Appendix K – Hazardous Materials

PHASE I ENVIRONMENTAL SITE ASSESSMENT:
Runway 17/35 RIM Extension & Railroad Relocation Project at the Kalamazoo/Battle Creek International Airport Kalamazoo, Michigan 49002 (L&A Project 18-0486)

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1.0 SUMMARY

Lawhon & Associates, Inc. (L&A) has completed a Phase I Environmental Site Assessment (ESA) for the proposed Runway 17/35 RIM Extension and Railroad Relocation Project located at the Kalamazoo/Battle Creek International Airport in Kalamazoo, Michigan (the subject property), in conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Designation: E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. L&A performed an on-site visual inspection, a driving tour of the vicinity, a review of government agency databases, and a review of historical data in order to achieve this objective. Any exceptions to, or deletions from, this practice are described in Section 2.5 of this report.

The Phase I ESA has revealed no evidence of recognized environmental conditions (RECs), historical recognized environmental conditions (HRECs) or controlled recognized environmental (CREC) has been identified in connection with the subject property, except for the following:

- The nature and extent of activities that occur on the subject property and at properties in close proximity to the site are recognized environmental conditions; however, the Limited Phase II Site Investigation (dated October 23, 2019) conducted on the project area did not identify any contaminants.

2.0 INTRODUCTION

2.1 PROPERTY LOCATION AND DESCRIPTION

The airport property's main addressed is 5235 Portage Road in Kalamazoo, Michigan, and includes the following Kalamazoo County and City tax parcels:

- 10-01-101-001
- 10-01-172-001
- 10-02-251-005
- 10-02-252-004
- 10-02-253-001
- 10-02-264-001
- 10-02-404-002
- 10-02-405-001
- 10-02-458-001
- 10-12-152-001
- 10-11-279-001
- 10-09240-020-O
- 10-00012-101-C
- 10-00012-100-D
- 10-00012-103-O

Available property records are provided in Appendix 9.7.3. A map of the subject property and vicinity is presented in Appendix 9.1.2 and a copy of the tax parcel diagram is presented in Appendix 9.1.3.

2.2 PURPOSE

L&A's objective was to identify, to the extent feasible pursuant to the process prescribed in ASTM Designation: E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, recognized environmental conditions in connection with the subject property. In doing so, this Phase I ESA is intended to permit the user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on liability (hereinafter, the "landowner liability protections") available under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended (42 U.S.C. §9601).

The term recognized environmental condition is defined in ASTM E 1527-13 as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment".

Additionally, the terms controlled recognized environmental condition, historical recognized environmental condition, and de minimis condition are utilized in ASTM E 1527-13 to clarify the determination of recognized environmental conditions; these terms are defined as follows:

A controlled recognized environmental condition is "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls".

A historical recognized environmental condition is "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls". A historical environmental condition is not currently a recognized environmental condition.

A de minimis condition is "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions".

2.3 SCOPE OF SERVICES AND CONTRACTUAL DETAILS

The scope of services, as well as special terms and conditions are outlined in the proposal. A copy of the executed proposal for services and attached General Conditions is presented in Appendix 9.2.

This practice does not address specific requirements of state or local laws, or federal laws other than the "All Appropriate Inquiry" provisions of Comprehensive Environmental Response, Compensation and Liability Act's (CERCLA's) innocent landowner defense. It should be noted that federal, state, and local laws may impose environmental assessment obligations that are beyond the scope of this practice. Nor does this practice address whether requirements in

addition to “All Appropriate Inquiry” have been met in order to qualify for the innocent landowner defense. It should also be noted that there are likely to be other legal obligations with regard to hazardous substances or petroleum products discovered on property that are not addressed in this practice and that may pose risks of civil and/ or criminal sanctions for non-compliance.

2.4 RELIANCE

The Report is intended for the sole use of Mead & Hunt, Inc., and any parent company, affiliates, successors, and assigns (Collectively, the “Relying Parties”) are permitted to rely on this report. The Relying Parties may rely on the Report subject to any limitations placed on the scope, nature and type of L&A’s services as stated in the Report. Pursuant to this Report, the Relying Parties are the only third parties to whom L&A grants the right to rely upon the Report. No other third party may rely on the Report unless the express written consent of L&A is first obtained.

2.5 LIMITING CONDITIONS, DEVIATIONS, EXCEPTIONS, AND SIGNIFICANT ASSUMPTIONS

As indicated in ASTM Designation: E 1527-13, no environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property. This practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property, and this practice recognizes reasonable limits of time and cost.

The conclusions presented in this report are professional opinions based on data contained in the report. They are intended for the purpose, site location and project indicated. This report is not an exhaustive study of contamination at the subject property and should not be interpreted as such. No sampling, testing, or chemical analyses were completed as part of this study.

Additionally, it should be noted that portions of this report are based on unverified information supplied to L&A by third-party sources. While efforts have been made to substantiate third-party information, L&A cannot guarantee its completeness or accuracy.

L&A has performed all activities appropriate and necessary to evaluate the environmental status of the property under ASTM E 1527-13 guidelines and consistent with good commercial and customary practice for this region.

It should be noted that this report is time sensitive and has specific limitations related to the viability of the information contained herein. Specific to Phase I ESAs, the Standard imposes a “shelf life”[1] on the reports and components thereof, as well as specific user obligations. It is the responsibility of the user to verify the continued viability of the report.

[1] According to the Standard, the shelf life, or “continued viability,” of the ESA is “Subject to Section 4.8, an environmental site assessment meeting or exceeding this practice and completed less than 180 days prior to the date of acquisition of the property or (for transactions not involving an acquisition) the date of the intended transaction is presumed to be valid. If within this period the assessment will be used by a different user than the user for whom the assessment was originally prepared, the subsequent user must also satisfy the user’s Responsibilities in Section 6. Subject to Section 4.8 and the user’s Responsibilities set forth in Section 6, an environmental site assessment meeting or exceeding this practice and for which the information was collected or updated within one year prior to the date of acquisition of the property or (for transactions not involving an acquisition) the date of the intended transaction may be used provided that the following components of the inquiries were conducted or updated within 180 days of the date of purchase or the date of the intended transaction: (i) interviews with owners, operators, and occupants; (ii)

3.0 USER PROVIDED INFORMATION

L&A provided a questionnaire to a representative of the Kalamazoo/Battle Creek International Airport requesting information specified in ASTM E 1527-13 indicating the extent of their knowledge pertaining to the subject property. As of the date of this report, L&A has not received a completed questionnaire. A copy of the questionnaire is provided in Appendix 9.3.

3.1 TITLE RECORDS

Title records for the subject property were not provided to L&A.

3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

L&A was not provided information regarding environmental liens against the subject property that have been filed or recorded under federal, tribal, state, or local law.

3.3 SPECIALIZED KNOWLEDGE

Specialized knowledge or experience related to the subject property or nearby properties was not provided.

3.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

Information regarding the purchase price of the subject property was not provided. However, it is not anticipated that the price would have been discounted due to environmental issues.

3.5 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

Commonly known or reasonably ascertainable information about the subject property that would be indicative of releases or threatened releases was not provided.

3.6 OBVIOUS INDICATORS OF RELEASES

Information related to the degree of obviousness of the presence or likely presence of releases or threatened releases at the subject property was not provided.

3.7 REASON FOR PERFORMING THE ESA

L&A was engaged by Mead & Hunt, Inc. to perform this Phase I ESA as part of due diligence activities prior to the runway expansion and railroad relocation project.

3.8 PROCEEDINGS INVOLVING THE PROPERTY

Information of pending, threatened, or past litigation or administrative proceedings relevant to hazardous substances or petroleum products in, on, or from the property was not provided. Additionally, information regarding notices from any governmental entity regarding possible

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searches for recorded environmental cleanup liens;(iii) reviews of federal, tribal, state, and local government records; (iv) visual inspections of the property and of adjoining properties; and (v) the declaration by the environmental professional responsible for the assessment or update.”

violations of environmental laws or possible liability relating to hazardous substances or petroleum products was not provided.

3.9 OTHER

No information material to identifying recognized environmental conditions was provided to L&A.

4.0 RECORDS REVIEW

4.1 PHYSICAL SETTING

4.1.1 Topographic Map

The United States Geological Survey (USGS) 7.5' Series Portage, Michigan Quadrangle Topographic Map, dated 1979, was provided by EDR. The subject property is situated at an elevation of approximately ±860 feet above mean sea level, and is located east of Portage creek. The subject property is shown as the Kalamazoo Municipal Airport. Various residential and commercial/industrial-sized structures are shown in the area of the subject property. A copy of this map is presented in Appendix 9.4.1.

4.1.2 Soil Survey Map

A general soil profile of the subject property and surrounding area was obtained from the United States Department of Agriculture – Natural Resource Conservation Service (USDA-NRCS) Web Soil Survey. The soil at the subject property consists primarily of Urban land-Kalamazoo complex (UkB, 0-6% slopes), which consists of well drained sandy clay loam and sandy loam soils. The Urban land portion consists of areas that have had soil material removed, filled or graded, and areas that are covered by buildings, parking lots, and buried utilities. A copy of the soil report is provided in Appendix 9.4.2.

4.2 FEDERAL, STATE, AND TRIBAL ENVIRONMENTAL RECORDS

The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the subject property. L&A contracted with Environmental Data Resources, Inc. (EDR) to assemble a Radius Report detailing federal, state, and tribal database information specified by ASTM as described below.

ASTM Specified Standard Environmental Record Sources

Standard Environmental Record Source	Search Distance
Federal National Priorities List (NPL) sites The NPL is the EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund program. A site must meet or surpass a predetermined hazard ranking system score, be chosen as a state's top priority site, or meet three specific criteria set jointly by the U.S. Department of Health and Human Services and the U.S. EPA in order to become an NPL site.	**1.0 mile**

Standard Environmental Record Source	Search Distance
Federal Delisted NPL sites The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.	**0.5 mile**
Federal Superfund Enterprise Management (SEMS) The Superfund Enterprise Management (SEMS), formerly known as the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) contains sites which are either proposed to be on, or are on the NPL and sites which are in the screening and assessment phase for possible inclusion on the NPL. The information on each site includes a history of all pre-remedial, remedial, removal and community relations activities or events at the site, financial funding information for the events, and unrestricted enforcement activities	**0.5 mile**
Federal SEMS Archive The Superfund Enterprise Management System (SEMS) Archive, formerly known as the CERCLIS-No Further Remedial Action Planned (CERCLIS-NFRAP) database, contains information pertaining to sites which have been removed from the SEMS (CERCLIS) database. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that the EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.	**0.5 mile**
Federal Resource Conservation and Recovery Act (RCRA) Corrective Actions (CORRACTS) facilities list The EPA maintains this database of Resource Conservation and Recovery Act (RCRA) facilities which have conducted, or are undergoing "corrective action." A "corrective action order" is issued pursuant to RCRA Section 3008 (h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility's boundary and can be required regardless of when the release occurred, even if it predates RCRA.	**1.0 mile**
Federal RCRA non-CORRACTS Treatment, Storage, and Disposal (TSD) facilities list The EPA's RCRA Program identifies and tracks hazardous waste from the point of generation to the point of disposal. RCRA TSD facilities are facilities which treat, store, and / or dispose of hazardous waste.	**0.5 mile**

Standard Environmental Record Source	Search Distance
Federal RCRA generators list RCRA Large Quantity Generators (LQGs) are facilities which generate at least 1,000 kilograms/ month of non-acutely hazardous waste (or 1 kilogram/ month of acutely hazardous waste). RCRA Small Quantity Generators (SQGs) are facilities which generate between 100 and 1,000 kilograms/ month of non-acutely hazardous waste (or 1 kilogram/ month of acutely hazardous waste). RCRA Conditionally Exempt Small Quantity Generators (CESQGs) are facilities which generate less than 100 kilograms/ month of non-acutely hazardous waste (or 1 kilogram/ month of acutely hazardous waste). RCRA Non Generators are facilities that do not presently generate hazardous wastes.	**Subject property and adjoining properties**
Federal institutional control/engineering control registries The Engineering Controls Sites List is a listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health. The list of Sites with Institutional Controls is a listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.	**0.5 mile**
Federal Emergency Response Notification System (ERNS) list Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities including the EPA, the U.S. Coast Guard, the National Response Center, and the Department of Transportation.	**Subject property only**
State and tribal hazardous waste sites (equivalent SEMS) There is no State/ Tribal Equivalent NPL database maintained for the State of Michigan	**N/A**
State and tribal landfill and/or solid waste disposal site lists The EDR Radius Report includes a search for sites appearing on the Solid Waste Facilities / Landfill Sites list in Michigan	**0.5 mile**
State and tribal leaking storage tank lists A review of Leaking Underground Storage Tank (LUST) Incident Reports. LUST records contain an inventory of reported LUST incidents.	**0.5 mile**
State and tribal registered storage tank lists A review of registered underground storage tanks (USTs) was included in the Radius Report.	**Subject property and adjoining properties**

Standard Environmental Record Source	Search Distance
State and tribal institutional control/engineering control registries A review of Michigan DEQ sites with Institutional Controls and sites with Engineering Controls databases was included in the EDR Radius Report.	**0.5 mile**
State and tribal voluntary cleanup sites There is no State voluntary cleanup site maintained for the State of Michigan	**N/A**
State and tribal Brownfield sites A review of the Michigan Brownfield Inventory was included in the Radius Report.	**0.5 mile**

Additionally, the EDR Radius Report includes searches of local Brownfield lists, local lists of landfill/solid waste disposal sites, local lists of hazardous waste/contaminated sites, local land records, records of emergency release reports, and numerous other ascertainable records potentially relevant to recognized environmental conditions in connection with the subject property. This section presents the findings of the EDR Radius Report, a copy of which is provided in Appendix 9.5.

4.2.1 Federal National Priorities List (NPL)

The National Priorities List (NPL) is the EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund program. A site must meet or surpass a predetermined hazard ranking system score, be chosen as a state's top priority site, or meet three specific criteria set jointly by the U.S. Department of Health and Human Services and the U.S. EPA in order to become an NPL site.

The Radius Report identified two (2) NPL sites within one (1) mile of the subject property, including Roto-Finish Co., Inc., which is located adjacently east of the airport at 3700 E. Milham Road. It was indicated that the plant produces mechanical parts and utilized a curing agent commonly called MOCA (4,4-methylene-bis 2-chloroaniline). Three (3) lagoons were located on the site to hold over 83,000-gallons of heavy metals and MOCA. The lagoons were excavated and the property owner implemented cleanup operations and a groundwater monitoring program. Based on regulatory status and distance from proposed airport improvements, the Roto-Finish Co., is not anticipated to impact the subject property.

The remaining site is located over 2,000 feet from the subject property, and is not anticipated to adversely impact the airport facility.

4.2.2 Federal Delisted NPL

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

The Radius Report did not identify any Delisted NPL sites within 0.5 miles of the subject property.

4.2.3 Superfund Enterprise Management (SEMS)

The Superfund Enterprise Management (SEMS), formerly known as the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) contains sites which are either proposed to be on, or are on the NPL and sites which are in the screening and assessment phase for possible inclusion on the NPL. The information on each site includes a history of all pre-remedial, remedial, removal and community relations activities or events at the site, financial funding information for the events, and unrestricted enforcement activities.

The Radius Report identified two (2) SEMS sites within 0.5 miles of the subject property including Roto-Finish located adjacently east of the airport at 3700 E. Milham Road. It was indicated that the facility had assessment and MDEQ oversight. See Section 4.2.1 for additional information.

The remaining is located over 2,000 feet from the subject property, and is not anticipated to adversely impact the airport facility.

4.2.4 Federal SEMS Archive

The SEMS Archive, formerly known as the CERCLIS-No Further Remedial Action Planned (CERCLIS-NFRAP) database, contains information pertaining to sites which have been removed from the SEMS (CERCLIS) database. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that the EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

The Radius Report identified three (3) SEMS Archive sites within 0.5 miles of the subject property:

- Zoetis LLC, which is located north of the airport at 2605 E. Kilgore Road, does not qualify for the NPL based on existing information.
- Kalamazoo County Road Commission, which is located more than 2,000 feet east of the airport at 3801 E. Kilgore Road, does not qualify for the NPL based on existing information.
- Portage Creek, which is located more than 2,000 feet northwest of the subject property airport facility, does not qualify for the NPL based on existing information.

4.2.5 Federal RCRA CORRACTS

The EPA maintains this database of Resource Conservation and Recovery Act (RCRA) facilities which have conducted, or are undergoing "corrective action." A "corrective action order" is issued pursuant to RCRA Section 3008 (h) when there has been a release of hazardous waste or constituents into the environment from a RCRA facility. Corrective actions may be required beyond the facility's boundary and can be required regardless of when the release occurred, even if it predates RCRA.

The Radius Report identified two (2) RCRA CORRACTS site within one (1) mile of the subject property airport facility. The listed sites are located greater than 3,000 feet from the subject property, and are not anticipated to adversely impact the subject property.

4.2.6 Federal RCRA non-CORRACTS TSD

The EPA's Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Facilities database is a compilation by the EPA of facilities which report generation, storage, transportation, treatment, or disposal of hazardous waste. RCRA treatment, storage, or disposal (TSD) facilities are facilities which treat, store, and/ or dispose of hazardous waste.

The Radius Report did not identify any Federal RCRA non-CORRACTS TSD facilities within 0.5 miles of the study area.

4.2.7 Federal RCRA Generator

RCRA Large Quantity Generators (LQGs) are facilities which generate at least 1,000 kilograms/ month of non-acutely hazardous waste (or 1 kilogram/ month of acutely hazardous waste). The Radius Report identified two (2) RCRA LQGs, one (1) of which was located adjacent to the north end of the airport facility at 2605 E. Kilgore Road. Zoetis, LLC was listed as a LQG of ignitable hazardous wastes, and received multiple violations in 2000, 2003, 2008 and 2014, all of which have received subsequent compliance in September 2014.

The remaining LQG site is located over 800 feet northeast of the airport facility, and is not anticipated to adversely impact the subject property.

RCRA Small Quantity Generators (SQGs) are facilities which generate between 100 and 1,000 kilograms/ month of non-acutely hazardous waste (or 1 kilogram/ month of acutely hazardous waste). The Radius Report identified two (2) RCRA SQG sites over 1,000 feet from the airport facility. Based on distance from the subject property, the SQG facilities are not anticipated to adversely impact the subject property airport facility.

RCRA Conditionally Exempt Small Quantity Generators (CESQGs) are facilities which generate less than 100 kilograms/ month of non-acutely hazardous waste (or 1 kilogram/ month of acutely hazardous waste). The Radius Report identified 20 CESQG sites within 0.25 miles of the study area, eight (8) of which were located on the airport property.

- **DAL Global Services**, located on the subject property at 5235 Portage Road, was listed as a CESQG of ignitable wastes. No RCRA violations were listed for this site; however, records did not indicate that compliance inspections were conducted.
- **Kalamazoo/Battle Creek International Airport (AZO)**, located on the subject property at 5235 Portage Road, was listed as a CESQG of ignitable hazardous wastes. No RCRA violations were listed for this site; however, records did not indicate that compliance inspections were conducted.
- **Western Michigan University**, located on the north end of the airport facility along E. Kilgore Road, was listed as a CESQG of ignitable hazardous wastes. No RCRA violations were listed for this site; however, records did not indicate that compliance inspections were conducted.

- **Duncan Aviation**, located on the west side of the airport facility at 5605 Portage Road, was listed as a CESQG of ignitable hazardous wastes. This facility received a violation notice in 1987. Compliance evaluations were conducted in 1986 and 2003.
- **Tell Leasing DBA Hertz Rent-A-Car**, located at the south end of the airport facilities at 5909 Willoughby Drive, was listed as a CESQG of ignitable hazardous wastes. No RCRA violations were listed for this facility; however, records did not indicate that compliance inspections were conducted.
- **Enterprises Holdings, LLC**, located at the south end of the airport facilities at 5909 Willoughby Drive, was listed as a CESQG of ignitable hazardous wastes. No RCRA violations were listed for this facility; however, records did not indicate that compliance inspections were conducted.
- **Kalamazoo Aviation History Museum**, located at the south end of the airport facilities at 3101 E. Milham Avenue, was listed as a CESQG of ignitable hazardous wastes. No RCRA violations were listed for this facility; however, records did not indicate that compliance inspections were conducted.
- **Stryker Corporation**, located on the west side of the airport facilities at 5605 Portage Road, was listed as a CESQG of ignitable hazardous wastes. No RCRA violations were listed for this facility; however, records did not indicate that compliance inspections were conducted.
- Mann & Hummel, located east of the airport, but in the area of a proposed rail line, at 6700 S. Sprinkle Road, was listed as a CESQG of batteries. No RCRA violations were listed for this facility; however, records did not indicate that compliance evaluations were conducted. This facility was also listed as a historical SQG in 1992.
- PBG Michigan LLC, located adjacent to the north end of the airport facility at 2725 E. Kilgore Road, was listed as a CESQG of ignitable hazardous wastes. No RCRA violations were listed for this facility, and a compliance evaluation was conducted in 2005.
- Pharmacia & Upjohn Co., LLC, located adjacent to the north end of the airport facility at 2605 E. Kilgore Road, was listed as a CESQG of ignitable hazardous wastes. No RCRA violations were listed for this facility; however, records did not indicate that compliance inspections were conducted.

The remaining CESQG sites are located greater than 1,000 feet from the airport facility, and are not anticipated to impact the subject property.

4.2.8 Federal Institutional Control / Engineering Control Registries

The list of Sites with Institutional Controls is a listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

The Engineering Controls Sites List is a listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

The Federal (US) Institutional Control/ Engineering Control Registries were reviewed as part of the Radius Report.

The Radius Report identified two (2) facilities the US Institutional Control/ Engineering Control databases within 0.5 miles of the airport facility, including the Roto-Finish Co., Inc., which is located adjacently east of the airport at 3700 E. Milham Road. It was indicated that the facility established groundwater monitoring, utilized a pump and treat system and allowed for natural attenuation in March 1997. The facility also recorded a deed restriction in 1997 prohibiting the use of groundwater. Based on regulatory status and distance from proposed airport improvements, the Roto-Finish Co., is not anticipated to impact the subject property.

The remaining site is located over 2,000 feet from the subject property, and is not anticipated to adversely impact the airport facility.

4.2.9 Federal – Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) is a national database used to collect information on reported releases of oil and hazardous substances. The database contains information from spill reports made to federal authorities including the EPA, the U.S. Coast Guard, the National Response Center, and the Department of Transportation.

The subject property was not identified on the ERNS database.

4.2.10 State / Tribal Landfill and/or Solid Waste Disposal

A search to 0.5 miles within the subject property to identify all sites appearing on the Old Solid Waste Landfill List and the Licensed Solid Waste Facilities in Michigan was conducted by EDR, and is included in the Radius Report.

No landfills or solid waste disposal sites were identified in the Radius Report.

4.2.11 State / Tribal Leaking UST

A review of the Michigan Department of Licensing and Regulatory Affairs (LARA) list of sites with reported closed or leaking UST systems (LUST List) is included in the Radius Report.

The Radius Report identified 18 LUST List incidents within 0.5 miles of the airport property, four (4) of which were located on the airport property:

- **Aviation Facility**, located at the north end of the airport facility (Western Michigan University property) on E. Kilgore Road, was listed as having one (1) incident with a closed status and associated date of January 21, 1993. See Section 4.3.5 for additional information.
- **Tell Leasing Co/Hertz Rent-A-Car**, located at the south end of the airport facilities at 5909 Willoughby Drive, was listed as having a release incident with a closed status and associated date of May 30, 2001. See Section 4.3.5 for additional information.
- **Willoughby Avtur LLC**, located at the south end of the subject property at 5828 Willoughby Drive, reported a release incident related to the closure of two (2) 10,000-gallon kerosene USTs in January 2015. See Section 4.3.5 for additional information.
- **The Kalamazoo/Battle Creek Airport**, located at 5235 Portage Road, was listed as having a release incident on November 11, 1997 associated with the closure of two (2) 6,000-gallon USTs.

- AZO ATBM, located at 5235 Portage Road, was listed as having a release associated with the closure of a 1,000-gallon diesel UST in 1998. The incident received closure on April 6, 1999.
- The Pepsi-Cola Bottling Group, located north of the airport facility at 2725 E. Kilgore Road, was listed as having two (2) incidents associated with diesel and used oil releases. The incidents received closure on April 6, 1993. See Section 4.3.5 for additional information.
- Ryder Transportation Service #2630, located north of the airport facility at 2211 E. Kilgore Road, was listed as having three (3) incidents associated with 1990, 1993 and 1996 used oil and gasoline releases. The indicated received closure on September 6, 1997. See Section 4.3.5 for additional information.

Based on distance from the proposed airport improvements, regulatory status, and/or anticipated groundwater flow direction, the remaining LUST sites listed in the regulatory database report are not anticipated to impact the subject property.

4.2.12 State / Tribal Registered UST

A review of the LARA list of registered underground storage tanks (USTs) was included in the Radius Report.

According to the Radius Report, 23 registered USTs were identified within 0.25 miles of the airport facility, five (5) of which were located on the airport property:

- **Aviation Facility**, located at the north end of the airport facility (Western Michigan University property) on E. Kilgore Road, was listed as having removed two (2) 10,000-gallon aviation fuel gasoline USTs, a 2,000-gallon (contents unknown) UST and a 1,000-gallon kerosene UST in 1990 and 1998. See Section 4.3.5 for additional information.
- **Tell Leasing Co/Hertz Rent-A-Car**, located at the south end of the airport facilities at 5909 Willoughby Drive, was listed as having removed a 10,000-gallon gasoline UST in March 1999. However, available information indicated that the tank was removed in March 2000. See Section 4.3.5 for additional information.
- Kal-Aero, Inc., located at 5605 Portage Road, was listed as having removed two (7) 10,000-gallon aviation gasoline USTs in 1973. No additional information was provided.
- **The Kalamazoo Aviation History Museum**, located at the sound end of the airport facilities at 3101 E. Milham Ave, was listed has having removed a 6,000-gallon gasoline UST in September 1990. See Section 4.3.5 for additional information.
- The Pepsi-Cola Bottling Co, located north of the airport facility at 2725 E. Kilgore Road, was listed as having removed various USTs in 1992 including an 8,000-gallon and a 12,000-gallon diesel USTs, and four (4) 500-gallon USTs containing gear lube, used oil and transmission fluid. See Section 4.3.5 for additional information.
- The Upjohn Co., located north of the subject property at 2605 E. Kilgore Road, was listed as utilizing a 12,000-gallon fuel oil UST. The facility was noted listed on any database which reports spills or releases of hazardous substances or petroleum products.
- Ryder Transportation Service #2630, located north of the airport facility at 2211 E. Kilgore Road, was listed as having removed four (4) 6,000-gallon USTs and two (2) 20,000-gallon UST containing diesel, gasoline, used oil, and/or motor oil in 1996. The facility also currently utilizes a 20,000-gallon diesel UST. See Section 4.3.5 for additional information.
- **Willoughby Avtur LLC**, located at the south end of the subject property at 5828 Willoughby Drive reportedly removed two (2) 5,000-gallon USTs in 1990 and two (2) 10,000-gallon

USTs in 2015. However, information received from LARA indicated that the two (2) 5,000-gallon USTs were closed in 1986. See Section 4.3.5 for additional information.

- **The Kalamazoo/Battle Creek Airport**, located at 5235 Portage Road, was listed as installing a 12,000-gallon dual compartment UST on August 27, 1997, utilizing 6,000-gallons of diesel fuel and gasoline. One (1) 6,000-gallon gasoline UST and one (1) 6,000-gallon diesel UST were also removed in November 1997. See Section 4.3.5 for additional information.
- AZO ATBM located at 5235 Portage Road reportedly removed a 1,000-gallon diesel UST in 1992. See Section 4.3.5 for additional information.

Based on distance from the proposed airport improvements, regulatory status, and/or anticipated groundwater flow direction, the remaining UST sites listed in the regulatory database report are not anticipated to impact the subject property.

4.2.13 State / Tribal Institutional Control / Engineering Control Registries

A review of the State sites with Engineering Controls (a database that tracks properties with engineering controls), and sites with Institutional Engineering Controls (a database that tracks properties with institutional controls), is included in the Radius Report.

The Radius Report identified three (3) engineering and institutional control sites within 0.5 miles of the subject property including the Duncan Aviation fuel storage area, which is located on the west side of the subject property. This area of the subject property reportedly maintains a restrictive covenant. See Section 4.3.3 for additional information.

Roto-Finish, located adjacently east of the airport at 3700 E. Milham Road, also maintains a restrictive covenant. As indicated in Section 4.2.8, the facility recorded a deed restriction in 1997 prohibiting the use of groundwater. The facility also established groundwater monitoring, utilized a pump and treat system and allowed for natural attenuation in March 1997.

Based on distance from the proposed airport improvements, regulatory status, and/or anticipated groundwater flow direction, the remaining site listed in the regulatory database report is not anticipated to impact the subject property.

4.2.14 State / Tribal Brownfield Sites

A review of the Michigan Brownfield Inventory was included in the Radius Report.

According to the Radius Report, one (1) Michigan Brownfield site was identified within 0.5 miles of the subject property airport facility at 5147 Portage Road. The site was listed as a vacant lot, and is located greater than 2,000 feet from proposed airport improvements. As such, this site is not anticipated to adversely impact the subject property.

4.2.15 Michigan Spills Database

The Michigan Spills Database is provided by the Michigan DEQ, and was reviewed as part of the Radius Report. The Radius Report identified two (2) spill incidents on the subject property.

The airport reported a spill of five (5) gallons of Jet-A fuel to pavement in February 2001. Cleanup was complete on February 23, 2001; however, a more location of the spill was not provided.

The Duncan Aviation fuel storage area, which is located on the west side of the subject property, reported a fuel spill inside of a diked area in July 2007.

4.2.16 Orphan Summary

Not all sites or facilities identified in the database records can be accurately located in relation to the subject property due to incomplete information being supplied to the regulatory agencies and are referred to as “orphan sites” by EDR. The “Orphan Summary” section of the EDR Radius Map Report identified 185 orphan listings, five (5) of which were for the area of subject property. The subject property was identified on the Orphan list as having reported a spill of approximately 20 to 30 gallons of propylene glycol in August 2000; a spill into the sewer system in February 2005 and a spill of approximately 10 gallons of Jet-A fuel in December 2001 while re-fueling an aircraft. No additional information on the releases was provided. It was also reported that Willoughby Avtur LLC, located at the south end of the subject property at 5828 Willoughby Drive, maintains at restrictive covenant.

Seventy-one (71) listings were for the Pharmacia & Upjohn Company (also known as Pfizer) located south of the airport facility. Of the 69 listings, 45 were listings on the emergency response notification system (ERNS) database, which included some of the following releases:

- Release of methanol into the wastewater treatment plant due to faulty equipment in August 2014;
- Release of unknown oil type from chiller into water in September 2015;
- Release of anhydrous ammonia from refrigeration system in October 2013;
- Potential discharge of 1000 pounds of methylene chloride into the atmosphere in May 2015;
- UST overfilled/system failure in November 1998. It was indicated that approximately 720 gallons of methyl alcohol was spilled and soil was excavated;
- Spill of approximately one (1) gallon of ethylene glycol in February 1993 due to equipment failure. Adsorbents were used to recover material, removing contaminated soil;
- An unknown amount of dichloromethane released to an underground sewer line in December 1992;
- Spill of approximately one (1) gallon of ethylene glycol in March 1993 due to equipment failure. Spilled material was contained in a bucket;
- Release of approximately 300-gallons of dichlorobenzene to a sump resulting from an improper hookup at an unloading station in November 1992;
- Release of approximately 0.5 gallons of ethylene glycol in May 1993. The pavement was washed and went to sanitary sewer;
- Release of approximately one (1) gallon of ethylene glycol in October 1992. Cause known;
- Spill of approximately 534 gallons of dichloromethane to a concrete diked area in October 1993;
- Spill of approximately 200 gallons of ethylene glycol into the sanitary sewer resulting from a condensate line break in December 1993;
- A spill of unknown oil to Upjohn Pond in April 2001. Booms were applied, the area was isolated and a clean-up crew was on-site to investigate;

- Unknown amount of oil was release to on-site retention basin in November 2001. Booms were applied, vacuum truck was used and a contractor was retained;
- 1,000-gallons of pharmaceutical hazardous waste was released inside a containment dike in November 2001. The area was blocked off and the fire department was called; and
- A spill of approximately 200 gallons of dichloromethane into secondary containment area in October 2011.

The adjacent manufacturing facility was also identified on the aboveground storage tank (AST), Spills, RCRA-Non Generator, polychlorinated biphenyl (PCB) transformer, hazardous materials information reporting system (HMIRS), toxic substances control act (TSCA), Section 7 tracking systems of the Federal Insecticide, Fungicide and Rodenticide Act (SSTS), material licensing tracking system (MLTS), aerometric information retrieval system (AIRS) and Manifest databases. Please refer to Appendix 9.5 for specific details on database listings.

Based on a drive-by reconnaissance of the subject property vicinity and review of location and status information provided in the database report, the remaining facilities identified do not appear to be located at either the subject property or any adjacent property.

4.3 LOCAL/REGIONAL ENVIRONMENTAL RECORDS

4.3.1 Local Fire Authority

On September 12, 2018, Ms. Sally Betz of L&A submitted an information request to the City of Kalamazoo to determine if any information is maintained on file regarding potential environmental concerns, such as USTs/ASTs and hazardous material storage or spills at the subject property and nearby industrial facilities. On September 17, 2018, an email response was received from Ms. Carrie Funk with the Kalamazoo City Attorney's Office. Ms. Funk indicated that the Kalamazoo airport property is not within Kalamazoo City limits. Ms. Betz submitted a subsequent information request to the on-site Kalamazoo-Battle Creek International Airport Fire Department on December 27, 2018. On January 17, 2019, a phone call and subsequent email was received from Mr. Eric Bjorkman, Assistant Director of Operations and Maintenance at the Kalamazoo/Battle Creek International Airport. Mr. Bjorkman provided a December 2018 Storm Water Pollution Prevention Plan (SWPPP) for the subject property. The SWPPP indicated that aircraft fuel is stored at one (1) of four (4) sites at the subject property including a fuel farm owned and operated by Duncan Aviation, Inc., a self-service fuel center owned by the Kalamazoo Pilot's Association, and two (2) privately owned fuel farms owned by the Hinman Company and Speed Bird X LLC/Stryker Corporation. Secondary containment measures are in place at all four (4) locations, minimizing the potential for contamination due to tank leakage.

The Duncan Aviation fuel farm consists of five (5) 20,000-gallon, single-walled ASTs. Four (4) of the five (5) storage tanks contain Jet-A aviation fuel, while the fifth tank contains aviation gasoline. Each tank is equipped with overfill protection and lined with fiberglass on the bottom six feet of the tank. Secondary containment consists of an earthen berm, which is lined with an impermeable synthetic liner. Storm water collected within the berm is drained on an as-needed basis to an oil/water separator, and then to a holding area for evaporation.

The self-service fuel center is a single, double-walled AST with the capacity to hold 20,000-gallons of fuel, and is located directly north of the Duncan Aviation fuel farm. The tank is owned and operated by the Kalamazoo Pilot's Association, and is equipped with leak detection, overfill and secondary containment equipment.

The third (3) storage site is located in the area south of the Speed Bird X LLC hanger and consists of two (2) 12,000-gallon double-walled ASTs equipped with leak detection, overfill and secondary containment equipment.

The fourth fuel storage location is at the Hinman Company hanger

As of the date of this report, L&A has not received a response the on-site fire department. If information is received from this department, which indicates conditions that would alter the conclusions of this Phase I ESA, L&A will notify Mead & Hunt and issue an addendum to this report. A copy of L&A's information request letter is provided in Appendix 9.6.1.

4.3.2 Local Health Department

On September 12, 2018, Ms. Sally Betz of L&A submitted an information request to the Kalamazoo County Health Services Department in an attempt to obtain any information the department might have regarding health problems or environmental contamination incidents associated with the subject property. On September 17, 2018, an email response was received from Mr. Jeff Reicherts, Groundwater Specialist with the Health & Community Services Department. Mr. Reicherts provided the following information:

- A Notice of Land Use Restriction for Duncan Aviation, Inc., who is leasing a portion of land at the Kalamazoo-Battle Creek International Airport. It was indicated that contaminants common to aviation fuel were detected in soil and groundwater beneath a fuel storage containment structure. As such, this area of the airport was restricted to a non-residential use. The construction and use of wells for groundwater consumption and irrigation purposes was also prohibited.

- A proposed Septic System for the Kalamazoo Municipal Airport snow removal equipment building.

- Permit to construct an on-site sewage disposal system, dated February 1993 and associated Final Inspection Reports.

Copies of L&A's information request letter, and information received from Mr. Reicherts are provided in Appendix 9.6.2.

4.3.3 Michigan Department of Environment, Great Lakes & Energy

On September 10, 2018, Ms. Sally Betz with L&A contacted The Michigan Department of Environment, Great Lakes and Energy (EGLE), formerly known as the Michigan Department of Environmental Quality (MDEQ), regarding any available information concerning the subject property. On Date September 11, 2018, an email response was received from the FOIA Division indicated that our request would be forwarded to the Remediation and Redevelopment Division (RRD), Waste Management and Radiological Projection Division (WMRPD) and the Water Resources Division (WRD).

On September 11, 2018, an email was received from Ms. Deana Mercs, WRD Secretary with EGLE. Ms. Mercs provided the following information for the subject property:

- Various MDEQ Surface Water Quality Division National Pollutant Discharge Elimination System (NPDES) Certificates of Coverage.

- Stormwater Industrial/Commercial Pre and Post-Inspections dated August 2006, November 2008 and February 2012.

- Storm Water Monitoring Studies dated August 2002, October 2003, June 2004, March 2005, May 2010 and April 2015. These reports indicated that on February 25, 2005, 300 gallons of propylene glycol was released from the glycol storage area into the storm sewer that drains to the wetland area and Davis Creek located east of the airport facility. The source of the leak was reportedly an open valve used to transfer deicing fluid from the glycol storage tank to deicing equipment. It was indicated that the spilled propylene glycol was a 50/50 mix of glycol and water.

- An October 2011 SWPPP for Duncan Aviation, who provides aircraft maintenance at the airport facility, indicated that storm water collected in the fuel tank secondary containment area is processed through an oil/water separator and is then discharged to a holding pond for evaporation. The drain valve for the fuel tank secondary containment is only opened if the water passes visual inspection. Outdoor activities include aircraft refueling and aircraft deicing. The drainage system for the deicing pad is connected directly to the City of Kalamazoo sanitary sewer system.

  A subsequent June 2015 SWPPP for the airport facility also indicated that an on-site fuel farm consisted of five (5) 20,000-gallon single-walled ASTs containing Jet A aviation fuel and/or gasoline. Each tank was equipped with overfill protection and lined with fiberglass on the bottom six (6) feet of the tanks. Secondary containment consisted of an earthen berm, which was lined with an impermeable synthetic liner. Stormwater collected within the berm was drained as needed to an oil/water separator, which was then collected to a holding area for evaporation.

  It was indicated that a self-service fuel center was located directly north of the fuel farm and consisted of a 20,000-gallon double-walled steel AST, equipped with leak detection, overfill and secondary containment.

  Two (2) 12,000-gallon double-walled ASTs equipped with leak detection, overfill and secondary containment were also located south of the Speed Bird X LLC hanger.

  Two (2) 10,000-gallon single-walled steel USTs containing Jet A aviation fuel were utilized at the Hinman Company hanger. The tanks were equipped with a leak detection system and possessed overfill alarms. It was indicated that a dike contained the truck fuel unloading area.

  It should be noted that a current SWPPP was not provided by the DEQ, although a SPPPP annual review report form dated December 2016 was provided.

- Violation Notice dated September 15, 2008 for an unpermitted discharge of industrial stormwater to surface water.

- General correspondences and miscellaneous documents.

On October 17, 2018, Ms. Sally Betz with L&A also contacted The MDEQ regarding any available information concerning the Pfizer manufacturing facility located south of the subject property. On October 19, 2018, an email response was received from Ms. Deana Mercs with the MDEQ WRD. Ms. Mercs provided groundwater discharge permit applications, groundwater

discharge permits in accordance with effluent limits and monitoring requirements, NPDES certificates of coverage and associated inspection reports, MDEQ WRD Pre and Post Inspection Reports, notifications to reapply for groundwater discharge permits, interoffice communications, and authorizations letters to discharge a maximum of 300 gallons per day of portable power washer wastewater.

On October 18, 2018, Ms. Betz performed a file review at the Michigan DEQ Kalamazoo District Office. Pertinent information reviewed including the following:

- Findings of a 1996 soils investigation conducted by Wilkins & Wheaton Environmental Services, Inc. (WWES) related to potential impacts from the possible release of used motor oil into a septic system and leach field, which serve the snow removal and equipment storage building at the subject property. Residual benzene, toluene, ethylbenzene and xylene (BTEX) contamination was observed in soils surrounding the holding tank, and it was recommended that further sampling was needed to delineate the extent of impacted soils and to determine if groundwater was impacted.

- Catch Basin Soils Remediation Project Request for Closure Report prepared by Prein & Newhof in March 1999. The report indicated that an interconnected oil/water separator inadvertently overflowed, spilling its contents into a catch basin to which the oil/water separator was connected by a buried pipe. A soils investigation conducted in May 1996 revealed that there was no impact to soils underlying the leach field by any used motor oil in the septic tank. However, used motor oil had impacted the soils surrounding the catch basin. Preliminary hand augering identified impacted soil to a depth of approximately 10 feet below ground surface (bgs).

  Prior to their removal on October 22, 1998, approximately 1,000-gallons of water were pumped out of the catch basin and septic tank. A total of 93 cubic yards of impacted soils were subsequently excavated and transported to a licensed disposal facility. Confirmatory soil sampling indicated that all concentrations were below applicable MDEQ standards.

- A September 2012 Aboveground Storage Tank Farm Assessment Report, which indicated that a tank farm at the subject property was composed of three different, but interdependent structures:

  1. Main containment area that provided containment for five (5) 20,000-gallon ASTs with four (4) containing Jet A fuel and the fifth containing gasoline; a 10,000-gallon gasoline.

  2. A 10,000-gallon oil-water separator that receives and treats stormwater that collects in the main AST containment area.

  3. An evaporation basin that receives stormwater from the oil-water separator.

  On August 12, 2012, Envirologic advanced 10 soil borings to depths of approximately 25 to 31 feet bgs in the vicinity of the containment structure for the ASTs, evaporation basin and oil-water separator. Analytical results indicated that petroleum compounds common to jet fuel and gasoline were present in both soil and groundwater at concentrations exceeding applicable MDEQ cleanup standards.

  A Remedial Investigation and No Further Action Report for the Aviation Fuel Storage Facility prepared by Envirologic in June 2015, which indicated that between December 2012 and

April 2013, 37 soil samples and 53 groundwater samples were collected for laboratory analysis of volatile organic compounds (VOCs) within or in the vicinity of an AST containment berm on the southern portion of the subject property. With the exception of a single groundwater sample collected during initial assessment activities in August 2012, all chemicals of concern in soil and groundwater were below generic or health-based non-residential drinking water protection criteria. Based on monitoring data, a Restrictive Covenant was issued on May 18, 2015, restricting the fuel storage facility to a non-residential use and prohibiting groundwater use for consumption.

- A Baseline Environmental Assessment (BEA) was conducted at the Kalamazoo Aviation History Museum (5825 Willoughby Drive) located at the south end of the subject property in 2012. The airplane hangar was used for historic aircraft repair and restoration. It was indicated that a suspected historic fuel pump/UST was located on the northwest side of the hangar and that dry wells and an historic septic system were once utilized on-site. Analytical results from soil and groundwater sampling indicated the presence of trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-1,2-DCE), and vinyl chloride above the drinking water protection criteria. It was suggested that the contamination was likely the result of the use of cleaning solvents and subsequent discharges to floor drains and dry well disposal systems. A BEA was also conducted in May 2016, which also indicated that soil and groundwater at the property have been impacted by releases associated with historic operations at the site. Analytical data from 2012 and 2015 investigations indicated that the southern septic system area was a source of TCE, cis-1,2-DCE and vinyl chloride. Furthermore, the groundwater beneath the site is anticipated to be to the northwest and since the area of impacted groundwater was not fully investigated, a notice of contaminate migration was submitted to the west adjoining property owner at 5829 Portage Road. A Compliance Analysis and Due Care Plan was prepared in August 2016, which indicated that off-site transport of soil and groundwater would not be conducted unless the soil or groundwater is first properly characterized for disposal; municipal water will be relied upon for drinking water; all construction activities would be conducted in accordance will approved stormwater and sediment control measures; and a sub-slab depressurization would be operated and maintained until the on-site building is no longer occupied or vapor intrusion exposures are no longer deemed to be a concern.

- 6700 S. Sprinkle Road is located east of the airport facility, but is located in the vicinity of a proposed rail line. L&A reviewed a BEA conducted for the Mann+Hummel facility in April 2014. Prior to 1974, the site was agricultural, at which time the site was developed for the production of plastic injection molding. A 1997 Phase I ESA report prepared by United Environmental Technologies, Inc. identified six (6) areas representing environmental concerns including a hazardous material storage courtyard, drum storage alcove, former UST, and valve pit. As part of a limited subsurface investigation, 13 soil samples were submitted for laboratory analysis of VOCs and PAHs. With the exception of arsenic and toluene at concentrations of 8,000 parts per billion (ppb) and 18 ppb respectively, no chemicals of concern were detected above laboratory detected limits. United Environmental Technologies, Inc. also elected to resubmit eight (8) samples for laboratory analysis of TPH. Although, TPH is not regulated in Michigan as a contaminant and there are no established cleanup criteria, concentrations of 6,300 parts per millions (ppm), 280 ppm and 590 ppm were detected. The arsenic contamination at the property consisted of exceedances of the following residential generic cleanup criteria: drinking water protection, groundwater/surface water interface protection, and direct contact pathways.

The BEA also indicated that there were complaints that the facility reportedly "dumped hydraulic oil and antifreeze out the back door." The facility also maintained a permit to discharge process/cooling water via stormwater collection and conveyance system. The property's stormwater currently discharges to a "borrow" area on the west side of the property.

