Soil **Received:** 2018/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5681500	2018/08/15	2018/08/15	Daniel Teclu

Maxxam ID: HLU377 **Collected:** 2018/08/10
Sample ID: B16-T **Shipped:**
Matrix: Soil **Received:** 2018/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5681500	2018/08/15	2018/08/15	Daniel Teclu

Maxxam ID: HLU378 **Collected:** 2018/08/10
Sample ID: B20-T **Shipped:**
Matrix: Soil **Received:** 2018/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5681500	2018/08/15	2018/08/15	Daniel Teclu

Maxxam ID: HLU379 **Collected:** 2018/08/10
Sample ID: B23-T **Shipped:**
Matrix: Soil **Received:** 2018/08/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5681500	2018/08/15	2018/08/15	Daniel Teclu

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8K6822
Report Date: 2018/08/16

Golder Associates Ltd
Client Project #: 1791121
Site Location: RIOCAN
Sampler Initials: JD

GENERAL COMMENTS

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

Package 1	2.0°C

Revised Report (2018/8/16): Analytical criteria added to report as per COC.

Cooler custody seal was present and intact.

Results relate only to the items tested.

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Maxxam Job #: B8K6822
Report Date: 2018/08/16

QUALITY ASSURANCE REPORT

Golder Associates Ltd
Client Project #: 1791121
Site Location: RIOCAN
Sampler Initials: JD

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5681500	Acid Extractable Antimony (Sb)	2018/08/15	92	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5681500	Acid Extractable Arsenic (As)	2018/08/15	101	75 - 125	99	80 - 120	<1.0	ug/g	4.4	30
5681500	Acid Extractable Barium (Ba)	2018/08/15	NC	75 - 125	94	80 - 120	<0.50	ug/g	0.77	30
5681500	Acid Extractable Beryllium (Be)	2018/08/15	98	75 - 125	96	80 - 120	<0.20	ug/g	3.1	30
5681500	Acid Extractable Boron (B)	2018/08/15	92	75 - 125	88	80 - 120	<5.0	ug/g	NC	30
5681500	Acid Extractable Cadmium (Cd)	2018/08/15	98	75 - 125	96	80 - 120	<0.10	ug/g	NC	30
5681500	Acid Extractable Chromium (Cr)	2018/08/15	NC	75 - 125	99	80 - 120	<1.0	ug/g	1.7	30
5681500	Acid Extractable Cobalt (Co)	2018/08/15	96	75 - 125	99	80 - 120	<0.10	ug/g	3.7	30
5681500	Acid Extractable Copper (Cu)	2018/08/15	92	75 - 125	99	80 - 120	<0.50	ug/g	2.4	30
5681500	Acid Extractable Lead (Pb)	2018/08/15	100	75 - 125	102	80 - 120	<1.0	ug/g	2.0	30
5681500	Acid Extractable Molybdenum (Mo)	2018/08/15	101	75 - 125	98	80 - 120	<0.50	ug/g	NC	30
5681500	Acid Extractable Nickel (Ni)	2018/08/15	95	75 - 125	95	80 - 120	<0.50	ug/g	2.4	30
5681500	Acid Extractable Selenium (Se)	2018/08/15	97	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5681500	Acid Extractable Silver (Ag)	2018/08/15	95	75 - 125	95	80 - 120	<0.20	ug/g	NC	30
5681500	Acid Extractable Thallium (Tl)	2018/08/15	98	75 - 125	99	80 - 120	<0.050	ug/g	11	30
5681500	Acid Extractable Uranium (U)	2018/08/15	87	75 - 125	91	80 - 120	<0.050	ug/g	2.5	30
5681500	Acid Extractable Vanadium (V)	2018/08/15	NC	75 - 125	99	80 - 120	<5.0	ug/g	2.7	30
5681500	Acid Extractable Zinc (Zn)	2018/08/15	NC	75 - 125	99	80 - 120	<5.0	ug/g	7.9	30

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8K6822
Report Date: 2018/08/16

Golder Associates Ltd
Client Project #: 1791121
Site Location: RIOCAN
Sampler Initials: JD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Cristina Carriere