4.3.4 Local Building and Zoning Department Records

On September 12, 2018, Sally Betz of L&A submitted an information request to the City of Kalamazoo to determine if any information is maintained on file which could indicate situations and/or operations relating to current or past use of the subject property. On September 17, 2018, an email response was received from Ms. Carrie Funk with the Kalamazoo City Attorney's Office. Ms. Funk indicated that the Kalamazoo airport property is not within Kalamazoo City limits. However, L&A was able to obtain general electrical, mechanical and plumbing permits from the City's online information system.

A copy of L&A's information request letter, and the information obtained from the City of Kalamazoo's online information system are provided in Appendix 9.6.4.

4.3.5 Department of Licensing and Regulatory Affairs (LARA)

Sally Betz with L&A submitted an electronic information request to the Underground Storage Tank Division of LARA on September 10, 2018 for UST information for the subject property. The following information was provided (please note that airport and surrounding facilities are identified as they listed/represented in the EDR regulatory report):

Aviation Facility

A cancelled Suspected Release incident form dated January 1991 for the Western Michigan University Airport Facility located on the north side of the subject property. Although a site assessment revealed contamination around the pump, analytical results were below laboratory detection limits benzene, toluene, ethylene benzene and xylene (BTEX).

In the fall of 1990, a 10,000-gallon aviation fuel UST and a smaller 1,000-gallon fuel oil UST were removed from the Western Michigan University Airport Facility off of Kilgore Road at the north end of the subject property. Confirmatory soil samples were collected and analyzed for BTEX and total petroleum hydrocarbons (TPH). Laboratory analytical results were below applicable laboratory detection limits, except in the area of the pump island. Soil samples collected following the removal of eight (8) cubic yards of contaminated soil showed no detectable concentrations of BTEX. A 2,000-gallon UST and a 10,000-gallon aviation fuel gasoline UST were also removed in 1990 and 1998, respectively. Associated Inspection Reports did not indicate the presence of contamination.

Kalamazoo Aviation History Museum

Notification for the removal of two (2) 6,000-gallon gasoline and one (1) 2,000-gallon used oil USTs from the Kalamazoo Aviation History Museum property in July 1986.

The Kalamazoo/Battle Creek Airport

Notification form for the installation of a 12,000-gallon dual compartment UST on August 27, 1997, utilizing 6,000-gallons of diesel fuel and 6,000-gallons of gasoline. Associated facility inspection forms were also provided. One (1) 6,000-gallon gasoline and one (1) 6,000-gallon diesel UST were also removed on November 7, 1997 due to the installation and use of the 12,000-gallon UST.

Willoughby Avtur LLC

The airport facility located at the south end of the subject property at 5828 Willoughby Drive closed-in-place two (2) 10,000-gallon kerosene USTs in January 2015. In November 1989, a precision test was performed to satisfy leak detection requirements for tank systems 25 years or older. Results indicated a leak rate above allowable limits, however, a static check on the UST system showed no leakage or change in product level after a 24 hour testing period. Furthermore, no violations were cited in various facility inspection reports.

Two (2) 5,000-gallon gasoline USTs were also utilized on-site and were closed in September 1986. Although associated documents did not indicate a release, closure reports and associated sampling was not provided.

Tell Leasing/Hertz Rent-A-Car

The Hertz Rent-a-Car facility associated with airport operations located at 5909 Willoughby Drive at the south end of the airport removed one 10,000-gallon gasoline UST in March 2000. Laboratory results collected during excavation confirmed a release during. However, laboratory results were not provided, nor was additional information on any remedial activities. Prior to its removal, the tank was also cited for various monitoring and release detection violations.

Mann & Hummel

Information was also received for the Summit Polymers, Inc. facility. This facility is located east of the airport at 6700 Sprinkle Road, and is located in the vicinity of a proposed rail line. The received documents indicated that the facility reported a release from a 1,000-gallon fuel oil UST on March 26, 1991. It was indicated that interim response activities consisting of soil excavation and removal and the collection of soil samples for laboratory analysis was performed to verify mitigation of contamination to acceptable concentrations. According to the Michigan Department of Natural Resources, the facility reduced contamination to concentrations below applicable cleanup criteria, and required no further action.

Pfizer/Upjohn Company

A large manufacturing plant is located south of the airport facility at 7000 Portage Road. Information obtained for this facility indicated that the facility Pfizer/Upjohn Company utilized 36 USTs from 2,500-gallons to 40,000-gallons containing various hazardous substances including acetone, ethyl acetone, butyl acetone, butyl alcohol, tetrahydrofuran and methylene chloride. According to a March 1990 letter to the MDEQ, the UST release detection program indicated low levels of contamination present in the area of the 36 hazardous substance UST systems monitored for releases using vapor well sampling techniques. Based on the static level checks performed on the USTs and low levels of contamination present, it was indicated that the releases were the result of past UST management practices.

The following information was also reviewed for the Pfizer company:

- Various applications for the installation of aboveground storage tanks:

- A December 2016 request to cancel the suspected release from a 40,000-gallon tetrahydrofuran UST. In November 2016, a helium test was performed which showed helium leaking through the outer tank shell onto soil near the base of the tank. No evidence was found to indicate that tetrahydrofuran had been released to the environment. However, the UST was subsequently closed-in-place.

- An August 2014 request to rescind a suspected release from a 40,000-gallon acetone UST in 2014. A subsequent tightness test demonstrated that the tank was absent of leaks.

- A December 2013 request to rescind a suspected release from a 20,000-gallon solvent UST in 2013. A subsequent tightness test demonstrated that the tank was absent of leaks.

- A February 2010 request to rescind a suspected release from a 40,000-gallon toluene UST in 2010. A subsequent tightness test demonstrated that the tank was absent of leaks.

- Confirmatory sampling of a 2008 closure-in-place of a 20,000-gallon propionic acid UST and a 40,000-gallon methanol UST showed no evidence of a confirmed release. Laboratory analysis results were below threshold detection levels.

- In January 2007, a release from a 40,000-gallon process solvent UST was reported due to monitoring failure. Subsequent vapor monitoring was conducted with no detections. Additional soil samples were collected within two (2) feet of the UST. Analytical results were non-detect for tetrahydrofuran. As such, it was indicated that there was no release of product to on-site soils.

- Various facility UST registration certificates.

- In July 2004, a release from a 30,000-gallon octane (80% 2,2,4-trimethylpentane) UST was reported due to monitoring failure. Contents of the tank were emptied and soil samples were collected within two (2) feet of the UST. Analytical results were non-detect for 2,2,4-trimethylpentane. As such, it was indicated that there was no release of product to on-site soils.

- Various UST Assessment Reports and Facility Inspection Reports

- A 1991 UST Closure Report for eight (8) USTs ranging in size from 10-000-gallons to 30-gallons containing heptane and/or ethylene dichloride. A total of 12 confirmatory soils samples were collected in the vicinity of the eight (8) USTs. Analytical results indicated that no detectable concentrations of either heptane or ethylene dichloride were observed.

- The facility removed a butyl acetate UST (capacity unknown) in 1992. Confirmatory sampling was below laboratory detection limits.

- The facility removed a 1,000-gallon sodium hydroxide storage tank in 1992, which was utilized as an emergency scrubber tank for the emergency pressure relief of chlorine gas.

- Various other closure forms and suspects release documents, some of which were illegible.

Various other facilities are located in the area of the subject property airport facility including 2211and 2725 E. Kilgore Road. The following information was obtained:

Ryder Transportation Service #2630

Information obtained for 2211 E. Kilgore Road indicated that two (2) 20,000-gallon diesel USTs, one (1) 6,000-gallon gasoline UST, one (1) 6,000-gallon used oil, one (1) 6,000-gallon motor oil UST and one (1) 6,000-gallon heating oil UST were removed in July 1996. A 20,000-gallon diesel UST was subsequently installed, and is currently in use. With the exception of leaking nozzles, no violations were cited in various facility inspection reports.

The Pepsi-Cola Bottling Group

The Pepsi-Cola distribution warehouse located north of the airport facility at 2725 E. Kilgore Road removed the following USTs:

- 8,000-gallon diesel fuel
- 12,000-gallon diesel fuel
- 500-gallon used oil
- 1,000-gallon motor oil
- 500-gallon gear lube
- 500-gallon transmission fluid
- 275-gallon used oil

During a preliminary site assessment conducted on September 5, 1992, soil borings were installed adjacent to all UST systems. Visible staining, petroleum odors and elevated organic vapor readings were noted in the soils adjacent to the used motor oil tank. As such, a confirmed release was reported to the MDEQ. There was no indication that a release had occurred from the other USTs. Subsequent tank removal activities also confirmed a diesel release, and the collection of confirmatory soil samples were performed on September 11, 1992. It was indicated that releases from the diesel and used motor oil USTs were being addressed in accordance with the Michigan LUST Act.

Copies of the information received from LARA are provided in Appendix 9.6.5.

4.3.6 Well Records

L&A conducted a review of the MDEQ Environmental Mapper online resource tool to evaluate the subject property for the presence of water wells.

Various water wells were located in the areas located west of the subject property, across Portage Road. Several other wells were also located near airport facilities on the south end of the airport, near E. Milham Avenue. Copies of the water well maps are provided in Appendix 9.6.5.

4.4 HISTORICAL USE RECORDS

L&A has developed a summary of past subject property usage based on a review of aerial photographs, fire insurance maps, property tax files, recorded land title records, USGS

topographic maps, local street directories, building department records, and zoning/land use records. Detailed descriptions of information obtained from the individual historical sources are included in the following sections:

4.4.1 Aerial Photographs

Historic aerial photographs of the site and surrounding areas were obtained from EDR and Google Earth. These photographs were examined to assist in determining past land use. The available photographs are dated 1938, 1946, 1950, 1955, 1960, 1965, 1973, 1979, 1986, 1999, 2005, 2009, 2012 and 2016; and are presented in Appendix 9.7.1.

In 1938, the subject property was primarily agricultural land, although what appeared to be two (2) runways were located on the northern side of the airport property. The surrounding areas were also agricultural land with residences along major roadways.

By 1946, additional runways were located on-site. It also appeared that facility structures were located south and west of the runways. Surrounding areas continued to be used for agricultural purposes with some residential development.

In 1950, the runways remained in the same configuration as 1946, although additional support structures were located on-site. A drive-in theater was also located west of the subject property, across Portage Road.

By 1960, it appeared that the airport terminal located north of the existing runways was under construction, and various other structures were present at the north end of the airport property and east of the existing runways. By 1965, construction of the terminal building and an associated parking lot was complete. The airport also began expanding to the south with additional runways.

From 1973 through 2016, the airport runways remained in a similar configuration. However, over time, continued development and expansion of airport facilities and the surrounding areas continued, primarily along Portage Road at the west side of the airport.

4.4.2 Fire Insurance Maps

L&A engaged EDR to search their library for Sanborn® Fire Insurance Maps (Sanborn® maps) in an effort to determine historical land uses for the subject property and surrounding area. Sanborn® maps contain areas of interest for the purpose of evaluating insurable risk of buildings. After a review of available mapping, EDR informed L&A that there is no coverage for the subject property. A copy of the letter indicating “no coverage” is presented in Appendix 9.7.2.

4.4.3 Property Tax Files

A review of property tax records was conducted utilizing Kalamazoo County and Kalamazoo City Auditor’s online records. A review of the available records indicates that the subject property consists of the following tax parcels:

- 10-01-101-001
- 10-01-172-001
- 10-02-458-001
- 10-12-152-001

- 10-02-251-005
- 10-02-252-004
- 10-02-253-001
- 10-02-264-001
- 10-02-404-002
- 10-02-405-001
- 10-11-279-001
- 10-09240-020-O
- 10-00012-101-C
- 10-00012-100-D
- 10-00012-103-O

As previously discussed, a tax parcel diagram is included in Appendix 9.1.3. The subject property is currently owned by R & A Properties (acquired 2001).

4.4.4 Recorded Deed / Ownership Records and Environmental Lien / AUL Search

Based on available information, the subject property has operated as an airport since at least the late 1930s, as such, deed / ownership records were not reviewed as part of this effort.

4.4.5 USGS Topographic Maps

In addition to the Portage, Michigan Quadrangle Topographic Map dated 1979 discussed in Section 4.1.1, L&A reviewed historical topographic maps dated 1922, 1967 and 1973 provided by EDR. Copies of the historical topographic maps are presented in Appendix 9.7.4. In 1967 and 1973, the subject property was identified as the Kalamazoo Municipal Airport. In 1922, the area of the subject property was shown as undeveloped.

4.4.6 Local Street Directories

L&A reviewed (an abstract of) EDR's Digital Archive Directories and the Polk Directory directories in an attempt to determine previous occupants of the subject property. Copies of the directories are presented in Appendix 9.7.4.

Based on available information, the subject property's main addresses are 5235 and 5239 Portage Road. However, based on information obtained from the City of Kalamazoo and Kalamazoo County Parcel Reports, areas of the airport facility maintain additional addresses including the following:

- 5605 Portage Road
- 5429 Portage Road
- 2729 E. Milham Road
- 2500 E. Kilgore Road
- 2600 E. Kilgore Road
- 2620 Airview Blvd
- 2700 Airview Blvd
- 2730 Airview Blvd
- 6001 Mastenbrook Drive
- 6701 Mastenbrook Drive
- 5825 Willoughby Drive

The listings for the subject property addresses are provided in the following table:

Address	Directory Date	Local Street Directory Listing
5235 Portage Road	1966-1976	Not listed
	1982	Kalamazoo Municipal Airport
		Flightline Restaurant & Lounge
		Avis Rent-A-Car
		Hertz Rent-A-Car
		National Car Rental
		Federal Aviation Admn
		Flightline Gift Shop
		Republic Airlines
		Airport Limousine
	1987	Piedmont Airlines
	1992-1995	Airport Delivery, Inc.
		Continental Airline Holdings Inc.
		Kalamazoo Municipal Airport
		Northwest Airlines, Inc.
		U.S. Department Transportation
		U.S. Air Group, Inc.
	2000	Comair, Inc.
		Federal Aviation Adm
		Flightline Café, Inc.
		Huntleigh Corp
		Northwest Airlines, Inc.
		Travel Consultants, Inc.
		U.S. Airways, Inc.
	2005	American Eagle Airlines, Inc.

		Champlain Enterprises
		Executive Car Service
		Jaqua Realtors
		Kalamazoo County
		Kleins Bagels
		Republic Airlines
		Old Fisherman's Pub
	2010	Air Wisconsin United Express
		TSR, Inc.
		Direct Air
	2014	Clear Channel Outdoor, Inc.
		Executive Car Service
		Tailwind Kalamazoo LLC
5239 Portage Road	1982	Hertz Car Sales used car dlrs
	1987	Kalamazoo Municipal Airport
		Flightline Restaurant & Lounge
		Avis Rent-A-Car
		Hertz Rent-A-Car & Leisure Leasing Inc.
		National Car Rental
		Federal Aviation Admn
		FAA Airport Traffic Control Tower
		American Eagle Airlines
		Northwest Airlines
	1992-2014	Jet Transit Inc.
		Kal-Co Rental & Leasing Inc.
		Sears Rent-A-Car

5429 Portage Road	1966-2014	Not listed
5605 Portage Road	1966-1971	Not listed
	1976, 1992-1995, 2014	Kal-Aero Incorporated
	1982-1987	Cessna Pilot Center (Div of Kal-Aero Inc.) aircraft school; Kale-Aero Inc.
	2000-2010	Duncan Aviation, Inc.
	2010-2014	Great Lakes Aviation
		Structure Tec Corporation
		Water's Edge Aviation

Occupant information for Airview Blvd was not obtained, however, based on available information, it is believed that this area of the subject property has historically been agricultural land or developed as a parking lot.

6600, 6700 and 6800 S. Sprinkle Road are located east of the airport facility, but are located in the vicinity of a proposed rail line. City directory information was also reviewed for these addresses, and is provided in the following table.

Address	Directory Date	Local Street Directory Listing
6600 S. Sprinkle Road	1966-2014	Not listed
6700 S. Sprinkle Road	1966-1971	Not listed
	1976	Permafit Corporation
		Summit Plastics Inc., molders
	1982	Permafit (Division of Colonial Plmb Products Inc.
	1982-1987	Summit Polymers Inc.
	1987	Colonial Engineer Inc.
	2000-2005	Mueller Industries Inc.
	2014	Mann+Hummel USA, Inc.
6800 S. Sprinkle Road	1966-2014	Not Listed

Beginning in the late 1960s, the surrounding area was listed primarily as commercial and residential properties. See Sections 4.2 and for a discussion of nearby properties, which were identified on the regulatory database report provided in Appendix 9.5.

4.4.7 Building Department Records

Building Department Records are discussed above. Please refer to Section 4.3.4.

4.4.8 Zoning/Land Use Records

Zoning/land use records are discussed above. Please refer to Section 4.3.4.

4.4.9 Other Historical Sources

No other historical sources were obtained as part of this effort.

5.0 SITE RECONNAISSANCE

Airport facilities located north of Romence Road were inspected by Ms. Sally Betz on October 8, 2019. Ms. Betz was accompanied by an employee of the airport maintenance staff.

At the time of the site inspection, the visibility at the subject property was good and weather conditions did not interfere with the observations. The following methodology was used when performing the reconnaissance:

- Observed the readily accessible portions of the interior portions of the subject property buildings.
- Observed the exterior portions of the subject property by traversing the grounds and traveling the perimeter.
- Observed adjacent land uses from the periphery of the subject property boundaries.

Photographs taken during site inspections are provided in Appendix 9.8.

5.1 GENERAL SITE SETTING

The Kalamazoo/Battle Creek International Airport is a county-owned public airport located near Portage and Kilgore Roads, approximately three (3) miles southeast of Kalamazoo, Michigan. The airport consists of over 300 acres, and is improved with over 20 permanent aviation service buildings, including the administration building and terminal, maintenance facilities, hangars and the FAA Airport Traffic Control Tower.

5.2 USES AND CONDITION OF THE PROPERTY

The airport has operated since at least the late 1920s, and is currently served by three (3) major airlines.

5.3 SITE OBSERVATIONS

5.3.1 Hazardous Substances and Petroleum Products in Connection with Identified Uses of the Subject Property

The airport property performs full maintenance of aircrafts. Various amounts of typical petrochemicals associated with these types of repairs including the bulk storage of gasoline,

diesel, Jet-A fuel, deicing fluid (propylene glycol) and used oil as well as numerous retail-sized containers of maintenance products/cleansers were observed in various maintenance hangars, storage areas and garages. The materials observed do not appear to pose a hazard to the subject property, provided they continue to be used as designed and are properly handled. However, normal wear and staining was observed on the concrete flooring in several maintenance hangars, and absorbent materials were being used in several maintenance areas located on the west side of the airport. See Section 5.3.3 for additional information on the hazardous substances and petroleum products utilized for airport operations.

No containers of hazardous substances or petroleum products were observed alongside the rail line located south of Romence Road.

5.3.2 Storage Tanks

5.3.2.1 Underground Storage Tanks (USTs)

According to on-site personnel, fuel used by ground vehicles is stored in a 12,000-gallon UST. Diesel and gasoline dispensers within a partial metal enclosure, two (2) fill ports connections and an associated vent pipe were observed during the site reconnaissance.

5.3.2.2 Aboveground Storage Tanks (ASTs)

L&A observed the following ASTs on the airport property (please note that tank capacities are estimates):

- A large capacity, upright poly tank and several 300-gallon storage totes containing propylene glycol located alongside the sand storage building.

- Two (2) ASTs associated with on-site emergency generators observed near the maintenance garage and terminal. The tanks for the standby generators were sub-base types, with the generators mounted directly on top of the fuel tanks. Visual surficial evidence indicating leaks or spills were not observed.

- A new, empty 10,000 gallon Jet-A fuel tank observed in an asphalted area southeast of the Air Zoo. Concrete blocks surrounded the tank.

- AST tank farm located east of Kalamazoo Aircraft, Inc. hanger. Tanks observed included five (5) 20,000-gallon upright tanks within an earthen dike, and several smaller steel ASTs (300-500 gallons each), presumably containing Jet-A fuel or aviation gasoline.

- A 20,000-gallon capacity AST was observed north of the tank farm. Signage indicated that the tank was out of service and that no fuel was in the tank. The tank was constructed of double walled steel. Evidence of a release was not observed.

- A 15,000-gallon double-walled AST containing Jet-A fuel is located near the southeast corner of the Hinman Company hangar. The tank was observed in good condition with no evidence of a release.

- A 12,000-gallon gallon Jet-A fuel tank is located at the RAI hangar. The tank was observed in good condition with no evidence of a release.

- Two (2) 12,000-gallon Jet-A fuel tanks located north of the Duncan hangar. At the time of the site inspection, tank maintenance was being performed. However, no evidence of a release was observed.

- Deicing pad located east of the Speed Bird Hangar. Tanks observed included numerous 300-gallon storage totes, several 600-gallon tanks, various 1,100-gallon tanks, and a 4,500-gallon tank, all of which contained propylene glycol. A deicing truck was also parked in this area of the airport property. Minimal surficial staining was observed on the ground surface, in the vicinity of the truck, which was presumably the result of reoccurring spills during refueling and/or minimal oil releases of parked vehicles.

- Six (6) 500-gallon gasoline, Jet-A fuel and/or diesel fuel ASTs observed north of the airport fire department building. Three (3) of the ASTs were single-walled and were observed within secondary containment concrete structures. Surficial oil staining was observed on the asphalt pavement surrounding the tanks.

- Various fuel trucks carrying Jet A fuel were observed parked near the airport terminal building.

No visual evidence indicating the historical presence of ASTs (i.e. secondary containments, concrete saddles, etc.) was observed.

5.3.3 Drums and Containers of Hazardous Substances, Petroleum Products, and/or Unidentified Substances

The following hazardous substances and/or petroleum products associated with aircraft maintenance and flight training were observed:

- Various aviation gasoline, Jet A fuel, diesel and deicing fluid ASTs were observed on the airport property (see Section 5.3.2.2 for additional information).

- Consumer-sized containers of routine maintenance supplies (i.e. aerosols, engine oil), five gallon buckets of paint and mineral spirits, and several 55-gallon drums were observed in the maintenance garage located on the south end side of the airport property. Normal wear and staining was observed on the concrete flooring throughout the maintenance garage. Stains appeared to be the result of recurring leaks and spills of used engine oil as well as poor housekeeping. However, the concrete flooring appeared in good condition with no evidence of cracking. No spills or releases were observed in the vicinity of various trench drains observed in the maintenance garage. It was indicated that the drains discharge to an oil/water separator. A portable parts washer, which utilizes a 30-gallon drum, was also observed in the maintenance garage.

  It was indicated by the maintenance staff, that a diesel release occurred south of the Duncan hangar, and was reportedly caused when a truck's gas tank was punctured. Seven (7) 55-gallon drums containing waste and cleanup material from that release were observed in the maintenance garage. A site inspection of the diesel release area revealed no evidence of residual staining.

- Two (2) 55-gallon drums were observed in a storage building located south of the maintenance garage. The drums were not labeled and their contents were unknown.

Although the drums were in good condition and evidence of a release was not observed in their immediately vicinity, normal wear and staining was observed on the concrete flooring throughout the storage building.

- A central deicing pad used by all commercial airlines operating on-site is located west of the airport terminal building and contains various storage totes and ASTs of propylene glycol. Deicing fluid application trucks are also filled at this location. The concrete deicing pad drain to the City of Kalamazoo's sanitary sewer system.

- Aviation hydraulic fluid was utilized in a Tronair hydraulic power unit, which was observed in the Duncan hangar. It is reasonable to assume that hydraulically operated equipment is used by other airport hangars, which were not accessed during this site inspection. The equipment does not appear to pose a hazard to the airport property, provided it is used as designed and is properly operated.

- Various flammable storage cabinets and routine maintenance supplies were observed in the maintenance/baggage handling area in the terminal building, which was accessed from the jetway. Normal wear and staining was observed on the concrete flooring throughout this area of the terminal. Stains appeared to be the result of recurring leaks and spills from baggage transport equipment. Absorbent material was being used to contain spilled oil in various areas. However, the concrete flooring appeared in good condition with no evidence of cracking.

- Several 55-gallon drums and numerous 5-gallon buckets of fire extinguisher powder and foam concentrate were observed in the airport fire department. No evidence of a release was observed, and the materials observed do not appear to pose a hazardous to the airport property, provided they are used as designed and are property stored.

- It is also reasonable to assume that materials other than aviation and automotive fuels and deicing/anti-icing chemicals including paint, hydraulic fluids, lubricants, degreasers and coolants are used in small quantities at airport hangars/facilities that were not accessed during the site reconnaissance. It is anticipated that these materials would not pose a hazard to the subject property, provided they are used as designed and are properly stored and handled.

With the exception of slag material observed along the rail line south of Romence Road, no hazardous materials were observed alongside the rail line.

5.3.4 Odors

L&A did not observe any strong, pungent, or noxious odors during the property inspection.

5.3.5 Indications of Polychlorinated Biphenyls (PCBs)

Various pad and pole-mounted transformers were located throughout the airport property. Labeling on these transformers was either inaccessible or non-existent. Untested transformers are to be assumed to be PCB-contaminated (containing between 50-499 parts per million (ppm) PCBs), rather than PCB-containing (over 500 ppm PCBs), and thus are not subject to EPA regulation as PCB-containing equipment. These transformers are owned and maintained by the local utility company. In L&A's opinion, any issue relating to these units would be the

responsibility of the local utility. A visual inspection of the transformers by L&A staff revealed no evidence of leaks.

The airport property also uses “dry-type” step-down transformers. “Dry-type” transformers do not use oils for cooling purposes; therefore, this transformer is not expected to contain PCBs.

Universal Waste includes PCB containing fluorescent lights and ballasts and mercury thermostat switches. Although not of concern while in proper use, these materials should be addressed as part of any reuse or demolition activities.

5.3.6 Interior Observations

The subject property is improved with over 20 permanent aviation service buildings, including the administration building, maintenance facilities, hangars, and the FAA Airport Traffic Control Tower. Interior finishes throughout the airport include drywall ceilings and walls, dropped ceilings, metal deck ceilings, sheet metal walls, painted and unfinished poured concrete floors and carpeted and tiled floors, which appeared to be in good condition with no staining, cracking, or damage observed.

Normal wear and staining was observed on the concrete flooring throughout various maintenance hangars. Stains appeared to be the result of recurring leaks and spills of used engine oil as well as poor housekeeping in some areas. See Section 5.3.3 for additional information.

5.3.7 Exterior Observations

On July 7, 2019, William Ballard, Environmental Planner from Mead & Hunt, and Steve Houtteman, Environmental Specialist from the Michigan Department of Transportation Department of Aviation, conducted a site visit on the Norfolk Southern Railroad track proposed for removal as part of the runway extension project at the Kalamazoo/ Battle Creek International Airport. A visual/ walkover inspection and photos were taken of the proposed area. No areas of concern were identified. Exterior areas of the main airport property include asphalt parking areas, taxiways and runways, and maintained grass and landscaped areas.

The general surficial characteristics of the subject property indicate that storm water likely runs-off from paved and/or grassy surfaces where it infiltrates into the soil, or is directed to storm water catch basins throughout the property. Based on available information, the basins drain to a wetland area located along the northeast side of the airport. This wetland areas subsequently discharges to Davis Creek, a tributary of the Kalamazoo River.

Various solid waste dumpsters were observed throughout the airport property. No excessive odors or overflowing/excessive ground trash were noted in the vicinity of the dumpster. In addition, L&A did not observed visual evidence indicating filling or dumping of trash, construction debris, or demolition debris on the airport property.

No areas of staining or stressed vegetation were observed at the subject property.

An oil/water separator, which separates grease/oil from water prior to discharging to the municipal sanitary sewer system, was observed in a grassy area located north of the maintenance garage. It was indicated that floor drains observed in the maintenance garage

discharge to the oil/water separator. Other floor drains throughout the airport, which likely discharge to the municipal sewer system, were observed within restrooms and various airport hangars. No staining or evidence of poor waste management was observed in the vicinity of the drains.

L&A did not observe obvious surficial evidence indicating the current or historical presence of septic systems, cesspools, or other wastewater discharges on or adjacent to the subject property.

See Section 4.3.5 for information on on-site wells.

5.4 USES AND CONDITIONS OF THE ADJOINING PROPERTIES

To the extent that they were visibly and/or physically observable, L&A viewed the adjacent properties from the subject property and public right-of-ways to evaluate their apparent land use for the potential to indicate RECs in connection with the subject property. L&A representatives did not physically enter any of the adjacent properties. L&A's observations are as follows.

The subject property a county-owned airport located three (3) miles southeast of Kalamazoo, Michigan in a primarily residential and commercial area. Various hotels, restaurants, retail businesses and residences are located west of the airport, along Portage Road. Residential and commercial development is located east of the subject property, alongside S. Sprinkle Road. The Pfizer manufacturing plant is located beyond Romence Road near the south end of the airport. Interstate 94 is near the north portion of the airport property, beyond which are residences and various light industrial facilities.

See Section 4.2 for a discussion of nearby properties, which were identified in the regulatory database report.

6.0 INTERVIEWS

6.1 INTERVIEWS WITH OWNERS AND OCCUPANTS

6.1.1 Interview with Owner Representative

Access to the airport was arranged by Mr. Bill Scamehorn, Airport Operations Supervisor. An environmental questionnaire was provided to Mr. Scamehorn, a copy of which is provided in Appendix 9.3 (see Section 3.0 for additional information). As of the date of this report, a completed questionnaire has not been returned to L&A. If information is received from the owner, which indicates conditions that would alter the conclusions of this Phase I ESA, L&A will issue an addendum to this report.

6.1.2 Interview with Site Manager

As discussed in Section 5.0 Site Reconnaissance, L&A was accompanied by a representative of the airport maintenance staff during the site reconnaissance. Information regarding features and conditions observed during the site reconnaissance has been incorporated into Section 5.0.

6.1.3 Interviews with Occupants

L&A spoke to Mr. Jim Michalka, owner of Kalamazoo Aircraft, Inc., a family owned and operated service and maintenance provider for single and light twin engine aircrafts. Mr. Michalka spoke mainly of aircraft identification numbers and tracking abilities. No indications of recognized environmental conditions were obtained through discussions with Mr. Michalka.

Several other occupants/employees of the airport were on-site at the time of the site reconnaissance. However, they were not interviewed during the site reconnaissance and therefore, did not reveal indications of recognized environmental conditions in connection with the subject property.

6.2 INTERVIEWS WITH STATE AND LOCAL GOVERNMENT OFFICIALS

As discussed in Section 4.3 Local/Regional Environmental Records, L&A contacted numerous State and local government officials regarding files/knowledge associated with the subject property. Information provided by these officials is discussed in the respective report sections.

7.0 ADDITIONAL SERVICES

7.1 Archaeological

L&A conducted a Phase I archaeological investigation of the of the proposed runway extension and railroad relocation area. The investigation involved visual inspection and subsurface testing, the findings of which are presented in a Phase I Archaeology Survey Report, dated September 11, 2019, which has been provided under separate cover.

7.2 PHASE II LIMITED INVESTIGATION

In October 2019, L&A conducted a Limited Phase II Investigation which included a pre-demolition survey of (4) FAA structures and one (1) transformer for asbestos and bulk lead paint and soil and groundwater sampling in the area of railroad relocation. Results of the investigation are provided in a Limited Phase II Investigation report, which has been provided under separate cover.

8.0 EVALUATION

8.1 FINDINGS AND OPINIONS

The observations and information obtained over the course of this assessment, and the likelihood of impacts to the subject property from identified conditions, were evaluated utilizing the experience and judgment of the environmental professional considering: assumed groundwater flow direction to the east, predominant soil type with moderate hydraulic conductivity, and other site specific conditions.

Based on the information gathered as part of this Phase I ESA, L&A offers the following opinions relative to the potential for environmental impact on the subject property by the conditions identified:

- The subject property and surrounding areas historical agricultural use is not anticipated to negatively impact the subject property. Although the historic agricultural utilization of

property can result in application of pesticides that do not degrade over time, it is reasonable to assume that, pesticides when applied for their intended purpose in accordance with label directions have a low potential for environmental impact and do not represent RECs. Additionally, in row-crop productions, application rates are typically smaller, and periodic plowing would increase soil contact with pesticide residues, therefore accelerating the decomposition of pesticide residues.

- Based on their regulatory status, distance from the subject property, and/or their hydrogeologic relationship, it is L&A's opinion that the adjacent properties and facilities identified in the regulatory database report have a low potential for environmental impact to the subject property and do not represent RECs.

- The surficial staining observed in the parking areas is considered to be a *de minimis* condition.

8.2 DATA GAPS

L&A did not document any data gaps during preparation of this Phase I ESA, with the exception of the following:

- ASTM E1527-13 recommends reviewing historical sources at intervals not greater than 5 years. The lack of aerial photographs from the late 1930s until 2002 represents a data gap. Based on the availability of other aerial photographs, and other resources including city directories, topographic maps and interview information, this data gap is not expected to affect the ability of the EP to evaluate RECs in connection with the subject property.

- Responses from local building and health departments were not received at the time of issuance of this report. Based on the other information obtained as part of this effort and L&A's professional experience, it is L&A's opinion that the lack of responses from local and state agencies does not significantly impact the ability of the EP to render professional opinions and conclusions regarding the subject property.

- An Environmental Questionnaire provided to the subject property owner has not been returned to date. Based on the other information obtained as part of this effort and L&A's professional experience, it is L&A's opinion that the lack of a response from a representative of the property owner does not significantly impact the ability of the EP to render professional opinions and conclusions regarding the subject property.

8.3 CONCLUSIONS

L&A has completed a Phase I Environmental Site Assessment (ESA) for the proposed Runway 17/35 RIM Extension and Railroad Relocation Project located at the Kalamazoo/Battle Creek International Airport in Kalamazoo, Michigan (the subject property), in conformance with the scope and limitations of American Society for Testing and Materials (ASTM) Designation: E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. L&A performed an on-site visual inspection, a driving tour of the vicinity, a review of government agency databases, and a review of historical data in order to achieve this objective. Any exceptions to, or deletions from, this practice are described in Section 2.5 of this report.

The Phase I ESA has revealed no evidence of recognized environmental conditions (RECs), historical recognized environmental conditions (HRECs) or controlled recognized environmental (CREC) in connection with the subject property, except for the following:

- The nature and extent of activities that occur on the subject property and at properties in close proximity to the site are recognized environmental conditions; however, the Limited Phase II Site Investigation (dated October 23, 2019) conducted on the project area did not identify any contaminants.

Sally Betz was the onsite technical specialist assigned to this project. Ms. Betz prepared the majority of the report including the compiling of historical, government agency, and database records. Trevor Berger, John Korth and Chuck Wilson reviewed pertinent information and assisted in developing L&A's conclusions and recommendations. The qualifications of these individuals are presented in Appendix 9.10.

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312, and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

The conclusions and recommendations contained in this report are based upon professional opinions with regard to the subject matter. Supporting documentation has been included in the Appendices to this report or referenced in Appendix 9.11 for the purpose of reconstruction of the assessment.

If you have any questions, please contact Chuck Wilson or John Korth at (614) 481-8600.

Sincerely,

Chuck Wilson
Vice President

John Korth
Environmental Scientist

REPORT

Phase I Environmental Site Assessment

Pfizer Property Romence Road between Portage and Sprinkle Roads, Portage, Michigan 49002

Submitted to:

Pfizer Inc.
7171 Portage Road, Portage, Michigan, 49002

Submitted by:

Golder Associates Inc.
15851 South US 27, Suite 50 Lansing, Michigan, USA 48906

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18105133

May 2020

Distribution List

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FIGURES

APPENDICES

SUMMARY

Pfizer Inc. (Pfizer; the User) retained Golder Associates Inc. (Golder) to perform a Phase I Environmental Site Assessment (ESA) of a portion of the Pfizer Properties located at 7171 Portage and 7000 S. Sprinkle Roads, Portage, Michigan (the Subject Property). The purpose of this Phase I ESA is to identify recognized environmental conditions (RECs) in connection with the Subject Property, to the extent feasible, pursuant to the processes prescribed in the ASTM Practice E 1527-13 titled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (ASTM Standard), and the EPA Rule titled, "Standards and Practices for All Appropriate Inquiries; Final Rule" (AAI Rule), 40 CFR Part 312, the Golder Proposal dated December 19, 2018 (the Proposal), and Golder's professional judgment.

This Summary is to be used only in conjunction with the attached Phase I Environmental Site Assessment of the Pfizer Property on Romence Road between Portage and Sprinkle Roads, Portage, Michigan (the Report). All definitions used in this Summary have the same meanings as in the Report, and the use of this Summary is subject to the limitations and conditions contained in the Report. The Report shall govern in the event of any inconsistency between this Summary and the Report.

The Subject Property is located south of Romence Road between Portage and Sprinkle Roads. The entrance is located on the south side of Romence Road. The Subject Property is comprised of approximately 85 acres of land that is bisected by a railroad line that is not part of this assessment. The Subject Property consists of a parking lot/contractor yard, coal storage, and a railroad spur, with the remaining portion of the Subject Property being predominately agricultural or undeveloped land.

The following Recognized Environmental Conditions (RECs) were identified on the Subject Property during this assessment:

Miscellaneous Concrete/Soil Mixture: During the site reconnaissance, concrete debris was observed intermixed with soil near the east edge of the Upjohn Pond. These materials were reported to be generated from various construction projects performed at the Pfizer Plant located on the west side of Upjohn Pond. The nature, extent and location of the various construction projects is undocumented, the miscellaneous concrete and soil mixture represents a REC for the Subject Property.

Coal Pile: A portion of a coal pile is located on west side of the Subject Property near the train spur. The coal pile is located on both concrete (small portion of the pile) and bare soil (majority of the pile) and coal has been stored in this area for over 50 years. There is no documentation on the condition of the concrete and bare soils located under the coal pile. The operation of the coal pile in this location represents a REC for the Subject Property.

D&A Autobody Site: The D&A Autobody property is located up gradient of the Subject Property. This property is listed as being in Interim Response in progress which means initial actions have been taken to reduce risks from the release but the site has not been remediated. This type of operation used petroleum products and solvents which are mobile in groundwater. Based on the nature of the materials used in daily operations, the site being located up gradient and the site has not been closed, D&A Autobody represents a REC for the Subject Property.

Golder did not identify any Historical RECs (HRECs) or Controlled RECs (CRECs) at the Subject Property.

The following de minimis conditions were observed at the Subject Property:

Concrete Steps/Tiles and Aggregates: The concrete steps/tiles and aggregate materials stockpiled near the railroad spur on the west parcel were noted as a de minimis condition.

Minor Spills from the Staged Railroad Tankers: Pfizer reported minor solvent spills in the vicinity of the staged railroad tankers. These spills were reported as drips from bottom valves with the quantity of solvent spill

being below reportable limits. Pfizer also reported these spills required minimal remediation. Evidence of these spills was not observed during the site visit. The reported minor spills from the staged railroad tankers along the railroad spur were noted as a de minimis condition.

1.0 INTRODUCTION

1.1 Purpose of Environmental Site Assessment

Pfizer Inc. (Pfizer; the User) retained Golder Associates Inc. (Golder) to perform a Phase I Environmental Site Assessment (ESA) of a portion of the Pfizer Properties located at 7171 Portage and 7000 S. Sprinkle Roads, Portage, Michigan (the Subject Property) as shown on Figures 1 and 2. The purpose of this Phase I ESA is to identify recognized environmental conditions (RECs) in connection with the Subject Property, to the extent feasible, pursuant to the processes prescribed in the ASTM Practice E 1527-13 titled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (ASTM Standard), and the EPA Rule titled, "Standards and Practices for All Appropriate Inquiries; Final Rule" (AAI Rule), 40 CFR Part 312, the Golder Proposal dated December 19, 2018, (the Proposal), and Golder's professional judgment. Golder representatives performed the Phase I ESA in conformance with these criteria. ASTM Practice E 1527-13 satisfies the all appropriate inquiry for a Michigan Baseline Environmental Assessment as defined in the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).

The AAI Rule states that the ASTM Standard may be used to comply with the requirements of the AAI Rule, so whenever a reference is made in this Report to the ASTM Standard, it shall include the AAI Rule.

The ASTM Standard defines RECs as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

1.2 Scope of Services

The scope of services for this ESA consisted of the following tasks:

Records Review

- Reviewing property information and records associated with the 7171 Portage and 7000 S. Sprinkle Road parcels which includes the Subject Property. The Subject Property, shown on Figures 1 and 2, is a portion of two parcels. A legal description of the parcels is included in Appendix A.
- Reviewing environmental record sources including federal and state regulatory databases to identify facilities with past or current regulatory enforcement actions within applicable distances of the Subject Property as defined in the ASTM Standard. The regulatory database search report is included in Appendix C.
- Reviewing physical setting information sources to identify information about the geologic, hydrogeologic, hydrologic, and topographic conditions in the area of the Subject Property. The U.S. Geological Survey (USGS) 7.5-minute topographic map of the area of the Subject Property is shown on Figure 1.
- Reviewing historical record sources to identify past land use activities at the Subject Property and surrounding properties. Selected historical information obtained during performance of the Phase I ESA investigation is included in Appendix D.

Site Reconnaissance

- Performing a visual reconnaissance of the Subject Property and surrounding properties to identify potential sources of chemical and petroleum contamination such as aboveground storage tanks (ASTs), underground storage tanks (USTs), potential sources of polychlorinated biphenyls (PCBs), chemicals, and hazardous materials. Surficial evidence of potential RECs such as distressed vegetation, stained soils,

and/or stained paving was also evaluated. Photographs recorded during the site reconnaissance are included in Appendix E.

Interviews

- Interviewing available individuals with knowledge of current or historical use, storage, or disposal of potentially hazardous materials or other environmentally related activities on or adjacent to the Subject Property. User provided information is included in Appendix F.

Report Preparation

- Preparing a report that documents the findings, opinions, and conclusions of the Phase I ESA investigation conducted at the Subject Property, and provides the supporting documentation and references for those findings, opinions, and conclusions (the Report). Resumes for the environmental professionals that performed the assessment and prepared this Phase I ESA Report are included in Appendix G.

1.3 Limitations and Exceptions

Golder performed our services in accordance with the following principles, which are an integral part of the ASTM Standard: (i) No environmental site assessment can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this ESA is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with the Subject Property, and the ASTM Standard recognizes reasonable limits of time and cost; (ii) "all appropriate inquiry" does not mean an exhaustive assessment of a property. Golder performed this ESA in conformance with the ASTM Standard's principle of identifying a balance between the competing goals of limiting the costs and time demands inherent in performing an ESA and the reduction of uncertainty about unknown conditions resulting from additional information; (iii) not every property warrants the same level of assessment - the type of property subject to the assessment, the expertise and risk tolerance of the user, and the information developed in the course of the inquiry guided the appropriate level of assessment for this ESA; and (iv) ESAs must be evaluated based on the reasonableness of judgments made at the time and under the circumstances in which they were made. Subsequent ESAs should not be considered valid standards to judge the appropriateness of any prior assessment based on hindsight, new information, use of developing technology or analytical techniques, or other factors.

1.4 Special Term and Conditions

No special terms and conditions are applicable to this ESA.

1.5 User Reliance

Golder has prepared this Report at the request of the Pfizer for the purpose identified by the User in Section 3.7. Use of the information contained in this Report by anyone other than the User is permissible only with the prior written authorization to do so from Golder, and only under the conditions allowed by the ASTM Standard. Golder is not responsible for independent conclusions, opinions, or recommendations made by others or otherwise based on the findings presented in this Report.

2.0 PROPERTY DESCRIPTION

2.1 Location and Legal Description

The Subject Property is a portion of the two parcels located at 7000 S Sprinkle Road and 7171 Portage Road. According to City of Portage GIS Parcel Report, these parcels are owned by Pharmacia & Upjohn Company. There are entrances to the Subject Property located on the south side of Romence Road. The Subject Property is comprised of approximately 85 acres of land. A railroad right-of-way (ROW) currently bisects the Subject Property that is controlled and used by Penn Central Railroad. The ROW is not part of the Subject Property.

The Subject Property limits are shown on Figure 2. The legal descriptions for parcels 7000 S Sprinkle Road and 7171 Portage Road are included in Appendix A.

2.2 Site and Vicinity General Characteristics

The Subject Property is located in a developed area of mixed use. The Subject Property is surrounded by industrial/commercial developments, a regional airport and residential properties. This area of Portage is relatively flat with the following features: Upjohn Pond adjoining the Subject Property to the west and West, Austin and Long lakes located to the south.

2.3 Current Use of the Subject Property

The Subject Property has multiple uses as shown on Figure 3, including:

- A paved area used as a parking lot/contractor yard in the northwest portion;
- Coal storage and a railroad siding to stage train cars (typically empty cars) on the western portion;
- Farmland in the northeastern portion; and
- the southeastern portion is vacant.

There is a railroad line that bisects the Subject Property north to south. This area including the associated right of way was not included in this assessment of the Subject Property and will be evaluated in a separate assessment.

2.4 Description of Structures, Roads, and Other Improvements on the Subject Property

The parking lot in the northwest corner of the Subject Property is paved and has catch basins for drainage which discharged to a retention pond located south of the parking lot. The contractor yard south of the parking lot is gravel with no drainage structures.

A railroad line bisects the Subject Property with a railroad spur on the western part of the Subject Property leading to the adjacent Pfizer manufacturing facility.

Access to the Subject Property is via one of three ways: two driveways on the south side of Romence into the parking lot/contractor yard, through a locked gate, off of Romence Road, into the eastern portion of the property or through the Pfizer manufacturing plant to the western portion of the Subject Property. A small guard building was observed on the east end of the parking lot/contractor yard. The small guard building was associated with an access road to the Pfizer manufacturing property south of Romence Road.

An earthen berm was constructed on the southern portion of the Subject Property between the railroad right of way and a former non-contact cooling water recharge pond and infiltration gallery. This berm was constructed more than 30 years ago as the vegetative cover (trees and shrubs) present on the berm are well established.

2.5 Current Use of the Adjoining Properties

The adjoining property uses are described below:

- North – Romence Road followed by the Kalamazoo/Battle Creek International Airport and agricultural property
- East – Pfizer property, which is undeveloped and currently being used for agricultural purposes, followed by commercial developments either adjoining Pfizer property or across Sprinkle Road including a gas station, several car repair/detailing/sales businesses, light manufacturing, printing, recreational facilities, and residential development.

- South – continuation of the railroad line, agricultural crops or vegetated vacant land.
- West – the Upjohn Pond and Pfizer manufacturing plants located along Portage Road. The pond is used for stormwater discharge and the discharge of non-contact cooling water from the Pfizer manufacturing plants.

3.0 USER PROVIDED INFORMATION

The ASTM Standard defines User as the party seeking to use Practice E 1527 to complete an ESA of the Subject Property. The ASTM Standard requires the User to provide certain information to the environmental professional. Golder has provided a User Questionnaire to Pfizer to facilitate the transfer of this information to Golder. Mr. William Hunsberger of Pfizer completed the User Questionnaire. A copy of the completed User Questionnaire is included in Appendix F.

3.1 Environmental Cleanup Liens

Golder representatives asked the User if a search of recorded land title records or judicial records identified any environmental cleanup liens against the Subject Property.

No title records were searched.

3.2 Activity and Use Limitations

Golder representatives asked the User about their knowledge of activity and use limitations (AULs), such as engineering controls, land use restrictions or institutional controls that are in place on the Subject Property or have been filed or recorded in a registry under federal, tribal, state or local law.

No.

3.3 Relationship of the Purchase Price to the Fair Market Value

Golder representatives asked the User if the purchase price being paid for this property reasonably reflects the fair market value of the property.

Yes, it reflects the fair market value.

3.4 Specialized Knowledge

Golder representatives asked the User if they had any specialized knowledge or experience about the Subject Property that would assist the environmental professional in identifying conditions indicative of releases or threatened release.

No.

3.5 Commonly Known or Reasonably Ascertainable Information

Golder representatives asked the User if they were aware of commonly known or reasonably ascertainable information about the Subject Property that would assist the environmental professional in identifying conditions indicative of releases or threatened releases. Golder representatives asked the following questions:

a) Do you know the past uses of the Subject Property?

   Parking for an industrial facility, cropland, coal storage, railroad spurs.

b) Do you know of specific chemicals that are present or once were present at the Subject Property?

   Storage of various solvents on railway spurs.

c) Do you know of spills or other chemical releases that have taken place at the Subject Property?

Minor spills under reporting limits of various solvents from tankers on the railway spurs.

d) Do you know of any environmental cleanups that have taken place at the Subject Property?

Cleanups related to items noted in 3.5.c.

3.6 The Degree of Obviousness or the Presence of Contamination

Golder representatives asked the User if, based on User's knowledge and experience related to the Subject Property, there are any obvious indicators that point to the presence or likely presence of releases at the Subject Property.

No.

3.7 Reason for Conducting ESA

The Kalamazoo/Battle Creek International Airport (AZO) and the Federal Aviation Administration (FAA) have proposed to expand the runway approximately 1,150 feet to the south. This expansion will include the abandoning and relocation of portions of the existing railroad line and extending portions of the current lighting arrays on to the Subject Property, which may require divestiture and/or easements.

4.0 RECORDS REVIEW

4.1 Standard Environmental Records Sources, Federal and State

Golder retained EDR to perform an environmental regulatory database search of the general area of the Subject Property, which is presented in Appendix C. In accordance with the search requirements of ASTM E-1527-13 Standard, Golder representatives reviewed the federal and state regulatory agency records listed below to identify the use, generation, storage, treatment or disposal of hazardous substances or petroleum products, or release incidents of such materials that might impact the Subject Property. A summary of significant listings presented in the environmental regulatory database report is provided in this report section. The relative distance and direction was estimated from the nearest edge of the Subject Property provided to EDR to the listed site. Estimated groundwater flow direction in the vicinity of the Subject Property is discussed in section 4.3.3. It should be noted, the 3800 Romence address indicated in the EDR corresponds to an assumed address on Romence Road on the northern boundary of the Subject Property.

The following is a listing of databases reviewed during the Phase I ESA.

Federal ASTM Standard Databases	
Database	**Approximate Minimum Search Distance**
Federal NPL (National Priorities List)	1.0 mile
Federal delisted NPL site list	0.5 mile
Federal Comprehensive Environmental Response,	0.5 mile
Compensation and Liability Information System	
(CERCLIS) site list	
Federal CERCLIS-No Further Remedial Action	0.5 mile
Planned (NFRAP) site list	

Federal ASTM Standard Databases	
Federal Resource Conservation and Recovery Act	1.0 mile
(RCRA) CORRACTS (Corrective Action Report)	
facilities list	
Federal RCRA non-CORRACTS Treatment	0.5 mile
Storage and Disposal (TSD) facilities list	
Federal RCRA Generators list	Subject Property and adjoining properties
Federal Institutional Control/Engineering Control	Subject Property
Registries	
Federal Emergency Response Notification System	Subject Property
(ERNS) list	

State and Tribal ASTM Standard Databases	
Database	**Approximate Minimum Search Distance**
State and tribal hazardous waste sites identified	1.0 mile
for investigation or remediation: NPL - equivalent	
sites	
State and tribal hazardous waste sites identified	0.5 mile
for investigation or remediation: CERCLIS -	
equivalent sites	
State and tribal landfill and/or solid waste disposal	0.5 mile
site list	
State and tribal leaking storage tank lists	0.5 mile
State and tribal registered storage tank lists	Subject Property and adjoining properties
State and tribal Institutional Control/Engineering	Subject Property
Control Registries	
State and tribal voluntary cleanup sites	0.5 mile

State and Tribal ASTM Standard Databases	
State and tribal Brownfield sites	0.5 mile

4.1.1 Subject Property Database Listing

There are no listings for the Subject Property in the EDR search.

4.1.2 Off-Site Properties Database Listings

Off-site facilities located less than 1 mile from Subject Property are identified in the environmental database report.

Name	Address	Database	Distance/Direction
Portage Police Department	7025 S. Sprinkle Road	RCRA NonGen/NLR	407 feet ene
Knapp Energy Inc	7025 S. Sprinkle Road	EDR Hist Auto	407 feet ene
Sprinkle Citgo	7025 S. Sprinkle Road	MI UST	407 feet ene
County of Kalamazoo Sheriff Department	Sprinkle Road and Environmental Road	RCRA NonGen/NLR	994 feet ne
Portage Road and Bishop Street	Portage and Bishop	MI Inventory/MI Part 201	¼ to ½ mile sw
D&A Autobody	7910 Sprinkle	MI Inventory, MI Part 201	¼ to ½ mile sse
Mann & Hummel	6700 S. Sprinkle	MI Inventory, MI WDS	¼ to ½ mile nne
Pharmacia (Upjohn Company)	5600 East G Street	MI Inventory	¼ to ½ mile wsw
The Booze Barn	7940 S. Sprinkle	MI LUST, MI UST, MI Brownfields, MI WDS	¼ to ½ mile s
AGA Gas Inc	3615 E Centre	SEMS-Archive, RCRA NonGEN/NLR	¼ to ½ mile s
Orkin Pest Control	4123 E Center	MI Lust	¼ to ½ mile sse
Lake Painting Inc	7000 Portage	MI Del Part 201, MI Spills, MI Asbestos, MI NPDES, MI WDS	½ to 1 mile west
Roto-Finish Co, Inc	3700 Milham Road	NPL, SEMS, US ENG CONTROLS, US INST CONTROL/RCRA NonGen/NLR/ROD/PRP/ ICIS/FINDS/ECHO	½ to 1 mile north
Upjohn Co. (also Pharmacia & Upjohn Co)	7000 Portage Rd; 7171 Portage Rd	RCRA CORRACTS, RCRA-TSDF/LQG, UST, LUST, DEL Part 201, MI SPILLS, NPDES, ASBESTOS	¾ to 1 mile w; ½ to ¾ mile wsw

All of the properties listed on the radius report refer to regulatory inventory listings or are down gradient (based on groundwater flow to the northwest) of the Subject Property except for D&A Autobody, The Booze Barn and the Orkin Pest Control properties, which will be discussed further below. The remaining sites in the report that

are listed as contaminated are unlikely to have environmentally impacted the Subject Property in consideration of distance from Subject Property, hydrogeologic conditions, contaminant levels, or regulatory status. There is no indication that these remaining sites have impacted the Subject Property.

The D&A Autobody property listed on the radius report refers to a site listed on the Michigan Part 201 database located south by southeast of the Subject Property. Michigan Part 201 is the guidance that outlines environmental cleanup standards for Michigan sites except for underground storage tank sites. This property is listed as being in Interim Response in progress which means initial actions have been taken to reduce risks from the release. Based on the property being located one quarter to one half mile south by southeast of the Site; groundwater is anticipated to flow to the northwest, placing this property up gradient of the Subject Property.

The Booze Barn property listed on the radius report refers to a site listed on the Michigan Leaking Underground Storage Tank (LUST) database located south of the Subject Property. Michigan LUST is the program that governs environmental cleanup of Michigan leaking underground storage tank sites. This property is listed as having the UST removed from the ground and a release status of closed which means the release from the UST has been remediated to acceptable levels as established by the State of Michigan. Based on the listing of this property as closed, this property does not appear to be a concern to the Subject Property.

The Orkin Pest Control property listed on the radius report refers to a site listed on the Michigan LUST database located south by southeast of the Subject Property. This property's release status is closed, which means the release from the UST has been remediated to acceptable levels as established by the State of Michigan. Based on the listing of this property as closed, this property does not appear to be a concern to the Subject Property.

4.2 Additional Environmental Record Sources

Golder submitted Freedom of Information Act (FOIA) requests to the Kalamazoo Health Department and the City of Portage Police and Fire Department:

- The Kalamazoo Health Department responded that it has no records on file for the Subject Property.
- The City of Portage Police and Fire Department responded that it has no records on file for the Subject Property.

4.3 Physical Setting Sources

4.3.1 Sources Reviewed

The USGS Portage Michigan quadrangle topographic map was reviewed in order to obtain information regarding the topographic, geologic, hydrogeologic, and hydrologic characteristics of the area of the Subject Property. In the sections below (4.3.2 through 4.3.4), topographic conditions are noted to the extent that they can be determined from review of topographic maps or were visually and/or physically observed during the Site visit.

4.3.2 General Topographic Setting of the Area

The Subject Property is located at 870 feet above mean sea level. The regional topography is flat with a slight slope toward the south.

4.3.3 Geologic and Hydrogeologic Setting

According to a soils map accessed through the City of Portage, shallow soil at the Site is primarily comprised of Schoolcraft loam. EDR reported that the underlying soils include loam, sandy loam, stratified sequences, muck, and gravelly sand. Local well logs also indicate the presence of deeper clay layers. The major bedrock unit in the area is the Mississippian-aged Coldwater Shale.

The Site is underlain by water-bearing soil units, including sandy loams underlain by sand or gravelly sand (specifically the Schoolcraft series). The Michigan Depart of Environment, Great Lakes, and Energy (MDEGLE) Wellogic website lists construction logs from wells installed in the vicinity of the Site, indicating that the soil is generally made of sands, clays, and gravels. The well logs also indicate shallow and deep aquifers.

The depth to the perched water table zone, as indicated by surrounding water wells included in the EDR database report-Physical Setting Source is less than 10 feet below grade. Based on groundwater monitoring information provided by Pfizer as part of its RCRA and NPDES monitoring programs, the shallow and deep water bearing zones are likely to flow in a northwesterly direction. The localized groundwater gradient is influenced by the production wells present on the north and west sides of the Pfizer Plant. Potentiometric surface maps are included In Appendix B.

4.3.4 Surface Water and Hydrologic Setting

The nearest surface water bodies are Upjohn Pond (adjoining) to the west and the West, Austin and Long lakes located approximately 1 to 2 miles south of the Subject Property.

4.4 Historical Use Information on the Subject Property

4.4.1 Subject Property Historical Use Summary

The Subject Property has been developed including rail sidings (over 50 years ago), a coal pile (over 40 years ago) and a parking lot/contractor yard (over 20 years ago). The south end of the east portion was previously used as a non-contact cooling water recharge pond and infiltration gallery, but this practice was discontinued more than 10 years ago when an overflow was installed from Upjohn Pond to Austin Lake to the south.

4.4.2 Standard Historical Records

4.4.2.1 Aerial Photographs Review

Golder representatives obtained historical aerial photographs from EDR for the years listed below. Selected historical aerial photographs are provided in Appendix D. The following discussion summarizes observations from the review of these aerial photographs.

Year	Scale	Description
1938	500	The Subject Property is undeveloped at this time. In general this area appears to be used for agricultural purposes. Romence Road is visible to the north and Sprinkle Road is visible to the east. The railroad line is bisecting the Subject Property.
1946	500	Sidings are added as well as a railroad line to the west extending to a development further west of the Subject Property. No other changes are noted on the Subject Property. There is an increase in development primarily along Sprinkle Road.
1955	500	The Subject Property remains undeveloped. Industrial development is visible to the west of the Subject Property along the railroad line. Early stages of the Upjohn Pond appear in low lying areas west of the Subject Property and south of the industrial development.

Year	Scale	Description
1965	500	Although the Subject Property remains unchanged, there has been an increase in industrial development to the west. An access road is visible west of the Subject Property and appears to run along the edge of the airport that is visible to the north. The Upjohn Pond is visible to the west of the Subject Property.
1973	500	The coal pile is visible near the railroad line to the west, the non-contact cooling water recharge pond and infiltration gallery is visible on the southeast portion with the remaining portions of the Subject Property remaining unchanged. The area southeast of the Subject Property on Sprinkle Road is developed with residential developments and commercial buildings.
1978	500	No major changes are noted to the Subject Property. There is additional industrial development to the west of the Subject Property.
1981	1,000	No major changes are noted to the Subject Property. There is significant industrial development visible to the west of the Subject Property. The area southeast of the Subject Property has additional commercial development visible. Most changes visible are due to the increase in area covered by the aerial photograph.
1986	500	No major changes are noted to the Subject Property. The area surrounding the Subject Property has no major changes visible.
1999	500	The parking lot/contractor yard in the northwest corner of the Subject Property is visible. No other major changes are noted to the Subject Property. There is additional industrial development visible to the west of the Subject Property. Additional development is visible along Sprinkle Road.
2006	500	The non-contact cooling water recharge pond and infiltration gallery on the southeast portion of the Subject Property appears to be discontinued. No other major changes are noted to the Subject Property. There is additional development visible along Sprinkle Road.
2009/2012/2016	500	The Subject Property and surrounding properties appear to reflect the conditions as they are today. The area east of the Subject Property is developed with

Year	Scale	Description
		commercial/industrial and residential properties along Sprinkle Road. In 2016 the northern portion of the northwest parking lot/contractor yard is paved and stripped.

4.4.2.2 Sanborn Fire Insurance Map Review

Golder was informed that Sanborn maps were not developed for the area surrounding the Subject Property. A copy of the "No Coverage" document is included in Appendix D.

4.4.2.3 Property Tax Files

Pfizer representatives provided tax records on parcels 7000 Sprinkle Road (Parcel Number 00013-030-A) and 7171 Portage Road (Parcel Number 00014-001-C) of which the Subject Property occupied portions of each parcel. A copy is provided in Appendix A.

4.4.2.4 Recorded Land Title Records

Title or lien searches were not completed for the Subject Property.

4.4.2.5 Historical Topographic Map Review

Golder representatives obtained historical USGS topographic quadrangle maps from EDR for the years listed below. Copies of the historical topographic maps are provided in Appendix D. The following paragraphs summarize our observations from the review of these historical topographic maps.

Year	Scale	Description
1922	1:62500	Based on the scale of this map, individual features are difficult to discern. It appears that this area is primarily undeveloped with a few buildings located along Romence and Sprinkle Roads. The railroad tracks bisecting the parcels are present at this time.
1967	1:24000	There has been an increase in development in this area. The Subject Property is undeveloped however further north (across Bishop Road now Romence Road) the airport is present and a large industrial development is present west of the Subject Property. The Upjohn Pond and a gravel pit are also located west of the Subject Property. There appears to be residential development southeast of the Subject Property along Sprinkle Road.
1973	1:24000	The Subject Property remains undeveloped and there appears to be little change in the surrounding properties except for the area southeast of the Subject Property which appears to have more residential development.
1979	1:24000	The Subject Property remains undeveloped. The development in the vicinity of the Subject Property remains relatively unchanged.

Year	Scale	Description
2014	1:24000	This map is a street map which is limited to topographic gradients and street names. No building features are present. Bishop Road to the north is now named Romence Road and the railroad that bisects the Subject Property now terminates at E Centre Avenue just south of the two Pfizer parcels.

4.4.2.6 Local Street Directories

Street Directories were not provided from EDR.

4.4.2.7 Building Department Records

Building department records were not available for the Subject Property as no major construction or renovations were performed on the Subject Property.

4.4.2.8 Zoning and Land Use Records

The information provided by Pfizer on the Subject Property indicated the parcels are zoned for industrial use.

4.4.2.9 Other Historical Records

No additional historical records were reviewed during this assessment.

4.5 Historical Use Information on Adjoining Properties

In general, the surrounding adjoining properties were initially developed for commercial/industrial use in the 1940s with various additions and improvements through the present. Pockets of the surrounding properties were also developed for residential use on a smaller scale than the commercial/industrial developments. Prior to the development, the area was undeveloped and primarily used for agricultural purposes.

5.0 SITE RECONNAISSANCE

Golder representatives performed a visual assessment of the Subject Property on April 15, 2019 to identify potential sources of chemical and petroleum contamination. Golder representatives assessed surficial evidence of potential impacts such as waste or refuse dumping, distressed vegetation, stained soils, and/or stained paving. Photographs recorded during the site assessment are presented in Appendix E.

5.1 Methods and Limiting Conditions

The visual reconnaissance consisted of observing the boundaries of the property and systematically traversing the Subject Property to provide an overlapping field of view, wherever possible.

5.2 General Site Setting

The Subject Property is located in an area of mixed residential/commercial/industrial development in the City of Portage.

5.2.1 Current Use of the Subject Property

The Subject Property is primarily undeveloped with portions being utilized for agricultural purposes (northeast corner), railroad sidings (west side), coal storage (central west edge near railroad tracks going west) and a parking lot/contractor yard (northwest corner).

Additional information about the current use of the Subject Property is detailed in Section 2.3 of this report.

5.2.2 Past Use of the Subject Property

The southern portion of the Subject Property was used as a non-contact cooling water recharge pond and infiltration gallery for the adjacent manufacturing facility. An earthen berm is located along the west edge of the east parcel to act as a barrier between the pond/gallery and the railroad line. The pond/gallery was discontinued over 10 years ago when an overflow was constructed from the south end of the Upjohn Pond to Austin Lake located to the south.

5.2.3 General Description of Structures

A general description of the structures on the Subject Property is provided in Section 2.4 of this report.

5.2.4 Roads

A general description of roads, streets or parking facilities accessing the Subject Property is provided in Section 2.4 of this report.

5.2.5 Potable Water Supply

Potable water is currently not in use at the Subject Property. The local potable water is available and is supplied by the municipal water supply system operated by the City of Portage.

5.2.6 Sewage Disposal System

The Subject Property is not connected to the sewage disposal system. The local sanitary waste water system is available and is operated by the City of Portage.

5.3 Interior and Exterior Observations

Golder identified current or past uses likely to involve the use, treatment, storage, disposal or generation of hazardous substances or petroleum products, to the extent they were visually and/or physically observed during the Subject Property visit or identified from the interviews or the records review. The substances and approximate quantities, types of containers (if any) and storage conditions are discussed in the following subsections.

5.3.1 Storage Tanks

Golder observed no evidence of underground or aboveground storage tanks at the Subject Property at the time of the site visit.

Railroad tankers are staged on the siding on an as needed basis. These tankers are typically empty and are staged until they are needed at one of the manufacturing plants to the west. On occasion full tankers are on the siding to either facilitate track switching or to be staged until the full complement of cars is ready for the train. Pfizer performs inspections, several times a day, on the staged rail cars to monitor for leaks regardless of the loaded state of the tankers.

Pfizer reported minor solvent spills in the vicinity of the staged railroad tankers. These spills were reported as drips from bottom valves with the quantity of each solvent spill being below reportable limits. Pfizer also reported these spills required minimal remediation. Evidence of these spills was not observed during the site visit.

5.3.2 Odors

Golder observed no unusual odors at the Subject Property at the time of the site visit.

5.3.3 Pools of Liquid

Golder observed no pools of liquid at the Subject Property at the time of the site visit.

5.3.4 Drums

Golder observed no drums at the Subject Property at the time of the site visit.

5.3.5 Hazardous Substance and Petroleum Product Containers

Except for the railroad tankers described in 5.3.1, Golder observed no hazardous substance or petroleum product containers at the Subject Property at the time of the site visit.

5.3.6 Unidentified Substance Containers

Golder observed no unidentified substance containers at the Subject Property at the time of the site visit.

5.3.7 Evidence of Polychlorinated Biphenyls

Electrical transformers are a potential source of environmental concern due to the possible presence of polychlorinated biphenyl (PCB)-containing cooling oils used in some units. Equipment containing hydraulic oil may also be PCB-containing.

No transformers or equipment that may contain PCBs were observed on the Subject Property.

5.3.8 Heating/Cooling

The guard building located on the southeast corner of the parking lot/contractor yard is heated and cooled by a small electric HVAC system.

5.3.9 Stains or Corrosion

Golder observed no evidence of stains or corrosion at the Subject Property at the time of the site visit.

5.3.10 Drains and Sumps

Golder observed no drains or sumps on the Subject Property at the time of the site visit.

Storm water catch basins are located in the parking lot located in the northwest corner of the Subject Property. The catch basins discharged to a retention pond located south of the parking lot/contractor yard.

5.3.11 Pits, Ponds, or Lagoons

No pits, ponds, lagoons, or other surface waters were observed on the Subject Property except for the surface water located on the southern end of eastern parcel of the Subject Property. This area is the location of the former non-contact cooling water recharge pond and associated infiltration gallery. This area was removed from service over 10 years ago when an overflow was installed between the Upjohn Pond and Austin Lake. The Upjohn Pond is west of the Subject Property.

5.3.12 Stained Soil or Pavement

Golder observed no stained soil or pavement at the Subject Property at the time of the site visit.

5.3.13 Stressed Vegetation

No stressed vegetation was observed on the Subject Property at the time of the site visit.

5.3.14 Solid Waste Disposal

During the site reconnaissance, concrete debris was observed intermixed with soil near the east edge of the Upjohn Pond. These materials were reported to be generated from various construction projects performed at the Pfizer Plant located on the west side of Upjohn Pond. The nature, extent and location of the various construction projects is undocumented. It appears that that the materials were comingled during placement and they are apparent along the tree line on the eastern edge of the Upjohn Pond.

5.3.15 Waste Water

Golder observed no evidence that industrial waste water is generated or discharged from the Subject Property at the time of the site visit.

5.3.16 Wells

Golder observed no evidence of potable water wells at the Subject Property at the time of the site visit. Monitoring wells (three near parking lot/contractor yard, four between railroad tracks and siding and several on the north end of the east parcel) were noted throughout the Subject Property. These wells are part of the Pfizer RCRA compliance monitoring network related to the manufacturing facility to the west of the Subject Property. Pfizer supplied the last 10 years of data from 5 of the RCRA compliance monitoring wells (MW-109R/MW-110/MW-111/MW-112/MW-149) in addition to 10 years of monitoring data from the NPDES Pond Wells MW-Bs and MW-Bd. All seven of these monitoring wells are located on the Subject Property. Pfizer samples the RCRA wells on a quarterly basis and the NPDES wells on a semi-annual basis. The results from the five RCRA monitoring wells were all below the detection limits for the organic and inorganic parameters analyzed. The two NPDES monitoring wells had detectable concentrations of dissolved Arsenic present at concentrations below the regulatory limit. The remaining organic and inorganic parameters analyzed for were below the detection limits.

5.3.17 Septic Systems

No evidence of septic systems was observed during the reconnaissance of the Subject Property.

5.3.18 Other Interior and Exterior Observations

Stone steps/tiles and aggregates were noted on the south end of the west parcel near the railroad siding. According to the Site Representative, these materials were extras from various construction projects at the Pfizer Plant to the west.

A portion of a coal pile is located on the west side of the Subject Property near the train spur. The coal pile is located on both concrete (small portion of the pile) and bare soil (majority of the pile) and coal has been stored in this area for over 50 years. There is no documentation on the condition of the concrete and bare soils located under the coal pile.

The Site Representative also indicated there was an air monitoring station located on the north end of the east parcel which was decommissioned over 10 years ago. This station was part of an air monitoring network Pfizer had in place around their manufacturing plant to the west of the Subject Property.

5.4 Off-Site Observations

The following two sections discuss the off-site observations, to the extent that the current uses of the adjoining properties were observable during the Subject Property reconnaissance and were likely to indicate a REC in connection with the adjoining properties or the Subject Property.

5.4.1 Adjoining Properties

Majority of the adjoining properties to the Subject Property are owned by Pfizer (west, south and most of the east side) and developed as a manufacturing facility (west side) or undeveloped (south and most of east side). The adjoining property along the northern portion of the east side is commercial/light industrial developments along the east side of Sprinkle Road. The adjoining properties to the north are primarily developed as an airport (north of Romence) or utilized for agricultural purposes (across Romence to the north and east of the airport).

5.4.2 Other Surrounding Properties

The surrounding properties are primarily developed for mixed use purposes.

No RECs were identified regarding the surrounding properties.

6.0 INTERVIEWS

6.1 Overview

The purpose of interviews with past and present owners and occupants is to obtain information indicating RECs in connection with the Subject Property. Information obtained through these interviews is discussed in relevant sections of this Report.

6.2 Interview with Owners, Past Owners, Past Operators and Past Occupants

No interviews were conducted with past owners/operators for this Phase I ESA.

6.3 Interview with Site Manager

Mr. William Hunsberger who has worked for the Pfizer Plant's Environmental Group for over 15 years accompanied Golder on the site visit. Relevant information is noted throughout this report.

6.4 Interview with Occupants

No occupants are present on the Subject Property.

6.5 Interview with Local Government Officials

No interviews were conducted with local government officials.

6.6 Interviews with Others

No other interviews were conducted for this Phase I ESA.

7.0 DISCUSSION

This section identifies the known or suspect RECs, controlled RECs, historical RECs, and de minimis conditions identified during the assessment.

7.1 Findings and Opinions

7.1.1 Recognized Environmental Conditions

The following Recognized Environmental Conditions (RECs) were identified on the Subject Property during this assessment:

Miscellaneous Concrete/Soil Mixture: During the site reconnaissance, concrete debris was observed intermixed with soil near the east edge of the Upjohn Pond. These materials were reported to be generated from various construction projects performed at the Pfizer Plant located on the west side of Upjohn Pond. The nature, extent and location of the various construction projects is undocumented, the miscellaneous concrete and soil mixture represents a REC for the Subject Property.

Coal Pile: A portion of a coal pile is located on the west side of the Subject Property near the train spur. The coal pile is located on both concrete (small portion of the pile) and bare soil (majority of the pile) and coal has been stored in this area for over 50 years. There is no documentation on the condition of the concrete and bare soils located under the coal pile. The operation of the coal pile in this location represents a REC for the Subject Property.

D&A Autobody Site: The D&A Autobody property is located upgradient of the Subject Property. This property is listed as being in Interim Response in progress which means initial actions have been taken to reduce risks from the release but the site has not been remediated. This type of operation used petroleum products and solvents which are mobile in groundwater. Based on the nature of the materials used in daily operations, the

site being located upgradient and the site has not been closed, D&A Autobody represents a REC for the Subject Property.

7.1.2 Controlled Recognized Environmental Conditions

A CREC is a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. The identification of a CREC does not imply that Golder has evaluated or confirmed the adequacy, implementation, or continued effectiveness of the required control(s).

No Controlled Recognized Environmental Conditions were identified during this assessment.

7.1.3 Historical Recognized Environmental Conditions

An HREC is an environmental condition which, in the past, would have been considered a REC, but which may or may not be considered a REC currently. Golder's rationale for considering these environmental conditions as HRECs is based solely on the information stated herein. Designation as an HREC however, does not preclude the potential for the condition to affect the Subject Property.

No Historical Recognized Environmental Conditions were identified during this assessment.

7.1.4 De Minimis Conditions

De minimis conditions are not recognized environmental conditions. De minimis conditions generally do not present a threat to human health or the environment and generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

The following de minimis conditions were observed at the Subject Property:

Concrete Steps/Tiles and Aggregates: The concrete steps/tiles and aggregate materials stockpiled near the railroad spur on the west parcel were noted as a de minimis condition.

Minor Spills from the Staged Railroad Tankers: Pfizer reported minor solvent spills in the vicinity of the staged railroad tankers. These spills were reported as drips from bottom valves with the quantity of each solvent spill being below reportable limits. Pfizer also reported these spills required minimal remediation. Evidence of these spills was not observed during the site visit. The reported minor spills from the staged railroad tankers along the railroad spur were noted as a de minimis condition.

7.2 Limiting Conditions and Deviations

No limiting conditions or deviations were encountered during the completion of this Phase I ESA.

7.3 Data Gaps

A Data Failure occurs when all of the standard historical sources that are reasonably ascertainable and likely to be useful have been reviewed and yet the objectives have not been met. Some Data Failures may comprise Data Gaps. A Data Gap is defined as the lack of or inability to obtain information required by the ASTM Standard despite good faith efforts by the EP to gather such information. A significant Data Gap occurs when a data gap impacts the ability of the EP to identify RECs.

Golder representatives did not identify significant Data Gaps during this assessment.

8.0 CONCLUSIONS

Golder performed a Phase I ESA of the Subject Property in conformance with the scope and limitations of the ASTM Standard. Any exceptions to, or deletions from, the ASTM Standard are described in the appropriate sections of this Report.

This assessment has revealed three RECs in connection with the Subject Property related to miscellaneous concrete/soil, a coal pile, and an off-site property (D&A Autobody) undergoing remediation located south of the Subject Property.

9.0 REFERENCES

The Report's author annotated the reference sources relied upon in preparing the Phase I ESA in the relevant sections of this Report.

10.0 QUALIFICATIONS AND SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Stephen Thumma, Senior Environmental Engineer with over 28 years of professional experience conducted the site visit and prepared this Report and Robert Illes, Principal with over 30 years of professional experience served as the Quality Assurance/Quality Control (QA/QC) reviewer of the Report. Resumes for members of the project team are included in Appendix G.

"We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR Part 312.

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Signature Page

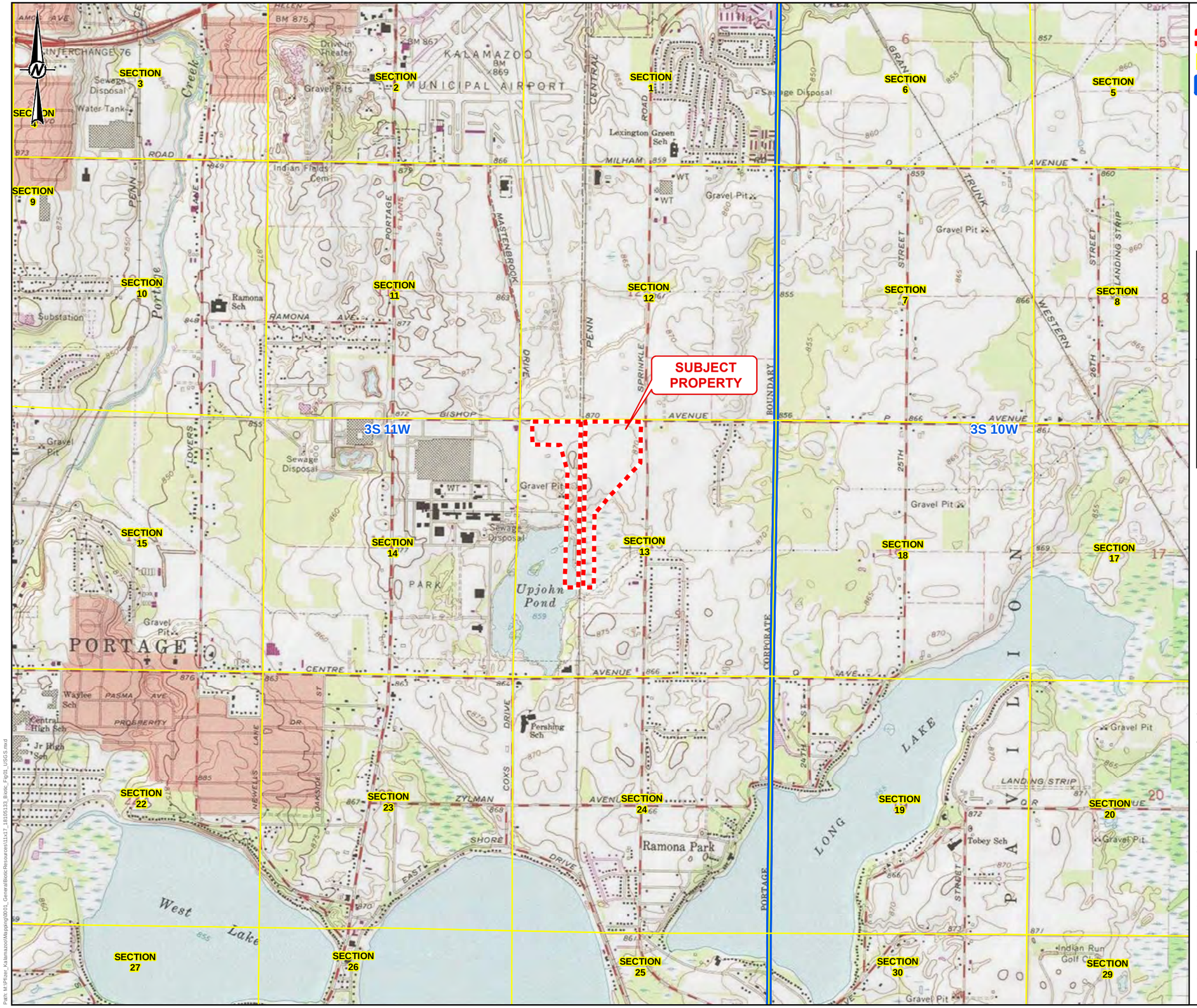
Golder Associates Inc.

Stephen E. Thumma, P.E.
Senior Environmental Engineer

Robert J. Illes
Principal

c:\users\sthumma\documents\golder info\pfizer\azo property\pfizer azo phase i esa - final .docx

FIGURES



LEGEND

- APPROXIMATE SUBJECT PROPERTY LIMITS
- SECTION
- TOWNSHIP/RANGE

0 1,000 2,000 4,000 Feet

REFERENCE

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CLIENT
PFIZER INC.

PROJECT
KALAMAZOO AIRPORT EXPANSION
PORTAGE TOWNSHIP, KALAMAZOO COUNTY, MICHIGAN

TITLE
PROPERTY LOCATION MAP
USGS TOPOGRAPHIC MAP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-07-21
PREPARED	KJC
DESIGN	KJC
REVIEW	JBM
APPROVED	

PROJECT No.
18105133

FIGURE
1

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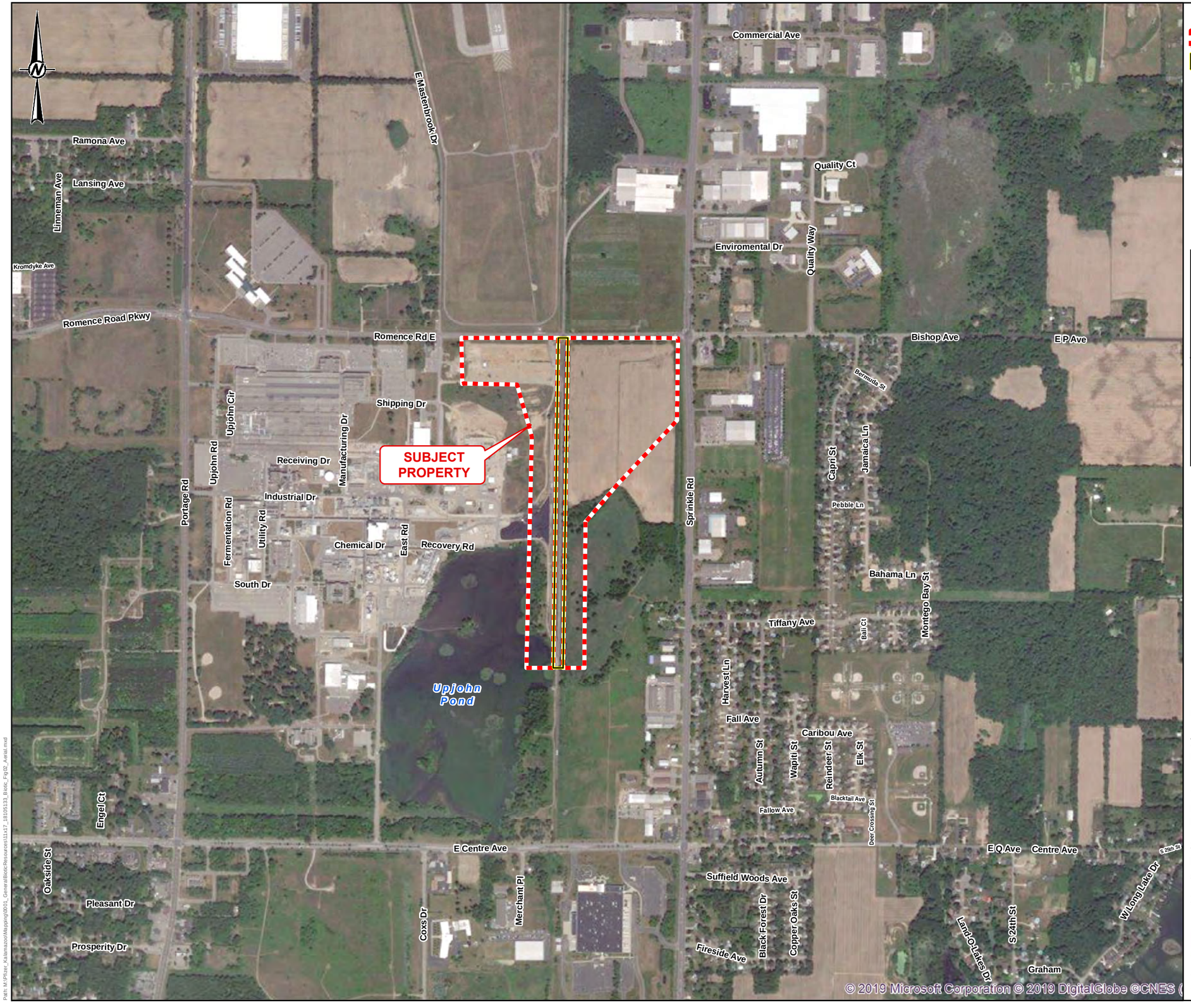

LEGEND

- APPROXIMATE SUBJECT PROPERTY LIMITS
- APPROXIMATE RAILROAD ROW

0 500 1,000 2,000 Feet

REFERENCE

1. AERIAL IMAGERY: ESRI, DIGITAL GLOBE, MICROSOFT, BING MAPS. IMAGERY FLOWN 2016.

CLIENT
PFIZER INC.

PROJECT
KALAMAZOO AIRPORT EXPANSION
PORTAGE TOWNSHIP, KALAMAZOO COUNTY, MICHIGAN

TITLE
PROPERTY LOCATION MAP
AERIAL IMAGERY

CONSULTANT
GOLDER

YYYY-MM-DD	2019-07-21
PREPARED	KJC
DESIGN	KJC
REVIEW	JBM
APPROVED	

PROJECT No.
18105133

FIGURE
2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
1in
0

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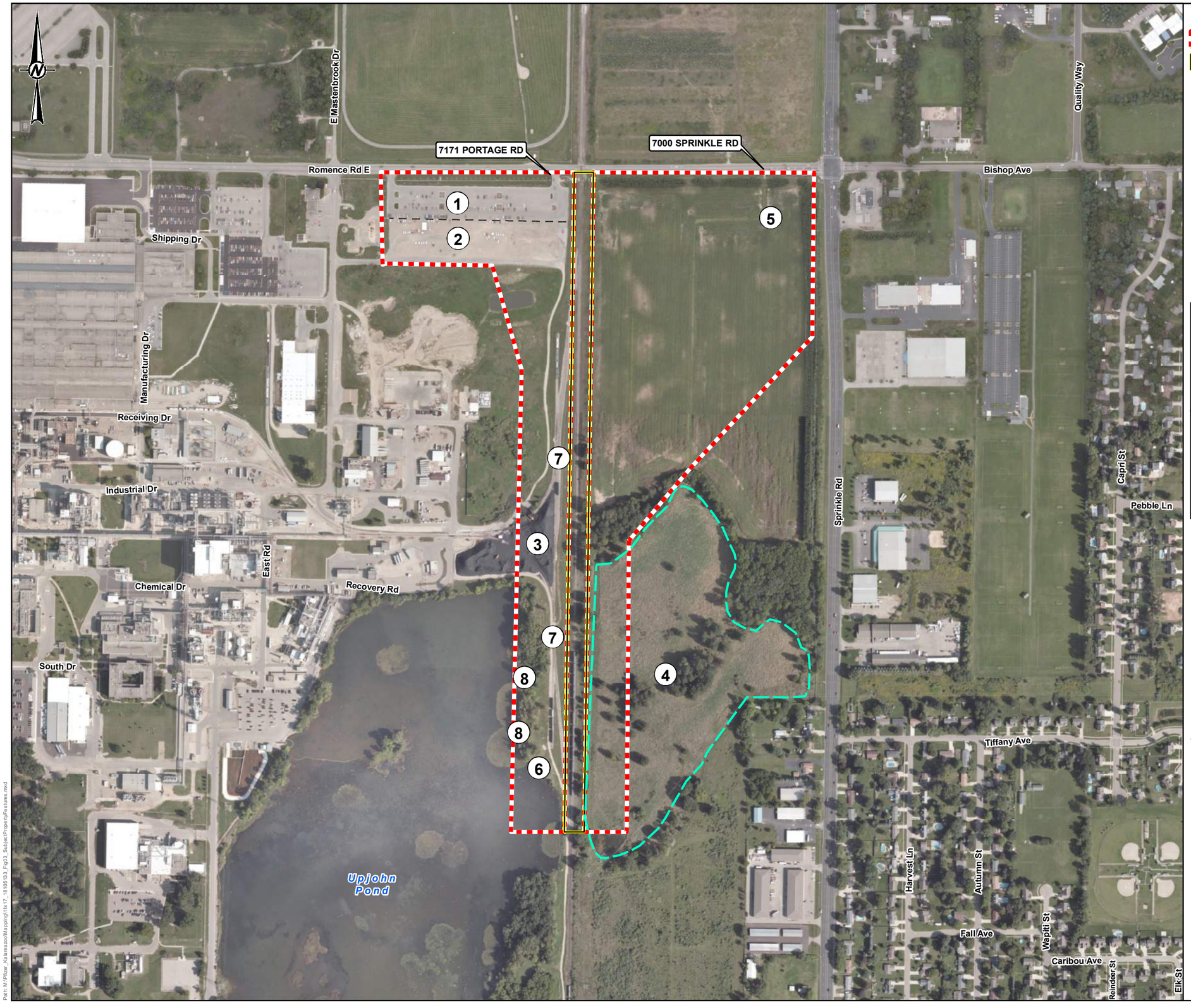


LEGEND

APPROXIMATE APE LIMITS

APPROXIMATE RAILROAD ROW

SUBJECT PROPERTY FEATURES

1 - PARKING LOT

2 - CONTRACTOR LAYDOWN AREA

3 - COAL PILE

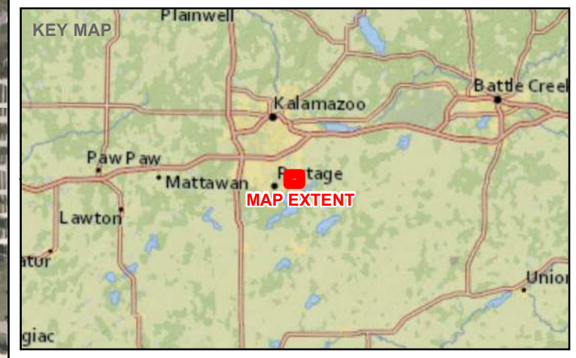
4 - FORMER POND AND INFILTRATION GALLERY

5 - FORMER AIR MONITORING STATION

6 - CONSTRUCTION DEBRIS STEPS/GRAVEL

7 - RAILROAD SPUR

8 - CONCRETE/SOIL SPOILS



0 250 500 1,000 Feet

REFERENCE

1. AERIAL IMAGERY: ESRI, DIGITAL GLOBE, MICROSOFT, BING MAPS. IMAGERY FLOWN 2016.

CLIENT
PFIZER INC.

PROJECT
KALAMAZOO AIRPORT EXPANSION
PORTAGE TOWNSHIP, KALAMAZOO COUNTY, MICHIGAN

TITLE
SUBJECT PROPERTY FEATURES MAP

CONSULTANT
GOLDER

YYYY-MM-DD	2019-10-29
PREPARED	KJC
DESIGN	KJC
REVIEW	JBM
APPROVED	

PROJECT No.
18105133

FIGURE
3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 11in

Path: M:\Pfizer_Kalamazoo\Mapping\11x17_18105133_Fig03_SubjectPropertyFeatures.mxd

LIMITED PHASE II SITE INVESTIGATION

Runway 17/35 RIM Extension and Railroad Relocation
Kalamazoo/Battle Creek International Airport
Kalamazoo, Michigan
L&A Project 18-0486

Prepared for:

Mr. William Ballard
Project Manager
Mead & Hunt, Inc.
2605 Port Lansing Road
Lansing, MI 8906
517.321.8334

Prepared by:

Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212
614.481.8600

October 23, 2019

Lawhon & Associates, Inc.

TABLE OF CONTENTS

APPENDICES

LIMITED PHASE II SITE INVESTIGATION
Runway 17/35 RIM Extension and Railroad Relocation
Kalamazoo, Michigan

1.0 Introduction

1.1 Purpose

This report provides the results of a Limited Phase II Environmental Site Assessment (ESA) performed by Lawhon & Associates, Inc. (L&A) located at the Kalamazoo/Battle Creek International Airport in Kalamazoo, Michigan ("the site"). This assessment was conducted on behalf of Mead & Hunt, Inc. for purposes of further evaluating the site's environmental conditions prior to the proposed Runway 17/35 RIM Extension and Railroad Relocation. The work was performed pursuant to our revised proposal dated October 17, 2018 and in general conformance with ASTM International E 1903-11 Standard Guide for Environmental Site Assessments: Phase II Environmental Assessment Process (the Standard).