Cristina Carriere, Scientific Service Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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RUSH

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario, Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#2292 Golder Associates Ltd	Company Name:	Golder	Quotation #:	B70916	Maxxam Job #:	Bottle Order #: 677116
Attention:	Accounts Payable	Attention:	Kevan Browne	P.O. #:			
Address:	100 Scotia Crt Whitby ON L1N 8Y6	Address:	~	Project:	1791121		
				Project Name:	RioCan	COC #:	Project Manager:
Tel:	(905) 723-2727 Fax: (905) 723-2182	Tel:	(905) 723-5491 Ext: 6677 Fax: (905) 723-2182	Site #:		C#677116-08-01	Ema Gitej
Email:	AP_CustomerService@golder.com	Email:	Kevan_Browne@golder.com	Sampled By:	J. Dale		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
[X] Table 1 [X] Res/Park [X] Medium/Fine [ ] Table 2 [X] Ind/Comm [ ] Coarse [ ] Table 3 [ ] Agri/Other [X] For RSC [ ] Table ___	[ ] CCME [ ] Sanitary Sewer Bylaw [ ] Reg 558 [ ] Storm Sewer Bylaw [ ] MISA Municipality ___ [ ] PWQO [ ] Other ___	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note, Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Aug 16/2018 Time Required: ___
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr VI	O.Reg 153 ICPMS Metals (Soil)									# of Bottles	Comments
1		B9 - T	Aug.10/18	15:30	SOIL		X									1	3 day rush
2		B12 - T	Aug10/18.	12.55	SOIL		X									1	
3		B16 - T	Aug 10/18	12:05	SOIL		X									1	
4		B20 - T	Aug10/18	09:30	SOIL		X									1	
5		B23 - T	Aug10/18	08:15	SOIL		X									1	
6																	
7																	
8																	
9																	
10																	

14-Aug-18 12:41
Ema Gitej
B8K6822
FCN ENV-1345

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
J. Dale	18/08/13		FRANCINE CHONG	2018/08/14	12:41	

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes ✓	No
	2 3 1	Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

#443345

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8K6822
Report Date: 2018/08/16

Golder Associates Ltd
Client Project #: 1791121
Site Location: RIOCAN
Sampler Initials: JD