A diagram showing the current site boundaries and soil boring locations for this investigation is presented as Appendix A.

1.2 Limitations and Exceptions

The conclusions presented herein are professional opinions based on data contained in this report. They are intended only for the purpose, subject property location, and project indicated. The analytical results were compared to potentially applicable Michigan Department of Environmental, Great Lakes, and Energy (EGLE) Generic Cleanup Criteria and Screening Levels (GCCSL) for Soil: Non-residential Direct Contact Criteria and Non-residential Drinking Water Criteria; however, other regulatory standards may exist. It should be noted that this report is not a definitive investigation of the entire site and should not be interpreted as such.

2.0 Background

2.1 Site Description and Physical Setting

The site is located at 5235 Portage Road, Kalamazoo, Michigan, and includes tax parcel 10-00012-103-0. The site is situated in a setting comprised primarily of commercial and light industrial properties.

3.0 Limited Phase II Subsurface Sampling Activities

3.1 Scope of Work

Limited Phase II field activities at the site took place on October 8, 2019. L&A's Limited Phase II scope of work included the completion of five (5) soil borings, two (2) temporary well points, and pre-demolition survey of four (4) FAA structures and transformer for asbestos, bulk lead paint, and surface soil sampling. The pre-demolition asbestos containing materials and lead paint survey was conducted by Mr. John Korth (Michigan Department of Licensing and Regulatory Affairs #A52657). The survey report is presented in Appendix D.

The balance of this report consists of a description of the field methods followed during the investigation, a discussion of the results, and L&A's conclusions.

3.2 Soil Sampling Procedures

L&A contracted EnviroCore to perform the soil boring advancement activities associated with this project. Boring locations were chosen to evaluate potential environmental impacts from the historic activities onsite and at adjacent properties. Public and private utilities were also considered when determining the final boring location placement. A diagram showing final boring locations is presented as Appendix A.

The borings were advanced utilizing a track mounted rig with a hydraulic drive head used to drive and withdraw a direct-push soil sampler. This sampling assembly consists of four-foot lengths of 2 ¼-inch diameter threaded steel outer rods and 1-inch diameter inner rods fitted with disposable acetate liners. The outer rods are used to prevent soil from shallower depths from falling into the hole.

Soil borings were advanced to twenty-four (24) feet below ground surface (bgs) or until soil saturation could be observed. The soils at each boring location were observed and logged by the L&A Environmental Scientist with particular note to grain size, color, moisture content, and odor. The soil samples were collected continuously, at two-foot intervals from the ground surface to the termination depth. Soil samples from each interval were split into two airtight sample containers; one sample container was immediately placed in a cooler with ice for potential laboratory analysis, and the other sample container was allowed to warm for field screening using a photoionization detector (PID). A PID is an electronic instrument which detects organic vapors and provides results in parts per million (ppm). The PID was calibrated according to the manufacturer's specifications immediately before field operations, using 100-ppm isobutylene as a calibrant. Headspace analyses were obtained for each soil sample by inserting the tip of the PID probe into the sealed sample container. PID readings ranged from 0.378 to 3.375 ppm. Soil boring logs are included in Appendix B. The chilled soil sample corresponding to the sample interval with the highest PID reading from each boring was selected for submittal for laboratory analysis and was transferred to new laboratory supplied glass jars with sealed lids. The sample jars were immediately returned to the cooler with ice.

Soil samples near four (4) FAA structures and one (1) transformer were collected utilizing a new fiberglass hand shovel. Surface gravel was placed aside and soil from 0-6 inches below ground surface was collected. Soil samples from each location were placed into airtight sample containers and immediately place in a cooler with ice for laboratory analysis. Surface gravel was replaced following collection of the samples.

3.3 Ground Water Sampling Procedures

Two (2) TWP consisting of ¾" diameter polyvinyl chloride (PVC) was installed through the outer rods in two (2) of the borings to the termination depth of the boring. The TWP was installed with ten (10) feet of slotted PVC screen and solid PVC riser to the surface. Once the TWP was installed, the outer rods were removed to allow for ground water collection.

Following installation of the TWP and removal of the outer rods, ground water level was measured using a water level meter. Ground water samples were then collected using an inertial lift pump and new disposable, polyethylene tubing. Sample jars were then immediately placed on ice for transport to the laboratory.

3.4 Borehole Abandonment

Upon completion of sampling activities, the TWP casing was removed and the boreholes were abandoned by backfilling with bentonite hole plug. Bentonite pellets were poured into the open borehole up to just below the ground surface.

3.5 Analytical Methods

Samples were submitted under Chain of Custody via courier to ALS Environmental (ALS), a certified analytical laboratory located in Cincinnati, Ohio. The soil samples collected were analyzed for volatile organic compounds (VOC) by US EPA Method 8260, semi-volatile organic compounds (SVOC) by Method 8270, total petroleum hydrocarbons – gasoline and diesel range organics (TPH-GRO & DRO) by Method 8015, organochlorine pesticides, polychlorinated biphenyls (PCB), and Resource Conservation and Recovery Act (RCRA) 8 metals by Method 6010B/7470. Ground water samples were analyzed for VOC, SVOC, PCB, and RCRA metals.

Soil samples near FAA structures and transformer were analyzed for VOC and PCBs.

Laboratory data sheets and chain-of-custody forms are included in Appendix C.

3.6 Regulatory Standards

L&A utilized the EGLE GCCSL for comparison with the subject property sample analytical results. Specifically, the soil analytical results were compared to the EGLE GCCSL for Non-EGLE GCCSL for Non-residential Drinking Water Criteria.

4.0 Findings

4.1 Subject Property Geology

Soils encountered during the soil borings consisted primarily of sand with trace silt. Only borings BH-01 and BH-02 encountered a saturation zone in the 16-18 foot and 18-20 foot interval.

4.2 Soil Analytical Results

Analytical results of the soil samples are included in tabular form below and laboratory data sheets are presented in Appendix C. Analytical results for the soil samples collected at the subject property indicated the following:

- All chemicals of concern are below the applicable EGLE GCCSL Non-residential Soil Direct Contact Criteria in all soil borings.

- No VOCs, SVOCs, Organochlorine pesticides, and PCBs were above laboratory detection limits in the soil borings.

- No VOCs or PCBs were above laboratory detection limits in the FAA structure and transformer soil samples.

4.3 Ground Water Analytical Results

Analytical results of the ground water samples are included in tabular form below and laboratory data sheets are presented in Appendix C. Analytical results for the ground water samples collected at the subject property indicate the following:

- All chemicals of concern are below the potentially applicable EGLE GCCSL Drinking Water Criteria for residential and non-residential.

ALS conducted all analytical quality assurance/ quality control (QA/ QC) and utilized samples and result qualifiers as set forth by the EPA Contract Laboratory Program. All detected parameters were above the practical quantitative limit (PGL or Detection Limit and no detected parameters had QC qualifiers. Any QC qualifiers are listed in the laboratory reports with an explanation of their meaning.

5.0 Conclusions / Recommendations

Analytical results were compared with applicable standards under EGLE. Analytical results for the soil samples collected from the site indicated the following:

- All chemicals of concern are below applicable EGLE GCCSL Non-residential Soil Direct Contact Criteria in all soil borings.

- No VOCs or PCBs were above laboratory detection limits in the FAA structure and transformer soil samples.

Analytical results for the ground water samples collected from the site indicated the following:

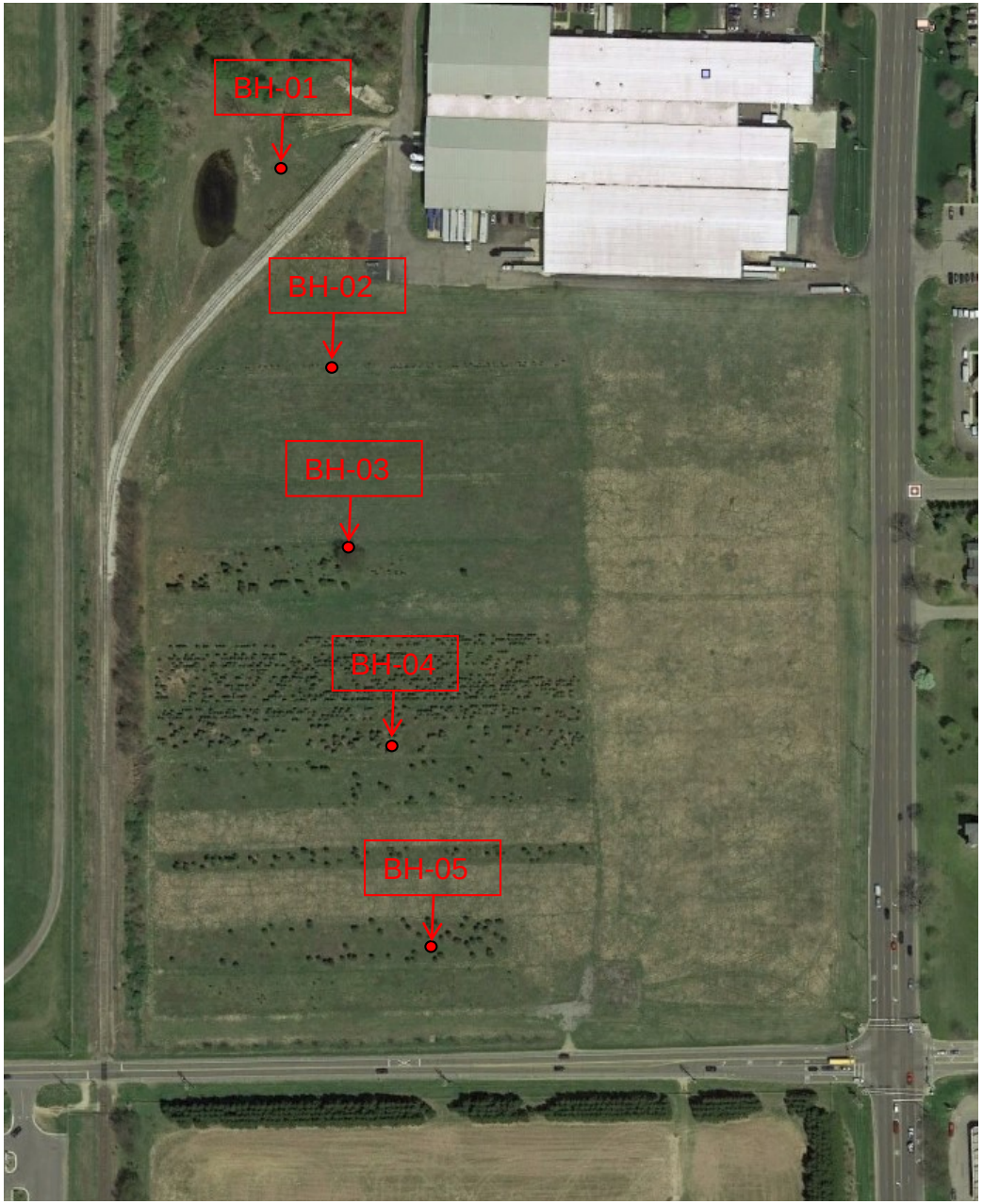
- All chemicals of concern are below the potentially applicable EGLE GCCSL Drinking Water Criteria for non-residential.

Based on the findings of this investigation, L&A recommends no further investigation or plan notes for construction or excavation activities.

If you have any questions, please contact Trevor Berger at 440.838.0777.

Appendix A

Boring Location Figure



Sample Locations

Bulk Sample Diagram

Site: Kalamazoo/Battle Creek International Airport

Address: 5235 Portage Road, Kalamazoo, Michigan

Date Sampled: October 8, 2019

Surveyor: John Korth, #A52657

Signatures:

Sample Locations

Bulk Sample Diagram

Site: Kalamazoo/Battle Creek International Airport

Address: 5235 Portage Road, Kalamazoo, Michigan

Date Sampled: October 8, 2019

Surveyor: John Korth, #A52657

Signatures:

Sample Locations

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Signatures:

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Site: Kalamazoo/Battle Creek International Airport
Address: 5235 Portage Road, Kalamazoo, Michigan
Date Sampled: October 8, 2019
Surveyor: John Korth, #A52657
Signatures:

Sample Locations

Bulk Sample Diagram

Site: Kalamazoo/Battle Creek International Airport

Address: 5235 Portage Road, Kalamazoo, Michigan

Date Sampled: October 8, 2019

Surveyor: John Korth, #A52657

Signatures:

Appendix B

Boring Logs

Log of Borehole: BH-01

Project No.: 18-0486

Project: Kalamazoo/Battle Creek Int'l Airport

Client: Mead & Hunt, Inc.

Location: 6700 S Sprinkle Road

Sheet: 1 of 1

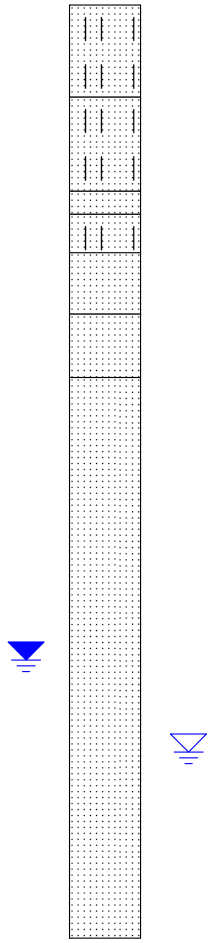
Logged By: John Korth

Project Manager: Trevor Berger

SUBSURFACE PROFILE

Description	Depth
Ground Surface	0
Sandy Silt Brown, trace small gravel, soft, moist	0 - 2
Sandy Silt Brown, trace small gravel, trace wood, soft, moist	2 - 4
Sandy Silt Brown, trace small gravel, soft, moist	4 - 5
Sand Dark grey, trace silt, soft, moist	5 - 6
Sandy Silt Black, soft, moist	6 - 8
Sand Grey, trace silt, soft, moist	8 - 9
Sand Brown, soft, moist Saturated @ 16'	9 - 25

Lithologic Symbols / Construction Details



SAMPLE

Interval (ft.)	Submitted For Analysis	Recovery	PID Reading (ppm)
0-2			1.8
2-4			1.6
4-6			2.2
6-8			2.2
8-10			3.1
10-12	* 10 - 12		3.4
12-14			3.3
14-16			2.6
16-18			
18-20			

PID Reading ppm: 0 2 4 6 8 10

Drilled By: EnviroCore Inc.

Drill Method: Direct Push

Drill Date: 10/8/19

Hole Size: 2.25"

Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212
(614)481.8600

Notes:

***** - indicates sample submitted for laboratory analysis

NR - indicates no recovery

Log of Borehole: BH-02

Project No.: 18-0486

Project: Kalamazoo/Battle Creek Int'l Airport

Client: Mead & Hunt, Inc.

Location: 6700 S Sprinkle Road

Sheet: 1 of 1

Logged By: John Korth

Project Manager: Trevor Berger

SUBSURFACE PROFILE

SAMPLE

Description	Depth	Interval (ft.)	Submitted For Analysis	Recovery	PID Reading (ppm)
Ground Surface	0				
Silty Clay Dark brown, soft, moist	1	0-2			1.1
Silty Clay Brown, trace sand, soft, moist	2				
	3	2-4			1.1
Sand Brown, soft, moist	4				
	5	4-6			1.1
	6				
	7	6-8			1.1
Sandy Silt Clay Brown, soft, moist	8				
Sand Brown, trace small gravel, soft, moist	9	8-10			1.1
	10				
Sand Light brown, trace small gravel, soft, moist	11	10-12			0.8
	12				
	13	12-14			1.1
	14				
	15	14-16			1.2
	16				
Sand Brown, trace small gravel, soft, moist	17	16-18			1.1
	18				
	19	18-20	* 18 - 20		1.2
	20				
	21	20-22			0.8
	22				
	23	22-24			0.8
	24				
	25				

Drilled By: EnviroCore Inc.

Drill Method: Direct Push

Drill Date: 10/8/19

Hole Size: 2.25"

Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212
(614)481.8600

Notes:

***** - indicates sample submitted for laboratory analysis

NR - indicates no recovery

Log of Borehole: BH-03

Project No.: 18-0486

Project: Kalamazoo/Battle Creek Int'l Airport

Client: Mead & Hunt, Inc.

Location: 6700 S Sprinkle Road

Sheet: 1 of 1

Logged By: John Korth

Project Manager: Trevor Berger

SUBSURFACE PROFILE

SAMPLE

Description	Depth	Interval (ft.)	Submitted For Analysis	Recovery	PID Reading (ppm)
Ground Surface	0				
Silty Clay Black, soft, moist	1	0-2			1.1
Silty Clay Brown, soft, moist	2				
Sandy Silt Clay Brown, small gravel, soft, moist	3	2-4			1.1
Sand Brown, small gravel, trace silt clay, soft, moist	4				
	5	4-6			1.0
	6				
	7	6-8			1.2
Sand Brown, soft, moist	8				
Sand Light brown, trace small gravel, soft, moist	9	8-10			1.1
	10				
	11	10-12			1.3
	12				
	13	12-14	* 12 - 14		1.5
	14				
	15	14-16			1.5
	16				
	17	16-18			1.3
	18				
	19	18-20			1.1
	20				
	21	20-22			1.0
	22				
	23	22-24			0.6
	24				
	25				

Drilled By: EnviroCore Inc.

Drill Method: Direct Push

Drill Date: 10/8/19

Hole Size: 2.25"

Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212
(614)481.8600

Notes:

***** - indicates sample submitted for laboratory analysis

NR - indicates no recovery

Log of Borehole: BH-04

Project No.: 18-0486

Project: Kalamazoo/Battle Creek Int'l Airport

Client: Mead & Hunt, Inc.

Location: 6700 S Sprinkle Road

Sheet: 1 of 1

Logged By: John Korth

Project Manager: Trevor Berger

SUBSURFACE PROFILE

SAMPLE

Description	Depth	Interval (ft.)	Submitted For Analysis	Recovery	PID Reading (ppm)
Ground Surface	0				
Silty Clay Brown, soft, moist	1	0-2			0.4
Sandy Silt Clay Brown, trace small gravel, soft, moist	3	2-4			0.6
Sand Brown, trace silt clay, trace small gravel, soft, moist	5	4-6			0.7
Sand Light brown, trace small gravel, soft, moist	7	6-8			0.9
	9	8-10			1.0
	11	10-12			1.0
	13	12-14			1.0
	15	14-16			1.0
	17	16-18			0.7
	19	18-20	* 18 - 20		1.1
Gravel Small, trace brown sand, soft, moist	21	20-22			0.8
Sand Light brown, trace small gravel, soft, moist	23	22-24			0.8
	25				

PID Reading (ppm) scale: 0 2 4 6 8 10

Drilled By: EnviroCore Inc.

Drill Method: Direct Push

Drill Date: 10/8/19

Hole Size: 2.25"

Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212
(614)481.8600

Notes:

***** - indicates sample submitted for laboratory analysis

NR - indicates no recovery

Log of Borehole: BH-05

Project No.: 18-0486

Project: Kalamazoo/Battle Creek Int'l Airport

Client: Mead & Hunt, Inc.

Location: 6700 S Sprinkle Road

Sheet: 1 of 1

Logged By: John Korth

Project Manager: Trevor Berger

SUBSURFACE PROFILE			SAMPLE			
Description	Depth	Lithologic Symbols / Construction Details	Interval (ft.)	Submitted For Analysis	Recovery	PID Reading (ppm)
Ground Surface	0					
Silty Clay Brown, trace small gravel, soft, moist	1		0-2			1.1
Sand Brown, trace silt clay, trace small gravel, soft, moist	2		2-4			1.1
	3					
	4		4-6			1.2
	5					
Sand Brown, trace small gravel, soft, moist	6		6-8			1.1
	7					
Gravel Large	8		8-10			0.9
Sand Light brown, trace small gravel, soft, moist Saturated @ 18.66'	9					
	10		10-12			0.8
	11					
	12		12-14			1.0
	13					
	14		14-16			1.2
	15					
	16		16-18	* 16 - 20		1.2
	17					
	18		18-20			
	19					
	20					
	21					
	22					
	23					
	24					
	25					

Drilled By: EnviroCore Inc.

Drill Method: Direct Push

Drill Date: 10/8/19

Hole Size: 2.25"

Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212
(614)481.8600

Notes:

***** - indicates sample submitted for laboratory analysis

NR - indicates no recovery

Appendix C

Laboratory Analytical Results and Chain-of-Custody

21-Oct-2019

John Korth
Lawhon & Associates
1441 King Avenue
Grandview Heights, OH 43212

Tel: (614) 481-8600
Fax: 614-818-5219

Re: Kalamazoo Airport; 18-0486 Work Order: **1910507**

Dear John,

ALS Environmental received 12 samples on 10-Oct-2019 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 96.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Shawn Smythe

Electronically approved by: Shawn Smythe

Shawn Smythe
Project Manager

ALS Environmental

Date: 21-Oct-19

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: **1910507**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1910507-01	BH-01 10-12	Soil		10/8/2019 14:20	10/10/2019	☐
1910507-02	BH-02 18-20	Soil		10/8/2019 15:13	10/10/2019	☐
1910507-03	BH-03 12-14	Soil		10/8/2019 15:50	10/10/2019	☐
1910507-04	BH-04 16-18	Soil		10/8/2019 16:40	10/10/2019	☐
1910507-05	BH-05 16-18	Soil		10/8/2019 17:35	10/10/2019	☐
1910507-06	TWP-1	Water		10/8/2019 18:20	10/10/2019	☐
1910507-07	FAA-1	Soil		10/8/2019 09:05	10/10/2019	☐
1910507-08	FAA-2	Soil		10/8/2019 09:40	10/10/2019	☐
1910507-09	FAA-3	Soil		10/8/2019 09:50	10/10/2019	☐
1910507-10	FAA-4	Soil		10/8/2019 09:54	10/10/2019	☐
1910507-11	FAA-5	Soil		10/8/2019 10:37	10/10/2019	☐
1910507-12	FAA-6	Soil		10/8/2019 13:04	10/10/2019	☐

ALS Environmental

Date: 21-Oct-19

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507

Case Narrative

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Results relate only to the items tested and are not blank corrected unless indicated.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

ALS is an EPA recognized NLLAP laboratory for lead paint, soil, and dust wipe analyses under its AIHA-LAP accreditation.

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-01 10-12 **Lab ID:** 1910507-01
Collection Date: 10/8/2019 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **10/14/2019**	Analyst: **CAA**
TPH C10-C20	ND		16	mg/Kg-dry	1	10/15/2019 05:42 AM
TPH C20-C34	**45**		**16**	**mg/Kg-dry**	1	10/15/2019 05:42 AM
Surr: Nonane	*64.8*		*22.6-112*	*%REC*	1	10/15/2019 05:42 AM
Surr: Pentacosane	*88.4*		*0-143*	*%REC*	1	10/15/2019 05:42 AM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.1	mg/Kg-dry	1	10/14/2019 05:30 PM
Surr: Cyclooctane	*89.5*		*55-135*	*%REC*	1	10/14/2019 05:30 PM
ORGANOCHLORINE PESTICIDES			**SW8081A**		Prep Date: **10/11/2019**	Analyst: **TSA**
4,4`-DDD	ND		0.021	mg/Kg-dry	1	10/14/2019
4,4`-DDE	ND		0.021	mg/Kg-dry	1	10/14/2019
4,4`-DDT	ND		0.021	mg/Kg-dry	1	10/14/2019
Aldrin	ND		0.011	mg/Kg-dry	1	10/14/2019
alpha-BHC	ND		0.011	mg/Kg-dry	1	10/14/2019
beta-BHC	ND		0.011	mg/Kg-dry	1	10/14/2019
Chlordane	ND		0.21	mg/Kg-dry	1	10/14/2019
delta-BHC	ND		0.021	mg/Kg-dry	1	10/14/2019
Dieldrin	ND		0.021	mg/Kg-dry	1	10/14/2019
Endosulfan I	ND		0.011	mg/Kg-dry	1	10/14/2019
Endosulfan II	ND		0.021	mg/Kg-dry	1	10/14/2019
Endosulfan sulfate	ND		0.021	mg/Kg-dry	1	10/14/2019
Endrin	ND		0.021	mg/Kg-dry	1	10/14/2019
Endrin aldehyde	ND		0.021	mg/Kg-dry	1	10/14/2019
Endrin ketone	ND		0.021	mg/Kg-dry	1	10/14/2019
gamma-BHC (Lindane)	ND		0.011	mg/Kg-dry	1	10/14/2019
Heptachlor	ND		0.011	mg/Kg-dry	1	10/14/2019
Heptachlor epoxide	ND		0.011	mg/Kg-dry	1	10/14/2019
Methoxychlor	ND		0.11	mg/Kg-dry	1	10/14/2019
Toxaphene	ND		0.53	mg/Kg-dry	1	10/14/2019
Surr: Decachlorobiphenyl	*111*		*11.4-165*	*%REC*	1	10/14/2019
Surr: Tetrachloro-m-xylene	*105*		*17.2-160*	*%REC*	1	10/14/2019
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.11	mg/Kg-dry	1	10/15/2019 01:26 AM
Aroclor 1221	ND		0.21	mg/Kg-dry	1	10/15/2019 01:26 AM
Aroclor 1232	ND		0.11	mg/Kg-dry	1	10/15/2019 01:26 AM
Aroclor 1242	ND		0.11	mg/Kg-dry	1	10/15/2019 01:26 AM
Aroclor 1248	ND		0.11	mg/Kg-dry	1	10/15/2019 01:26 AM
Aroclor 1254	ND		0.11	mg/Kg-dry	1	10/15/2019 01:26 AM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-01 10-12 **Lab ID:** 1910507-01
Collection Date: 10/8/2019 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Aroclor 1260	ND		0.11	mg/Kg-dry	1	10/15/2019 01:26 AM
Surr: Decachlorobiphenyl	*116*		*14.9-146*	*%REC*	1	10/15/2019 01:26 AM
Surr: Tetrachloro-m-xylene	*102*		*20.7-158*	*%REC*	1	10/15/2019 01:26 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**5.4**			**% of sample**	1	10/14/2019
MERCURY BY CVAA			**SW7471A**		Prep Date: **10/15/2019**	Analyst: **SLT**
Mercury	ND		0.32	mg/Kg-dry	1	10/16/2019
METALS BY ICP			**SW6010B**		Prep Date: **10/15/2019**	Analyst: **SBD**
Arsenic	ND		4.9	mg/Kg-dry	1	10/15/2019 07:15 PM
Barium	ND		9.8	mg/Kg-dry	1	10/15/2019 07:15 PM
Cadmium	ND		0.98	mg/Kg-dry	1	10/15/2019 07:15 PM
Chromium	**35**		**2.0**	**mg/Kg-dry**	1	10/15/2019 07:15 PM
Lead	ND		4.9	mg/Kg-dry	1	10/15/2019 07:15 PM
Selenium	ND		2.9	mg/Kg-dry	1	10/15/2019 07:15 PM
Silver	ND		0.98	mg/Kg-dry	1	10/15/2019 07:15 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270C**		Prep Date: **10/14/2019**	Analyst: **MRJ**
1,2,4,5-Tetrachlorobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
1,2,4-Trichlorobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
1,2-Dichlorobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
1,3-Dichlorobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
1,3-Dinitrobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
1,4-Dichlorobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
1-Methylnaphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
1-Naphthylamine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2,3,4,6-Tetrachlorophenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2,4,5-Trichlorophenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2,4,6-Trichlorophenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2,4-Dichlorophenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2,4-Dimethylphenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2,4-Dinitrophenol	ND		1.8	mg/Kg-dry	1	10/16/2019 04:22 PM
2,4-Dinitrotoluene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2,6-Dichlorophenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2,6-Dinitrotoluene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2-Acetylaminofluorene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2-Chloronaphthalene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2-Chlorophenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2-Methylnaphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
2-Methylphenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-01 10-12 **Lab ID:** 1910507-01
Collection Date: 10/8/2019 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Naphthylamine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2-Nitroaniline	ND		1.8	mg/Kg-dry	1	10/16/2019 04:22 PM
2-Nitrophenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
2-Picoline	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
3&4-Methylphenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
3,3`-Dichlorobenzidine	ND		0.70	mg/Kg-dry	1	10/16/2019 04:22 PM
3-Methylcholanthrene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
3-Nitroaniline	ND		1.8	mg/Kg-dry	1	10/16/2019 04:22 PM
4,6-Dinitro-2-methylphenol	ND		1.8	mg/Kg-dry	1	10/16/2019 04:22 PM
4-Aminobiphenyl	ND		0.70	mg/Kg-dry	1	10/16/2019 04:22 PM
4-Bromophenyl phenyl ether	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
4-Chloro-3-methylphenol	ND		0.70	mg/Kg-dry	1	10/16/2019 04:22 PM
4-Chloroaniline	ND		0.70	mg/Kg-dry	1	10/16/2019 04:22 PM
4-Chlorophenyl phenyl ether	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
4-Nitroaniline	ND		0.70	mg/Kg-dry	1	10/16/2019 04:22 PM
4-Nitrophenol	ND		1.8	mg/Kg-dry	1	10/16/2019 04:22 PM
4-Nitroquinoline 1-oxide	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
5-Nitro-o-toluidine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
7,12-Dimethylbenz(a)anthracene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Acenaphthene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Acenaphthylene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Acetophenone	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Aniline	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Anthracene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Azobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Benzidine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Benzo(a)anthracene	ND		0.11	mg/Kg-dry	1	10/16/2019 04:22 PM
Benzo(a)pyrene	ND		0.11	mg/Kg-dry	1	10/16/2019 04:22 PM
Benzo(b)fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Benzo(g,h,i)perylene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Benzo(k)fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Benzyl alcohol	ND		0.70	mg/Kg-dry	1	10/16/2019 04:22 PM
Bis(2-chloroethoxy)methane	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Bis(2-chloroethyl)ether	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Bis(2-chloroisopropyl)ether	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Bis(2-ethylhexyl)phthalate	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Butyl benzyl phthalate	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Carbazole	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Chrysene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Dibenzo(a,h)anthracene	ND		0.11	mg/Kg-dry	1	10/16/2019 04:22 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: BH-01 10-12
Lab ID: 1910507-01
Collection Date: 10/8/2019 02:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzofuran	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Diethyl phthalate	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Dimethyl phthalate	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Di-n-butyl phthalate	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Di-n-octyl phthalate	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Dinoseb	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Diphenylamine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Ethyl methanesulfonate	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Fluorene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Hexachlorobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Hexachlorobutadiene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Hexachlorocyclopentadiene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Hexachloroethane	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Indeno(1,2,3-cd)pyrene	ND		0.11	mg/Kg-dry	1	10/16/2019 04:22 PM
Isophorone	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Isosafrole	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Methapyrilene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Methyl methanesulfonate	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Naphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Nitrobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
N-Nitrosodiethylamine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
N-Nitrosodimethylamine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
N-Nitroso-di-n-butylamine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
N-Nitrosodi-n-propylamine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
N-Nitrosomethylethylamine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
N-Nitrosomorpholine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
N-Nitrosopiperidine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
N-Nitrosopyrrolidine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
o-Toluidine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
p-Dimethylaminoazobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Pentachlorobenzene	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Pentachloroethane	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Pentachloronitrobenzene	ND		0.70	mg/Kg-dry	1	10/16/2019 04:22 PM
Pentachlorophenol	ND		1.8	mg/Kg-dry	1	10/16/2019 04:22 PM
Phenacetin	ND		0.70	mg/Kg-dry	1	10/16/2019 04:22 PM
Phenanthrene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Phenol	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Pyrene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:22 PM
Pyridine	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-01 10-12 **Lab ID:** 1910507-01
Collection Date: 10/8/2019 02:20 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Safrole	ND		0.35	mg/Kg-dry	1	10/16/2019 04:22 PM
Surr: 2,4,6-Tribromophenol	*86.2*		*14.2-136*	*%REC*	1	10/16/2019 04:22 PM
Surr: 2-Fluorobiphenyl	*79.8*		*30-116*	*%REC*	1	10/16/2019 04:22 PM
Surr: 2-Fluorophenol	*59.0*		*24-105*	*%REC*	1	10/16/2019 04:22 PM
Surr: 4-Terphenyl-d14	*80.7*		*27.3-138*	*%REC*	1	10/16/2019 04:22 PM
Surr: Nitrobenzene-d5	*62.7*		*23.7-109*	*%REC*	1	10/16/2019 04:22 PM
Surr: Phenol-d5	*72.9*		*24.9-103*	*%REC*	1	10/16/2019 04:22 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,1,1-Trichloroethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,1,2,2-Tetrachloroethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,1,2-Trichloroethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,1-Dichloroethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,1-Dichloroethene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,1-Dichloropropene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,2,3-Trichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,2,3-Trichloropropane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,2,4-Trichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,2,4-Trimethylbenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,2-Dibromo-3-chloropropane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,2-Dibromoethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,2-Dichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,2-Dichloroethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,2-Dichloropropane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,3,5-Trimethylbenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,3-Dichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,3-Dichloropropane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
1,4-Dichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
2,2-Dichloropropane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
2-Butanone	ND		0.053	mg/Kg-dry	1	10/14/2019 04:26 PM
2-Chlorotoluene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
2-Hexanone	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
4-Chlorotoluene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
4-Methyl-2-pentanone	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Acetone	ND		0.053	mg/Kg-dry	1	10/14/2019 04:26 PM
Benzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Bromobenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Bromochloromethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Bromodichloromethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Bromoform	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: BH-01 10-12
Lab ID: 1910507-01
Collection Date: 10/8/2019 02:20 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromomethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Carbon disulfide	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Carbon tetrachloride	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Chlorobenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Chloroethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Chloroform	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Chloromethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
cis-1,2-Dichloroethene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
cis-1,3-Dichloropropene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Dibromochloromethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Dibromomethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Dichlorodifluoromethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Ethylbenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Hexachlorobutadiene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Isopropylbenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
m,p-Xylene	ND		0.011	mg/Kg-dry	1	10/14/2019 04:26 PM
Methyl tert-butyl ether	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Methylene chloride	ND		0.021	mg/Kg-dry	1	10/14/2019 04:26 PM
Naphthalene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
n-Butylbenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
n-Propylbenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
o-Xylene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
p-Isopropyltoluene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
sec-Butylbenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Styrene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
tert-Butylbenzene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Tetrachloroethene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Toluene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
trans-1,2-Dichloroethene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
trans-1,3-Dichloropropene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Trichloroethene	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Trichlorofluoromethane	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Vinyl chloride	ND		0.0053	mg/Kg-dry	1	10/14/2019 04:26 PM
Xylenes, Total	ND		0.016	mg/Kg-dry	1	10/14/2019 04:26 PM
Surr: 4-Bromofluorobenzene	*104*		*62.7-159*	*%REC*	1	10/14/2019 04:26 PM
Surr: Dibromofluoromethane	*117*		*67.3-136*	*%REC*	1	10/14/2019 04:26 PM
Surr: Toluene-d8	*101*		*83-124*	*%REC*	1	10/14/2019 04:26 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-02 18-20 **Lab ID:** 1910507-02
Collection Date: 10/8/2019 03:13 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **10/14/2019**	Analyst: **CAA**
TPH C10-C20	ND		15	mg/Kg-dry	1	10/15/2019 06:02 AM
TPH C20-C34	**18**		**15**	**mg/Kg-dry**	1	10/15/2019 06:02 AM
Surr: Nonane	*71.4*		*22.6-112*	*%REC*	1	10/15/2019 06:02 AM
Surr: Pentacosane	*92.8*		*0-143*	*%REC*	1	10/15/2019 06:02 AM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.1	mg/Kg-dry	1	10/14/2019 05:56 PM
Surr: Cyclooctane	*92.8*		*55-135*	*%REC*	1	10/14/2019 05:56 PM
ORGANOCHLORINE PESTICIDES			**SW8081A**		Prep Date: **10/11/2019**	Analyst: **TSA**
4,4`-DDD	ND		0.021	mg/Kg-dry	1	10/14/2019
4,4`-DDE	ND		0.021	mg/Kg-dry	1	10/14/2019
4,4`-DDT	ND		0.021	mg/Kg-dry	1	10/14/2019
Aldrin	ND		0.010	mg/Kg-dry	1	10/14/2019
alpha-BHC	ND		0.010	mg/Kg-dry	1	10/14/2019
beta-BHC	ND		0.010	mg/Kg-dry	1	10/14/2019
Chlordane	ND		0.21	mg/Kg-dry	1	10/14/2019
delta-BHC	ND		0.021	mg/Kg-dry	1	10/14/2019
Dieldrin	ND		0.021	mg/Kg-dry	1	10/14/2019
Endosulfan I	ND		0.010	mg/Kg-dry	1	10/14/2019
Endosulfan II	ND		0.021	mg/Kg-dry	1	10/14/2019
Endosulfan sulfate	ND		0.021	mg/Kg-dry	1	10/14/2019
Endrin	ND		0.021	mg/Kg-dry	1	10/14/2019
Endrin aldehyde	ND		0.021	mg/Kg-dry	1	10/14/2019
Endrin ketone	ND		0.021	mg/Kg-dry	1	10/14/2019
gamma-BHC (Lindane)	ND		0.010	mg/Kg-dry	1	10/14/2019
Heptachlor	ND		0.010	mg/Kg-dry	1	10/14/2019
Heptachlor epoxide	ND		0.010	mg/Kg-dry	1	10/14/2019
Methoxychlor	ND		0.10	mg/Kg-dry	1	10/14/2019
Toxaphene	ND		0.52	mg/Kg-dry	1	10/14/2019
Surr: Decachlorobiphenyl	*103*		*11.4-165*	*%REC*	1	10/14/2019
Surr: Tetrachloro-m-xylene	*99.4*		*17.2-160*	*%REC*	1	10/14/2019
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.10	mg/Kg-dry	1	10/15/2019 01:44 AM
Aroclor 1221	ND		0.21	mg/Kg-dry	1	10/15/2019 01:44 AM
Aroclor 1232	ND		0.10	mg/Kg-dry	1	10/15/2019 01:44 AM
Aroclor 1242	ND		0.10	mg/Kg-dry	1	10/15/2019 01:44 AM
Aroclor 1248	ND		0.10	mg/Kg-dry	1	10/15/2019 01:44 AM
Aroclor 1254	ND		0.10	mg/Kg-dry	1	10/15/2019 01:44 AM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-02 18-20 **Lab ID:** 1910507-02
Collection Date: 10/8/2019 03:13 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Aroclor 1260	ND		0.10	mg/Kg-dry	1	10/15/2019 01:44 AM
Surr: Decachlorobiphenyl	*114*		*14.9-146*	*%REC*	1	10/15/2019 01:44 AM
Surr: Tetrachloro-m-xylene	*102*		*20.7-158*	*%REC*	1	10/15/2019 01:44 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**3.1**			**% of sample**	1	10/14/2019
MERCURY BY CVAA			**SW7471A**		Prep Date: **10/15/2019**	Analyst: **SLT**
Mercury	ND		0.30	mg/Kg-dry	1	10/16/2019
METALS BY ICP			**SW6010B**		Prep Date: **10/15/2019**	Analyst: **SBD**
Arsenic	ND		4.4	mg/Kg-dry	1	10/15/2019 07:27 PM
Barium	ND		8.8	mg/Kg-dry	1	10/15/2019 07:27 PM
Cadmium	ND		0.88	mg/Kg-dry	1	10/15/2019 07:27 PM
Chromium	**4.6**		**1.8**	**mg/Kg-dry**	1	10/15/2019 07:27 PM
Lead	ND		4.4	mg/Kg-dry	1	10/15/2019 07:27 PM
Selenium	ND		2.6	mg/Kg-dry	1	10/15/2019 07:27 PM
Silver	ND		0.88	mg/Kg-dry	1	10/15/2019 07:27 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270C**		Prep Date: **10/14/2019**	Analyst: **MRJ**
1,2,4,5-Tetrachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
1,2,4-Trichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
1,2-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
1,3-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
1,3-Dinitrobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
1,4-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
1-Methylnaphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
1-Naphthylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2,3,4,6-Tetrachlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2,4,5-Trichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2,4,6-Trichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2,4-Dichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2,4-Dimethylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2,4-Dinitrophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 04:42 PM
2,4-Dinitrotoluene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2,6-Dichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2,6-Dinitrotoluene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2-Acetylaminofluorene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2-Chloronaphthalene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2-Chlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2-Methylnaphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
2-Methylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: BH-02 18-20
Lab ID: 1910507-02
Collection Date: 10/8/2019 03:13 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Naphthylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2-Nitroaniline	ND		1.7	mg/Kg-dry	1	10/16/2019 04:42 PM
2-Nitrophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
2-Picoline	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
3&4-Methylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
3,3`-Dichlorobenzidine	ND		0.68	mg/Kg-dry	1	10/16/2019 04:42 PM
3-Methylcholanthrene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
3-Nitroaniline	ND		1.7	mg/Kg-dry	1	10/16/2019 04:42 PM
4,6-Dinitro-2-methylphenol	ND		1.7	mg/Kg-dry	1	10/16/2019 04:42 PM
4-Aminobiphenyl	ND		0.68	mg/Kg-dry	1	10/16/2019 04:42 PM
4-Bromophenyl phenyl ether	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
4-Chloro-3-methylphenol	ND		0.68	mg/Kg-dry	1	10/16/2019 04:42 PM
4-Chloroaniline	ND		0.68	mg/Kg-dry	1	10/16/2019 04:42 PM
4-Chlorophenyl phenyl ether	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
4-Nitroaniline	ND		0.68	mg/Kg-dry	1	10/16/2019 04:42 PM
4-Nitrophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 04:42 PM
4-Nitroquinoline 1-oxide	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
5-Nitro-o-toluidine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
7,12-Dimethylbenz(a)anthracene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Acenaphthene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Acenaphthylene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Acetophenone	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Aniline	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Anthracene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Azobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Benzidine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Benzo(a)anthracene	ND		0.10	mg/Kg-dry	1	10/16/2019 04:42 PM
Benzo(a)pyrene	ND		0.10	mg/Kg-dry	1	10/16/2019 04:42 PM
Benzo(b)fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Benzo(g,h,i)perylene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Benzo(k)fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Benzyl alcohol	ND		0.68	mg/Kg-dry	1	10/16/2019 04:42 PM
Bis(2-chloroethoxy)methane	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Bis(2-chloroethyl)ether	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Bis(2-chloroisopropyl)ether	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Bis(2-ethylhexyl)phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Butyl benzyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Carbazole	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Chrysene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Dibenzo(a,h)anthracene	ND		0.10	mg/Kg-dry	1	10/16/2019 04:42 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: BH-02 18-20
Lab ID: 1910507-02
Collection Date: 10/8/2019 03:13 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzofuran	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Diethyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Dimethyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Di-n-butyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Di-n-octyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Dinoseb	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Diphenylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Ethyl methanesulfonate	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Fluorene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Hexachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Hexachlorobutadiene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Hexachlorocyclopentadiene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Hexachloroethane	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Indeno(1,2,3-cd)pyrene	ND		0.10	mg/Kg-dry	1	10/16/2019 04:42 PM
Isophorone	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Isosafrole	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Methapyrilene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Methyl methanesulfonate	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Naphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Nitrobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
N-Nitrosodiethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
N-Nitrosodimethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
N-Nitroso-di-n-butylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
N-Nitrosodi-n-propylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
N-Nitrosomethylethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
N-Nitrosomorpholine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
N-Nitrosopiperidine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
N-Nitrosopyrrolidine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
o-Toluidine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
p-Dimethylaminoazobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Pentachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Pentachloroethane	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Pentachloronitrobenzene	ND		0.68	mg/Kg-dry	1	10/16/2019 04:42 PM
Pentachlorophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 04:42 PM
Phenacetin	ND		0.68	mg/Kg-dry	1	10/16/2019 04:42 PM
Phenanthrene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Phenol	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Pyrene	ND		0.21	mg/Kg-dry	1	10/16/2019 04:42 PM
Pyridine	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM

Note:

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-02 18-20 **Lab ID:** 1910507-02
Collection Date: 10/8/2019 03:13 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Safrole	ND		0.34	mg/Kg-dry	1	10/16/2019 04:42 PM
Surr: 2,4,6-Tribromophenol	*89.9*		*14.2-136*	*%REC*	1	10/16/2019 04:42 PM
Surr: 2-Fluorobiphenyl	*87.1*		*30-116*	*%REC*	1	10/16/2019 04:42 PM
Surr: 2-Fluorophenol	*72.4*		*24-105*	*%REC*	1	10/16/2019 04:42 PM
Surr: 4-Terphenyl-d14	*80.5*		*27.3-138*	*%REC*	1	10/16/2019 04:42 PM
Surr: Nitrobenzene-d5	*69.9*		*23.7-109*	*%REC*	1	10/16/2019 04:42 PM
Surr: Phenol-d5	*82.6*		*24.9-103*	*%REC*	1	10/16/2019 04:42 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,1,1-Trichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,1,2,2-Tetrachloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,1,2-Trichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,1-Dichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,1-Dichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,1-Dichloropropene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,2,3-Trichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,2,3-Trichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,2,4-Trichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,2,4-Trimethylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,2-Dibromo-3-chloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,2-Dibromoethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,2-Dichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,2-Dichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,2-Dichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,3,5-Trimethylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,3-Dichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,3-Dichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
1,4-Dichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
2,2-Dichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
2-Butanone	ND		0.052	mg/Kg-dry	1	10/15/2019 02:27 PM
2-Chlorotoluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
2-Hexanone	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
4-Chlorotoluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
4-Methyl-2-pentanone	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Acetone	ND		0.052	mg/Kg-dry	1	10/15/2019 02:27 PM
Benzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Bromobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Bromochloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Bromodichloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Bromoform	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-02 18-20 **Lab ID:** 1910507-02
Collection Date: 10/8/2019 03:13 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromomethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Carbon disulfide	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Carbon tetrachloride	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Chlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Chloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Chloroform	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Chloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
cis-1,2-Dichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
cis-1,3-Dichloropropene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Dibromochloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Dibromomethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Dichlorodifluoromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Ethylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Hexachlorobutadiene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Isopropylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
m,p-Xylene	ND		0.010	mg/Kg-dry	1	10/15/2019 02:27 PM
Methyl tert-butyl ether	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Methylene chloride	ND		0.021	mg/Kg-dry	1	10/15/2019 02:27 PM
Naphthalene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
n-Butylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
n-Propylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
o-Xylene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
p-Isopropyltoluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
sec-Butylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Styrene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
tert-Butylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Tetrachloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Toluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
trans-1,2-Dichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
trans-1,3-Dichloropropene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Trichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Trichlorofluoromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Vinyl chloride	ND		0.0052	mg/Kg-dry	1	10/15/2019 02:27 PM
Xylenes, Total	ND		0.015	mg/Kg-dry	1	10/15/2019 02:27 PM
Surr: 4-Bromofluorobenzene	*111*		*62.7-159*	*%REC*	1	10/15/2019 02:27 PM
Surr: Dibromofluoromethane	*112*		*67.3-136*	*%REC*	1	10/15/2019 02:27 PM
Surr: Toluene-d8	*97.6*		*83-124*	*%REC*	1	10/15/2019 02:27 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-03 12-14 **Lab ID:** 1910507-03
Collection Date: 10/8/2019 03:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **10/14/2019**	Analyst: **CAA**
TPH C10-C20	ND		15	mg/Kg-dry	1	10/15/2019 06:21 AM
TPH C20-C34	ND		15	mg/Kg-dry	1	10/15/2019 06:21 AM
Surr: Nonane	*71.3*		*22.6-112*	*%REC*	1	10/15/2019 06:21 AM
Surr: Pentacosane	*94.9*		*0-143*	*%REC*	1	10/15/2019 06:21 AM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.0	mg/Kg-dry	1	10/14/2019 06:21 PM
Surr: Cyclooctane	*90.8*		*55-135*	*%REC*	1	10/14/2019 06:21 PM
ORGANOCHLORINE PESTICIDES			**SW8081A**		Prep Date: **10/11/2019**	Analyst: **TSA**
4,4`-DDD	ND		0.020	mg/Kg-dry	1	10/14/2019
4,4`-DDE	ND		0.020	mg/Kg-dry	1	10/14/2019
4,4`-DDT	ND		0.020	mg/Kg-dry	1	10/14/2019
Aldrin	ND		0.010	mg/Kg-dry	1	10/14/2019
alpha-BHC	ND		0.010	mg/Kg-dry	1	10/14/2019
beta-BHC	ND		0.010	mg/Kg-dry	1	10/14/2019
Chlordane	ND		0.20	mg/Kg-dry	1	10/14/2019
delta-BHC	ND		0.020	mg/Kg-dry	1	10/14/2019
Dieldrin	ND		0.020	mg/Kg-dry	1	10/14/2019
Endosulfan I	ND		0.010	mg/Kg-dry	1	10/14/2019
Endosulfan II	ND		0.020	mg/Kg-dry	1	10/14/2019
Endosulfan sulfate	ND		0.020	mg/Kg-dry	1	10/14/2019
Endrin	ND		0.020	mg/Kg-dry	1	10/14/2019
Endrin aldehyde	ND		0.020	mg/Kg-dry	1	10/14/2019
Endrin ketone	ND		0.020	mg/Kg-dry	1	10/14/2019
gamma-BHC (Lindane)	ND		0.010	mg/Kg-dry	1	10/14/2019
Heptachlor	ND		0.010	mg/Kg-dry	1	10/14/2019
Heptachlor epoxide	ND		0.010	mg/Kg-dry	1	10/14/2019
Methoxychlor	ND		0.10	mg/Kg-dry	1	10/14/2019
Toxaphene	ND		0.51	mg/Kg-dry	1	10/14/2019
Surr: Decachlorobiphenyl	*105*		*11.4-165*	*%REC*	1	10/14/2019
Surr: Tetrachloro-m-xylene	*102*		*17.2-160*	*%REC*	1	10/14/2019
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.10	mg/Kg-dry	1	10/15/2019 02:02 AM
Aroclor 1221	ND		0.20	mg/Kg-dry	1	10/15/2019 02:02 AM
Aroclor 1232	ND		0.10	mg/Kg-dry	1	10/15/2019 02:02 AM
Aroclor 1242	ND		0.10	mg/Kg-dry	1	10/15/2019 02:02 AM
Aroclor 1248	ND		0.10	mg/Kg-dry	1	10/15/2019 02:02 AM
Aroclor 1254	ND		0.10	mg/Kg-dry	1	10/15/2019 02:02 AM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-03 12-14 **Lab ID:** 1910507-03
Collection Date: 10/8/2019 03:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Aroclor 1260	ND		0.10	mg/Kg-dry	1	10/15/2019 02:02 AM
Surr: Decachlorobiphenyl	*112*		*14.9-146*	*%REC*	1	10/15/2019 02:02 AM
Surr: Tetrachloro-m-xylene	*98.0*		*20.7-158*	*%REC*	1	10/15/2019 02:02 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**2.4**			**% of sample**	1	10/14/2019
MERCURY BY CVAA			**SW7471A**		Prep Date: **10/15/2019**	Analyst: **SLT**
Mercury	ND		0.24	mg/Kg-dry	1	10/16/2019
METALS BY ICP			**SW6010B**		Prep Date: **10/15/2019**	Analyst: **SBD**
Arsenic	ND		4.8	mg/Kg-dry	1	10/15/2019 07:31 PM
Barium	ND		9.6	mg/Kg-dry	1	10/15/2019 07:31 PM
Cadmium	ND		0.96	mg/Kg-dry	1	10/15/2019 07:31 PM
Chromium	**4.3**		**1.9**	**mg/Kg-dry**	1	10/15/2019 07:31 PM
Lead	ND		4.8	mg/Kg-dry	1	10/15/2019 07:31 PM
Selenium	ND		2.9	mg/Kg-dry	1	10/15/2019 07:31 PM
Silver	ND		0.96	mg/Kg-dry	1	10/15/2019 07:31 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270C**		Prep Date: **10/14/2019**	Analyst: **MRJ**
1,2,4,5-Tetrachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
1,2,4-Trichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
1,2-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
1,3-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
1,3-Dinitrobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
1,4-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
1-Methylnaphthalene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
1-Naphthylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2,3,4,6-Tetrachlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2,4,5-Trichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2,4,6-Trichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2,4-Dichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2,4-Dimethylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2,4-Dinitrophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:02 PM
2,4-Dinitrotoluene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2,6-Dichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2,6-Dinitrotoluene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2-Acetylaminofluorene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2-Chloronaphthalene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2-Chlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2-Methylnaphthalene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
2-Methylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: BH-03 12-14
Lab ID: 1910507-03
Collection Date: 10/8/2019 03:50 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Naphthylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2-Nitroaniline	ND		1.7	mg/Kg-dry	1	10/16/2019 05:02 PM
2-Nitrophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
2-Picoline	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
3&4-Methylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
3,3`-Dichlorobenzidine	ND		0.68	mg/Kg-dry	1	10/16/2019 05:02 PM
3-Methylcholanthrene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
3-Nitroaniline	ND		1.7	mg/Kg-dry	1	10/16/2019 05:02 PM
4,6-Dinitro-2-methylphenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:02 PM
4-Aminobiphenyl	ND		0.68	mg/Kg-dry	1	10/16/2019 05:02 PM
4-Bromophenyl phenyl ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
4-Chloro-3-methylphenol	ND		0.68	mg/Kg-dry	1	10/16/2019 05:02 PM
4-Chloroaniline	ND		0.68	mg/Kg-dry	1	10/16/2019 05:02 PM
4-Chlorophenyl phenyl ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
4-Nitroaniline	ND		0.68	mg/Kg-dry	1	10/16/2019 05:02 PM
4-Nitrophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:02 PM
4-Nitroquinoline 1-oxide	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
5-Nitro-o-toluidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
7,12-Dimethylbenz(a)anthracene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Acenaphthene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Acenaphthylene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Acetophenone	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Aniline	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Anthracene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Azobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Benzidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Benzo(a)anthracene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:02 PM
Benzo(a)pyrene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:02 PM
Benzo(b)fluoranthene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Benzo(g,h,i)perylene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Benzo(k)fluoranthene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Benzyl alcohol	ND		0.68	mg/Kg-dry	1	10/16/2019 05:02 PM
Bis(2-chloroethoxy)methane	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Bis(2-chloroethyl)ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Bis(2-chloroisopropyl)ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Bis(2-ethylhexyl)phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Butyl benzyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Carbazole	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Chrysene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Dibenzo(a,h)anthracene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:02 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: BH-03 12-14 **Lab ID:** 1910507-03

Collection Date: 10/8/2019 03:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzofuran	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Diethyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Dimethyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Di-n-butyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Di-n-octyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Dinoseb	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Diphenylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Ethyl methanesulfonate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Fluoranthene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Fluorene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Hexachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Hexachlorobutadiene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Hexachlorocyclopentadiene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Hexachloroethane	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Indeno(1,2,3-cd)pyrene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:02 PM
Isophorone	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Isosafrole	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Methapyrilene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Methyl methanesulfonate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Naphthalene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Nitrobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
N-Nitrosodiethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
N-Nitrosodimethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
N-Nitroso-di-n-butylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
N-Nitrosodi-n-propylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
N-Nitrosomethylethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
N-Nitrosomorpholine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
N-Nitrosopiperidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
N-Nitrosopyrrolidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
o-Toluidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
p-Dimethylaminoazobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Pentachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Pentachloroethane	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Pentachloronitrobenzene	ND		0.68	mg/Kg-dry	1	10/16/2019 05:02 PM
Pentachlorophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:02 PM
Phenacetin	ND		0.68	mg/Kg-dry	1	10/16/2019 05:02 PM
Phenanthrene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Phenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Pyrene	ND		0.20	mg/Kg-dry	1	10/16/2019 05:02 PM
Pyridine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-03 12-14 **Lab ID:** 1910507-03
Collection Date: 10/8/2019 03:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Safrole	ND		0.34	mg/Kg-dry	1	10/16/2019 05:02 PM
Surr: 2,4,6-Tribromophenol	*99.3*		*14.2-136*	*%REC*	1	10/16/2019 05:02 PM
Surr: 2-Fluorobiphenyl	*94.9*		*30-116*	*%REC*	1	10/16/2019 05:02 PM
Surr: 2-Fluorophenol	*79.2*		*24-105*	*%REC*	1	10/16/2019 05:02 PM
Surr: 4-Terphenyl-d14	*86.5*		*27.3-138*	*%REC*	1	10/16/2019 05:02 PM
Surr: Nitrobenzene-d5	*81.2*		*23.7-109*	*%REC*	1	10/16/2019 05:02 PM
Surr: Phenol-d5	*92.0*		*24.9-103*	*%REC*	1	10/16/2019 05:02 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,1,1-Trichloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,1,2,2-Tetrachloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,1,2-Trichloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,1-Dichloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,1-Dichloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,1-Dichloropropene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,2,3-Trichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,2,3-Trichloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,2,4-Trichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,2,4-Trimethylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,2-Dibromo-3-chloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,2-Dibromoethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,2-Dichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,2-Dichloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,2-Dichloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,3,5-Trimethylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,3-Dichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,3-Dichloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
1,4-Dichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
2,2-Dichloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
2-Butanone	ND		0.051	mg/Kg-dry	1	10/15/2019 02:47 PM
2-Chlorotoluene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
2-Hexanone	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
4-Chlorotoluene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
4-Methyl-2-pentanone	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Acetone	ND		0.051	mg/Kg-dry	1	10/15/2019 02:47 PM
Benzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Bromobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Bromochloromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Bromodichloromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Bromoform	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-03 12-14 **Lab ID:** 1910507-03
Collection Date: 10/8/2019 03:50 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromomethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Carbon disulfide	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Carbon tetrachloride	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Chlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Chloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Chloroform	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Chloromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
cis-1,2-Dichloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
cis-1,3-Dichloropropene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Dibromochloromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Dibromomethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Dichlorodifluoromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Ethylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Hexachlorobutadiene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Isopropylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
m,p-Xylene	ND		0.010	mg/Kg-dry	1	10/15/2019 02:47 PM
Methyl tert-butyl ether	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Methylene chloride	ND		0.020	mg/Kg-dry	1	10/15/2019 02:47 PM
Naphthalene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
n-Butylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
n-Propylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
o-Xylene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
p-Isopropyltoluene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
sec-Butylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Styrene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
tert-Butylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Tetrachloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Toluene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
trans-1,2-Dichloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
trans-1,3-Dichloropropene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Trichloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Trichlorofluoromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Vinyl chloride	ND		0.0051	mg/Kg-dry	1	10/15/2019 02:47 PM
Xylenes, Total	ND		0.015	mg/Kg-dry	1	10/15/2019 02:47 PM
Surr: 4-Bromofluorobenzene	*107*		*62.7-159*	*%REC*	1	10/15/2019 02:47 PM
Surr: Dibromofluoromethane	*115*		*67.3-136*	*%REC*	1	10/15/2019 02:47 PM
Surr: Toluene-d8	*99.1*		*83-124*	*%REC*	1	10/15/2019 02:47 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-04 16-18 **Lab ID:** 1910507-04
Collection Date: 10/8/2019 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **10/14/2019**	Analyst: **CAA**
TPH C10-C20	ND		15	mg/Kg-dry	1	10/15/2019 06:41 AM
TPH C20-C34	ND		15	mg/Kg-dry	1	10/15/2019 06:41 AM
Surr: Nonane	*67.6*		*22.6-112*	*%REC*	1	10/15/2019 06:41 AM
Surr: Pentacosane	*95.1*		*0-143*	*%REC*	1	10/15/2019 06:41 AM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.1	mg/Kg-dry	1	10/14/2019 06:47 PM
Surr: Cyclooctane	*88.6*		*55-135*	*%REC*	1	10/14/2019 06:47 PM
ORGANOCHLORINE PESTICIDES			**SW8081A**		Prep Date: **10/11/2019**	Analyst: **TSA**
4,4`-DDD	ND		0.021	mg/Kg-dry	1	10/14/2019
4,4`-DDE	ND		0.021	mg/Kg-dry	1	10/14/2019
4,4`-DDT	ND		0.021	mg/Kg-dry	1	10/14/2019
Aldrin	ND		0.010	mg/Kg-dry	1	10/14/2019
alpha-BHC	ND		0.010	mg/Kg-dry	1	10/14/2019
beta-BHC	ND		0.010	mg/Kg-dry	1	10/14/2019
Chlordane	ND		0.21	mg/Kg-dry	1	10/14/2019
delta-BHC	ND		0.021	mg/Kg-dry	1	10/14/2019
Dieldrin	ND		0.021	mg/Kg-dry	1	10/14/2019
Endosulfan I	ND		0.010	mg/Kg-dry	1	10/14/2019
Endosulfan II	ND		0.021	mg/Kg-dry	1	10/14/2019
Endosulfan sulfate	ND		0.021	mg/Kg-dry	1	10/14/2019
Endrin	ND		0.021	mg/Kg-dry	1	10/14/2019
Endrin aldehyde	ND		0.021	mg/Kg-dry	1	10/14/2019
Endrin ketone	ND		0.021	mg/Kg-dry	1	10/14/2019
gamma-BHC (Lindane)	ND		0.010	mg/Kg-dry	1	10/14/2019
Heptachlor	ND		0.010	mg/Kg-dry	1	10/14/2019
Heptachlor epoxide	ND		0.010	mg/Kg-dry	1	10/14/2019
Methoxychlor	ND		0.10	mg/Kg-dry	1	10/14/2019
Toxaphene	ND		0.52	mg/Kg-dry	1	10/14/2019
Surr: Decachlorobiphenyl	*111*		*11.4-165*	*%REC*	1	10/14/2019
Surr: Tetrachloro-m-xylene	*107*		*17.2-160*	*%REC*	1	10/14/2019
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.10	mg/Kg-dry	1	10/15/2019 02:20 AM
Aroclor 1221	ND		0.21	mg/Kg-dry	1	10/15/2019 02:20 AM
Aroclor 1232	ND		0.10	mg/Kg-dry	1	10/15/2019 02:20 AM
Aroclor 1242	ND		0.10	mg/Kg-dry	1	10/15/2019 02:20 AM
Aroclor 1248	ND		0.10	mg/Kg-dry	1	10/15/2019 02:20 AM
Aroclor 1254	ND		0.10	mg/Kg-dry	1	10/15/2019 02:20 AM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-04 16-18 **Lab ID:** 1910507-04
Collection Date: 10/8/2019 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Aroclor 1260	ND		0.10	mg/Kg-dry	1	10/15/2019 02:20 AM
Surr: Decachlorobiphenyl	*116*		*14.9-146*	*%REC*	1	10/15/2019 02:20 AM
Surr: Tetrachloro-m-xylene	*102*		*20.7-158*	*%REC*	1	10/15/2019 02:20 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**3.1**			**% of sample**	1	10/14/2019
MERCURY BY CVAA			**SW7471A**		Prep Date: **10/15/2019**	Analyst: **SLT**
Mercury	ND		0.27	mg/Kg-dry	1	10/16/2019
METALS BY ICP			**SW6010B**		Prep Date: **10/15/2019**	Analyst: **SBD**
Arsenic	ND		5.5	mg/Kg-dry	1	10/15/2019 07:36 PM
Barium	ND		11	mg/Kg-dry	1	10/15/2019 07:36 PM
Cadmium	ND		1.1	mg/Kg-dry	1	10/15/2019 07:36 PM
Chromium	**3.3**		**2.2**	**mg/Kg-dry**	1	10/15/2019 07:36 PM
Lead	ND		5.5	mg/Kg-dry	1	10/15/2019 07:36 PM
Selenium	ND		3.3	mg/Kg-dry	1	10/15/2019 07:36 PM
Silver	ND		1.1	mg/Kg-dry	1	10/15/2019 07:36 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270C**		Prep Date: **10/14/2019**	Analyst: **MRJ**
1,2,4,5-Tetrachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
1,2,4-Trichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
1,2-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
1,3-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
1,3-Dinitrobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
1,4-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
1-Methylnaphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
1-Naphthylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2,3,4,6-Tetrachlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2,4,5-Trichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2,4,6-Trichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2,4-Dichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2,4-Dimethylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2,4-Dinitrophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:22 PM
2,4-Dinitrotoluene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2,6-Dichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2,6-Dinitrotoluene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2-Acetylaminofluorene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2-Chloronaphthalene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2-Chlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2-Methylnaphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
2-Methylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-04 16-18 **Lab ID:** 1910507-04
Collection Date: 10/8/2019 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Naphthylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2-Nitroaniline	ND		1.7	mg/Kg-dry	1	10/16/2019 05:22 PM
2-Nitrophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
2-Picoline	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
3&4-Methylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
3,3`-Dichlorobenzidine	ND		0.68	mg/Kg-dry	1	10/16/2019 05:22 PM
3-Methylcholanthrene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
3-Nitroaniline	ND		1.7	mg/Kg-dry	1	10/16/2019 05:22 PM
4,6-Dinitro-2-methylphenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:22 PM
4-Aminobiphenyl	ND		0.68	mg/Kg-dry	1	10/16/2019 05:22 PM
4-Bromophenyl phenyl ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
4-Chloro-3-methylphenol	ND		0.68	mg/Kg-dry	1	10/16/2019 05:22 PM
4-Chloroaniline	ND		0.68	mg/Kg-dry	1	10/16/2019 05:22 PM
4-Chlorophenyl phenyl ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
4-Nitroaniline	ND		0.68	mg/Kg-dry	1	10/16/2019 05:22 PM
4-Nitrophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:22 PM
4-Nitroquinoline 1-oxide	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
5-Nitro-o-toluidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
7,12-Dimethylbenz(a)anthracene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Acenaphthene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Acenaphthylene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Acetophenone	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Aniline	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Anthracene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Azobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Benzidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Benzo(a)anthracene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:22 PM
Benzo(a)pyrene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:22 PM
Benzo(b)fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Benzo(g,h,i)perylene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Benzo(k)fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Benzyl alcohol	ND		0.68	mg/Kg-dry	1	10/16/2019 05:22 PM
Bis(2-chloroethoxy)methane	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Bis(2-chloroethyl)ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Bis(2-chloroisopropyl)ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Bis(2-ethylhexyl)phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Butyl benzyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Carbazole	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Chrysene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Dibenzo(a,h)anthracene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:22 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-04 16-18 **Lab ID:** 1910507-04
Collection Date: 10/8/2019 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzofuran	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Diethyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Dimethyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Di-n-butyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Di-n-octyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Dinoseb	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Diphenylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Ethyl methanesulfonate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Fluorene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Hexachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Hexachlorobutadiene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Hexachlorocyclopentadiene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Hexachloroethane	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Indeno(1,2,3-cd)pyrene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:22 PM
Isophorone	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Isosafrole	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Methapyrilene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Methyl methanesulfonate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Naphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Nitrobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
N-Nitrosodiethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
N-Nitrosodimethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
N-Nitroso-di-n-butylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
N-Nitrosodi-n-propylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
N-Nitrosomethylethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
N-Nitrosomorpholine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
N-Nitrosopiperidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
N-Nitrosopyrrolidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
o-Toluidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
p-Dimethylaminoazobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Pentachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Pentachloroethane	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Pentachloronitrobenzene	ND		0.68	mg/Kg-dry	1	10/16/2019 05:22 PM
Pentachlorophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:22 PM
Phenacetin	ND		0.68	mg/Kg-dry	1	10/16/2019 05:22 PM
Phenanthrene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Phenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Pyrene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:22 PM
Pyridine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-04 16-18 **Lab ID:** 1910507-04
Collection Date: 10/8/2019 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Safrole	ND		0.34	mg/Kg-dry	1	10/16/2019 05:22 PM
Surr: 2,4,6-Tribromophenol	*91.5*		*14.2-136*	*%REC*	1	10/16/2019 05:22 PM
Surr: 2-Fluorobiphenyl	*90.4*		*30-116*	*%REC*	1	10/16/2019 05:22 PM
Surr: 2-Fluorophenol	*74.9*		*24-105*	*%REC*	1	10/16/2019 05:22 PM
Surr: 4-Terphenyl-d14	*83.0*		*27.3-138*	*%REC*	1	10/16/2019 05:22 PM
Surr: Nitrobenzene-d5	*77.0*		*23.7-109*	*%REC*	1	10/16/2019 05:22 PM
Surr: Phenol-d5	*85.5*		*24.9-103*	*%REC*	1	10/16/2019 05:22 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,1,1-Trichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,1,2,2-Tetrachloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,1,2-Trichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,1-Dichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,1-Dichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,1-Dichloropropene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,2,3-Trichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,2,3-Trichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,2,4-Trichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,2,4-Trimethylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,2-Dibromo-3-chloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,2-Dibromoethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,2-Dichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,2-Dichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,2-Dichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,3,5-Trimethylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,3-Dichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,3-Dichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
1,4-Dichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
2,2-Dichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
2-Butanone	ND		0.052	mg/Kg-dry	1	10/15/2019 03:07 PM
2-Chlorotoluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
2-Hexanone	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
4-Chlorotoluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
4-Methyl-2-pentanone	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Acetone	ND		0.052	mg/Kg-dry	1	10/15/2019 03:07 PM
Benzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Bromobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Bromochloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Bromodichloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Bromoform	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-04 16-18 **Lab ID:** 1910507-04
Collection Date: 10/8/2019 04:40 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromomethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Carbon disulfide	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Carbon tetrachloride	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Chlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Chloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Chloroform	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Chloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
cis-1,2-Dichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
cis-1,3-Dichloropropene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Dibromochloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Dibromomethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Dichlorodifluoromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Ethylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Hexachlorobutadiene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Isopropylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
m,p-Xylene	ND		0.010	mg/Kg-dry	1	10/15/2019 03:07 PM
Methyl tert-butyl ether	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Methylene chloride	ND		0.021	mg/Kg-dry	1	10/15/2019 03:07 PM
Naphthalene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
n-Butylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
n-Propylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
o-Xylene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
p-Isopropyltoluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
sec-Butylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Styrene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
tert-Butylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Tetrachloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Toluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
trans-1,2-Dichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
trans-1,3-Dichloropropene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Trichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Trichlorofluoromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Vinyl chloride	ND		0.0052	mg/Kg-dry	1	10/15/2019 03:07 PM
Xylenes, Total	ND		0.015	mg/Kg-dry	1	10/15/2019 03:07 PM
Surr: 4-Bromofluorobenzene	*105*		*62.7-159*	*%REC*	1	10/15/2019 03:07 PM
Surr: Dibromofluoromethane	*115*		*67.3-136*	*%REC*	1	10/15/2019 03:07 PM
Surr: Toluene-d8	*99.1*		*83-124*	*%REC*	1	10/15/2019 03:07 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-05 16-18 **Lab ID:** 1910507-05
Collection Date: 10/8/2019 05:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DIESEL RANGE ORGANICS AND OIL RANGE ORGANICS			**SW8015B**		Prep Date: **10/14/2019**	Analyst: **CAA**
TPH C10-C20	ND		15	mg/Kg-dry	1	10/15/2019 07:01 AM
TPH C20-C34	ND		15	mg/Kg-dry	1	10/15/2019 07:01 AM
Surr: Nonane	*74.3*		*22.6-112*	*%REC*	1	10/15/2019 07:01 AM
Surr: Pentacosane	*96.8*		*0-143*	*%REC*	1	10/15/2019 07:01 AM
GASOLINE RANGE ORGANICS (C6-C12)			**SW8015A**			Analyst: **CS**
TPH C6-C12	ND		2.1	mg/Kg-dry	1	10/14/2019 07:12 PM
Surr: Cyclooctane	*89.4*		*55-135*	*%REC*	1	10/14/2019 07:12 PM
ORGANOCHLORINE PESTICIDES			**SW8081A**		Prep Date: **10/11/2019**	Analyst: **TSA**
4,4`-DDD	ND		0.020	mg/Kg-dry	1	10/14/2019
4,4`-DDE	ND		0.020	mg/Kg-dry	1	10/14/2019
4,4`-DDT	ND		0.020	mg/Kg-dry	1	10/14/2019
Aldrin	ND		0.010	mg/Kg-dry	1	10/14/2019
alpha-BHC	ND		0.010	mg/Kg-dry	1	10/14/2019
beta-BHC	ND		0.010	mg/Kg-dry	1	10/14/2019
Chlordane	ND		0.20	mg/Kg-dry	1	10/14/2019
delta-BHC	ND		0.020	mg/Kg-dry	1	10/14/2019
Dieldrin	ND		0.020	mg/Kg-dry	1	10/14/2019
Endosulfan I	ND		0.010	mg/Kg-dry	1	10/14/2019
Endosulfan II	ND		0.020	mg/Kg-dry	1	10/14/2019
Endosulfan sulfate	ND		0.020	mg/Kg-dry	1	10/14/2019
Endrin	ND		0.020	mg/Kg-dry	1	10/14/2019
Endrin aldehyde	ND		0.020	mg/Kg-dry	1	10/14/2019
Endrin ketone	ND		0.020	mg/Kg-dry	1	10/14/2019
gamma-BHC (Lindane)	ND		0.010	mg/Kg-dry	1	10/14/2019
Heptachlor	ND		0.010	mg/Kg-dry	1	10/14/2019
Heptachlor epoxide	ND		0.010	mg/Kg-dry	1	10/14/2019
Methoxychlor	ND		0.10	mg/Kg-dry	1	10/14/2019
Toxaphene	ND		0.51	mg/Kg-dry	1	10/14/2019
Surr: Decachlorobiphenyl	*113*		*11.4-165*	*%REC*	1	10/14/2019
Surr: Tetrachloro-m-xylene	*143*		*17.2-160*	*%REC*	1	10/14/2019
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.10	mg/Kg-dry	1	10/15/2019 02:39 AM
Aroclor 1221	ND		0.20	mg/Kg-dry	1	10/15/2019 02:39 AM
Aroclor 1232	ND		0.10	mg/Kg-dry	1	10/15/2019 02:39 AM
Aroclor 1242	ND		0.10	mg/Kg-dry	1	10/15/2019 02:39 AM
Aroclor 1248	ND		0.10	mg/Kg-dry	1	10/15/2019 02:39 AM
Aroclor 1254	ND		0.10	mg/Kg-dry	1	10/15/2019 02:39 AM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-05 16-18 **Lab ID:** 1910507-05
Collection Date: 10/8/2019 05:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Aroclor 1260	ND		0.10	mg/Kg-dry	1	10/15/2019 02:39 AM
Surr: Decachlorobiphenyl	*116*		*14.9-146*	*%REC*	1	10/15/2019 02:39 AM
Surr: Tetrachloro-m-xylene	*102*		*20.7-158*	*%REC*	1	10/15/2019 02:39 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**2.7**			**% of sample**	1	10/14/2019
MERCURY BY CVAA			**SW7471A**		Prep Date: **10/15/2019**	Analyst: **SLT**
Mercury	ND		0.26	mg/Kg-dry	1	10/16/2019
METALS BY ICP			**SW6010B**		Prep Date: **10/15/2019**	Analyst: **SBD**
Arsenic	ND		4.7	mg/Kg-dry	1	10/15/2019 07:40 PM
Barium	ND		9.3	mg/Kg-dry	1	10/15/2019 07:40 PM
Cadmium	ND		0.93	mg/Kg-dry	1	10/15/2019 07:40 PM
Chromium	**3.9**		**1.9**	**mg/Kg-dry**	1	10/15/2019 07:40 PM
Lead	ND		4.7	mg/Kg-dry	1	10/15/2019 07:40 PM
Selenium	ND		2.8	mg/Kg-dry	1	10/15/2019 07:40 PM
Silver	ND		0.93	mg/Kg-dry	1	10/15/2019 07:40 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270C**		Prep Date: **10/14/2019**	Analyst: **MRJ**
1,2,4,5-Tetrachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
1,2,4-Trichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
1,2-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
1,3-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
1,3-Dinitrobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
1,4-Dichlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
1-Methylnaphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
1-Naphthylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2,3,4,6-Tetrachlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2,4,5-Trichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2,4,6-Trichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2,4-Dichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2,4-Dimethylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2,4-Dinitrophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:42 PM
2,4-Dinitrotoluene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2,6-Dichlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2,6-Dinitrotoluene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2-Acetylaminofluorene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2-Chloronaphthalene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2-Chlorophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2-Methylnaphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
2-Methylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-05 16-18 **Lab ID:** 1910507-05
Collection Date: 10/8/2019 05:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Naphthylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2-Nitroaniline	ND		1.7	mg/Kg-dry	1	10/16/2019 05:42 PM
2-Nitrophenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
2-Picoline	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
3&4-Methylphenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
3,3`-Dichlorobenzidine	ND		0.68	mg/Kg-dry	1	10/16/2019 05:42 PM
3-Methylcholanthrene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
3-Nitroaniline	ND		1.7	mg/Kg-dry	1	10/16/2019 05:42 PM
4,6-Dinitro-2-methylphenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:42 PM
4-Aminobiphenyl	ND		0.68	mg/Kg-dry	1	10/16/2019 05:42 PM
4-Bromophenyl phenyl ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
4-Chloro-3-methylphenol	ND		0.68	mg/Kg-dry	1	10/16/2019 05:42 PM
4-Chloroaniline	ND		0.68	mg/Kg-dry	1	10/16/2019 05:42 PM
4-Chlorophenyl phenyl ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
4-Nitroaniline	ND		0.68	mg/Kg-dry	1	10/16/2019 05:42 PM
4-Nitrophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:42 PM
4-Nitroquinoline 1-oxide	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
5-Nitro-o-toluidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
7,12-Dimethylbenz(a)anthracene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Acenaphthene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Acenaphthylene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Acetophenone	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Aniline	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Anthracene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Azobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Benzidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Benzo(a)anthracene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:42 PM
Benzo(a)pyrene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:42 PM
Benzo(b)fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Benzo(g,h,i)perylene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Benzo(k)fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Benzyl alcohol	ND		0.68	mg/Kg-dry	1	10/16/2019 05:42 PM
Bis(2-chloroethoxy)methane	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Bis(2-chloroethyl)ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Bis(2-chloroisopropyl)ether	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Bis(2-ethylhexyl)phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Butyl benzyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Carbazole	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Chrysene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Dibenzo(a,h)anthracene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:42 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-05 16-18 **Lab ID:** 1910507-05
Collection Date: 10/8/2019 05:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzofuran	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Diethyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Dimethyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Di-n-butyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Di-n-octyl phthalate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Dinoseb	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Diphenylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Ethyl methanesulfonate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Fluoranthene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Fluorene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Hexachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Hexachlorobutadiene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Hexachlorocyclopentadiene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Hexachloroethane	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Indeno(1,2,3-cd)pyrene	ND		0.10	mg/Kg-dry	1	10/16/2019 05:42 PM
Isophorone	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Isosafrole	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Methapyrilene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Methyl methanesulfonate	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Naphthalene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Nitrobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
N-Nitrosodiethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
N-Nitrosodimethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
N-Nitroso-di-n-butylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
N-Nitrosodi-n-propylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
N-Nitrosomethylethylamine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
N-Nitrosomorpholine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
N-Nitrosopiperidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
N-Nitrosopyrrolidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
o-Toluidine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
p-Dimethylaminoazobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Pentachlorobenzene	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Pentachloroethane	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Pentachloronitrobenzene	ND		0.68	mg/Kg-dry	1	10/16/2019 05:42 PM
Pentachlorophenol	ND		1.7	mg/Kg-dry	1	10/16/2019 05:42 PM
Phenacetin	ND		0.68	mg/Kg-dry	1	10/16/2019 05:42 PM
Phenanthrene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Phenol	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Pyrene	ND		0.21	mg/Kg-dry	1	10/16/2019 05:42 PM
Pyridine	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-05 16-18 **Lab ID:** 1910507-05
Collection Date: 10/8/2019 05:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Safrole	ND		0.34	mg/Kg-dry	1	10/16/2019 05:42 PM
Surr: 2,4,6-Tribromophenol	*87.9*		*14.2-136*	*%REC*	1	10/16/2019 05:42 PM
Surr: 2-Fluorobiphenyl	*80.7*		*30-116*	*%REC*	1	10/16/2019 05:42 PM
Surr: 2-Fluorophenol	*63.7*		*24-105*	*%REC*	1	10/16/2019 05:42 PM
Surr: 4-Terphenyl-d14	*82.1*		*27.3-138*	*%REC*	1	10/16/2019 05:42 PM
Surr: Nitrobenzene-d5	*63.3*		*23.7-109*	*%REC*	1	10/16/2019 05:42 PM
Surr: Phenol-d5	*73.9*		*24.9-103*	*%REC*	1	10/16/2019 05:42 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,1,1-Trichloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,1,2,2-Tetrachloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,1,2-Trichloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,1-Dichloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,1-Dichloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,1-Dichloropropene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,2,3-Trichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,2,3-Trichloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,2,4-Trichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,2,4-Trimethylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,2-Dibromo-3-chloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,2-Dibromoethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,2-Dichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,2-Dichloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,2-Dichloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,3,5-Trimethylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,3-Dichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,3-Dichloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
1,4-Dichlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
2,2-Dichloropropane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
2-Butanone	ND		0.051	mg/Kg-dry	1	10/15/2019 03:27 PM
2-Chlorotoluene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
2-Hexanone	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
4-Chlorotoluene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
4-Methyl-2-pentanone	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Acetone	ND		0.051	mg/Kg-dry	1	10/15/2019 03:27 PM
Benzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Bromobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Bromochloromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Bromodichloromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Bromoform	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: BH-05 16-18 **Lab ID:** 1910507-05
Collection Date: 10/8/2019 05:35 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bromomethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Carbon disulfide	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Carbon tetrachloride	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Chlorobenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Chloroethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Chloroform	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Chloromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
cis-1,2-Dichloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
cis-1,3-Dichloropropene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Dibromochloromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Dibromomethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Dichlorodifluoromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Ethylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Hexachlorobutadiene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Isopropylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
m,p-Xylene	ND		0.010	mg/Kg-dry	1	10/15/2019 03:27 PM
Methyl tert-butyl ether	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Methylene chloride	ND		0.021	mg/Kg-dry	1	10/15/2019 03:27 PM
Naphthalene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
n-Butylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
n-Propylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
o-Xylene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
p-Isopropyltoluene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
sec-Butylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Styrene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
tert-Butylbenzene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Tetrachloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Toluene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
trans-1,2-Dichloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
trans-1,3-Dichloropropene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Trichloroethene	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Trichlorofluoromethane	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Vinyl chloride	ND		0.0051	mg/Kg-dry	1	10/15/2019 03:27 PM
Xylenes, Total	ND		0.015	mg/Kg-dry	1	10/15/2019 03:27 PM
Surr: 4-Bromofluorobenzene	*105*		*62.7-159*	*%REC*	1	10/15/2019 03:27 PM
Surr: Dibromofluoromethane	*115*		*67.3-136*	*%REC*	1	10/15/2019 03:27 PM
Surr: Toluene-d8	*98.4*		*83-124*	*%REC*	1	10/15/2019 03:27 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: TWP-1 **Lab ID:** 1910507-06
Collection Date: 10/8/2019 06:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **10/10/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.66	µg/L	1	10/14/2019 10:06 PM
Aroclor 1221	ND		0.66	µg/L	1	10/14/2019 10:06 PM
Aroclor 1232	ND		0.66	µg/L	1	10/14/2019 10:06 PM
Aroclor 1242	ND		0.66	µg/L	1	10/14/2019 10:06 PM
Aroclor 1248	ND		0.66	µg/L	1	10/14/2019 10:06 PM
Aroclor 1254	ND		0.66	µg/L	1	10/14/2019 10:06 PM
Aroclor 1260	ND		0.66	µg/L	1	10/14/2019 10:06 PM
Surr: Decachlorobiphenyl	*70.0*		*6.61-163*	*%REC*	1	10/14/2019 10:06 PM
Surr: Tetrachloro-m-xylene	*76.0*		*12.2-143*	*%REC*	1	10/14/2019 10:06 PM
MERCURY BY CVAA			**SW7470A**		Prep Date: **10/15/2019**	Analyst: **SLT**
Mercury	**0.33**		**0.20**	**µg/L**	1	10/15/2019
METALS BY ICP			**SW6010B**		Prep Date: **10/15/2019**	Analyst: **SBD**
Arsenic	**0.031**		**0.010**	**mg/L**	1	10/15/2019 02:40 PM
Barium	**0.35**		**0.10**	**mg/L**	1	10/15/2019 02:40 PM
Cadmium	ND		0.0050	mg/L	1	10/15/2019 02:40 PM
Chromium	**0.44**		**0.020**	**mg/L**	1	10/15/2019 02:40 PM
Lead	**0.15**		**0.015**	**mg/L**	1	10/15/2019 02:40 PM
Selenium	ND		0.030	mg/L	1	10/15/2019 02:40 PM
Silver	ND		0.010	mg/L	1	10/15/2019 02:40 PM
SEMI-VOLATILE ORGANIC COMPOUNDS			**SW8270C**		Prep Date: **10/14/2019**	Analyst: **MRJ**
1,2,4,5-Tetrachlorobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
1,2,4-Trichlorobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
1,2-Dichlorobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
1,3-Dichlorobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
1,3-Dinitrobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
1,4-Dichlorobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
1-Methylnaphthalene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
1-Naphthylamine	ND		12	µg/L	1	10/17/2019 09:30 PM
2,3,4,6-Tetrachlorophenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2,4,5-Trichlorophenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2,4,6-Trichlorophenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2,4-Dichlorophenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2,4-Dimethylphenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2,4-Dinitrophenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2,4-Dinitrotoluene	ND		12	µg/L	1	10/17/2019 09:30 PM
2,6-Dichlorophenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2,6-Dinitrotoluene	ND		12	µg/L	1	10/17/2019 09:30 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: TWP-1 **Lab ID:** 1910507-06

Collection Date: 10/8/2019 06:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
2-Acetylaminofluorene	ND		12	µg/L	1	10/17/2019 09:30 PM
2-Chloronaphthalene	ND		12	µg/L	1	10/17/2019 09:30 PM
2-Chlorophenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2-Methylnaphthalene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
2-Methylphenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2-Naphthylamine	ND		24	µg/L	1	10/17/2019 09:30 PM
2-Nitroaniline	ND		12	µg/L	1	10/17/2019 09:30 PM
2-Nitrophenol	ND		12	µg/L	1	10/17/2019 09:30 PM
2-Picoline	ND		24	µg/L	1	10/17/2019 09:30 PM
3&4-Methylphenol	ND		12	µg/L	1	10/17/2019 09:30 PM
3,3`-Dichlorobenzidine	ND		12	µg/L	1	10/17/2019 09:30 PM
3-Methylcholanthrene	ND		24	µg/L	1	10/17/2019 09:30 PM
3-Nitroaniline	ND		24	µg/L	1	10/17/2019 09:30 PM
4,6-Dinitro-2-methylphenol	ND		24	µg/L	1	10/17/2019 09:30 PM
4-Aminobiphenyl	ND		12	µg/L	1	10/17/2019 09:30 PM
4-Bromophenyl phenyl ether	ND		24	µg/L	1	10/17/2019 09:30 PM
4-Chloro-3-methylphenol	ND		24	µg/L	1	10/17/2019 09:30 PM
4-Chloroaniline	ND		12	µg/L	1	10/17/2019 09:30 PM
4-Chlorophenyl phenyl ether	ND		24	µg/L	1	10/17/2019 09:30 PM
4-Nitroaniline	ND		24	µg/L	1	10/17/2019 09:30 PM
4-Nitrophenol	ND		12	µg/L	1	10/17/2019 09:30 PM
4-Nitroquinoline 1-oxide	ND		12	µg/L	1	10/17/2019 09:30 PM
5-Nitro-o-toluidine	ND		12	µg/L	1	10/17/2019 09:30 PM
7,12-Dimethylbenz(a)anthracene	ND		12	µg/L	1	10/17/2019 09:30 PM
Acenaphthene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Acenaphthylene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Acetophenone	ND		12	µg/L	1	10/17/2019 09:30 PM
Aniline	ND		12	µg/L	1	10/17/2019 09:30 PM
Anthracene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Azobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
Benzidine	ND		12	µg/L	1	10/17/2019 09:30 PM
Benzo(a)anthracene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Benzo(a)pyrene	ND		0.12	µg/L	1	10/17/2019 09:30 PM
Benzo(b)fluoranthene	ND		0.12	µg/L	1	10/17/2019 09:30 PM
Benzo(g,h,i)perylene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Benzo(k)fluoranthene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Benzyl alcohol	ND		12	µg/L	1	10/17/2019 09:30 PM
Bis(2-chloroethoxy)methane	ND		12	µg/L	1	10/17/2019 09:30 PM
Bis(2-chloroethyl)ether	ND		12	µg/L	1	10/17/2019 09:30 PM
Bis(2-chloroisopropyl)ether	ND		12	µg/L	1	10/17/2019 09:30 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: TWP-1 **Lab ID:** 1910507-06
Collection Date: 10/8/2019 06:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Bis(2-ethylhexyl)phthalate	ND		12	µg/L	1	10/17/2019 09:30 PM
Butyl benzyl phthalate	ND		12	µg/L	1	10/17/2019 09:30 PM
Carbazole	ND		12	µg/L	1	10/17/2019 09:30 PM
Chrysene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Dibenzo(a,h)anthracene	ND		0.12	µg/L	1	10/17/2019 09:30 PM
Dibenzofuran	ND		12	µg/L	1	10/17/2019 09:30 PM
Diethyl phthalate	ND		12	µg/L	1	10/17/2019 09:30 PM
Dimethyl phthalate	ND		12	µg/L	1	10/17/2019 09:30 PM
Di-n-butyl phthalate	ND		12	µg/L	1	10/17/2019 09:30 PM
Di-n-octyl phthalate	ND		12	µg/L	1	10/17/2019 09:30 PM
Dinoseb	ND		24	µg/L	1	10/17/2019 09:30 PM
Diphenylamine	ND		12	µg/L	1	10/17/2019 09:30 PM
Ethyl methanesulfonate	ND		12	µg/L	1	10/17/2019 09:30 PM
Fluoranthene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Fluorene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Hexachlorobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
Hexachlorobutadiene	ND		12	µg/L	1	10/17/2019 09:30 PM
Hexachlorocyclopentadiene	ND		12	µg/L	1	10/17/2019 09:30 PM
Hexachloroethane	ND		12	µg/L	1	10/17/2019 09:30 PM
Indeno(1,2,3-cd)pyrene	ND		0.12	µg/L	1	10/17/2019 09:30 PM
Isophorone	ND		12	µg/L	1	10/17/2019 09:30 PM
Isosafrole	ND		12	µg/L	1	10/17/2019 09:30 PM
Methapyrilene	ND		12	µg/L	1	10/17/2019 09:30 PM
Methyl methanesulfonate	ND		12	µg/L	1	10/17/2019 09:30 PM
Naphthalene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Nitrobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
N-Nitrosodiethylamine	ND		12	µg/L	1	10/17/2019 09:30 PM
N-Nitrosodimethylamine	ND		12	µg/L	1	10/17/2019 09:30 PM
N-Nitroso-di-n-butylamine	ND		12	µg/L	1	10/17/2019 09:30 PM
N-Nitrosodi-n-propylamine	ND		12	µg/L	1	10/17/2019 09:30 PM
N-Nitrosomethylethylamine	ND		12	µg/L	1	10/17/2019 09:30 PM
N-Nitrosomorpholine	ND		12	µg/L	1	10/17/2019 09:30 PM
N-Nitrosopiperidine	ND		12	µg/L	1	10/17/2019 09:30 PM
N-Nitrosopyrrolidine	ND		12	µg/L	1	10/17/2019 09:30 PM
o-Toluidine	ND		12	µg/L	1	10/17/2019 09:30 PM
p-Dimethylaminoazobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
Pentachlorobenzene	ND		12	µg/L	1	10/17/2019 09:30 PM
Pentachloroethane	ND		12	µg/L	1	10/17/2019 09:30 PM
Pentachloronitrobenzene	ND		24	µg/L	1	10/17/2019 09:30 PM
Pentachlorophenol	ND		24	µg/L	1	10/17/2019 09:30 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: TWP-1 **Lab ID:** 1910507-06
Collection Date: 10/8/2019 06:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Phenacetin	ND		24	µg/L	1	10/17/2019 09:30 PM
Phenanthrene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Phenol	ND		12	µg/L	1	10/17/2019 09:30 PM
Pyrene	ND		0.24	µg/L	1	10/17/2019 09:30 PM
Pyridine	ND		12	µg/L	1	10/17/2019 09:30 PM
Safrole	ND		12	µg/L	1	10/17/2019 09:30 PM
Surr: 2,4,6-Tribromophenol	*84.8*		*42.3-142*	*%REC*	1	10/17/2019 09:30 PM
Surr: 2-Fluorobiphenyl	*82.6*		*36.8-125*	*%REC*	1	10/17/2019 09:30 PM
Surr: 2-Fluorophenol	*59.2*		*12-89*	*%REC*	1	10/17/2019 09:30 PM
Surr: 4-Terphenyl-d14	*83.3*		*38.3-160*	*%REC*	1	10/17/2019 09:30 PM
Surr: Nitrobenzene-d5	*73.8*		*28-120*	*%REC*	1	10/17/2019 09:30 PM
Surr: Phenol-d5	*50.3*		*4.27-70.1*	*%REC*	1	10/17/2019 09:30 PM
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **TJH**
1,1,1,2-Tetrachloroethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,1,1-Trichloroethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,1,2,2-Tetrachloroethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,1,2-Trichloroethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,1-Dichloroethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,1-Dichloroethene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,1-Dichloropropene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,2,3-Trichlorobenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,2,3-Trichloropropane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,2,4-Trichlorobenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,2,4-Trimethylbenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,2-Dibromo-3-chloropropane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,2-Dibromoethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,2-Dichlorobenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,2-Dichloroethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,2-Dichloropropane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,3,5-Trimethylbenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,3-Dichlorobenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,3-Dichloropropane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
1,4-Dichlorobenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
2,2-Dichloropropane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
2-Butanone	ND		50	µg/L	1	10/14/2019 07:00 PM
2-Chlorotoluene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
2-Hexanone	ND		5.0	µg/L	1	10/14/2019 07:00 PM
4-Chlorotoluene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
4-Methyl-2-pentanone	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Acetone	ND		50	µg/L	1	10/14/2019 07:00 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: TWP-1 **Lab ID:** 1910507-06