Exceedence Summary Table – Reg153/04 T1-Soil/Res

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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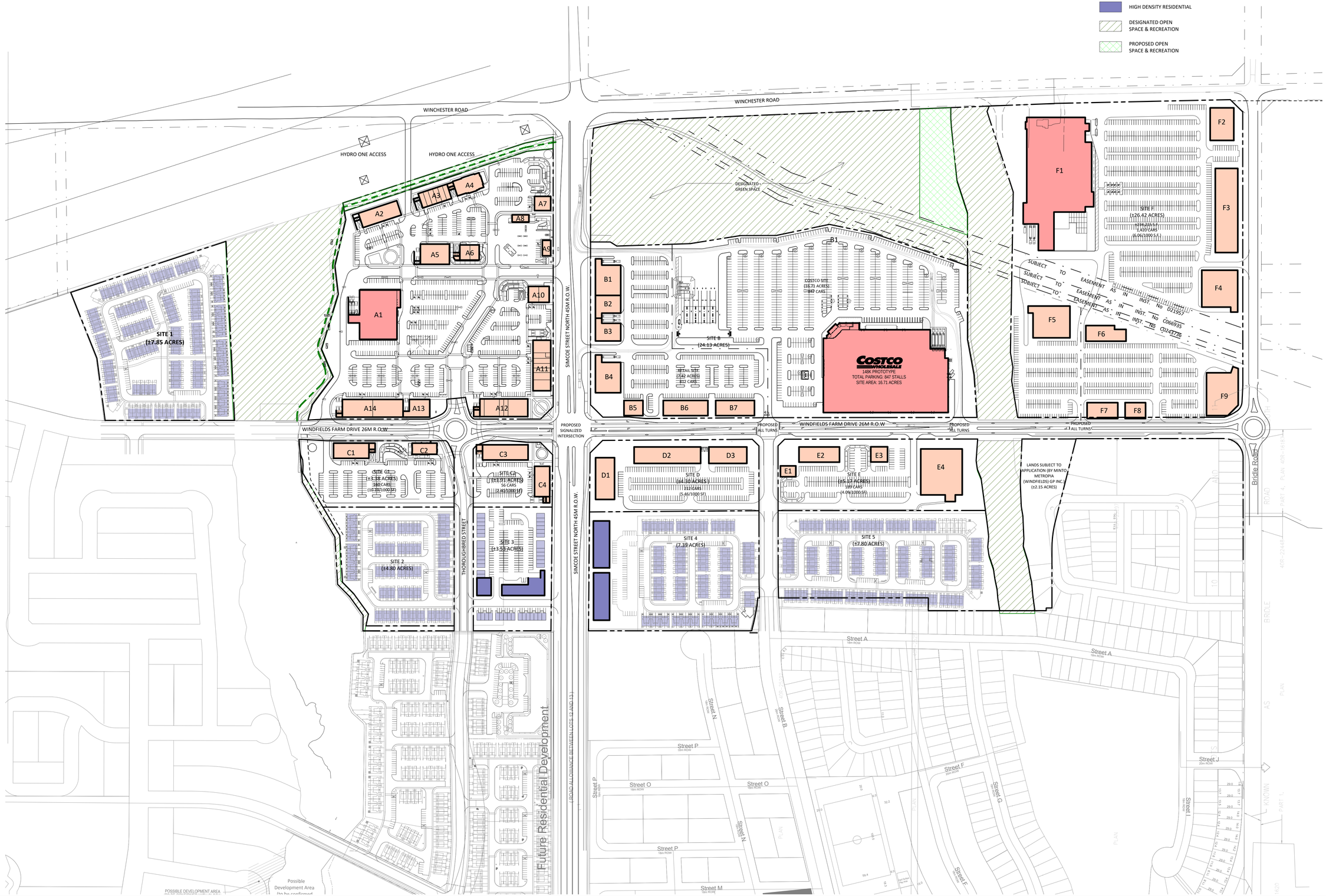
APPENDIX C

Proposed Development Plan



TURNER FLEISCHER

Turner Fleischer Architects Inc.