Collection Date: 10/8/2019 06:20 PM **Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Benzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Bromobenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Bromochloromethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Bromodichloromethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Bromoform	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Bromomethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Carbon disulfide	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Carbon tetrachloride	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Chlorobenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Chloroethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Chloroform	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Chloromethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
cis-1,2-Dichloroethene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
cis-1,3-Dichloropropene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Dibromochloromethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Dibromomethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Dichlorodifluoromethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Ethylbenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Hexachlorobutadiene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Isopropylbenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
m,p-Xylene	ND		10	µg/L	1	10/14/2019 07:00 PM
Methyl tert-butyl ether	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Methylene chloride	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Naphthalene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
n-Butylbenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
n-Propylbenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
o-Xylene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
p-Isopropyltoluene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
sec-Butylbenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Styrene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
tert-Butylbenzene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Tetrachloroethene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Toluene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
trans-1,2-Dichloroethene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
trans-1,3-Dichloropropene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Trichloroethene	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Trichlorofluoromethane	ND		5.0	µg/L	1	10/14/2019 07:00 PM
Vinyl chloride	ND		2.0	µg/L	1	10/14/2019 07:00 PM
Xylenes, Total	ND		15	µg/L	1	10/14/2019 07:00 PM
Surr: 4-Bromofluorobenzene	*119*		*61-131*	*%REC*	1	10/14/2019 07:00 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: TWP-1
Lab ID: 1910507-06
Collection Date: 10/8/2019 06:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: Dibromofluoromethane	*110*		*87-126*	*%REC*	1	10/14/2019 07:00 PM
Surr: Toluene-d8	*105*		*89.7-116*	*%REC*	1	10/14/2019 07:00 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: FAA-1 **Lab ID:** 1910507-07
Collection Date: 10/8/2019 09:05 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.11	mg/Kg-dry	1	10/15/2019 02:57 AM
Aroclor 1221	ND		0.23	mg/Kg-dry	1	10/15/2019 02:57 AM
Aroclor 1232	ND		0.11	mg/Kg-dry	1	10/15/2019 02:57 AM
Aroclor 1242	ND		0.11	mg/Kg-dry	1	10/15/2019 02:57 AM
Aroclor 1248	ND		0.11	mg/Kg-dry	1	10/15/2019 02:57 AM
Aroclor 1254	ND		0.11	mg/Kg-dry	1	10/15/2019 02:57 AM
Aroclor 1260	ND		0.11	mg/Kg-dry	1	10/15/2019 02:57 AM
Surr: Decachlorobiphenyl	*114*		*14.9-146*	*%REC*	1	10/15/2019 02:57 AM
Surr: Tetrachloro-m-xylene	*102*		*20.7-158*	*%REC*	1	10/15/2019 02:57 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**13**			**% of sample**	1	10/14/2019
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,1,1-Trichloroethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,1,2,2-Tetrachloroethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,1,2-Trichloroethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,1-Dichloroethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,1-Dichloroethene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,1-Dichloropropene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,2,3-Trichlorobenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,2,3-Trichloropropane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,2,4-Trichlorobenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,2,4-Trimethylbenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,2-Dibromo-3-chloropropane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,2-Dibromoethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,2-Dichlorobenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,2-Dichloroethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,2-Dichloropropane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,3,5-Trimethylbenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,3-Dichlorobenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,3-Dichloropropane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
1,4-Dichlorobenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
2,2-Dichloropropane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
2-Butanone	ND		0.058	mg/Kg-dry	1	10/15/2019 03:47 PM
2-Chlorotoluene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
2-Hexanone	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
4-Chlorotoluene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
4-Methyl-2-pentanone	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: FAA-1
Lab ID: 1910507-07
Collection Date: 10/8/2019 09:05 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	ND		0.058	mg/Kg-dry	1	10/15/2019 03:47 PM
Benzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Bromobenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Bromochloromethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Bromodichloromethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Bromoform	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Bromomethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Carbon disulfide	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Carbon tetrachloride	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Chlorobenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Chloroethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Chloroform	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Chloromethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
cis-1,2-Dichloroethene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
cis-1,3-Dichloropropene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Dibromochloromethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Dibromomethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Dichlorodifluoromethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Ethylbenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Hexachlorobutadiene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Isopropylbenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
m,p-Xylene	ND		0.012	mg/Kg-dry	1	10/15/2019 03:47 PM
Methyl tert-butyl ether	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Methylene chloride	ND		0.023	mg/Kg-dry	1	10/15/2019 03:47 PM
Naphthalene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
n-Butylbenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
n-Propylbenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
o-Xylene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
p-Isopropyltoluene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
sec-Butylbenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Styrene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
tert-Butylbenzene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Tetrachloroethene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Toluene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
trans-1,2-Dichloroethene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
trans-1,3-Dichloropropene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Trichloroethene	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Trichlorofluoromethane	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Vinyl chloride	ND		0.0058	mg/Kg-dry	1	10/15/2019 03:47 PM
Xylenes, Total	ND		0.017	mg/Kg-dry	1	10/15/2019 03:47 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: FAA-1 **Lab ID:** 1910507-07

Collection Date: 10/8/2019 09:05 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*102*		*62.7-159*	*%REC*	1	10/15/2019 03:47 PM
Surr: Dibromofluoromethane	*118*		*67.3-136*	*%REC*	1	10/15/2019 03:47 PM
Surr: Toluene-d8	*98.1*		*83-124*	*%REC*	1	10/15/2019 03:47 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: FAA-2 **Lab ID:** 1910507-08
Collection Date: 10/8/2019 09:40 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.11	mg/Kg-dry	1	10/15/2019 03:15 AM
Aroclor 1221	ND		0.23	mg/Kg-dry	1	10/15/2019 03:15 AM
Aroclor 1232	ND		0.11	mg/Kg-dry	1	10/15/2019 03:15 AM
Aroclor 1242	ND		0.11	mg/Kg-dry	1	10/15/2019 03:15 AM
Aroclor 1248	ND		0.11	mg/Kg-dry	1	10/15/2019 03:15 AM
Aroclor 1254	ND		0.11	mg/Kg-dry	1	10/15/2019 03:15 AM
Aroclor 1260	ND		0.11	mg/Kg-dry	1	10/15/2019 03:15 AM
Surr: Decachlorobiphenyl	*94.0*		*14.9-146*	*%REC*	1	10/15/2019 03:15 AM
Surr: Tetrachloro-m-xylene	*98.0*		*20.7-158*	*%REC*	1	10/15/2019 03:15 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**13**			**% of sample**	1	10/14/2019
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,1,1-Trichloroethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,1,2,2-Tetrachloroethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,1,2-Trichloroethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,1-Dichloroethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,1-Dichloroethene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,1-Dichloropropene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,2,3-Trichlorobenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,2,3-Trichloropropane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,2,4-Trichlorobenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,2,4-Trimethylbenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,2-Dibromo-3-chloropropane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,2-Dibromoethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,2-Dichlorobenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,2-Dichloroethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,2-Dichloropropane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,3,5-Trimethylbenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,3-Dichlorobenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,3-Dichloropropane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
1,4-Dichlorobenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
2,2-Dichloropropane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
2-Butanone	ND		0.057	mg/Kg-dry	1	10/15/2019 04:08 PM
2-Chlorotoluene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
2-Hexanone	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
4-Chlorotoluene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
4-Methyl-2-pentanone	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: FAA-2
Lab ID: 1910507-08
Collection Date: 10/8/2019 09:40 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	ND		0.057	mg/Kg-dry	1	10/15/2019 04:08 PM
Benzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Bromobenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Bromochloromethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Bromodichloromethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Bromoform	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Bromomethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Carbon disulfide	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Carbon tetrachloride	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Chlorobenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Chloroethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Chloroform	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Chloromethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
cis-1,2-Dichloroethene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
cis-1,3-Dichloropropene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Dibromochloromethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Dibromomethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Dichlorodifluoromethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Ethylbenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Hexachlorobutadiene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Isopropylbenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
m,p-Xylene	ND		0.011	mg/Kg-dry	1	10/15/2019 04:08 PM
Methyl tert-butyl ether	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Methylene chloride	ND		0.023	mg/Kg-dry	1	10/15/2019 04:08 PM
Naphthalene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
n-Butylbenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
n-Propylbenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
o-Xylene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
p-Isopropyltoluene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
sec-Butylbenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Styrene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
tert-Butylbenzene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Tetrachloroethene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Toluene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
trans-1,2-Dichloroethene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
trans-1,3-Dichloropropene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Trichloroethene	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Trichlorofluoromethane	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Vinyl chloride	ND		0.0057	mg/Kg-dry	1	10/15/2019 04:08 PM
Xylenes, Total	ND		0.017	mg/Kg-dry	1	10/15/2019 04:08 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: FAA-2 **Lab ID:** 1910507-08

Collection Date: 10/8/2019 09:40 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*105*		*62.7-159*	*%REC*	1	10/15/2019 04:08 PM
Surr: Dibromofluoromethane	*113*		*67.3-136*	*%REC*	1	10/15/2019 04:08 PM
Surr: Toluene-d8	*96.0*		*83-124*	*%REC*	1	10/15/2019 04:08 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: FAA-3 **Lab ID:** 1910507-09
Collection Date: 10/8/2019 09:50 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.10	mg/Kg-dry	1	10/15/2019 03:33 AM
Aroclor 1221	ND		0.21	mg/Kg-dry	1	10/15/2019 03:33 AM
Aroclor 1232	ND		0.10	mg/Kg-dry	1	10/15/2019 03:33 AM
Aroclor 1242	ND		0.10	mg/Kg-dry	1	10/15/2019 03:33 AM
Aroclor 1248	ND		0.10	mg/Kg-dry	1	10/15/2019 03:33 AM
Aroclor 1254	ND		0.10	mg/Kg-dry	1	10/15/2019 03:33 AM
Aroclor 1260	ND		0.10	mg/Kg-dry	1	10/15/2019 03:33 AM
Surr: Decachlorobiphenyl	*86.0*		*14.9-146*	*%REC*	1	10/15/2019 03:33 AM
Surr: Tetrachloro-m-xylene	*88.0*		*20.7-158*	*%REC*	1	10/15/2019 03:33 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**4.7**			**% of sample**	1	10/14/2019
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,1,1-Trichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,1,2,2-Tetrachloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,1,2-Trichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,1-Dichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,1-Dichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,1-Dichloropropene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,2,3-Trichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,2,3-Trichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,2,4-Trichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,2,4-Trimethylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,2-Dibromo-3-chloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,2-Dibromoethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,2-Dichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,2-Dichloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,2-Dichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,3,5-Trimethylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,3-Dichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,3-Dichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
1,4-Dichlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
2,2-Dichloropropane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
2-Butanone	ND		0.052	mg/Kg-dry	1	10/15/2019 04:28 PM
2-Chlorotoluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
2-Hexanone	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
4-Chlorotoluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
4-Methyl-2-pentanone	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: FAA-3
Lab ID: 1910507-09
Collection Date: 10/8/2019 09:50 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	ND		0.052	mg/Kg-dry	1	10/15/2019 04:28 PM
Benzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Bromobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Bromochloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Bromodichloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Bromoform	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Bromomethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Carbon disulfide	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Carbon tetrachloride	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Chlorobenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Chloroethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Chloroform	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Chloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
cis-1,2-Dichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
cis-1,3-Dichloropropene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Dibromochloromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Dibromomethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Dichlorodifluoromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Ethylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Hexachlorobutadiene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Isopropylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
m,p-Xylene	ND		0.010	mg/Kg-dry	1	10/15/2019 04:28 PM
Methyl tert-butyl ether	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Methylene chloride	ND		0.021	mg/Kg-dry	1	10/15/2019 04:28 PM
Naphthalene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
n-Butylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
n-Propylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
o-Xylene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
p-Isopropyltoluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
sec-Butylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Styrene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
tert-Butylbenzene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Tetrachloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Toluene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
trans-1,2-Dichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
trans-1,3-Dichloropropene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Trichloroethene	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Trichlorofluoromethane	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Vinyl chloride	ND		0.0052	mg/Kg-dry	1	10/15/2019 04:28 PM
Xylenes, Total	ND		0.016	mg/Kg-dry	1	10/15/2019 04:28 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: FAA-3 **Lab ID:** 1910507-09

Collection Date: 10/8/2019 09:50 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*101*		*62.7-159*	*%REC*	1	10/15/2019 04:28 PM
Surr: Dibromofluoromethane	*123*		*67.3-136*	*%REC*	1	10/15/2019 04:28 PM
Surr: Toluene-d8	*98.3*		*83-124*	*%REC*	1	10/15/2019 04:28 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: FAA-4 **Lab ID:** 1910507-10
Collection Date: 10/8/2019 09:54 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.11	mg/Kg-dry	1	10/15/2019 03:51 AM
Aroclor 1221	ND		0.21	mg/Kg-dry	1	10/15/2019 03:51 AM
Aroclor 1232	ND		0.11	mg/Kg-dry	1	10/15/2019 03:51 AM
Aroclor 1242	ND		0.11	mg/Kg-dry	1	10/15/2019 03:51 AM
Aroclor 1248	ND		0.11	mg/Kg-dry	1	10/15/2019 03:51 AM
Aroclor 1254	ND		0.11	mg/Kg-dry	1	10/15/2019 03:51 AM
Aroclor 1260	ND		0.11	mg/Kg-dry	1	10/15/2019 03:51 AM
Surr: Decachlorobiphenyl	*92.0*		*14.9-146*	*%REC*	1	10/15/2019 03:51 AM
Surr: Tetrachloro-m-xylene	*94.0*		*20.7-158*	*%REC*	1	10/15/2019 03:51 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**5.0**			**% of sample**	1	10/14/2019
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,1,1-Trichloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,1,2,2-Tetrachloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,1,2-Trichloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,1-Dichloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,1-Dichloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,1-Dichloropropene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,2,3-Trichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,2,3-Trichloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,2,4-Trichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,2,4-Trimethylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,2-Dibromo-3-chloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,2-Dibromoethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,2-Dichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,2-Dichloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,2-Dichloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,3,5-Trimethylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,3-Dichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,3-Dichloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
1,4-Dichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
2,2-Dichloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
2-Butanone	ND		0.053	mg/Kg-dry	1	10/15/2019 04:48 PM
2-Chlorotoluene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
2-Hexanone	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
4-Chlorotoluene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
4-Methyl-2-pentanone	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: FAA-4 **Lab ID:** 1910507-10

Collection Date: 10/8/2019 09:54 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	ND		0.053	mg/Kg-dry	1	10/15/2019 04:48 PM
Benzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Bromobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Bromochloromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Bromodichloromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Bromoform	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Bromomethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Carbon disulfide	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Carbon tetrachloride	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Chlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Chloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Chloroform	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Chloromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
cis-1,2-Dichloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
cis-1,3-Dichloropropene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Dibromochloromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Dibromomethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Dichlorodifluoromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Ethylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Hexachlorobutadiene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Isopropylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
m,p-Xylene	ND		0.011	mg/Kg-dry	1	10/15/2019 04:48 PM
Methyl tert-butyl ether	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Methylene chloride	ND		0.021	mg/Kg-dry	1	10/15/2019 04:48 PM
Naphthalene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
n-Butylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
n-Propylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
o-Xylene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
p-Isopropyltoluene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
sec-Butylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Styrene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
tert-Butylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Tetrachloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Toluene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
trans-1,2-Dichloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
trans-1,3-Dichloropropene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Trichloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Trichlorofluoromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Vinyl chloride	ND		0.0053	mg/Kg-dry	1	10/15/2019 04:48 PM
Xylenes, Total	ND		0.016	mg/Kg-dry	1	10/15/2019 04:48 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: FAA-4 **Lab ID:** 1910507-10

Collection Date: 10/8/2019 09:54 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*103*		*62.7-159*	*%REC*	1	10/15/2019 04:48 PM
Surr: Dibromofluoromethane	*118*		*67.3-136*	*%REC*	1	10/15/2019 04:48 PM
Surr: Toluene-d8	*98.5*		*83-124*	*%REC*	1	10/15/2019 04:48 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: FAA-5 **Lab ID:** 1910507-11
Collection Date: 10/8/2019 10:37 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.11	mg/Kg-dry	1	10/15/2019 04:10 AM
Aroclor 1221	ND		0.21	mg/Kg-dry	1	10/15/2019 04:10 AM
Aroclor 1232	ND		0.11	mg/Kg-dry	1	10/15/2019 04:10 AM
Aroclor 1242	ND		0.11	mg/Kg-dry	1	10/15/2019 04:10 AM
Aroclor 1248	ND		0.11	mg/Kg-dry	1	10/15/2019 04:10 AM
Aroclor 1254	ND		0.11	mg/Kg-dry	1	10/15/2019 04:10 AM
Aroclor 1260	ND		0.11	mg/Kg-dry	1	10/15/2019 04:10 AM
Surr: Decachlorobiphenyl	*96.0*		*14.9-146*	*%REC*	1	10/15/2019 04:10 AM
Surr: Tetrachloro-m-xylene	*94.0*		*20.7-158*	*%REC*	1	10/15/2019 04:10 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**6.4**			**% of sample**	1	10/14/2019
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,1,1-Trichloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,1,2,2-Tetrachloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,1,2-Trichloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,1-Dichloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,1-Dichloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,1-Dichloropropene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,2,3-Trichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,2,3-Trichloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,2,4-Trichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,2,4-Trimethylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,2-Dibromo-3-chloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,2-Dibromoethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,2-Dichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,2-Dichloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,2-Dichloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,3,5-Trimethylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,3-Dichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,3-Dichloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
1,4-Dichlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
2,2-Dichloropropane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
2-Butanone	ND		0.053	mg/Kg-dry	1	10/15/2019 05:08 PM
2-Chlorotoluene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
2-Hexanone	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
4-Chlorotoluene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
4-Methyl-2-pentanone	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: FAA-5
Lab ID: 1910507-11
Collection Date: 10/8/2019 10:37 AM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	ND		0.053	mg/Kg-dry	1	10/15/2019 05:08 PM
Benzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Bromobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Bromochloromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Bromodichloromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Bromoform	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Bromomethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Carbon disulfide	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Carbon tetrachloride	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Chlorobenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Chloroethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Chloroform	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Chloromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
cis-1,2-Dichloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
cis-1,3-Dichloropropene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Dibromochloromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Dibromomethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Dichlorodifluoromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Ethylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Hexachlorobutadiene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Isopropylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
m,p-Xylene	ND		0.011	mg/Kg-dry	1	10/15/2019 05:08 PM
Methyl tert-butyl ether	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Methylene chloride	ND		0.021	mg/Kg-dry	1	10/15/2019 05:08 PM
Naphthalene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
n-Butylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
n-Propylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
o-Xylene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
p-Isopropyltoluene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
sec-Butylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Styrene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
tert-Butylbenzene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Tetrachloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Toluene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
trans-1,2-Dichloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
trans-1,3-Dichloropropene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Trichloroethene	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Trichlorofluoromethane	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Vinyl chloride	ND		0.0053	mg/Kg-dry	1	10/15/2019 05:08 PM
Xylenes, Total	ND		0.016	mg/Kg-dry	1	10/15/2019 05:08 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: FAA-5 **Lab ID:** 1910507-11

Collection Date: 10/8/2019 10:37 AM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*100*		*62.7-159*	*%REC*	1	10/15/2019 05:08 PM
Surr: Dibromofluoromethane	*119*		*67.3-136*	*%REC*	1	10/15/2019 05:08 PM
Surr: Toluene-d8	*98.0*		*83-124*	*%REC*	1	10/15/2019 05:08 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507
Sample ID: FAA-6 **Lab ID:** 1910507-12
Collection Date: 10/8/2019 01:04 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep Date: **10/11/2019**	Analyst: **TSA**
Aroclor 1016	ND		0.11	mg/Kg-dry	1	10/15/2019 04:28 AM
Aroclor 1221	ND		0.22	mg/Kg-dry	1	10/15/2019 04:28 AM
Aroclor 1232	ND		0.11	mg/Kg-dry	1	10/15/2019 04:28 AM
Aroclor 1242	ND		0.11	mg/Kg-dry	1	10/15/2019 04:28 AM
Aroclor 1248	ND		0.11	mg/Kg-dry	1	10/15/2019 04:28 AM
Aroclor 1254	ND		0.11	mg/Kg-dry	1	10/15/2019 04:28 AM
Aroclor 1260	ND		0.11	mg/Kg-dry	1	10/15/2019 04:28 AM
Surr: Decachlorobiphenyl	*96.0*		*14.9-146*	*%REC*	1	10/15/2019 04:28 AM
Surr: Tetrachloro-m-xylene	*94.0*		*20.7-158*	*%REC*	1	10/15/2019 04:28 AM
MOISTURE			**SM2540B**			Analyst: **CS**
Moisture	**8.8**			**% of sample**	1	10/14/2019
VOLATILE ORGANIC COMPOUNDS			**SW8260B**			Analyst: **LAK**
1,1,1,2-Tetrachloroethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,1,1-Trichloroethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,1,2,2-Tetrachloroethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,1,2-Trichloroethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,1-Dichloroethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,1-Dichloroethene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,1-Dichloropropene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,2,3-Trichlorobenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,2,3-Trichloropropane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,2,4-Trichlorobenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,2,4-Trimethylbenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,2-Dibromo-3-chloropropane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,2-Dibromoethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,2-Dichlorobenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,2-Dichloroethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,2-Dichloropropane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,3,5-Trimethylbenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,3-Dichlorobenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,3-Dichloropropane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
1,4-Dichlorobenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
2,2-Dichloropropane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
2-Butanone	ND		0.055	mg/Kg-dry	1	10/15/2019 05:28 PM
2-Chlorotoluene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
2-Hexanone	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
4-Chlorotoluene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
4-Methyl-2-pentanone	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
Work Order: 1910507
Sample ID: FAA-6
Lab ID: 1910507-12
Collection Date: 10/8/2019 01:04 PM
Matrix: SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Acetone	ND		0.055	mg/Kg-dry	1	10/15/2019 05:28 PM
Benzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Bromobenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Bromochloromethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Bromodichloromethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Bromoform	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Bromomethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Carbon disulfide	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Carbon tetrachloride	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Chlorobenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Chloroethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Chloroform	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Chloromethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
cis-1,2-Dichloroethene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
cis-1,3-Dichloropropene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Dibromochloromethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Dibromomethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Dichlorodifluoromethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Ethylbenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Hexachlorobutadiene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Isopropylbenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
m,p-Xylene	ND		0.011	mg/Kg-dry	1	10/15/2019 05:28 PM
Methyl tert-butyl ether	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Methylene chloride	ND		0.022	mg/Kg-dry	1	10/15/2019 05:28 PM
Naphthalene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
n-Butylbenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
n-Propylbenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
o-Xylene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
p-Isopropyltoluene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
sec-Butylbenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Styrene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
tert-Butylbenzene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Tetrachloroethene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Toluene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
trans-1,2-Dichloroethene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
trans-1,3-Dichloropropene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Trichloroethene	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Trichlorofluoromethane	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Vinyl chloride	ND		0.0055	mg/Kg-dry	1	10/15/2019 05:28 PM
Xylenes, Total	ND		0.016	mg/Kg-dry	1	10/15/2019 05:28 PM

Note:

ALS Environmental

Date: *21-Oct-19*

Client: Lawhon & Associates

Project: Kalamazoo Airport; 18-0486 **Work Order:** 1910507

Sample ID: FAA-6 **Lab ID:** 1910507-12

Collection Date: 10/8/2019 01:04 PM **Matrix:** SOIL

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
Surr: 4-Bromofluorobenzene	*99.2*		*62.7-159*	*%REC*	1	10/15/2019 05:28 PM
Surr: Dibromofluoromethane	*123*		*67.3-136*	*%REC*	1	10/15/2019 05:28 PM
Surr: Toluene-d8	*98.4*		*83-124*	*%REC*	1	10/15/2019 05:28 PM

Note:

ALS Environmental

Date: 21-Oct-19

Client: Lawhon & Associates

Work Order: 1910507

Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62443** Instrument ID **GC3** Method: **SW8082**

mblk Sample ID **MBLK-62443-62443** Units: **µg/L** Analysis Date: **10/14/2019 08:16 PM**

Client ID: Run ID: **GC3_191014A** SeqNo: **2117953** Prep Date: **10/10/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.50								
Aroclor 1221	ND	0.50								
Aroclor 1232	ND	0.50								
Aroclor 1242	ND	0.50								
Aroclor 1248	ND	0.50								
Aroclor 1254	ND	0.50								
Aroclor 1260	ND	0.50								
Surr: Decachlorobiphenyl	0.34	0	*0.5*	0	*68*	*6.61-163*	0			
Surr: Tetrachloro-m-xylene	0.31	0	*0.5*	0	*62*	*12.2-143*	0			

lcs Sample ID **LCS-62443-62443** Units: **µg/L** Analysis Date: **10/14/2019 08:34 PM**

Client ID: Run ID: **GC3_191014A** SeqNo: **2117954** Prep Date: **10/10/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	8.44	0.50	10	0	84.4	48.1-137	0			
Surr: Decachlorobiphenyl	0.41	0	*0.5*	0	*82*	*6.61-163*	0			
Surr: Tetrachloro-m-xylene	0.37	0	*0.5*	0	*74*	*12.2-143*	0			

The following samples were analyzed in this batch: 1910507-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62454** Instrument ID **GC3** Method: **SW8082**

mblk Sample ID **MBLK-62454-62454** Units: **mg/Kg** Analysis Date: **10/14/2019 10:24 PM**
Client ID: Run ID: **GC3_191014A** SeqNo: **2117917** Prep Date: **10/11/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	0.10								
Aroclor 1221	ND	0.20								
Aroclor 1232	ND	0.10								
Aroclor 1242	ND	0.10								
Aroclor 1248	ND	0.10								
Aroclor 1254	ND	0.10								
Aroclor 1260	ND	0.10								
Surr: Decachlorobiphenyl	0.104	0	*0.1*	0	*104*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.094	0	*0.1*	0	*94*	*20.7-158*	0			

lcs Sample ID **LCS-62454-62454** Units: **mg/Kg** Analysis Date: **10/14/2019 10:42 PM**
Client ID: Run ID: **GC3_191014A** SeqNo: **2117918** Prep Date: **10/11/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	2.408	0.10	2	0	120	58.2-144	0			
Surr: Decachlorobiphenyl	0.11	0	*0.1*	0	*110*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.098	0	*0.1*	0	*98*	*20.7-158*	0			

MS Sample ID **1910444-07B** Units: **mg/Kg** Analysis Date: **10/14/2019 11:55 PM**
Client ID: Run ID: **GC3_191014A** SeqNo: **2117922** Prep Date: **10/11/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.831	0.10	2.006	0	91.3	25.9-135	0			
Surr: Decachlorobiphenyl	0.08626	0	*0.1003*	0	*86*	*14.9-146*	0			
Surr: Tetrachloro-m-xylene	0.07623	0	*0.1003*	0	*76*	*20.7-158*	0			

MSD Sample ID **1910444-07B** Units: **mg/Kg** Analysis Date: **10/15/2019 12:13 AM**
Client ID: Run ID: **GC3_191014A** SeqNo: **2117923** Prep Date: **10/11/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1260	1.462	0.10	2.006	0	72.9	25.9-135	1.831	22.4	53	
Surr: Decachlorobiphenyl	0.0682	0	*0.1003*	0	*68*	*14.9-146*	0.08626	*23.4*		
Surr: Tetrachloro-m-xylene	0.06419	0	*0.1003*	0	*64*	*20.7-158*	0.07623	*17.1*		

The following samples were analyzed in this batch:

1910507-01B	1910507-02B	1910507-03B
1910507-04B	1910507-05B	1910507-07B
1910507-08B	1910507-09B	1910507-10B
1910507-11B	1910507-12B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62466** Instrument ID **GC9** Method: **SW8081A**

MBLK Sample ID **MBLK-62466-62466** Units: **mg/Kg** Analysis Date: **10/14/2019**
Client ID: Run ID: **GC9_191014A** SeqNo: **2119203** Prep Date: **10/11/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4`-DDD	ND	0.020								
4,4`-DDE	ND	0.020								
4,4`-DDT	ND	0.020								
Aldrin	ND	0.010								
alpha-BHC	ND	0.010								
beta-BHC	ND	0.010								
Chlordane	ND	0.040								
delta-BHC	ND	0.020								
Dieldrin	ND	0.020								
Endosulfan I	ND	0.010								
Endosulfan II	ND	0.020								
Endosulfan sulfate	ND	0.020								
Endrin	ND	0.020								
Endrin aldehyde	ND	0.020								
Endrin ketone	ND	0.020								
gamma-BHC (Lindane)	ND	0.010								
Heptachlor	ND	0.010								
Heptachlor epoxide	ND	0.010								
Methoxychlor	ND	0.10								
Toxaphene	ND	0.10								
Surr: Decachlorobiphenyl	0.095	0	*0.1*	0	*95*	*11.4-165*	0			
Surr: Tetrachloro-m-xylene	0.1038	0	*0.1*	0	*104*	*17.2-160*	0			

LCS Sample ID **LCS-62466-62466** Units: **mg/Kg** Analysis Date: **10/14/2019**
Client ID: Run ID: **GC9_191014A** SeqNo: **2119204** Prep Date: **10/11/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4`-DDT	0.039	0.020	0.04	0	97.5	25-163	0			
Aldrin	0.023	0.010	0.02	0	115	29-148	0			
Dieldrin	0.046	0.020	0.04	0	115	36-148	0			
Endrin	0.0444	0.020	0.04	0	111	27-168	0			
gamma-BHC (Lindane)	0.0168	0.010	0.02	0	84	20-139	0			
Heptachlor	0.0182	0.010	0.02	0	91	30-149	0			
Surr: Decachlorobiphenyl	0.1078	0	*0.1*	0	*108*	*11.4-165*	0			
Surr: Tetrachloro-m-xylene	0.1096	0	*0.1*	0	*110*	*17.2-160*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62466** Instrument ID **GC9** Method: **SW8081A**

MS Sample ID **1910507-02BMS** Units: **mg/Kg** Analysis Date: **10/14/2019**
Client ID: **BH-02 18-20** Run ID: **GC9_191014A** SeqNo: **2119207** Prep Date: **10/11/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4`-DDT	0.04349	0.020	0.04008	0	108	7.88-134	0			
Aldrin	0.02265	0.010	0.02004	0	113	26.7-153	0			
Dieldrin	0.04369	0.020	0.04008	0	109	28.1-154	0			
Endrin	0.04429	0.020	0.04008	0	110	18.4-175	0			
gamma-BHC (Lindane)	0.01583	0.010	0.02004	0	79	2.83-147	0			
Heptachlor	0.01784	0.010	0.02004	0	89	34-138	0			
Surr: Decachlorobiphenyl	0.103	0	*0.1002*	0	*103*	*11.4-165*	0			
Surr: Tetrachloro-m-xylene	0.09158	0	*0.1002*	0	*91.4*	*17.2-160*	0			

MSD Sample ID **1910507-02BMSD** Units: **mg/Kg** Analysis Date: **10/14/2019**
Client ID: **BH-02 18-20** Run ID: **GC9_191014A** SeqNo: **2119208** Prep Date: **10/11/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
4,4`-DDT	0.04177	0.020	0.04016	0	104	7.88-134	0.04349	4.03	50.7	
Aldrin	0.02249	0.010	0.02008	0	112	26.7-153	0.02265	0.688	29.2	
Dieldrin	0.04177	0.020	0.04016	0	104	28.1-154	0.04369	4.49	32.2	
Endrin	0.04237	0.020	0.04016	0	106	18.4-175	0.04429	4.43	28.6	
gamma-BHC (Lindane)	0.01546	0.010	0.02008	0	77	2.83-147	0.01583	2.36	25	
Heptachlor	0.01767	0.010	0.02008	0	88	34-138	0.01784	0.929	29.7	
Surr: Decachlorobiphenyl	0.0998	0	*0.1004*	0	*99.4*	*11.4-165*	0.103	*3.16*		
Surr: Tetrachloro-m-xylene	0.1012	0	*0.1004*	0	*101*	*17.2-160*	0.09158	*9.98*		

The following samples were analyzed in this batch:

1910507-01B	1910507-02B	1910507-03B
1910507-04B	1910507-05B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62475** Instrument ID **GC5** Method: **SW8015B**

mblk Sample ID **MBLK-62475-62475** Units: **mg/Kg** Analysis Date: **10/15/2019 12:54 AM**
Client ID: Run ID: **GC5_191014B** SeqNo: **2118572** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	ND	15								
TPH C10-C20	ND	15								
TPH C20-C34	ND	15								
Surr: Nonane	5.554	0	*8.333*	0	*66.7*	*22.6-112*	0			
Surr: Pentacosane	7.192	0	*8.333*	0	*86.3*	*0-143*	0			

lcs Sample ID **LCS-62475-62475** Units: **mg/Kg** Analysis Date: **10/15/2019 01:14 AM**
Client ID: Run ID: **GC5_191014B** SeqNo: **2118573** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	91.56	15	83.33	0	110	49.2-132	0			
Surr: Nonane	6.916	0	*8.333*	0	*83*	*22.6-112*	0			
Surr: Pentacosane	8.187	0	*8.333*	0	*98.2*	*0-143*	0			

ms Sample ID **1910501-02BMS** Units: **mg/Kg** Analysis Date: **10/15/2019 02:13 AM**
Client ID: Run ID: **GC5_191014B** SeqNo: **2118537** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	101.8	15	83.06	7.807	113	15.3-133	0			
Surr: Nonane	5.751	0	*8.305*	0	*69.2*	*22.6-112*	0			
Surr: Pentacosane	7.767	0	*8.305*	0	*93.5*	*0-143*	0			

msd Sample ID **1910501-02BMSD** Units: **mg/Kg** Analysis Date: **10/15/2019 02:32 AM**
Client ID: Run ID: **GC5_191014B** SeqNo: **2118538** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Diesel (total)	101.8	15	83.75	7.807	112	15.3-133	101.8	0.0303	21	
Surr: Nonane	5.596	0	*8.375*	0	*66.8*	*22.6-112*	5.751	*2.73*		
Surr: Pentacosane	8.025	0	*8.375*	0	*95.8*	*0-143*	7.767	*3.27*		

The following samples were analyzed in this batch:

1910507-01B	1910507-02B	1910507-03B
1910507-04B	1910507-05B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171067** Instrument ID **GC6** Method: **SW8015A**

MBLK	Sample ID **MBLK-R171067**				Units: **mg/Kg**			Analysis Date: **10/14/2019 09:00 AM**			
Client ID:		Run ID: **GC6_191014A**			SeqNo: **2117678**			Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	ND	2.0								
Surr: Cyclooctane	97.24	0	*100*	0	*97.2*	*55-135*	0			

LCS	Sample ID **TPH LCS 20-R171067**				Units: **mg/Kg**			Analysis Date: **10/14/2019 10:17 AM**			
Client ID:		Run ID: **GC6_191014A**			SeqNo: **2117679**			Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	13.78	2.0	20	0	68.9	67.8-148	0			
Surr: Cyclooctane	108.1	0	*100*	0	*108*	*55-135*	0			

MS	Sample ID **1910357-01A**				Units: **mg/Kg**			Analysis Date: **10/14/2019 10:42 AM**			
Client ID:		Run ID: **GC6_191014A**			SeqNo: **2117680**			Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	12.19	2.0	20	0	61	42.3-144	0			
Surr: Cyclooctane	100.9	0	*100*	0	*101*	*55-135*	0			

MSD	Sample ID **1910357-01A**				Units: **mg/Kg**			Analysis Date: **10/14/2019 11:08 AM**			
Client ID:		Run ID: **GC6_191014A**			SeqNo: **2117681**			Prep Date:		DF: **1**	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
TPH C6-C12	12.19	2.0	20	0	61	42.3-144	12.19	0	15.7	
Surr: Cyclooctane	99.38	0	*100*	0	*99.4*	*55-135*	100.9	*1.54*		

The following samples were analyzed in this batch:

1910507-01A	1910507-02A	1910507-03A
1910507-04A	1910507-05A	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62521** Instrument ID **HG1** Method: **SW7470A**

MBLK Sample ID **MBLK-62521-62521** Units: **µg/L** Analysis Date: **10/15/2019**
Client ID: Run ID: **HG1_191015A** SeqNo: **2118196** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.20								

LCS Sample ID **LCS-62521-62521** Units: **µg/L** Analysis Date: **10/15/2019**
Client ID: Run ID: **HG1_191015A** SeqNo: **2118197** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	4.81	0.20	5	0	96.2	80-120	0			

LCSD Sample ID **LCSD-62521-62521** Units: **µg/L** Analysis Date: **10/15/2019**
Client ID: Run ID: **HG1_191015A** SeqNo: **2118202** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	4.91	0.20	5	0	98.2	80-120	4.81	2.06	20	

MS Sample ID **1910580-01E MS** Units: **µg/L** Analysis Date: **10/15/2019**
Client ID: Run ID: **HG1_191015A** SeqNo: **2118200** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	4.89	0.20	5	0	97.8	75-125	0			

MSD Sample ID **1910580-01E MSD** Units: **µg/L** Analysis Date: **10/15/2019**
Client ID: Run ID: **HG1_191015A** SeqNo: **2118201** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	4.82	0.20	5	0	96.4	75-125	4.89	1.44	20	

The following samples were analyzed in this batch: 1910507-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62528** Instrument ID **HG1** Method: **SW7471A**

MBLK Sample ID **MBLK-62528-62528** Units: **mg/Kg** Analysis Date: **10/16/2019**
Client ID: Run ID: **HG1_191016B** SeqNo: **2119165** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	ND	0.30								

LCS Sample ID **LCS-62528-62528** Units: **mg/Kg** Analysis Date: **10/16/2019**
Client ID: Run ID: **HG1_191016B** SeqNo: **2119166** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	1.342	0.30	1.103	0	122	70.1-161	0			

MS Sample ID **1910521-11B MS** Units: **mg/Kg** Analysis Date: **10/16/2019**
Client ID: Run ID: **HG1_191016B** SeqNo: **2119187** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.6557	0.26	0.714	0.02545	88.3	69-147	0			

MSD Sample ID **1910521-11B MSD** Units: **mg/Kg** Analysis Date: **10/16/2019**
Client ID: Run ID: **HG1_191016B** SeqNo: **2119188** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.6602	0.23	0.6482	0.02545	97.9	69-147	0.6557	0.679	20	

The following samples were analyzed in this batch:

1910507-01B	1910507-02B	1910507-03B
1910507-04B	1910507-05B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62517** Instrument ID **ICP3** Method: **SW6010B**

MBLK Sample ID **MBLK-62517-62517** Units: **mg/Kg** Analysis Date: **10/15/2019 07:02 PM**
Client ID: Run ID: **ICP3_191015B** SeqNo: **2118737** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	5.0								
Barium	ND	10								
Cadmium	ND	1.0								
Chromium	ND	2.0								
Lead	ND	5.0								
Selenium	ND	3.0								
Silver	ND	1.0								

LCS Sample ID **LCS-62517-62517** Units: **mg/Kg** Analysis Date: **10/15/2019 07:07 PM**
Client ID: Run ID: **ICP3_191015B** SeqNo: **2118738** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	97.14	5.0	100	0	97.1	80-120	0			
Barium	99.47	10	100	0	99.5	80-120	0			
Cadmium	102.9	1.0	100	0	103	80-120	0			
Chromium	93.45	2.0	100	0	93.4	80-120	0			
Lead	100	5.0	100	0	100	80-120	0			
Selenium	99.32	3.0	100	0	99.3	80-120	0			
Silver	95.25	1.0	100	0	95.2	80-120	0			

LCSD Sample ID **LCSD-62517-62517** Units: **mg/Kg** Analysis Date: **10/15/2019 07:11 PM**
Client ID: Run ID: **ICP3_191015B** SeqNo: **2118739** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	99.38	5.0	100	0	99.4	80-120	0			
Barium	99.87	10	100	0	99.9	80-120	0			
Cadmium	104.7	1.0	100	0	105	80-120	0			
Chromium	94.95	2.0	100	0	95	80-120	0			
Lead	101.3	5.0	100	0	101	80-120	0			
Selenium	100.7	3.0	100	0	101	80-120	0			
Silver	96.43	1.0	100	0	96.4	80-120	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62517** Instrument ID **ICP3** Method: **SW6010B**

MS Sample ID **1910508-04B MS** Units: **mg/Kg** Analysis Date: **10/15/2019 08:02 PM**
Client ID: Run ID: **ICP3_191015B** SeqNo: **2118749** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	89.61	4.7	93.2	7.431	88.2	75-125	0			
Barium	170.9	9.3	93.2	83.62	93.7	75-125	0			
Cadmium	88.45	0.93	93.2	-0.2021	95.1	75-125	0			
Chromium	94.04	1.9	93.2	14.79	85	69.3-116	0			
Lead	83.41	4.7	93.2	18.36	69.8	69.3-107	0			
Selenium	75.82	2.8	93.2	-3.826	85.5	75-125	0			
Silver	80.13	0.93	93.2	-0.342	86.3	75-125	0			

MSD Sample ID **1910508-04B MSD** Units: **mg/Kg** Analysis Date: **10/15/2019 08:07 PM**
Client ID: Run ID: **ICP3_191015B** SeqNo: **2118750** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	101.9	5.2	104	7.431	90.9	75-125	89.61	12.9	20	
Barium	181.7	10	104	83.62	94.4	75-125	170.9	6.12	20	
Cadmium	99.4	1.0	104	-0.2021	95.8	75-125	88.45	11.7	20	
Chromium	105.2	2.1	104	14.79	87	69.3-116	94.04	11.2	20	
Lead	94.19	5.2	104	18.36	72.9	69.3-107	83.41	12.1	20	
Selenium	87.23	3.1	104	-3.826	87.6	75-125	75.82	14	20	
Silver	92.9	1.0	104	-0.342	89.7	75-125	80.13	14.8	20	

The following samples were analyzed in this batch:

1910507-01B	1910507-02B	1910507-03B
1910507-04B	1910507-05B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62520** Instrument ID **ICP1** Method: **SW6010B**

MBLK Sample ID **MBLK-62520-62520** Units: **mg/L** Analysis Date: **10/15/2019 02:29 PM**
Client ID: Run ID: **ICP1_191015A** SeqNo: **2118300** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	ND	0.010								
Barium	ND	0.10								
Cadmium	ND	0.0050								
Chromium	ND	0.010								
Lead	ND	0.015								
Selenium	ND	0.030								
Silver	ND	0.020								

LCS Sample ID **LCS-62520-62520** Units: **mg/L** Analysis Date: **10/15/2019 02:33 PM**
Client ID: Run ID: **ICP1_191015A** SeqNo: **2118301** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.097	0.010	1.1	0	99.8	80-120	0			
Barium	1.058	0.10	1.1	0	96.2	80-120	0			
Cadmium	1.216	0.0050	1.1	0	110	80-120	0			
Chromium	1.082	0.010	1.1	0	98.4	80-120	0			
Lead	1.114	0.015	1.1	0	101	80-120	0			
Selenium	1.142	0.030	1.1	0	104	80-120	0			
Silver	1.057	0.020	1.1	0	96.1	80-120	0			

LCSD Sample ID **LCSD-62520-62520** Units: **mg/L** Analysis Date: **10/15/2019 02:37 PM**
Client ID: Run ID: **ICP1_191015A** SeqNo: **2118302** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.094	0.010	1.1	0	99.5	80-120	1.097	0.301	20	
Barium	1.056	0.10	1.1	0	96	80-120	1.058	0.239	20	
Cadmium	1.207	0.0050	1.1	0	110	80-120	1.216	0.727	20	
Chromium	1.075	0.010	1.1	0	97.7	80-120	1.082	0.663	20	
Lead	1.107	0.015	1.1	0	101	80-120	1.114	0.693	20	
Selenium	1.148	0.030	1.1	0	104	80-120	1.142	0.576	20	
Silver	1.053	0.020	1.1	0	95.7	80-120	1.057	0.396	20	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62520** Instrument ID **ICP1** Method: **SW6010B**