67 Lesmill Road
Toronto, ON, M3B 2T8
T 416 425 2222
turnerfleischer.com

TOTAL SITE AREA	**± 64.47 H.A.**	**± 159.32 ACRES**
APPROX. NET SITE DEVELOPABLE AREA	± 46.77 H.A.	± 115.58 ACRES
SITE A AREA	±7.65 H.A.	± 18.90 ACRES
SITE B AREA	± 9.77 H.A.	± 24.13 ACRES
SITE C1 AREA	± 1.37 H.A.	± 3.38 ACRES
SITE C2 AREA	± 0.77 H.A.	± 1.91 ACRES
SITE D AREA	± 1.74 H.A.	± 4.30 ACRES
SITE E AREA	± 2.09 H.A.	± 5.17 ACRES
SITE F AREA	± 10.69 H.A.	± 26.42 ACRES
TOTAL RETAIL SITE AREA	± 34.08 H.A.	± 84.21 ACRES
SITE 1 AREA	± 3.18 H.A.	± 7.85 ACRES
SITE 2 AREA	± 1.94 H.A.	± 4.80 ACRES
SITE 3 AREA	± 1.43 H.A.	± 3.53 ACRES
SITE 4 AREA	± 2.99 H.A.	± 7.39 ACRES
SITE 5 AREA	± 3.15 H.A.	± 7.80 ACRES
TOTAL RESIDENTIAL SITE AREA	± 12.69 H.A.	± 31.37 ACRES
DESIGNATED OPEN SPACE & RECREATION AREA	± 12.08 H.A.	± 29.85 ACRES
PROPOSED OPEN SPACE & RECREATION AREA	± 0.92 H.A.	± 2.27 ACRES
CITY ROW AREA	±4.70 H.A.	± 11.62 ACRES
RETAIL AREAS		
SITE A AREA	± 7.65 H.A.	± 18.90 ACRES
GROSS RETAIL AREA	±12,844 S.M.	±138,252 S.F.
PARKING	6.41/100 S.M.	767 CARS 5.96/1000 S.F.
SITE B AREA	± 9.77 H.A.	±24.13 ACRES
GROSS RETAIL AREA	±20,676 S.M.	±222,550 S.F.
PARKING	6.09/100 S.M	1259 CARS 5.66/1000 S.F.
SITE C1 AREA	± 1.37 H.A.	± 3.38 ACRES
GROSS RETAIL AREA	±1,493 S.M.	±16,700 S.F.
PARKING	11.97/100 S.M.	160 CAR 10.19/1000 S.F.
SITE C2 AREA	± 0.77 H.A.	± 1.91 ACRES
GROSS RETAIL AREA	±2,172 S.M.	±23,376 S.F.
PARKING	2.58/100 S.M.	56 CARS 2.40/1000 S.F.
SITE D AREA	± 1.74 H.A.	± 4.30 ACRES
GROSS RETAIL AREA	±3,644 S.M.	±39,220 S.F.
PARKING	212 CARS 5.82/100 S.M.	5.41/1000 S.F.
SITE E AREA	± 2.09 H.A.	± 5.17 ACRES
GROSS RETAIL AREA	±4,294 S.M.	±46,225 S.F.
PARKING	189 CARS 4.40/100 S.M.	4.09/1000 S.F.
SITE F AREA	± 10.69 H.A.	± 26.42 ACRES
GROSS RETAIL AREA	±21,759 S.M.	±234,215 S.F.
PARKING	1,420 CARS 6.53/100 S.M.	6.06/1000 S.F.
TOTAL RETAIL SITE AREA	± 34.08 H.A.	± 84.21 ACRES
GROSS RETAIL AREA	±79,739 S.M.	± 858,306 S.F.
RESIDENTIAL AREAS		
SITE 1 AREA	± 3.18 H.A.	± 7.85 ACRES
GROSS RESIDENTIAL AREA TOWNHOUSE	±25,688 S.M.	±276,500 S.F. 158 UNITS 20.15 UNITS/ACRE
SITE 2 AREA	± 1.94 H.A.	± 4.80 ACRES
GROSS RESIDENTIAL AREA TOWNHOUSE	±14,632 S.M.	±157,500 S.F. 90 UNITS 19.44 UNITS/ACRE
SITE 3 AREA	± 1.43 H.A.	± 3.53 ACRES
GROSS RESIDENTIAL AREA CONDO TOWNHOUSE	±12,235 S.M.	±131,650 S.F. 176 UNITS 35 UNITS 60.63 UNITS/ACRE
SITE 4 AREA	± 2.93 H.A.	± 7.25 ACRES
GROSS RESIDENTIAL AREA CONDO TOWNHOUSE	±25,405 S.M.	±273,462 S.F. 176 UNITS 114 UNITS 40.00 UNITS/ACRE
SITE 5 AREA	± 2.83 H.A.	± 7.00 ACRES
GROSS RESIDENTIAL AREA TOWNHOUSE	±6,598 S.M.	±71,020 S.F. 119 UNITS 20.48 UNITS/ACRE
TOTAL RESIDENTIAL SITE AREA	± 12.31 H.A.	± 30.43 ACRES
GROSS RESIDENTIAL AREA	±84,554 S.M.	±910,132 S.F. 868 UNITS 28.74 UNITS/ACRE
GROSS BUILDING AREA	±79,739 S.M. ±84,554 S.M. ±164,293 S.M.	±858,306 S.F. ±910,132 S.F. ±1,768,438 S.F.

#	DATE	DESCRIPTION	BY
13	2019-04-25	ISSUED FOR COORDINATION	YSK
8	2018-11-13	ISSUED FOR COORDINATION	YSK

RIOCAN

PROJECT

WINCHESTER ROAD & SIMCOE STREET

OSHAWA, ONTARIO

DRAWING

OVERALL SITE PLAN

PROJECT NO.	08.118
PROJECT DATE	2019-04-25
DRAWN BY	YSK
CHECKED BY	JJK
SCALE	As indicated

DRAWING NO. A1-196

4/25/2019 12:07:21 PM

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