MS Sample ID **1910580-01E MS** Units: **mg/L** Analysis Date: **10/15/2019 03:04 PM**
Client ID: Run ID: **ICP1_191015A** SeqNo: **2118305** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.09	0.010	1.1	0.0003399	99.1	75-125	0			
Barium	1.079	0.10	1.1	0.0418	94.3	75-125	0			
Cadmium	1.172	0.0050	1.1	0.0000528	106	75-125	0			
Chromium	1.042	0.010	1.1	0.001143	94.6	75-125	0			
Lead	1.046	0.015	1.1	0.001744	94.9	75-125	0			
Selenium	1.124	0.030	1.1	0.0001243	102	75-125	0			
Silver	1.053	0.020	1.1	-0.0000517	95.8	75-125	0			

MSD Sample ID **1910580-01E MSD** Units: **mg/L** Analysis Date: **10/15/2019 03:07 PM**
Client ID: Run ID: **ICP1_191015A** SeqNo: **2118306** Prep Date: **10/15/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	1.099	0.010	1.1	0.0003399	99.9	75-125	1.09	0.854	20	
Barium	1.062	0.10	1.1	0.0418	92.7	75-125	1.079	1.67	20	
Cadmium	1.177	0.0050	1.1	0.0000528	107	75-125	1.172	0.468	20	
Chromium	1.038	0.010	1.1	0.001143	94.2	75-125	1.042	0.402	20	
Lead	1.051	0.015	1.1	0.001744	95.4	75-125	1.046	0.535	20	
Selenium	1.126	0.030	1.1	0.0001243	102	75-125	1.124	0.196	20	
Silver	1.033	0.020	1.1	-0.0000517	93.9	75-125	1.053	2	20	

The following samples were analyzed in this batch: 1910507-06C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62487** Instrument ID **SVMS1** Method: **SW8270C**

mblk Sample ID **MBLK-62487-62487** Units: **µg/L** Analysis Date: **10/17/2019 06:49 PM**
Client ID: Run ID: **SVMS1_191017A** SeqNo: **2121475** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4,5-Tetrachlorobenzene	ND	10								
1,2,4-Trichlorobenzene	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,3-Dinitrobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
1-Methylnaphthalene	ND	0.20								
1-Naphthylamine	ND	10								
2,3,4,6-Tetrachlorophenol	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
2,4-Dichlorophenol	ND	10								
2,4-Dimethylphenol	ND	10								
2,4-Dinitrophenol	ND	10								
2,4-Dinitrotoluene	ND	10								
2,6-Dichlorophenol	ND	10								
2,6-Dinitrotoluene	ND	10								
2-Acetylaminofluorene	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	10								
2-Naphthylamine	ND	20								
2-Nitroaniline	ND	10								
2-Nitrophenol	ND	10								
2-Picoline	ND	20								
3&4-Methylphenol	ND	10								
3,3`-Dichlorobenzidine	ND	10								
3-Methylcholanthrene	ND	20								
3-Nitroaniline	ND	20								
4,6-Dinitro-2-methylphenol	ND	20								
4-Aminobiphenyl	ND	10								
4-Bromophenyl phenyl ether	ND	20								
4-Chloro-3-methylphenol	ND	20								
4-Chloroaniline	ND	10								
4-Chlorophenyl phenyl ether	ND	20								
4-Nitroaniline	ND	20								
4-Nitrophenol	ND	10								
4-Nitroquinoline 1-oxide	ND	10								
5-Nitro-o-toluidine	ND	10								
7,12-Dimethylbenz(a)anthracene	ND	10								
Acenaphthene	ND	0.20								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **62487** Instrument ID **SVMS1** Method: **SW8270C**

Acenaphthylene	ND	0.20
Acetophenone	ND	10
Aniline	ND	10
Anthracene	ND	0.20
Azobenzene	ND	10
Benzidine	ND	10
Benzo(a)anthracene	ND	0.20
Benzo(a)pyrene	ND	0.10
Benzo(b)fluoranthene	ND	0.10
Benzo(g,h,i)perylene	ND	0.20
Benzo(k)fluoranthene	ND	0.20
Benzyl alcohol	ND	10
Bis(2-chloroethoxy)methane	ND	10
Bis(2-chloroethyl)ether	ND	10
Bis(2-chloroisopropyl)ether	ND	10
Bis(2-ethylhexyl)phthalate	ND	10
Butyl benzyl phthalate	ND	10
Carbazole	ND	10
Chrysene	ND	0.20
Dibenzo(a,h)anthracene	ND	0.10
Dibenzofuran	ND	10
Diethyl phthalate	ND	10
Dimethyl phthalate	ND	10
Di-n-butyl phthalate	ND	10
Di-n-octyl phthalate	ND	10
Dinoseb	ND	20
Diphenylamine	ND	10
Ethyl methanesulfonate	ND	10
Fluoranthene	ND	0.20
Fluorene	ND	0.20
Hexachlorobenzene	ND	10
Hexachlorobutadiene	ND	10
Hexachlorocyclopentadiene	ND	10
Hexachloroethane	ND	10
Indeno(1,2,3-cd)pyrene	ND	0.10
Isophorone	ND	10
Isosafrole	ND	10
Methapyrilene	ND	10
Methyl methanesulfonate	ND	10
Naphthalene	ND	0.20
Nitrobenzene	ND	10
N-Nitrosodiethylamine	ND	10
N-Nitrosodimethylamine	ND	10
N-Nitroso-di-n-butylamine	ND	10
N-Nitrosodi-n-propylamine	ND	10
N-Nitrosomethylethylamine	ND	10
N-Nitrosomorpholine	ND	10
N-Nitrosopiperidine	ND	10

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **62487** Instrument ID **SVMS1** Method: **SW8270C**

N-Nitrosopyrrolidine	ND	10					
o-Toluidine	ND	10					
p-Dimethylaminoazobenzene	ND	10					
Pentachlorobenzene	ND	10					
Pentachloroethane	ND	10					
Pentachloronitrobenzene	ND	20					
Pentachlorophenol	ND	20					
Phenacetin	ND	20					
Phenanthrene	ND	0.20					
Phenol	ND	10					
Pyrene	ND	0.20					
Pyridine	ND	10					
Safrole	ND	10					
Surr: 2,4,6-Tribromophenol	79.39	0	*100*	0	*79.4*	*42.3-142*	0
Surr: 2-Fluorobiphenyl	38.44	0	*50*	0	*76.9*	*36.8-125*	0
Surr: 2-Fluorophenol	65.68	0	*100*	0	*65.7*	*12-89*	0
Surr: 4-Terphenyl-d14	39.71	0	*50*	0	*79.4*	*38.3-160*	0
Surr: Nitrobenzene-d5	32.34	0	*50*	0	*64.7*	*28-120*	0
Surr: Phenol-d5	56.35	0	*100*	0	*56.4*	*4.27-70.1*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62487** Instrument ID **SVMS1** Method: **SW8270C**

lcs Sample ID **LCS-62487-62487** Units: **µg/L** Analysis Date: **10/17/2019 07:09 PM**
Client ID: Run ID: **SVMS1_191017A** SeqNo: **2121476** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	27.08	10	50	0	54.2	33.3-96.9	0			
1,4-Dichlorobenzene	21.46	10	50	0	42.9	24.6-94.5	0			
2,4-Dinitrotoluene	44.09	10	50	0	88.2	58.9-126	0			
2-Chlorophenol	41.7	10	50	0	83.4	53-97.3	0			
4-Chloro-3-methylphenol	42.04	20	50	0	84.1	58.1-110	0			
4-Nitrophenol	26.34	10	50	0	52.7	17.3-80.3	0			
Acenaphthene	41.38	0.20	50	0	82.8	40.1-123	0			
Acenaphthylene	43.01	0.20	50	0	86	59.3-126	0			
Anthracene	41.89	0.20	50	0	83.8	62.1-110	0			
Benzo(a)anthracene	42.3	0.20	50	0	84.6	55.5-112	0			
Benzo(a)pyrene	41.65	0.10	50	0	83.3	62.1-118	0			
Benzo(b)fluoranthene	41.67	0.10	50	0	83.3	59.9-113	0			
Benzo(g,h,i)perylene	42.54	0.20	50	0	85.1	42.3-123	0			
Benzo(k)fluoranthene	43.68	0.20	50	0	87.4	68.8-136	0			
Carbazole	43.39	10	50	0	86.8	49.9-163	0			
Chrysene	41.69	0.20	50	0	83.4	63.1-116	0			
Dibenzo(a,h)anthracene	44.53	0.10	50	0	89.1	47.1-168	0			
Fluoranthene	42.57	0.20	50	0	85.1	62.1-121	0			
Fluorene	38.29	0.20	50	0	76.6	59.5-120	0			
Indeno(1,2,3-cd)pyrene	47.98	0.10	50	0	96	56.3-141	0			
Naphthalene	28.72	0.20	50	0	57.4	46.6-104	0			
N-Nitrosodi-n-propylamine	41.98	10	50	0	84	54.8-121	0			
Pentachlorophenol	39.38	20	50	0	78.8	34.1-130	0			
Phenanthrene	41.21	0.20	50	0	82.4	63-118	0			
Phenol	24.24	10	50	0	48.5	17.5-68	0			
Pyrene	42.16	0.20	50	0	84.3	42-125	0			
Surr: 2,4,6-Tribromophenol	86.17	0	*100*	0	*86.2*	*42.3-142*	0			
Surr: 2-Fluorobiphenyl	41.88	0	*50*	0	*83.8*	*36.8-125*	0			
Surr: 2-Fluorophenol	63.74	0	*100*	0	*63.7*	*12-89*	0			
Surr: 4-Terphenyl-d14	44.26	0	*50*	0	*88.5*	*38.3-160*	0			
Surr: Nitrobenzene-d5	42.24	0	*50*	0	*84.5*	*28-120*	0			
Surr: Phenol-d5	52.04	0	*100*	0	*52*	*4.27-70.1*	0			

The following samples were analyzed in this batch: 1910507-06B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62492** Instrument ID **SVMS1** Method: **SW8270C**

mblk Sample ID **MBLK-62492-62492** Units: **µg/Kg** Analysis Date: **10/16/2019 02:21 PM**
Client ID: Run ID: **SVMS1_191015B** SeqNo: **2120413** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4,5-Tetrachlorobenzene	ND	330								
1,2,4-Trichlorobenzene	ND	330								
1,2-Dichlorobenzene	ND	330								
1,3-Dichlorobenzene	ND	330								
1,3-Dinitrobenzene	ND	330								
1,4-Dichlorobenzene	ND	330								
1-Methylnaphthalene	ND	200								
1-Naphthylamine	ND	330								
2,3,4,6-Tetrachlorophenol	ND	330								
2,4,5-Trichlorophenol	ND	330								
2,4,6-Trichlorophenol	ND	330								
2,4-Dichlorophenol	ND	330								
2,4-Dimethylphenol	ND	330								
2,4-Dinitrophenol	ND	1,600								
2,4-Dinitrotoluene	ND	330								
2,6-Dichlorophenol	ND	330								
2,6-Dinitrotoluene	ND	330								
2-Acetylaminofluorene	ND	330								
2-Chloronaphthalene	ND	330								
2-Chlorophenol	ND	330								
2-Methylnaphthalene	ND	200								
2-Methylphenol	ND	330								
2-Naphthylamine	ND	330								
2-Nitroaniline	ND	1,600								
2-Nitrophenol	ND	330								
2-Picoline	ND	330								
3&4-Methylphenol	ND	330								
3,3`-Dichlorobenzidine	ND	660								
3-Methylcholanthrene	ND	330								
3-Nitroaniline	ND	1,600								
4,6-Dinitro-2-methylphenol	ND	1,600								
4-Aminobiphenyl	ND	660								
4-Bromophenyl phenyl ether	ND	330								
4-Chloro-3-methylphenol	ND	660								
4-Chloroaniline	ND	660								
4-Chlorophenyl phenyl ether	ND	330								
4-Nitroaniline	ND	660								
4-Nitrophenol	ND	1,600								
4-Nitroquinoline 1-oxide	ND	330								
5-Nitro-o-toluidine	ND	330								
7,12-Dimethylbenz(a)anthracene	ND	330								
Acenaphthene	ND	200								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **62492** Instrument ID **SVMS1** Method: **SW8270C**

Acenaphthylene	ND	200			
Acetophenone	ND	330			
Aniline	ND	330			
Anthracene	ND	200			
Azobenzene	ND	330			
Benzidine	ND	330			
Benzo(a)anthracene	ND	100			
Benzo(a)pyrene	ND	100			
Benzo(b)fluoranthene	ND	200			
Benzo(g,h,i)perylene	ND	200			
Benzo(k)fluoranthene	ND	200			
Benzyl alcohol	ND	660			
Bis(2-chloroethoxy)methane	ND	330			
Bis(2-chloroethyl)ether	ND	330			
Bis(2-chloroisopropyl)ether	ND	330			
Bis(2-ethylhexyl)phthalate	ND	330			
Butyl benzyl phthalate	ND	330			
Carbazole	ND	200			
Chrysene	ND	200			
Dibenzo(a,h)anthracene	ND	100			
Dibenzofuran	ND	200			
Diethyl phthalate	ND	330			
Dimethyl phthalate	ND	330			
Di-n-butyl phthalate	ND	330			
Di-n-octyl phthalate	ND	330			
Dinoseb	ND	330			
Diphenylamine	ND	330			
Ethyl methanesulfonate	ND	330			
Fluoranthene	ND	200			
Fluorene	ND	200			
Hexachlorobenzene	ND	330			
Hexachlorobutadiene	ND	330			
Hexachlorocyclopentadiene	ND	330			
Hexachloroethane	ND	330			
Indeno(1,2,3-cd)pyrene	ND	100			
Isophorone	ND	330			
Isosafrole	ND	330			
Methapyrilene	ND	330			
Methyl methanesulfonate	ND	330			
Naphthalene	ND	200			
Nitrobenzene	ND	330			
N-Nitrosodiethylamine	ND	330			
N-Nitrosodimethylamine	ND	330			
N-Nitroso-di-n-butylamine	ND	330			
N-Nitrosodi-n-propylamine	ND	330			
N-Nitrosomethylethylamine	ND	330			
N-Nitrosomorpholine	ND	330			
N-Nitrosopiperidine	ND	330			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **62492** Instrument ID **SVMS1** Method: **SW8270C**

N-Nitrosopyrrolidine	ND	330					
o-Toluidine	ND	330					
p-Dimethylaminoazobenzene	ND	330					
Pentachlorobenzene	ND	330					
Pentachloroethane	ND	330					
Pentachloronitrobenzene	ND	660					
Pentachlorophenol	ND	1,600					
Phenacetin	ND	660					
Phenanthrene	ND	200					
Phenol	ND	330					
Pyrene	ND	200					
Pyridine	ND	330					
Safrole	ND	330					
Surr: 2,4,6-Tribromophenol	5525	0	*6660*	0	*83*	*14.2-136*	0
Surr: 2-Fluorobiphenyl	2865	0	*3330*	0	*86*	*30-116*	0
Surr: 2-Fluorophenol	4777	0	*6660*	0	*71.7*	*24-105*	0
Surr: 4-Terphenyl-d14	2713	0	*3330*	0	*81.5*	*27.3-138*	0
Surr: Nitrobenzene-d5	2267	0	*3330*	0	*68.1*	*23.7-109*	0
Surr: Phenol-d5	5422	0	*6660*	0	*81.4*	*24.9-103*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62492** Instrument ID **SVMS1** Method: **SW8270C**

lcs Sample ID **LCS-62492-62492** Units: **µg/Kg** Analysis Date: **10/16/2019 02:41 PM**
Client ID: Run ID: **SVMS1_191015B** SeqNo: **2120414** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	2514	330	3330	0	75.5	39-104	0			
1,4-Dichlorobenzene	2465	330	3330	0	74	38.7-95.1	0			
2,4-Dinitrotoluene	2902	330	3330	0	87.1	58.8-123	0			
2-Chlorophenol	2661	330	3330	0	79.9	34.7-116	0			
4-Chloro-3-methylphenol	2815	660	3330	0	84.5	32.1-109	0			
4-Nitrophenol	2535	1,600	3330	0	76.1	36.2-146	0			
Acenaphthene	2925	200	3330	0	87.8	52-119	0			
Acenaphthylene	3111	200	3330	0	93.4	46-118	0			
Anthracene	3056	200	3330	0	91.8	56-109	0			
Benzo(a)anthracene	3137	100	3330	0	94.2	48-121	0			
Benzo(a)pyrene	2950	100	3330	0	88.6	40.1-114	0			
Benzo(b)fluoranthene	3004	200	3330	0	90.2	44-115	0			
Benzo(g,h,i)perylene	2880	200	3330	0	86.5	47.9-113	0			
Benzo(k)fluoranthene	3119	200	3330	0	93.7	39.5-116	0			
Carbazole	3011	200	3330	0	90.4	43.3-146	0			
Chrysene	3033	200	3330	0	91.1	49.2-115	0			
Dibenzo(a,h)anthracene	2997	100	3330	0	90	41.7-123	0			
Fluoranthene	2881	200	3330	0	86.5	52.7-118	0			
Fluorene	2689	200	3330	0	80.8	56.3-103	0			
Indeno(1,2,3-cd)pyrene	3209	100	3330	0	96.4	41.1-124	0			
Naphthalene	2451	200	3330	0	73.6	42.5-103	0			
N-Nitrosodi-n-propylamine	2651	330	3330	0	79.6	25.3-127	0			
Pentachlorophenol	2501	1,600	3330	0	75.1	22.1-105	0			
Phenanthrene	2934	200	3330	0	88.1	52.8-114	0			
Phenol	2547	330	3330	0	76.5	36.9-97.8	0			
Pyrene	2822	200	3330	0	84.7	50.7-109	0			
Surr: 2,4,6-Tribromophenol	6605	0	*6660*	0	*99.2*	*14.2-136*	0			
Surr: 2-Fluorobiphenyl	3108	0	*3330*	0	*93.3*	*30-116*	0			
Surr: 2-Fluorophenol	4678	0	*6660*	0	*70.2*	*24-105*	0			
Surr: 4-Terphenyl-d14	2865	0	*3330*	0	*86*	*27.3-138*	0			
Surr: Nitrobenzene-d5	2690	0	*3330*	0	*80.8*	*23.7-109*	0			
Surr: Phenol-d5	5568	0	*6660*	0	*83.6*	*24.9-103*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62492** Instrument ID **SVMS1** Method: **SW8270C**

ms Sample ID **1910507-05BMS** Units: **µg/Kg** Analysis Date: **10/16/2019 03:01 PM**
Client ID: **BH-05 16-18** Run ID: **SVMS1_191015B** SeqNo: **2120415** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	2530	330	3328	0	76	39-91.8	0			
1,4-Dichlorobenzene	2654	330	3328	0	79.7	32.9-90	0			
2,4-Dinitrotoluene	2911	330	3328	0	87.5	29.7-121	0			
2-Chlorophenol	2690	330	3328	0	80.8	33.3-109	0			
4-Chloro-3-methylphenol	2740	660	3328	0	82.3	35.8-116	0			
4-Nitrophenol	2532	1,600	3328	0	76.1	34.1-120	0			
Acenaphthene	2923	200	3328	0	87.8	44-108	0			
Acenaphthylene	3073	200	3328	0	92.4	43.6-110	0			
Anthracene	2985	200	3328	0	89.7	35.8-104	0			
Benzo(a)anthracene	3042	100	3328	0	91.4	47-114	0			
Benzo(a)pyrene	2933	100	3328	3.992	88	43.8-115	0			
Benzo(b)fluoranthene	2955	200	3328	0	88.8	40-106	0			
Benzo(g,h,i)perylene	2847	200	3328	9.98	85.3	38.2-110	0			
Benzo(k)fluoranthene	3063	200	3328	0	92	48.6-107	0			
Carbazole	2970	200	3328	0	89.2	28.5-114	0			
Chrysene	2987	200	3328	0	89.8	44.3-97.5	0			
Dibenzo(a,h)anthracene	2939	100	3328	0	88.3	46-116	0			
Fluoranthene	2861	200	3328	0	86	40.2-129	0			
Fluorene	2673	200	3328	0	80.3	42.8-106	0			
Indeno(1,2,3-cd)pyrene	3139	100	3328	0	94.3	33-115	0			
Naphthalene	2481	200	3328	0	74.6	18.2-126	0			
N-Nitrosodi-n-propylamine	2793	330	3328	0	83.9	38.8-94.3	0			
Pentachlorophenol	2859	1,600	3328	0	85.9	9.31-107	0			
Phenanthrene	2890	200	3328	0	86.8	31.2-127	0			
Phenol	2512	330	3328	0	75.5	25.9-90.3	0			
Pyrene	2834	200	3328	0	85.2	33.7-129	0			
Surr: 2,4,6-Tribromophenol	6381	0	*6656*	0	*95.9*	*14.2-136*	0			
Surr: 2-Fluorobiphenyl	3058	0	*3328*	0	*91.9*	*30-116*	0			
Surr: 2-Fluorophenol	4800	0	*6656*	0	*72.1*	*24-105*	0			
Surr: 4-Terphenyl-d14	2851	0	*3328*	0	*85.7*	*27.3-138*	0			
Surr: Nitrobenzene-d5	2715	0	*3328*	0	*81.6*	*23.7-109*	0			
Surr: Phenol-d5	5606	0	*6656*	0	*84.2*	*24.9-103*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **62492** Instrument ID **SVMS1** Method: **SW8270C**

msd Sample ID **1910507-05BMSD** Units: **µg/Kg** Analysis Date: **10/16/2019 03:21 PM**
Client ID: **BH-05 16-18** Run ID: **SVMS1_191015B** SeqNo: **2120416** Prep Date: **10/14/2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4-Trichlorobenzene	2502	330	3334	0	75	39-91.8	2530	1.13	18	
1,4-Dichlorobenzene	2525	330	3334	0	75.7	32.9-90	2654	4.98	20	
2,4-Dinitrotoluene	2876	330	3334	0	86.2	29.7-121	2911	1.21	20	
2-Chlorophenol	2578	330	3334	0	77.3	33.3-109	2690	4.26	20	
4-Chloro-3-methylphenol	2732	660	3334	0	81.9	35.8-116	2740	0.263	20	
4-Nitrophenol	2482	1,700	3334	0	74.4	34.1-120	2532	1.98	20	
Acenaphthene	2895	200	3334	0	86.8	44-108	2923	0.969	20	
Acenaphthylene	3083	200	3334	0	92.5	43.6-110	3073	0.308	20	
Anthracene	2981	200	3334	0	89.4	35.8-104	2985	0.135	24	
Benzo(a)anthracene	3057	100	3334	0	91.7	47-114	3042	0.506	21	
Benzo(a)pyrene	2955	100	3334	3.992	88.5	43.8-115	2933	0.744	20	
Benzo(b)fluoranthene	2912	200	3334	0	87.3	40-106	2955	1.48	20	
Benzo(g,h,i)perylene	2868	200	3334	9.98	85.7	38.2-110	2847	0.737	20	
Benzo(k)fluoranthene	3115	200	3334	0	93.4	48.6-107	3063	1.71	24	
Carbazole	2987	200	3334	0	89.6	28.5-114	2970	0.581	20	
Chrysene	2987	200	3334	0	89.6	44.3-97.5	2987	0.0232	19	
Dibenzo(a,h)anthracene	2963	100	3334	0	88.9	46-116	2939	0.833	20	
Fluoranthene	2885	200	3334	0	86.5	40.2-129	2861	0.827	20	
Fluorene	2690	200	3334	0	80.7	42.8-106	2673	0.623	20	
Indeno(1,2,3-cd)pyrene	3140	100	3334	0	94.2	33-115	3139	0.0301	20	
Naphthalene	2464	200	3334	0	73.9	18.2-126	2481	0.69	20	
N-Nitrosodi-n-propylamine	2618	330	3334	0	78.5	38.8-94.3	2793	6.48	17	
Pentachlorophenol	2838	1,700	3334	0	85.1	9.31-107	2859	0.713	20	
Phenanthrene	2888	200	3334	0	86.6	31.2-127	2890	0.0769	20	
Phenol	2473	330	3334	0	74.2	25.9-90.3	2512	1.57	17	
Pyrene	2822	200	3334	0	84.6	33.7-129	2834	0.413	20	
Surr: 2,4,6-Tribromophenol	6314	0	*6669*	0	*94.7*	*14.2-136*	6381	*1.05*		
Surr: 2-Fluorobiphenyl	3009	0	*3334*	0	*90.2*	*30-116*	3058	*1.62*		
Surr: 2-Fluorophenol	4410	0	*6669*	0	*66.1*	*24-105*	4800	*8.47*		
Surr: 4-Terphenyl-d14	2834	0	*3334*	0	*85*	*27.3-138*	2851	*0.597*		
Surr: Nitrobenzene-d5	2607	0	*3334*	0	*78.2*	*23.7-109*	2715	*4.04*		
Surr: Phenol-d5	5359	0	*6669*	0	*80.4*	*24.9-103*	5606	*4.51*		

The following samples were analyzed in this batch:

1910507-01B	1910507-02B	1910507-03B
1910507-04B	1910507-05B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171045** Instrument ID **VMS1** Method: **SW8260B**

MBLK Sample ID **BLK-R171045** Units: **µg/L** Analysis Date: **10/14/2019 10:48 AM**
Client ID: Run ID: **VMS1_191014A** SeqNo: **2117169** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R171045** Instrument ID **VMS1** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	5.0					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	2.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	58.47	0	*50*	0	*117*	*61-131*	0
Surr: Dibromofluoromethane	54.05	0	*50*	0	*108*	*87-126*	0
Surr: Toluene-d8	50.77	0	*50*	0	*102*	*89.7-116*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171045** Instrument ID **VMS1** Method: **SW8260B**

LCS Sample ID **LCS-R171045** Units: **µg/L** Analysis Date: **10/14/2019 11:10 AM**
Client ID: Run ID: **VMS1_191014A** SeqNo: **2117170** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.47	5.0	50	0	94.9	48.4-140	0			
1,1-Dichloroethene	54.62	5.0	50	0	109	45.5-150	0			
1,2-Dichloroethane	46.05	5.0	50	0	92.1	46.5-141	0			
1,3-Dichlorobenzene	44.46	5.0	50	0	88.9	42.5-133	0			
1,4-Dichlorobenzene	41.16	5.0	50	0	82.3	38.9-136	0			
Benzene	46.35	5.0	50	0	92.7	50.7-134	0			
Carbon tetrachloride	47.54	5.0	50	0	95.1	45.5-143	0			
Chlorobenzene	41.68	5.0	50	0	83.4	45-133	0			
Chloroform	50.15	5.0	50	0	100	52.4-136	0			
cis-1,2-Dichloroethene	51.19	5.0	50	0	102	49.7-138	0			
Ethylbenzene	42.72	5.0	50	0	85.4	37.8-145	0			
m,p-Xylene	89.93	10	100	0	89.9	25.1-163	0			
Methyl tert-butyl ether	60.95	5.0	50	0	122	26.7-174	0			
Styrene	43.29	5.0	50	0	86.6	26.3-172	0			
Tetrachloroethene	41.8	5.0	50	0	83.6	37.3-139	0			
Toluene	45.82	5.0	50	0	91.6	44-135	0			
Trichloroethene	45.5	5.0	50	0	91	45.9-140	0			
Xylenes, Total	134.2	15	150	0	89.5	47.3-132	0			
Surr: 4-Bromofluorobenzene	50.27	0	*50*	0	*101*	*61-131*	0			
Surr: Dibromofluoromethane	52.96	0	*50*	0	*106*	*87-126*	0			
Surr: Toluene-d8	50.57	0	*50*	0	*101*	*89.7-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171045** Instrument ID **VMS1** Method: **SW8260B**

MS Sample ID **1910261-02A MS** Units: **µg/L** Analysis Date: **10/14/2019 11:55 AM**
Client ID: Run ID: **VMS1_191014A** SeqNo: **2117172** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	40	5.0	50	0	80	40.4-134	0			
1,1-Dichloroethene	47.16	5.0	50	0	94.3	45.3-151	0			
1,2-Dichloroethane	38.72	5.0	50	0	77.4	37-139	0			
1,3-Dichlorobenzene	29.91	5.0	50	0	59.8	42.9-121	0			
1,4-Dichlorobenzene	29.11	5.0	50	0	58.2	53.4-129	0			
Benzene	39	5.0	50	0	78	37.4-144	0			
Carbon tetrachloride	39.32	5.0	50	0	78.6	33.8-150	0			
Chlorobenzene	31.54	5.0	50	0	63.1	52.4-132	0			
Chloroform	43.88	5.0	50	0	87.8	45.5-135	0			
cis-1,2-Dichloroethene	44.19	5.0	50	0	88.4	35.2-150	0			
Ethylbenzene	31.18	5.0	50	0	62.4	46.5-146	0			
m,p-Xylene	61.54	10	100	0	61.5	38.2-167	0			
Styrene	24.65	5.0	50	0	49.3	20.9-184	0			
Tetrachloroethene	31.22	5.0	50	0	62.4	55.2-134	0			
Toluene	36.28	5.0	50	0	72.6	32.7-140	0			
Trichloroethene	36.62	5.0	50	0	73.2	29.1-153	0			
Xylenes, Total	91.57	15	150	0	61	43.6-148	0			
Surr: 4-Bromofluorobenzene	51.35	0	*50*	0	*103*	*61-131*	0			
Surr: Dibromofluoromethane	54.36	0	*50*	0	*109*	*87-126*	0			
Surr: Toluene-d8	51.15	0	*50*	0	*102*	*89.7-116*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171045** Instrument ID **VMS1** Method: **SW8260B**

MSD Sample ID **1910261-02A MSD** Units: **µg/L** Analysis Date: **10/14/2019 12:18 PM**
Client ID: Run ID: **VMS1_191014A** SeqNo: **2117173** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	37.63	5.0	50	0	75.3	40.4-134	40	6.11	20	
1,1-Dichloroethene	42.94	5.0	50	0	85.9	45.3-151	47.16	9.37	20	
1,2-Dichloroethane	35.44	5.0	50	0	70.9	37-139	38.72	8.85	20	
1,3-Dichlorobenzene	34.17	5.0	50	0	68.3	42.9-121	29.91	13.3	20	
1,4-Dichlorobenzene	31.78	5.0	50	0	63.6	53.4-129	29.11	8.77	20	
Benzene	36.8	5.0	50	0	73.6	37.4-144	39	5.8	20	
Carbon tetrachloride	37.42	5.0	50	0	74.8	33.8-150	39.32	4.95	20	
Chlorobenzene	32.7	5.0	50	0	65.4	52.4-132	31.54	3.61	20	
Chloroform	40.21	5.0	50	0	80.4	45.5-135	43.88	8.73	20	
cis-1,2-Dichloroethene	40.65	5.0	50	0	81.3	35.2-150	44.19	8.35	21	
Ethylbenzene	32.96	5.0	50	0	65.9	46.5-146	31.18	5.55	20	
m,p-Xylene	67.59	10	100	0	67.6	38.2-167	61.54	9.37	20	
Styrene	28.94	5.0	50	0	57.9	20.9-184	24.65	16	20	
Tetrachloroethene	32.78	5.0	50	0	65.6	55.2-134	31.22	4.88	20	
Toluene	36.33	5.0	50	0	72.7	32.7-140	36.28	0.138	20	
Trichloroethene	36.49	5.0	50	0	73	29.1-153	36.62	0.356	20	
Xylenes, Total	100.8	15	150	0	67.2	43.6-148	91.57	9.56	20	
Surr: 4-Bromofluorobenzene	50.02	0	*50*	0	*100*	*61-131*	51.35	*2.62*		
Surr: Dibromofluoromethane	54.08	0	*50*	0	*108*	*87-126*	54.36	*0.516*		
Surr: Toluene-d8	50.27	0	*50*	0	*101*	*89.7-116*	51.15	*1.74*		

The following samples were analyzed in this batch: 1910507-06A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171073** Instrument ID **vms5** Method: **SW8260B**

mblk Sample ID **MBLK-R171073** Units: **µg/Kg** Analysis Date: **10/14/2019 09:00 AM**
Client ID: Run ID: **VMS5_191014A** SeqNo: **2117816** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R171073** Instrument ID **vms5** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	20					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	52.13	0	*50*	0	*104*	*62.7-159*	0
Surr: Dibromofluoromethane	50.77	0	*50*	0	*102*	*67.3-136*	0
Surr: Toluene-d8	50.12	0	*50*	0	*100*	*83-124*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R171073** Instrument ID **vms5** Method: **SW8260B**

lcs Sample ID **lcsr-R171073** Units: **µg/Kg** Analysis Date: **10/14/2019 10:40 AM**
Client ID: Run ID: **VMS5_191014A** SeqNo: **2117823** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	65.78	5.0	50	0	132	53.6-149	0			
1,1-Dichloroethene	67.18	5.0	50	0	134	38.8-176	0			
1,2-Dichloroethane	63.32	5.0	50	0	127	54.4-145	0			
1,3-Dichlorobenzene	59.82	5.0	50	0	120	54.2-137	0			
1,4-Dichlorobenzene	58.29	5.0	50	0	117	52.8-135	0			
Benzene	61.38	5.0	50	0	123	56-148	0			
Carbon tetrachloride	58.16	5.0	50	0	116	51.9-151	0			
Chlorobenzene	58.51	5.0	50	0	117	55.4-137	0			
Chloroform	62.5	5.0	50	0	125	51.1-147	0			
cis-1,2-Dichloroethene	65.77	5.0	50	0	132	47.6-149	0			
Ethylbenzene	61.88	5.0	50	0	124	55.8-142	0			
m,p-Xylene	127.9	10	100	0	128	57.6-141	0			
Styrene	60.64	5.0	50	0	121	59.6-143	0			
Tetrachloroethene	45.14	5.0	50	0	90.3	56.2-160	0			
Toluene	61	5.0	50	0	122	56-143	0			
Trichloroethene	60.2	5.0	50	0	120	56.5-143	0			
Surr: 4-Bromofluorobenzene	51.18	0	*50*	0	*102*	*62.7-159*	0			
Surr: Dibromofluoromethane	49.64	0	*50*	0	*99.3*	*67.3-136*	0			
Surr: Toluene-d8	50.67	0	*50*	0	*101*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171073** Instrument ID **vms5** Method: **SW8260B**

ms Sample ID **1910082-08a ms** Units: **µg/Kg** Analysis Date: **10/14/2019 09:48 AM**
Client ID: Run ID: **VMS5_191014A** SeqNo: **2117818** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	59.83	5.0	50	0	120	66.9-140	0			
1,1-Dichloroethene	60.86	5.0	50	0	122	41.4-161	0			
1,2-Dichloroethane	59.69	5.0	50	0	119	58.9-137	0			
1,3-Dichlorobenzene	53.77	5.0	50	0	108	56.3-126	0			
1,4-Dichlorobenzene	52.5	5.0	50	0	105	58.3-122	0			
Benzene	55.78	5.0	50	0	112	35.8-162	0			
Carbon tetrachloride	59.33	5.0	50	0	119	53.2-137	0			
Chlorobenzene	53.02	5.0	50	0	106	65.6-137	0			
Chloroform	56.11	5.0	50	0	112	58-130	0			
cis-1,2-Dichloroethene	59.39	5.0	50	0	119	52.9-138	0			
Ethylbenzene	55	5.0	50	0	110	57.5-134	0			
m,p-Xylene	115.8	10	100	0	116	56.4-135	0			
Styrene	56.29	5.0	50	0	113	60.9-135	0			
Tetrachloroethene	39.07	5.0	50	0	78.1	52.1-160	0			
Toluene	55.14	5.0	50	0	110	67.7-135	0			
Trichloroethene	53.68	5.0	50	0	107	56.5-136	0			
Surr: 4-Bromofluorobenzene	50.64	0	*50*	0	*101*	*62.7-159*	0			
Surr: Dibromofluoromethane	48.58	0	*50*	0	*97.2*	*67.3-136*	0			
Surr: Toluene-d8	51.05	0	*50*	0	*102*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171073** Instrument ID **vms5** Method: **SW8260B**

msd Sample ID **1910082-08a msd** Units: **µg/Kg** Analysis Date: **10/14/2019 10:08 AM**
Client ID: Run ID: **VMS5_191014A** SeqNo: **2117821** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	61.13	5.0	50	0	122	66.9-140	59.83	2.15	31.2	
1,1-Dichloroethene	62.76	5.0	50	0	126	41.4-161	60.86	3.07	38.1	
1,2-Dichloroethane	58.96	5.0	50	0	118	58.9-137	59.69	1.23	26.2	
1,3-Dichlorobenzene	53.1	5.0	50	0	106	56.3-126	53.77	1.25	21	
1,4-Dichlorobenzene	52.27	5.0	50	0	105	58.3-122	52.5	0.439	28.7	
Benzene	56.96	5.0	50	0	114	35.8-162	55.78	2.09	23.6	
Carbon tetrachloride	59.95	5.0	50	0	120	53.2-137	59.33	1.04	32.3	
Chlorobenzene	53.06	5.0	50	0	106	65.6-137	53.02	0.0754	20	
Chloroform	56.53	5.0	50	0	113	58-130	56.11	0.746	28.2	
cis-1,2-Dichloroethene	59.48	5.0	50	0	119	52.9-138	59.39	0.151	23.7	
Ethylbenzene	56.43	5.0	50	0	113	57.5-134	55	2.57	24.9	
m,p-Xylene	117.1	10	100	0	117	56.4-135	115.8	1.15	25.1	
Styrene	56.67	5.0	50	0	113	60.9-135	56.29	0.673	22.8	
Tetrachloroethene	40.03	5.0	50	0	80.1	52.1-160	39.07	2.43	24.7	
Toluene	56.3	5.0	50	0	113	67.7-135	55.14	2.08	20	
Trichloroethene	55.53	5.0	50	0	111	56.5-136	53.68	3.39	20	
Surr: 4-Bromofluorobenzene	50.45	0	*50*	0	*101*	*62.7-159*	50.64	*0.376*		
Surr: Dibromofluoromethane	48.78	0	*50*	0	*97.6*	*67.3-136*	48.58	*0.411*		
Surr: Toluene-d8	50.71	0	*50*	0	*101*	*83-124*	51.05	*0.668*		

The following samples were analyzed in this batch: 1910507-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171116** Instrument ID **vms5** Method: **SW8260B**

mblk Sample ID **MBLK-R171116** Units: **µg/Kg** Analysis Date: **10/15/2019 09:27 AM**
Client ID: Run ID: **VMS5_191015A** SeqNo: **2118695** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0								
1,1,1-Trichloroethane	ND	5.0								
1,1,2,2-Tetrachloroethane	ND	5.0								
1,1,2-Trichloroethane	ND	5.0								
1,1-Dichloroethane	ND	5.0								
1,1-Dichloroethene	ND	5.0								
1,1-Dichloropropene	ND	5.0								
1,2,3-Trichlorobenzene	ND	5.0								
1,2,3-Trichloropropane	ND	5.0								
1,2,4-Trichlorobenzene	ND	5.0								
1,2,4-Trimethylbenzene	ND	5.0								
1,2-Dibromo-3-chloropropane	ND	5.0								
1,2-Dibromoethane	ND	5.0								
1,2-Dichlorobenzene	ND	5.0								
1,2-Dichloroethane	ND	5.0								
1,2-Dichloropropane	ND	5.0								
1,3,5-Trimethylbenzene	ND	5.0								
1,3-Dichlorobenzene	ND	5.0								
1,3-Dichloropropane	ND	5.0								
1,4-Dichlorobenzene	ND	5.0								
2,2-Dichloropropane	ND	5.0								
2-Butanone	ND	50								
2-Chlorotoluene	ND	5.0								
2-Hexanone	ND	5.0								
4-Chlorotoluene	ND	5.0								
4-Methyl-2-pentanone	ND	5.0								
Acetone	ND	50								
Benzene	ND	5.0								
Bromobenzene	ND	5.0								
Bromochloromethane	ND	5.0								
Bromodichloromethane	ND	5.0								
Bromoform	ND	5.0								
Bromomethane	ND	5.0								
Carbon disulfide	ND	5.0								
Carbon tetrachloride	ND	5.0								
Chlorobenzene	ND	5.0								
Chloroethane	ND	5.0								
Chloroform	ND	5.0								
Chloromethane	ND	5.0								
cis-1,2-Dichloroethene	ND	5.0								
cis-1,3-Dichloropropene	ND	5.0								
Dibromochloromethane	ND	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

QC BATCH REPORT

Batch ID: **R171116** Instrument ID **vms5** Method: **SW8260B**

Dibromomethane	ND	5.0					
Dichlorodifluoromethane	ND	5.0					
Ethylbenzene	ND	5.0					
Hexachlorobutadiene	ND	5.0					
Isopropylbenzene	ND	5.0					
m,p-Xylene	ND	10					
Methyl tert-butyl ether	ND	5.0					
Methylene chloride	ND	20					
Naphthalene	ND	5.0					
n-Butylbenzene	ND	5.0					
n-Propylbenzene	ND	5.0					
o-Xylene	ND	5.0					
p-Isopropyltoluene	ND	5.0					
sec-Butylbenzene	ND	5.0					
Styrene	ND	5.0					
tert-Butylbenzene	ND	5.0					
Tetrachloroethene	ND	5.0					
Toluene	ND	5.0					
trans-1,2-Dichloroethene	ND	5.0					
trans-1,3-Dichloropropene	ND	5.0					
Trichloroethene	ND	5.0					
Trichlorofluoromethane	ND	5.0					
Vinyl chloride	ND	5.0					
Xylenes, Total	ND	15					
Surr: 4-Bromofluorobenzene	51.73	0	*50*	0	*103*	*62.7-159*	0
Surr: Dibromofluoromethane	59.17	0	*50*	0	*118*	*67.3-136*	0
Surr: Toluene-d8	48.98	0	*50*	0	*98*	*83-124*	0

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171116** Instrument ID **vms5** Method: **SW8260B**

lcs Sample ID **lcs-R171116** Units: **µg/Kg** Analysis Date: **10/15/2019 11:43 AM**
Client ID: Run ID: **VMS5_191015A** SeqNo: **2118696** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	44.55	5.0	50	0	89.1	53.6-149	0			
1,1-Dichloroethene	50.43	5.0	50	0	101	38.8-176	0			
1,2-Dichloroethane	44.57	5.0	50	0	89.1	54.4-145	0			
1,3-Dichlorobenzene	42.66	5.0	50	0	85.3	54.2-137	0			
1,4-Dichlorobenzene	42.11	5.0	50	0	84.2	52.8-135	0			
Benzene	45.2	5.0	50	0	90.4	56-148	0			
Carbon tetrachloride	43.63	5.0	50	0	87.3	51.9-151	0			
Chlorobenzene	44.41	5.0	50	0	88.8	55.4-137	0			
Chloroform	47.38	5.0	50	0	94.8	51.1-147	0			
cis-1,2-Dichloroethene	47.23	5.0	50	0	94.5	47.6-149	0			
Ethylbenzene	45.39	5.0	50	0	90.8	55.8-142	0			
m,p-Xylene	93.69	10	100	0	93.7	57.6-141	0			
Styrene	45.75	5.0	50	0	91.5	59.6-143	0			
Tetrachloroethene	36.34	5.0	50	0	72.7	56.2-160	0			
Toluene	44.11	5.0	50	0	88.2	56-143	0			
Trichloroethene	43.61	5.0	50	0	87.2	56.5-143	0			
Surr: 4-Bromofluorobenzene	49.29	0	*50*	0	*98.6*	*62.7-159*	0			
Surr: Dibromofluoromethane	51.48	0	*50*	0	*103*	*67.3-136*	0			
Surr: Toluene-d8	50.12	0	*50*	0	*100*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171116** Instrument ID **vms5** Method: **SW8260B**

ms Sample ID **1910501-02a ms** Units: **µg/Kg** Analysis Date: **10/15/2019 12:20 PM**
Client ID: Run ID: **VMS5_191015A** SeqNo: **2118697** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	44.78	5.0	50	0	89.6	66.9-140	0			
1,1-Dichloroethene	52.25	5.0	50	0	104	41.4-161	0			
1,2-Dichloroethane	45.72	5.0	50	0	91.4	58.9-137	0			
1,3-Dichlorobenzene	43.77	5.0	50	0	87.5	56.3-126	0			
1,4-Dichlorobenzene	42.94	5.0	50	0	85.9	58.3-122	0			
Benzene	46.41	5.0	50	0	92.8	35.8-162	0			
Carbon tetrachloride	44.9	5.0	50	0	89.8	53.2-137	0			
Chlorobenzene	45.15	5.0	50	0	90.3	65.6-137	0			
Chloroform	48.23	5.0	50	0	96.5	58-130	0			
cis-1,2-Dichloroethene	51.08	5.0	50	0	102	52.9-138	0			
Ethylbenzene	46.14	5.0	50	0	92.3	57.5-134	0			
m,p-Xylene	93.81	10	100	0	93.8	56.4-135	0			
Styrene	48.11	5.0	50	0	96.2	60.9-135	0			
Tetrachloroethene	36.73	5.0	50	0	73.5	52.1-160	0			
Toluene	44.97	5.0	50	0	89.9	67.7-135	0			
Trichloroethene	43.8	5.0	50	0	87.6	56.5-136	0			
Surr: 4-Bromofluorobenzene	49.92	0	*50*	0	*99.8*	*62.7-159*	0			
Surr: Dibromofluoromethane	51.08	0	*50*	0	*102*	*67.3-136*	0			
Surr: Toluene-d8	50.13	0	*50*	0	*100*	*83-124*	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Lawhon & Associates
Work Order: 1910507
Project: Kalamazoo Airport; 18-0486

QC BATCH REPORT

Batch ID: **R171116** Instrument ID **vms5** Method: **SW8260B**

msd Sample ID **1910501-02a msd** Units: **µg/Kg** Analysis Date: **10/15/2019 12:40 PM**
Client ID: Run ID: **VMS5_191015A** SeqNo: **2118698** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1-Trichloroethane	47.34	5.0	50	0	94.7	66.9-140	44.78	5.56	31.2	
1,1-Dichloroethene	55.57	5.0	50	0	111	41.4-161	52.25	6.16	38.1	
1,2-Dichloroethane	49.02	5.0	50	0	98	58.9-137	45.72	6.97	26.2	
1,3-Dichlorobenzene	46.79	5.0	50	0	93.6	56.3-126	43.77	6.67	21	
1,4-Dichlorobenzene	44.9	5.0	50	0	89.8	58.3-122	42.94	4.46	28.7	
Benzene	48.81	5.0	50	0	97.6	35.8-162	46.41	5.04	23.6	
Carbon tetrachloride	46.08	5.0	50	0	92.2	53.2-137	44.9	2.59	32.3	
Chlorobenzene	46.48	5.0	50	0	93	65.6-137	45.15	2.9	20	
Chloroform	53.33	5.0	50	0	107	58-130	48.23	10	28.2	
cis-1,2-Dichloroethene	61.97	5.0	50	0	124	52.9-138	51.08	19.3	23.7	
Ethylbenzene	48.48	5.0	50	0	97	57.5-134	46.14	4.95	24.9	
m,p-Xylene	98.35	10	100	0	98.4	56.4-135	93.81	4.73	25.1	
Styrene	50.55	5.0	50	0	101	60.9-135	48.11	4.95	22.8	
Tetrachloroethene	37.83	5.0	50	0	75.7	52.1-160	36.73	2.95	24.7	
Toluene	47.47	5.0	50	0	94.9	67.7-135	44.97	5.41	20	
Trichloroethene	46.46	5.0	50	0	92.9	56.5-136	43.8	5.89	20	
Surr: 4-Bromofluorobenzene	49.05	0	*50*	0	*98.1*	*62.7-159*	49.92	*1.76*		
Surr: Dibromofluoromethane	51.7	0	*50*	0	*103*	*67.3-136*	51.08	*1.21*		
Surr: Toluene-d8	49.91	0	*50*	0	*99.8*	*83-124*	50.13	*0.44*		

The following samples were analyzed in this batch:

1910507-02a	1910507-03a	1910507-04a
1910507-05a	1910507-07a	1910507-08a
1910507-09a	1910507-10a	1910507-11a
1910507-12a		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 21-Oct-19

Client: Lawhon & Associates
Project: Kalamazoo Airport; 18-0486
WorkOrder: **1910507**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
E	EPA Method
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit
SW	SW-846 Method

Units Reported	Description
% of sample	
µg/L	
mg/Kg-dry	
mg/L	

ALS Environmental

Sample Receipt Checklist

Client Name: **LAWHON-COLUMBUS** Date/Time Received: **10-Oct-19 00:00**

Work Order: **1910507** Received by: **SRM**

Checklist completed by Jan Wilcox 11-Oct-19 Reviewed by: Shawn Smythe 21-Oct-19

eSignature | Date | eSignature | Date

Matrices:

Carrier name: ALSHN

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.5		
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	_		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Field Chain-of-Custody Record

Page 1 of 2

54136 REV 10/2017

Ship To: ALS | Environmental
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

1910507

REGULAR Status ☑ RUSH Status ☐ RESULTS REQUIRED BY: (Date) ____
CONTACT ALS ENVIRONMENTAL PRIOR TO SENDING SAMPLES

OH VAP: ☐ YES ☒ NO BUSTR: ☐ YES ☒ NO NELAC: ☐ YES ☒ NO

Date: 10/8/19
Company Name: Lawhon & Assoc
Address: 1441 King Avenue
Columbus (City) Ohio (State) 43212 (Zip)
Person to Contact: John Korth
Email Address: jkorth@lawhon-assoc.com
Telephone (x14): 487-8600
Alternate Contact: tberger@lawhon-assoc.com

Purchase Order No.: Lawhon MSA
Project No.: 18-0486
Sampling Site: Kalamazoo Airport
Billing Address (if different): ____

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	VOC	SVOC	TPH (GRO & DRO)	Organochlorine pesticides	PCB	RCRA 8 metals	RCRA metals			
01	BH-01 10-12'	10/8/19	1420	9	S	5	X	X	X	X	X	X				
02	BH-02 18-20		1513				X	X	X	X	X	X				
03	BH-03 12-14'		1550				X	X	X	X	X	X				
04	BH-04 16-18'		~~1640~~ 1640				X	X	X	X	X	X				
05	BH-05 16-18'		1735				X	X	X	X	X	X				
06	TWP-1		1820		W	5	X	X			X		X			
07	FAA-1		09:05		S	2	X				X					
08	FAA-2		0940				X				X					
09	FAA-3		0950				X				X					
10	FAA-4		0954				X				X					

Notes: Field PID Range: 0.378 - 3.375 ppm

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
John Korth	1410/19	J Montgomery	10/10/19 11am
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: 3.5 °C TAKEN WITH IR#: (119063) 119059

COOLING METHOD: NONE (COOLER) (WET ICE) DRY ICE ICE PACK

DELIVERY METHOD: CLIENT DROP BOX FEDEX UPS STD MAIL PRTY MAIL (ALS) (COURIER) OTHER: ____

CUSTODY SEALS: (NOT REQUIRED) COOLER PACKAGE SAMPLES

pH ADJUSTMENTS:

Field Chain-of-Custody Record

Page 2 of 2

54137

REV 10/2017

Ship To: ALS | Environmental
4388 Glendale Milford Rd.
Cincinnati, Ohio 45242
Phone: (513) 733-5336
Fax: (513) 733-5347

1910507

[X] REGULAR Status [ ] RUSH Status — RESULTS REQUIRED BY: (Date) — CONTACT ALS ENVIRONMENTAL PRIOR TO SENDING SAMPLES

OH VAP: [ ] YES [X] NO BUSTR: [ ] YES [X] NO NELAC: [ ] YES [X] NO

Date: 10/8/19
Company Name: Lawhon & Assoc.
Address: 1441 King Avenue
Columbus (City) Ohio (State) 43212 (Zip)
Person to Contact: John Korth
Email Address: jkorth@lawhon-assoc.com
Telephone (614): 481-8600
Alternate Contact: tberger@lawhon-assoc.com

Purchase Order No.: Lawhon MSA
Project No.: 18-0486
Sampling Site: Kalamazoo Airport
Billing Address (if different):

ALS Lab ID	Sample ID / Description	Date	Time	Preservation Key #	Sample Type / Matrix Key Abbr.	# of Sample Containers	ANALYSIS REQUESTED: VOC	PCB
11	FAA-5	10/8/19	10:37	4	S	2	X	X
12	FAA-6	1	1304	1	1	1	X	X

Notes:

Preservation Key: 1 - HCl 2 - HNO_3 3 - H_2SO_4 4 - NaOH 5 - $Na_2S_2O_3$ 6 - $NaHSO_4$ 7 - NaOH/ZnAcetate 8 - Other 9 - 4°C

Matrix Key: A - Air B - Bulk S - Soil W - Water

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
John Korth	10/10/19	J Montgomery	10/10/19 11am
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date
Relinquished By: (Signature)	Time / Date	Received By: (Signature)	Time / Date

ALS LAB USE ONLY

COOLER TEMP: 3.5 °C TAKEN WITH IR#: (119063) 119059

COOLING METHOD: NONE (COOLER) WET ICE DRY ICE ICE PACK

DELIVERY METHOD: CLIENT (DROP BOX) FEDEX UPS STD MAIL PRTY MAIL (ALS COURIER) OTHER:

CUSTODY SEALS: (NOT REQUIRED) COOLER PACKAGE SAMPLES

pH ADJUSTMENTS:

Appendix D

Pre-Demolition Asbestos Containing Materials and Lead Paint Survey

PRE-DEMOLITION ASBESTOS CONTAINING MATERIALS AND LEAD PAINT SURVEY

Runway 17/35 RIM Extension and Railroad Relocation
Kalamazoo/Battle Creek International Airport
Kalamazoo, Michigan

(L&A Project 18-0486)

Prepared for:

Mr. William Ballard
Project Manager
Mead & Hunt, Inc.
2605 Port Lansing Road
Lansing, MI 48906
(517) 321-8334

Prepared by:

Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212
(614) 481-8600

October 23, 2019

Table of Contents

Schedule of Appendices

Limited Asbestos Containing Materials and Lead Paint Survey
Runway 17/35 RIM Extension and Railroad Relocation
Kalamazoo, Michigan

1.0 Introduction

Lawhon & Associates, Inc. (L&A) conducted a limited Asbestos Containing Materials and Lead Based Paint Survey of the Kalamazoo/Battle Creek International Airport located at 5235 Portage Road, Kalamazoo, Michigan. The survey was conducted on October 8, 2019 by Mr. John Korth (Michigan Department of Licensing and Regulatory Affairs #A52657). The consultant's certifications are attached in **Appendix A**.

The purpose of the inspection was to determine the presence of asbestos containing materials (ACMs) and lead based paint located at the property which is scheduled to be impacted prior to demolition activities. This report conforms to the requirements of the Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP). This report should not to be construed as a remediation design.

2.0 Asbestos Containing Materials

Asbestos containing materials are governed by the Environmental Protection Agency's (EPA) National Emission Standards of Hazardous Air Pollutants (NESHAP) during a demolition. These materials are defined as containing greater than one percent asbestos. The Occupational Safety and Health Administration (OSHA) govern building materials containing any amount of asbestos.

The Clean Air Act (CAA) of 1970 required the EPA to develop and enforce regulations to protect the general public from exposure to airborne contaminants that are known to be hazardous to human health; therefore, EPA promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) (Title 40, CFR Part 61) on April 6, 1973. NESHAP is intended to minimize the release of asbestos fibers during certain activities (i.e., renovations, demolition, and installations). It specifies work practices to be followed during renovations of buildings (except apartment buildings that have no more than four dwelling units), which contain a specific amount of friable asbestos. NESHAP requires that buildings be inspected for asbestos containing building materials (ACBM) prior to demolition projects regardless of the age of the structure.

NESHAP also requires owners and operators subject to the asbestos rules to notify delegated state and local agencies and/or the regional EPA offices before demolition or renovation activities begin. In addition, NESHAP requires the removal of all regulated asbestos containing materials (RACM) prior to demolition. Regulated Asbestos-Containing Materials (RACM) are (a) friable asbestos material, which are materials easily reduced to powder with hand pressure (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations. (Category I non-friable materials consist of materials such as resilient floor covering products, roofing products, gaskets, and packing. Category II non-friable materials consist of all other non-friable materials such as transite.). NESHAP also

requires all ACM (including Category I and II) be removed prior to intentional burning, such as for a fire department training exercise.

The Michigan Department of Licensing and Regulatory Affairs (MDLRA) regulates asbestos activities within the state. Professionals performing asbestos related activities must be certified/ licensed.

2.1 Methodology

A list of suspect ACMs was compiled from the investigation of the building. Materials were categorized into RACM, Category I and Category II materials. L&A inventoried and procured select confirmatory samples of materials that must be removed prior to demolition/renovation.

Materials suspected of containing asbestos were grouped into homogeneous areas for bulk sampling purposes. A homogeneous area is composed of specific material that appears to be the same in color, texture, date of installation or location (e.g., grey spray-applied fireproofing in a specific construction unit).

The number of bulk samples to be procured for each identified homogeneous area of suspected Surfacing Materials, Thermal System Insulations, and Miscellaneous Materials were determined in accordance with 40 CFR 763.

Specifically, Friable and Nonfriable Surfacing Materials (i.e., fireproofing, acoustical plaster, decorative plaster, hard plaster, and textured coatings) were sampled following the guidelines set forth by the USEPA in the document "Asbestos in Buildings - Simplified Sampling Scheme Friable Surfacing Materials." Based upon the square footage of the homogenous surfacing materials, either a minimum of 3, 5, or 7 bulk samples were randomly procured and analyzed. For Thermal System Insulation (TSI), at least 3 random samples of each homogeneous area of TSI were procured and analyzed and 1 sample of patched TSI if it was <6 linear or square feet. For Miscellaneous Materials (MM), at least 2 random samples of each homogeneous area of MM were procured and analyzed.

Samples were placed into clean sealed containers and identified with a unique sample number. Sampling tools were decontaminated between each sampling episode.

All samples were sent to certified National Voluntary Lab Accredited Program laboratories. The lab utilized for bulk sample Polarized Light Microscopy (PLM) analysis for this assessment was International Asbestos Testing Laboratories, IATL (NVLAP # 101165-0) located at 9000 Commerce Parkway, Mt. Laurel, NJ 08054. Samples were analyzed by the EPA Polarized Light Microscopy (PLM) 600 Method. Samples reported with low concentrations of asbestos, <10% asbestos content, were reanalyzed using the EPA Point Count Method to determine a more accurate content.

3.0 Asbestos Containing Material Summaries

The following tables present ACM summaries. A bulk sample diagram depicting where samples were collected can be found in **Appendix B**. A bulk sample summary form summarizing the asbestos bulk samples collected and analyzed is attached in **Appendix C**. Laboratory analysis certificates and chain of custody information can be found in **Appendix D.**

3.1 Confirmed Asbestos Containing Materials

No materials sampled as part of this assessment were identified as containing asbestos.

3.2 Assumed Asbestos Containing Materials

All suspect asbestos containing materials were sampled and analyzed; therefore, no building materials are assumed to contain asbestos.

3.3 Non-Asbestos Containing Materials

The following is a list of materials sampled with laboratory analysis revealing No Asbestos Detected (NAD) for the entire homogenous area number. Reference **Appendices D** for sample information and laboratory data.

Non-Asbestos Containing Materials	
FAA Structure #1	
12” Grey Mottle Floor Tile and Tan Mastic	Interior Clear Caulk
Exterior White Caulk	
FAA Structure #2	
12” Grey Mottle Floor Tile and Tan Mastic	Interior Clear Caulk
Exterior White Caulk	
FAA Structure #3	
12” Brown Streak Floor Tile and Black/Tan Mastic	Exterior White Caulk
Asphalt Roof Shingles	
FAA/Water Structure #3	
Pipe Fitting	
Exterior White Caulk	

4.0 Lead Based Paint

L&A conducted limited lead-based paint testing at the property. The lead-based paint testing was conducted by Mr. John Korth on October 8, 2019. The intent of the testing was to determine if lead based paint will be disturbed as part of the demolition project for general compliance with the OSHA Lead in Construction Standard 1926.62 and should not be construed as a full Lead Based Paint Inspection as defined by HUD.

L&A collected bulk paint chip samples in individually labeled containers. Samples were sent to an ELLAP accredited laboratory for analysis by Atomic Absorption Spectroscopy (AAS) utilizing the ASTM method D3335-85a, 2009. Laboratory certification can be found in **Appendix D.** The sampling was limited to the FAA structures proposed for demolition. The following table contains the results of the survey.

Lead Based Paint Results

Sample Number	Sample Location	Sample Results (Lead by Weight %)
FA-01	Exterior of FAA Structure #1	<0.0069
FA-02	Exterior of FAA Structure #2	<0.0078
FA-03	Tower at FAA Structure #2	9.9
FA-04	Transformer Box	4.2
FA-05	Metal Support for Transformer Box	0.11
FA-06	Interior of FAA Structure #3	0.10
FA-07	Exterior of FAA Structure #3	2.5

5.0 Conclusions

L&A conducted a limited Asbestos Containing Materials and Lead Based Paint Survey of the Kalamazoo/Battle Creek International Airport located at 5235 Portage Road, Kalamazoo, Michigan. The survey was conducted on October 8, 2019 by Mr. John Korth. The purpose of the inspection was to determine the presence of asbestos containing materials (ACMs) and lead based paint located at the property which is scheduled to be impacted prior to demolition activities. This report conforms to the requirements of the EPA NESHAP. This report should not to be construed as a remediation design.

5.1 Asbestos Containing Materials Summary

Laboratory analyses of all the surveyed materials were reported as “No Asbestos Detected”.

5.2 Lead Based Paint Summary

The United States Environmental Protection Agency (EPA) and HUD define lead-based paint as that which contains equal to or in excess of **0.5%** lead by weight. All work procedures impacting or disturbing the above listed components coated with lead-based paint throughout the property needs to be performed by all contractors/ workers in accordance with OSHA Standard 29 Code of Federal Regulations (CFR) 1926.62 lead exposure in construction. It is recommended that

all contractors that impact painted building materials perform personal air monitoring on their employees to ensure that they are not being exposed to lead above the Action Level (AL) or Permissible Exposure Limit (PEL) or maintain a negative exposure assessment.

The following components were identified as coated with paint containing lead at concentrations greater than 0.5% lead by weight: All contractors impacting these surfaces are required to adhere to OSHA 1926.62, lead in construction standard.

- Tower at FAA Structure #2
- Transformer Box
- Exterior of FAA Structure #3

If you have any further questions, please contact Mr. Korth or Mr. Berger at (614) 481-8600.

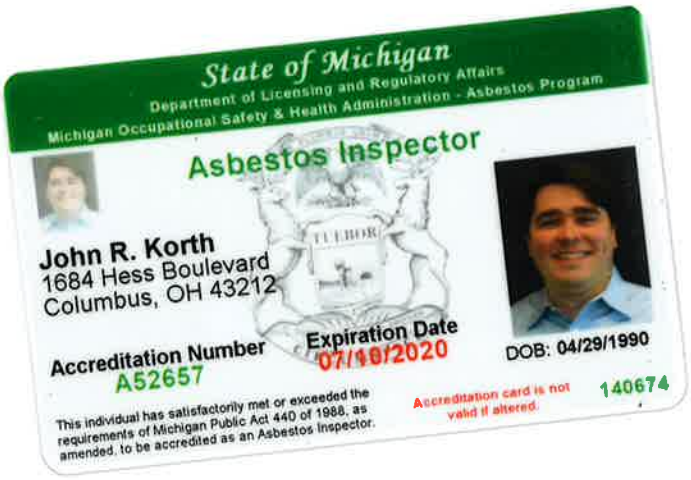
Sincerely,

Trevor Berger
Northeast Ohio Regional Manager

John Korth, #A52657
Environmental Scientist

APPENDIX A

Inspectors' Certifications



John R. Korth

Inspector

A52657

07/10/2020

140674


State of Michigan
Department of Licensing and Regulatory Affairs
Michigan Occupational Safety & Health Administration - Asbestos Program
Asbestos Management Planner
John R. Korth
1684 Hess Boulevard
Columbus, OH 43212
Accreditation Number
A52657
Expiration Date
07/10/2020
DOB: 04/29/1990
This individual has satisfactorily met or exceeded the requirements of Section 206 of the Toxic Substances Control Act to be accredited in the above discipline.
Accreditation card is not valid if altered.
140675

John R. Korth

Management Planner

A52657 07/10/2020

140675

APPENDIX B

Bulk Sample Diagram

Sample Locations

Bulk Sample Diagram

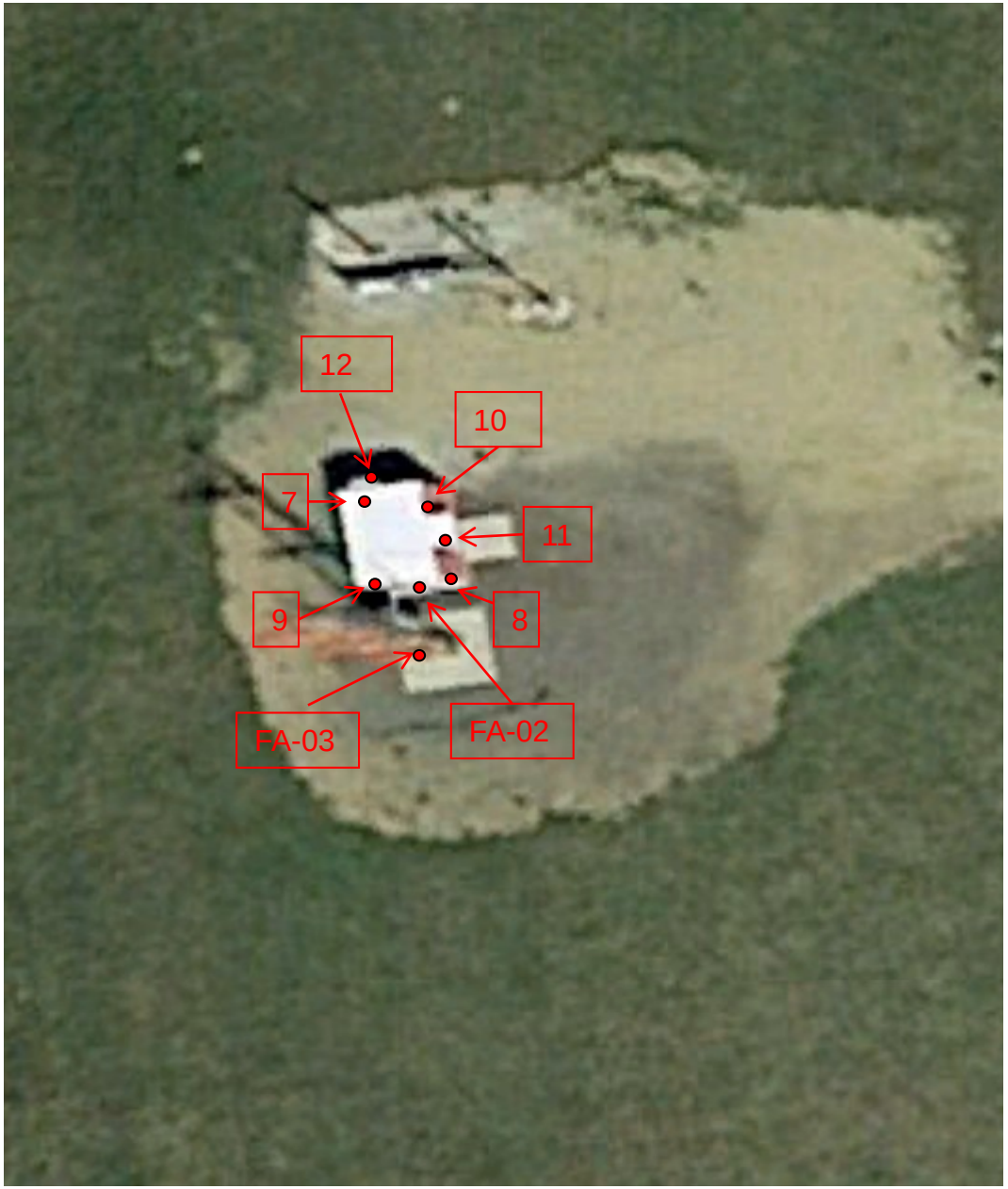
Site: Kalamazoo/Battle Creek International Airport

Address: 5235 Portage Road, Kalamazoo, Michigan

Date Sampled: October 8, 2019

Surveyor: John Korth, #A52657

Signatures:



Sample Locations

Bulk Sample Diagram

Site: Kalamazoo/Battle Creek International Airport

Address: 5235 Portage Road, Kalamazoo, Michigan

Date Sampled: October 8, 2019

Surveyor: John Korth, #A52657

Signatures:

Sample Locations

Bulk Sample Diagram
Site: Kalamazoo/Battle Creek International Airport
Address: 5235 Portage Road, Kalamazoo, Michigan
Date Sampled: October 8, 2019
Surveyor: John Korth, #A52657
Signatures:

Sample Locations

Bulk Sample Diagram

Site: Kalamazoo/Battle Creek International Airport

Address: 5235 Portage Road, Kalamazoo, Michigan

Date Sampled: October 8, 2019

Surveyor: John Korth, #A52657

Signatures:

Sample Locations

Bulk Sample Diagram

Site: Kalamazoo/Battle Creek International Airport

Address: 5235 Portage Road, Kalamazoo, Michigan

Date Sampled: October 8, 2019

Surveyor: John Korth, #A52657

Signatures:

APPENDIX C

Asbestos and Lead Bulk Sample Summary

BULK SAMPLE SUMMARY

Runway 17/35 RIM Extension and Railroad Relocation

Kalamazoo, Michigan

Asbestos Samples				
Sample Number	**Hom. Area #**	**Material Sampled**	**Sample Location**	**Percent Asbestos**
1a 1b	1	12” Grey Mottle Floor Tile Tan Mastic	FAA Structure #1 - South	None Detected None Detected
2a 2b	1	12” Grey Mottle Floor Tile Tan Mastic	FAA Structure #1 - South	None Detected None Detected
3	2	Interior Clear Caulk	FAA Structure #1 - South	None Detected
4	2	Interior Clear Caulk	FAA Structure #1 - South	None Detected
5	3	Exterior White Caulk	FAA Structure #1 - South	None Detected
6	3	Exterior White Caulk	FAA Structure #1 - South	None Detected
7a 7b	4	12” Grey Mottle Floor Tile Tan Mastic	FAA Structure #2 - Central	None Detected None Detected
8a 8b	4	12” Grey Mottle Floor Tile Tan Mastic	FAA Structure #2 - Central	None Detected None Detected
9	5	Interior Clear Caulk	FAA Structure #2 - Central	None Detected
10	5	Interior Clear Caulk	FAA Structure #2 - Central	None Detected
11	6	Exterior White Caulk	FAA Structure #2 - Central	None Detected
12	6	Exterior White Caulk	FAA Structure #2 - Central	None Detected
13a 13b	7	12” Brown Streak Floor Tile Black/Tan Mastic	FAA Structure #3 - North	None Detected None Detected
14a 14b	7	12” Brown Streak Floor Tile Black/Tan Mastic	FAA Structure #3 - North	None Detected None Detected

Bold text denotes an Asbestos Containing Material; as defined by EPA and OSHA

Italic Text denotes an Material Containing Less than 1% Asbestos; for OSHA only

Legend

Abbreviation:	**Definition:**	**Abbreviation:**	**Definition:**
NAD	No Asbestos Detected	PC	Point Count Method Utilized
SNA	Sample Not Analyzed		

BULK SAMPLE SUMMARY

Runway 17/35 RIM Extension and Railroad Relocation

Kalamazoo, Michigan

Asbestos Samples				
Sample Number	**Hom. Area #**	**Material Sampled**	**Sample Location**	**Percent Asbestos**
15	8	Exterior White Caulk	FAA Structure #3 - North	None Detected
16	8	Exterior White Caulk	FAA Structure #3 - North	None Detected
17	9	Asphalt Roofing Shingle	FAA Structure #3 - North	None Detected
18	9	Asphalt Roofing Shingle	FAA Structure #3 - North	None Detected
19	10	Pipe Fitting Insulation	Water Structure – Vent Line	None Detected
20	10	Pipe Fitting Insulation	Water Structure – Vent Line	None Detected
21	10	Pipe Fitting Insulation	Water Structure – Vent Line	None Detected
22	11	Exterior White Caulk	Water Structure	None Detected
23	11	Exterior White Caulk	Water Structure	None Detected

Lead Samples		
Sample Number	**Sample Location**	**Sample Results (Lead by Weight %)**
FA-01	Exterior of FFA Structure #1	<0.0069
FA-02	Exterior of FFA Structure #2	<0.0078
FA-03	Tower at FAA Structure #2	9.9
FA-04	Transformer Box	4.2
FA-05	Metal Support for Transformer Box	0.11
FA-06	Interior of FFA Structure #3	0.10
FA-07	Exterior of FFA Structure #3	2.5

Bold text denotes an Asbestos Containing Material; as defined by EPA and OSHA

Italic Text denotes an Material Containing Less than 1% Asbestos; for OSHA only

Legend

Abbreviation:	**Definition:**	**Abbreviation:**	**Definition:**
NAD	No Asbestos Detected	PC	Point Count Method Utilized
SNA	Sample Not Analyzed		

APPENDIX D

Asbestos and Lead Laboratory Analysis Certificates

&

Chain of Custody

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/15/2019
Report No.: 601734 - PLM
Project: Kalamazoo Airport
Project No.: 18-0486

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6896845 **Analyst Observation:** White/Grey Floor Tile **Location:** FAA Structure #1- South
Client No.: 1 **Client Description:** 12" Grey Mottle FT And Tan Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896845(L2) **Analyst Observation:** Yellow Mastic **Location:** FAA Structure #1- South
Client No.: 1 **Client Description:** 12" Grey Mottle FT And Tan Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896846 **Analyst Observation:** White/Grey Floor Tile **Location:** FAA Structure #1- South
Client No.: 2 **Client Description:** 12" Grey Mottle FT And Tan Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896846(L2) **Analyst Observation:** Yellow Mastic **Location:** FAA Structure #1- South
Client No.: 2 **Client Description:** 12" Grey Mottle FT And Tan Mastic **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896847 **Analyst Observation:** White Caulk **Location:** FAA Structure #1- South
Client No.: 3 **Client Description:** Interior Caulk- Clear **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896848 **Analyst Observation:** White Caulk **Location:** FAA Structure #1- South
Client No.: 4 **Client Description:** Interior Caulk- Clear **Facility:**

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/11/2019
Date Analyzed: 10/15/2019
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/15/2019
Report No.: 601734 - PLM
Project: Kalamazoo Airport
Project No.: 18-0486

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6896849
Client No.: 5
Analyst Observation: Clear Caulk
Client Description: Exterior Caulk- White
Location: FAA Structure #1- South
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896850
Client No.: 6
Analyst Observation: Clear/White Caulk
Client Description: Exterior Caulk- White
Location: FAA Structure #1- South
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896851
Client No.: 7
Analyst Observation: Grey/White Floor Tile
Client Description: 12" Grey Mottle FT And Tan Mastic
Location: FAA Structure #2- Central
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896851(L2)
Client No.: 7
Analyst Observation: Yellow Mastic
Client Description: 12" Grey Mottle FT And Tan Mastic
Location: FAA Structure #2- Central
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896852
Client No.: 8
Analyst Observation: Grey/White Floor Tile
Client Description: 12" Grey Mottle FT And Tan Mastic
Location: FAA Structure #2- Central
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896852(L2)
Client No.: 8
Analyst Observation: Yellow Mastic
Client Description: 12" Grey Mottle FT And Tan Mastic
Location: FAA Structure #2- Central
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/11/2019
Date Analyzed: 10/15/2019
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/15/2019
Report No.: 601734 - PLM
Project: Kalamazoo Airport
Project No.: 18-0486

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6896853
Client No.: 9
Analyst Observation: White Caulk
Client Description: Interior Caulk- Clear
Location: FAA Structure #2- Central
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896854
Client No.: 10
Analyst Observation: White Caulk
Client Description: Interior Caulk- Clear
Location: FAA Structure #2- Central
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896855
Client No.: 11
Analyst Observation: Clear Caulk
Client Description: Exterior Caulk- White
Location: FAA Structure #2- Central
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896856
Client No.: 12
Analyst Observation: Clear Caulk
Client Description: Exterior Caulk- White
Location: FAA Structure #2- Central
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896857
Client No.: 13
Analyst Observation: Brown Floor Tile
Client Description: 12" Brown Streak With Tan/ Black Mastic
Location: FAA Structure #3- North
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896857(L2)
Client No.: 13
Analyst Observation: Black/Yellow Mastic
Client Description: 12" Brown Streak With Tan/ Black Mastic
Location: FAA Structure #3- North
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 5 Cellulose
Percent Non-Fibrous Material: 95

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/11/2019
Date Analyzed: 10/15/2019
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/15/2019
Report No.: 601734 - PLM
Project: Kalamazoo Airport
Project No.: 18-0486

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6896858
Client No.: 14
Analyst Observation: Brown Floor Tile
Client Description: 12" Brown Streak With Tan/ Black Mastic
Location: FAA Structure #3- North
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896858(L2)
Client No.: 14
Analyst Observation: Yellow Mastic
Client Description: 12" Brown Streak With Tan/ Black Mastic
Location: FAA Structure #3- North
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896859
Client No.: 15
Analyst Observation: White Caulk
Client Description: Exterior Caulk- White
Location: FAA Structure #3- North
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896860
Client No.: 16
Analyst Observation: White Caulk
Client Description: Exterior Caulk- White
Location: FAA Structure #3- North
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Lab No.: 6896861
Client No.: 17
Analyst Observation: Black Shingle
Client Description: Roofing Asphalt Shingles
Location: FAA Structure #3- North
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: 5 Fibrous Glass
Percent Non-Fibrous Material: 95

Lab No.: 6896861(L2)
Client No.: 17
Analyst Observation: Black Tar
Client Description: Roofing Asphalt Shingles
Location: FAA Structure #3- North
Facility:

Percent Asbestos: *None Detected*
Percent Non-Asbestos Fibrous Material: None Detected
Percent Non-Fibrous Material: 100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/11/2019
Date Analyzed: 10/15/2019
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/15/2019
Report No.: 601734 - PLM
Project: Kalamazoo Airport
Project No.: 18-0486

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6896862
Client No.: 18
Analyst Observation: Black Shingle
Client Description: Roofing Asphalt Shingles
Location: FAA Structure #3- North
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
5 Fibrous Glass

Percent Non-Fibrous Material:
95

Lab No.: 6896862(L2)
Client No.: 18
Analyst Observation: Black Tar
Client Description: Roofing Asphalt Shingles
Location: FAA Structure #3- North
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Lab No.: 6896863
Client No.: 19
Analyst Observation: White Insulation
Client Description: Pipe Fitting Insulation
Location: Water Structure- Vent Line
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
5 Mineral Wool

Percent Non-Fibrous Material:
95

Lab No.: 6896864
Client No.: 20
Analyst Observation: White Insulation
Client Description: Pipe Fitting Insulation
Location: Water Structure- Vent Line
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
5 Mineral Wool

Percent Non-Fibrous Material:
95

Lab No.: 6896865
Client No.: 21
Analyst Observation: White Insulation
Client Description: Pipe Fitting Insulation
Location: Water Structure- Vent Line
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
5 Mineral Wool

Percent Non-Fibrous Material:
95

Lab No.: 6896866
Client No.: 22
Analyst Observation: White Caulk
Client Description: Exterior Caulk- White
Location: Water Structure- Vent Line
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/11/2019
Date Analyzed: 10/15/2019
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

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CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/15/2019
Report No.: 601734 - PLM
Project: Kalamazoo Airport
Project No.: 18-0486

PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6896867
Client No.: 23

Analyst Observation: Grey/Brown Caulk
Client Description: Exterior Caulk- White

Location: Water Structure- Vent Line
Facility:

Percent Asbestos:
None Detected

Percent Non-Asbestos Fibrous Material:
None Detected

Percent Non-Fibrous Material:
100

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/11/2019
Date Analyzed: 10/15/2019
Signature:
Analyst: Michael Moore

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

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Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
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CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/15/2019
Report No.: 601734 - PLM
Project: Kalamazoo Airport
Project No.: 18-0486

Appendix to Analytical Report

Customer Contact:
Method: 40 CFR Appendix E to Subpart E of Part 763, interim method for the Determination of Asbestos in Bulk Insulation Samples, and USEPA 600, R93-116 as needed.

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager: wchampion@iatl.com
iATL Account Representative: Shirley Clark
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Bulk Building Materials
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

Information Pertinent to this Report:

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. PC Trace represents a <0.25% amount. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

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CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/15/2019
Report No.: 601734 - PLM
Project: Kalamazoo Airport
Project No.: 18-0486

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process)
Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

1) Note: No mastic provided for analysis.
2) Note: Insufficient mastic provided for analysis.
3) Note: Insufficient material provided for analysis.
4) Note: Insufficient sample provided for QC reanalysis.
5) Note: Different material than indicated on Sample Log / Description.
6) Note: Sample not submitted.
7) Note: Attached to asbestos containing material.
8) Note: Received wet.
9) Note: Possible surface contamination.
10) Note: Not building material. 1% threshold may not apply.
11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
12) Note: Asbestos detected but not quantifiable.
13) Note: Multiple identical samples submitted, only one analyzed.
14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.
16) Note: This sample contains >10% vermiculite mineral. See Appendix for Recommendations for Vermiculite Analysis.

Recommendations for Vermiculite Analysis:

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites).Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

For New York State customers, NYSDOH requires disclaimers and qualifiers for various vermiculite containing samples that direct analysis via ELAP198.6 and ELAP198.8 for samples that contain >10% vermiculite mineral where ELAP198.6 may be used to evaluate the asbestos content of the material. However, any test result using ELAP198.6 will be reported with the following disclaimer: “ELAP198.6 method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing >10% vermiculite.”

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1)**Analytical Step/Method:** Initial Screening by PLM, EPA 600R-93/116
Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.

2)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/15/2019
Report No.: 601734 - PLM
Project: Kalamazoo Airport
Project No.: 18-0486

3)**Analytical Step/Method:** Wet Separation by PLM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Floats" only.

4)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Sinks" only.

5)**Analytical Step/Method:** Wet Separation by TEM Gravimetric Technique, EPA R-04/004
Requirements/Comments: Minimum 50g** of dry sample. Analysis of "Suspension" only.

LOQ, Limit of Quantitation estimates for mass and volume analyses.
*With advance notice and confirmation by the laboratory.
**Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

Lawhon & Associates, Inc.

1441 King Avenue
Columbus, OH 43212
Phone: (614) 481-8600
Fax: (614) 481-8610

Sent To: IATL

VIA: FedEx

Date: 10/8/19

№ 11770

Page 1 of 2

Turn around: 5-day

ASBESTOS BULK SAMPLE CHAIN-OF-CUSTODY RECORD

Project Name:	Project No.:	Project Contact:	Sampler (print):	Signature
Kalamazoo Airport	18-0486	John Keith		

Sample I.D. No.	Homog. Area No.	Sample /Homogeneous Area Description	Sample Location	Remarks
1	1	12" Grey Mottle Ft & Tan Mastic	FAA Structure #1 - South	6896845
2	⊥	⊥	⊥	6896846
3	2	Exterior Caulk - Clear	⊥	6896847
4	⊥	⊥	⊥	6896848
5	3	Exterior Caulk - White	⊥	6896849
6	⊥	⊥	⊥	6896850
7	4	12" Grey Mottle Ft. & Tan Mastic	FAA Structure #2 - Central	6896851
8	⊥	⊥	⊥	6896852
9	5	Exterior Caulk - Clear	⊥	6896853
10	⊥	⊥	⊥	6896854
11	6	Exterior Caulk - White	⊥	6896855
12	⊥	⊥	⊥	6896856
13	7	12" Brown Streak w/ Tan/Black Mastic	FAA Structure #3 - North	6896857
14	⊥	⊥	⊥	6896858
15	8	Exterior Caulk - White	⊥	6896859
16	⊥	⊥	⊥	6896860
17	9	Roofing Asphalt Shingles	⊥	6896861
18	⊥	⊥	⊥	6896862

SAMPLE ANALYSIS BY EPA METHOD 600/R-93/116 UNLESS OTHERWISE NOTED.

☐ Stop 1st Positive ☒ Analyze All Samples

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
	10/10/19						

Distributor: White - Lab; Yellow - File

10/11/19

10/15/19

Lawhon & Associates, Inc.

1441 King Avenue
Columbus, OH 43212
Phone: (614) 481-8600
Fax: (614) 481-8610

Sent To: IATL

VIA: Fed Ex

Date: 10/8/19

№ 11771

Page 2 of 2

Turn around: 5-day

ASBESTOS BULK SAMPLE CHAIN-OF-CUSTODY RECORD

Project Name:	Project No.:	Project Contact:	Sampler (print):	Signature
Kalamazoo Airport	18-0986	John Keith		

Sample I.D. No.	Homog. Area No.	Sample /Homogeneous Area Description	Sample Location	Remarks
19	10	Pipe Fitting Insulation	Water Structure - vent line	6896863
20	"	"	"	6896864
21	"	"	"	6896865
22	11	Exterior Caulk - White	"	6896866
23	"	"	"	6896867

SAMPLE ANALYSIS BY EPA METHOD 600/R-93/116 UNLESS OTHERWISE NOTED.

☐ Stop 1st Positive ☒ Analyze All Samples

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time	Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
	10/10/19						

(A)

Distributor: White - Lab; Yellow - File

iATL INTERNATIONAL
ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/18/2019
Report No.: 601717 - Lead Paint
Project: Kalamazoo Airport
Project No.: 18-0486

LEAD PAINT SAMPLE ANALYSIS SUMMARY

Lab No.: 6896745 **Description:** **Result (% by Weight):** <0.0069
Client No.: FA-01 **Location:** Exterior Of FAA Structure #1 **Result (ppm):** <69
Comments:

Lab No.: 6896746 **Description:** **Result (% by Weight):** <0.0078
Client No.: FA-02 **Location:** Exterior Of FAA Structure #2 **Result (ppm):** <78
Comments:

Lab No.: 6896747 **Description:** **Result (% by Weight):** 9.9
Client No.: FA-03 **Location:** Tower At FAA Structure #2 **Result (ppm):** 99000
Comments:

Lab No.: 6896748 **Description:** **Result (% by Weight):** 4.2
Client No.: FA-04 **Location:** Transformer Box **Result (ppm):** 42000
Comments:

Lab No.: 6896749 **Description:** **Result (% by Weight):** 0.11
Client No.: FA-05 **Location:** Metal Support For Transformer Box **Result (ppm):** 1100
Comments:

Lab No.: 6896750 **Description:** **Result (% by Weight):** 0.10
Client No.: FA-06 **Location:** Interior Of FAA Structure #3 **Result (ppm):** 1000
Comments:

Lab No.: 6896751 **Description:** **Result (% by Weight):** 2.5
Client No.: FA-07 **Location:** Exterior Of FAA Structure #3 **Result (ppm):** 25000
Comments:

Please refer to the Appendix of this report for further information regarding your analysis.

Date Received: 10/11/2019
Date Analyzed: 10/18/2019
Signature:
Analyst: Mark Stewart

Approved By:
Frank E. Ehrenfeld, III
Laboratory Director

9000 Commerce Parkway Suite B
Mt. Laurel, New Jersey 08054
Telephone: 856-231-9449
Email: customerservice@iatl.com

CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/18/2019
Report No.: 601717 - Lead Paint
Project: Kalamazoo Airport
Project No.: 18-0486

Appendix to Analytical Report:

Customer Contact:
Method: ASTM D3335-85a, US EPA SW846 3050B:7000B

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com
iATL Office Manager:wchampion@iatl.com
iATL Account Representative: Shirley Clark
Sample Login Notes: See Batch Sheet Attached
Sample Matrix: Paint
Exceptions Noted: See Following Pages

General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

Information Pertinent to this Report:

Analysis by ASTM D3335-85a by AAS

Certification:
- National Lead Laboratory Program (NLLAP): AIHA-LAP, LLC No. 100188
- NYSDOH-ELAP No. 11021

This report meets the standards set forth in the EPA's National Lead Laboratory Accreditation Program (NLLAP) through the Laboratory Quality System Requirements (LQSR) Revision 3.0 November 5, 2007. All Environmental Lead Proficiency Analytical Testing (ELPAT) is through the AIHA-PAT established program.

Regulatory limit is 0.5% lead by weight (EPA/HUD guidelines). Recommend multiple sampling for all samples less than regulatory limit for confirmation.
All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.
Method Detection Limit (MDL) per EPA Method 40CFR Part 136 Apendix B.
Reporting Limit (RL) based upon Lowest Standard Determined (LSD) in accordance with AIHA-ELLAP policies.
LSD=0.2 ppm MDL=0.005% by weight. RL= 0.010% by weight (based upon 100 mg sampled).

Disclaimers / Qualifiers:

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com.**

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CERTIFICATE OF ANALYSIS

Client: Lawhon & Associates Inc.
1441 King Avenue
Columbus OH 43212

Client: LAW411

Report Date: 10/18/2019
Report No.: 601717 - Lead Paint
Project: Kalamazoo Airport
Project No.: 18-0486

* Insufficient sample provided to perform QC reanalysis (<200 mg)
** Not enough sample provided to analyze (<50 mg)
*** Matrix / substrate interference possible.

< less than sign, signifies none-detected below the empirical value based upon sub-sampled mass. This is often below the Reporting Limit (see above).

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ASBESTOS TESTING LABORATORIES

9000 Commerce Parkway, Suite B • Mount Laurel, NJ 08054
Phone: 877-428-4285/856-231-9449 • Fax: 856-231-9818

Chain of Custody

– Environmental Lead –

Contact Information

Client Company:	Lawhon & Associates, Inc.	**Project Number:**	18-0486
Office Address:	1441 King Avenue	**Project Name:**	Kalamazoo Airport
City, State, Zip:	Columbus, Ohio 43212	**Primary Contact:**	John Korth
Fax Number:	614.481.8610	**Office Phone:**	614.481.8600
Email Address:	jkorth@lawhon-assoc.com	**Cell Phone:**	614.593.1528

iATL is accredited by the National Lead Laboratory Accreditation Program (NLLAP) to perform analytical testing of environmental samples for lead (Pb). The accreditation is through AIHA-LAP, LLC and several other nationally recognized state programs.

Matrix/Method:

- [x] Paint by AAS: ASTM D3335-85a, 2009
- [ ] Wipe/Dust by AAS: SW 846: 3050B: 700B, 2010
- [ ] Air by AAS: NIOSH 7082, 1994
- [ ] Soil by AAS: EPA SW 846 (Soil)
- [ ] Water by AAS-GF: ASTM D3559-03D, US EPA 200.9
- [ ] Other Metals (Cd, Zn, Cr) by AAS
- [ ] Toxicity Characteristic Leaching Procedure (TCLP) by AAS: US EPA 1311
- [ ] Other _____

Special Instructions:

_____

_____

Turnaround Time

Preliminary Results Requested Date: _____ (Specific date / time) ☐ Verbal ■ Email ☐ Fax

☐ 10 Day ■ 5 Day ☐ 3 Day ☐ 2 Day ☐ 1 Day* ☐ 12 Hour** ☐ 6 Hour** ☐ RUSH**

* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***

Chain of Custody

Relinquished (Name/Organization):	John Korth	Date:	10/10/2019	Time:	1530
Received (Name / iATL):		Date:		Time:	
Sample Login (Name / iATL):		Date:		Time:	
Analysis(Name(s) / iATL):		Date:	10/18/19	Time:	
QA/QC Review (Name / iATL):		Date:		Time:	
Archived / Released: _____	QA/QC InterLAB Use: _____	Date:		Time:	

iATL
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Sample Log

–Environmental Lead –

Client: Lawhon & Associates, Inc. Project: 18-0486 Kalamazoo Airport

Sampling Date/Time: 10/8/19 @ 9:00 - 10:30 am

Client Sample #	iATL #	Location/ Description	Flow Rate	Start / End	Sampling time (min)	Area (ft2) Volume (L)	Results ( )
FA-01	6896745	Exterior of FAA Structure #1					
FA-02	6896746	Exterior of FAA Structure #2					
FA-03	6896747	Tower at FAA Structure #2					
FA-04	6896748	Transformer Box					
FA-05	6896749	Metal support for transformer Box					
FA-06	6896750	Interior of FAA structure #3					
FA-07	6896751	Exterior of FAA structure #3					

** = Insufficient Sample Provided to Perform QC Reanalysis (<200mg)*
*** = Insufficient Sample Provided to Analyze (<50mg) ***= Matrix / Substrate Interference Possible*
FB = Method Requires the submittal of blank(s). ML = Multi Layered Sample. May result in inconsistent results.
These **preliminary results** are issued by iATL to expedite procedures by clients based upon the above data. iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply.