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PHASE II ENVIRONMENTAL SITE ASSESSMENT

Vacant Land
5800 Michigan Avenue and 3951-3957 Campbell Street | Detroit, Michigan
PM Project Number 01-12749-1-0001

Prepared for:

Southwest Housing Solutions Corporation
1920 25th Street, Suite A
Detroit, Michigan 48216

Prepared by:

PM Environmental, Inc.
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Michigan Locations
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March 25, 2022

Ms. Janay Mallett
Southwest Housing Solutions Corporation
1920 25th Street, Suite A
Detroit, Michigan 48216

Re: Phase II Environmental Site Assessment of the Vacant Land Located at 5800 Michigan Avenue and 3951-3957 Campbell Street, Detroit, Michigan
PM Environmental, Inc. Project No. 01-12749-1-0001

Dear Ms. Mallett:

PM Environmental, Inc. (PM) completed a Phase II Environmental Site Assessment (ESA) of the Commercial Property located at 5800 Michigan Avenue and 3951-3957 Campbell Street, Detroit, Wayne County, Michigan (hereafter referred to as the "subject property") in general accordance with ASTM Standard Practice E 1903-19 to assess the Recognized Environmental Conditions (RECs) identified in PM's Phase I ESA dated January 15, 2021. This Phase II ESA Report summarizes the activities conducted by AKT and PM between 2010 and 2021, the geology encountered, and the sample analytical results.

THIS PHASE II ESA REPORT WAS PERFORMED FOR THE EXCLUSIVE USE OF 5800 LDHA LP, SOUTHWEST HOUSING SOLUTIONS CORPORATION, AND THE MICHIGAN STATE HOUSING DEVELOPMENT AUTHORITY, EACH OF WHOM MAY RELY ON THE REPORT'S CONTENTS.

INTRODUCTION AND BACKGROUND

The subject property consists of three parcels of land (Parcel IDs: 16001706-8, 16014695, and 146014694) containing 0.832 acres and is located on the north of Michigan Avenue, west of North Campbell Street, and east of Wesson Street in Detroit, Michigan (Figure 1). The subject property is currently vacant and unoccupied and includes areas of gravel and seeded topsoil/grass (Figure 2).

Standard and other historical sources were able to document the first developed use of the subject property occurred prior to 1884 with a hotel and associated outbuilding in the southeastern portion and a dwelling in the southern portion. Four additional dwellings were constructed in the eastern portion between 1884 and 1910. The southwestern storefront received an eastern addition and the former dwelling and structures in the southern and southeastern portions were demolished between 1910 and 1924 when a bowling alley building and storefront were constructed. A gasoline dispensing station was also constructed in the southern portion between 1910 and 1924 with one gasoline underground storage tank (UST) depicted in Sanborn maps. By 1941, three USTs were depicted in Sanborn maps east of the gasoline dispensing station, and by 1949, the gasoline dispensing station was demolished. The dwellings were demolished between the 1950s and 1970s, and the bowling alley building was demolished between 1999 and 2002. The subject property has consisted of vacant land since that time.

The subject property at 5800 Michigan Avenue was formerly occupied by gasoline dispensing station and vulcanizing operations and the subject property was historically occupied by various commercial and/or retail businesses or used for residential purposes.

PHASE I ESA

PM performed a Phase I ESA for the subject property dated January 15, 2021, in conformance with the scope and limitations of ASTM Standard Practice E1527-13, which identified the following on-site REC/vapor encroachment condition (VEC) associated with the current subject property:

- The subject property at 5800 Michigan Avenue was historically occupied by gasoline dispensing operations from between 1910 and 1921 until at least 1949 and vulcanizing operations from between 1910 and 1924 until between 1941 and 1949. Previous site assessment activities completed in 2011 and 2014 document that soil contamination is present in the southwestern portion above current Part 201 Residential and Nonresidential Direct Contact (DC) Cleanup Criteria. The subject property is classified as a "facility", as defined by Part 201 of P.A. 451 of the Michigan Natural Resources Environmental Protection Act (NREPA), as amended. Additionally, the analytical results for phenanthrene analyzed from the soil samples collected in the southeastern and western portions of 5800 Michigan Avenue are indictive of a potential vapor intrusion risk.

No adjoining and/or nearby RECs were identified in PM's January 2021 Phase I ESA.

PREVIOUS SITE INVESTIGATIONS

PM reviewed the following previous environmental reports and/or portions of the following reports for the subject property. Previous reports are on file with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or relevant portions of the reports may be on file with EGLE in the previously submitted BEA report. Additionally, relevant available figures and tables from the previous reports are included in Appendix A.

Name of Report	Date of Report	Company that Prepared Report
Phase I ESA	11-10-2010	Advanced Environmental Management Group (AEMG)
Phase II ESA	1-7-2011	AKT Peerless (AKT)
Phase I ESA	11-22-2013	PM
Phase II ESA	3-31-2014	
Baseline Environmental Assessment (BEA)		

Phase I ESA 2010

PM reviewed a previous Phase I ESA completed for the subject property and west adjoining properties and dated November 10, 2010. At the time of the Phase I ESA, the subject property consisted of vacant land with scattered debris throughout. AEMG documented similar historical information as included in PM's January 2021 Phase I ESA, and the following historical use RECs were identified: gasoline dispensing station with potential orphan USTs associated (5830 Michigan Avenue), vulcanizing (5836 Michigan Avenue), greenhouse (west adjoining property),

dry cleaning (west adjoining property), photo developing (west adjoining property), automotive parking operations (west adjoining property); potential fuel oil use (west adjoining property); negative impacts from potential chemicals associated with a fire at 4034-4038 Wesson Street (west adjoining property); and a REC associated with the presence of construction debris and materials throughout the property. AEMG recommended an additional investigation be completed to assess the RECs.

Phase II ESA 2011

The 2011 Phase II ESA evaluated the RECs identified in AEMG's Phase I ESA, and consisted of 1) conducting a geophysical survey in the southern portion of the subject property; 2) advancing 12 soil borings (CO-SB-1 through CO-SB-6, and CO-SB-12 on the subject property); and, 3) collecting 22 soil samples for laboratory analysis of volatile organic compounds (VOCs), polynuclear aromatic compounds (PNAs), polychlorinated biphenyls (PCBs), diesel range organics (DRO), gasoline range organics (GRO), herbicides, pesticides, and Michigan 10 Metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc), or some combination thereof.

Geology encountered during the investigation consisted of fill material to 5.0 feet below ground surface (bgs) consisting of sand and clay with varying amounts of silt, gravel, and masonry debris, underlain by clay to 20.0 feet bgs, the maximum depth explored. Groundwater was not encountered to 20.0 feet bgs, the maximum depth explored. Soil boring logs were not included in the report provided to PM; however, soil borings were limited to the southern-central and southwestern portions of the 5800 Michigan Avenue parcel.

The geophysical survey identified an anomaly in the northwest portion of 5800 West Michigan Avenue. AKT concluded that the anomaly may be a potential former septic tank; however, this was not confirmed. In addition, the geophysical survey was conducted using electromagnetic (EM) induction, and not ground penetrating radar (GPR), which is a more accurate method. The soil analytical results documented concentrations of benzo(a)pyrene above current Part 201 Residential DC cleanup criteria in the soil sample collected in the northwestern portion of the subject property at 5800 Michigan Avenue (CO-SB-12), which was advanced adjacent to the anomaly identified during the EM scan.

The figures and tables depicting the sample locations and analytical summaries from the AKT's 2011 site investigation are included in Appendix A. In addition, the sample locations from AKT's 2011 site investigation conducted on the subject property are included on PM's Figure 3.

Phase I ESA 2013

The 2013 Phase I ESA was completed for the subject property and west adjoining properties. At the time of the Phase I ESA, the subject property was vacant land. Similar historical information was documented as in PM's January 2021 Phase I ESA. The following RECs were identified.

- Previous reports completed for the subject property in 2010 and 2011 identified the potential for former fuel oil use and associated USTs as a REC. Additionally, the potential for fill materials to be present associated with the former buildings and dwellings was identified as a REC. No subsurface investigations, including a geophysical survey, were conducted in the central and northern portions of the subject property to

assess potential fill material within former basements and potential orphan USTs and/or fuel oil use. The potential exists for contamination to be present in these areas and/or for orphan tanks to be present.

- The 2011 subsurface investigation completed by AKT was not adequate to assess the former vulcanizing operations (5836 Michigan Avenue), gasoline dispensing operations (5830 Michigan Avenue), and former dry-cleaning operations (west adjoining property). In addition, no further assessment of an anomaly (most likely associated with an orphan UST) detected through a geophysical survey using EM induction, in the northwest portion of 5800 Michigan Avenue, was conducted. The potential exists for additional contamination to be present in the areas that were not previously, or not adequately assessed.

Phase II ESA 2014

The 2014 Phase II ESA was completed for the 3951-3957 Campbell Street subject property and the west adjoining properties. The Phase II ESA evaluated the RECs identified in PM's 2013 Phase I ESA and consisted of 1) conducting a geophysical survey of the subject property and west adjoining properties using GPR; 2) advancing four soil borings (SB-14 and SB-15 on the subject property); and, 3) collecting four soil samples for laboratory analysis of VOCs, PNAs, PCBs, and Michigan 10 metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver, and zinc), or some combination thereof.

Geology encountered during the investigation consisted of clayey sand to 5.5 feet bgs, underlain by clay to 15.0 feet bgs, the maximum depth explored. Groundwater was not encountered. Fill materials were not encountered in the soil borings completed for the Campbell Street subject parcels.

No anomalies consistent with orphan USTs were identified during the geophysical survey investigation. No concentrations of VOCs, PNAs, or PCBs were detected in any of the soil samples collected from the subject property above laboratory method detection limits (MDLs). No concentrations of metals were detected in any of the soil samples collected from the subject property above laboratory MDLs, Statewide Default Background Levels (SDBLs), or the most restrictive Part 201 Residential cleanup criteria. Based on the analytical results, the 3951-3957 Campbell Street subject parcels do not meet the definition of a "facility" as defined under P.A. 451 of Part 201. The RECs identified in the 2013 Phase I ESA were adequately assessed, and no further investigation of the 3951-3957 Campbell Street subject parcels was recommended.

The sample locations and analytical summaries from the PM's 2013 site investigation are included on Figure 3 and in Table 1 and 2.

BEA 2014

The 2014 subsurface investigation, which is summarized in the BEA, was completed for the 5800 Michigan Avenue subject parcel. The subsurface investigation evaluated the RECs identified in PM's 2013 Phase I ESA and consisted of 1) conducting a geophysical survey of the subject property using GPR; 2) advancing nine soil borings (SB-1 through SB-9) and installing three temporary soil gas points (SG-1, SG-8, and SG-9); and, 3) collecting 10 soil samples for

laboratory analysis of VOCs, PNAs, PCBs, and Michigan 10 metals, or some combination thereof, and collection of three soil gas samples for laboratory analysis of VOCs.

No anomalies consistent with the presence of orphan USTs were identified during completion of the geophysical survey investigation. During the completion of the geophysical survey, PM identified a disturbance in the vicinity of the anomaly identified by AKT. A hand auger was advanced to 5.0 feet bgs followed by a Geoprobe soil boring to 15.0 feet bgs to determine the nature of the disturbance. No evidence of an orphan UST was encountered. Based on the geophysical survey and soil boring completed by PM in the area of AKT's anomaly, no orphan USTs are believed to be present in this area. Concentrations of benzo(a)pyrene were detected in soil samples collected in the western-central portion of the property (SB-7 and SB-8) above Part 201 Residential and Nonresidential DC cleanup criteria. Lead was also detected from one soil sample collected in the western-central portion of the property (SB-8) above Part 201 Residential and Nonresidential DC cleanup criteria. No other VOCs, PNAs, PCBs, or metals were detected in the remaining soil samples collected from the subject property above laboratory MDLs, the SDBLs, and/or the most restrictive Part 201 Residential cleanup criteria. No soil gas samples were detected above former Part 201 Residential Intrusion Screening Levels. However, concentrations of phenanthrene were detected in soil samples collected in the southeastern and western-central portions of the subject property (SB-1, SB-2, and SB-8) above the current Part 201 Residential Volatilization to Indoor Air Pathway (VIAP) screening levels.

The sample locations and analytical summaries from the PM's 2013 site investigation are included on Figures 3 and 4 and in Tables 1, 2, and 3.

Based on the concentrations of benzo(a)pyrene and lead in soil exceeding the Part 201 cleanup criteria on the subject property parcel identified as 5800 Michigan Avenue, a BEA was completed and submitted to the Michigan Department of Environmental Quality (MDEQ; currently referred to as EGLE) on behalf of Southwest Housing Solutions Corporation.

CURRENT PHASE II ESA SITE INVESTIGATION

Prior to the commencement of field activities, Miss Dig, a utility locating service, was contacted to locate utilities on or adjacent to the subject property. Utilities were marked by the respective utility companies where they entered or were located adjacent to the subject property. PM also used a RD1700 Utility Locator to clear proposed boring locations prior to advancing the soil borings.

On November 22, 2021, PM completed subsurface investigation activities at the subject property that consisted of the advancement of 11 soil borings (SB-13 through SB-23), installation of three temporary soil gas points (SG-13, SG-14, and SG-20), and the collection of 22 soil samples and three soil gas samples to further assess the previously identified contamination identified on the subject property during the previous site investigations. The soil samples were submitted for laboratory analysis of VOCs, PNAs, and lead. The soil gas samples were submitted for laboratory analysis of VOCs.

The soil boring and temporary soil gas locations are depicted on Figures 3 and 4.

Subsurface Investigations Techniques and QA/QC Procedures

The soil borings were advanced to the desired depth using a Geoprobe® drill rig. Soil sampling was performed for soil classification, verification of subsurface geologic conditions, and for investigating the potential and/or extent of soil and/or groundwater contamination at the subject property. Soil samples were generally collected on a continuous basis using a 5-foot long macro-core sampler.

During drilling operations, the drilling equipment was cleaned to minimize the possibility of cross contamination. These procedures included cleaning equipment with a phosphate free solution (i.e., Alconox®) and rinsing with distilled water after each sample collection. Drilling and sampling equipment was also cleaned in this manner prior to initiating field activities.

Soils collected from discrete sample intervals were screened using a photoionization detector (PID) to determine if VOCs were present. Soil from specific depths was placed in plastic bags, sealed, and allowed to volatilize. The headspace within each bag was then monitored with the PID. The PID is able to detect trace levels of organic compounds in the air space within the plastic bag. The PID utilizes a 10.6 electron volts (eV) lamp. Soil samples were collected from the soil borings based upon the highest PID reading, visual/olfactory evidence of impact, a change in geology, and/or depths likely to encounter impact.

The soil samples for VOC analysis were preserved with methanol in accordance with United States Environmental Protection Agency (USEPA) Method 5035 modified.

The soil samples were collected in appropriately labeled containers and placed in an ice-packed cooler, then transported under chain of custody procedures for laboratory analysis within applicable holding times to Merit Laboratories, Inc. (Merit) in East Lansing, Michigan.

The in-boring soil gas sampling points were installed per manufacturer specifications within the annulus of the borehole advanced with the Geoprobe® drill rig or hand auger equipped with a stainless steel bucket. Approximately 6-inches of sand pack was installed at the bottom of the desired sample depth and a ceramic filter sample point attached to ¼" inert Teflon tubing was lowered into the borehole which was followed by the installation of an additional 6-inch layer of sand pack above the sample point. Bentonite was installed above the sand pack and hydrated to create a chemically resilient, low-permeability, flexible seal to prevent the exchange of atmospheric air with the soil gas and to maximize the representativeness of the sample. A minimum of 45 minutes was allowed to elapse after installation to allow equilibration of the subsurface soil vapor prior to sampling.

Upon completion of the investigation, the temporary soil gas materials were removed and the soil borings were abandoned by placing the soil cuttings back into the borehole, filling the void with bentonite chips, hydrating the chips, resurfacing and returning the area to its pre-drilling condition.

GEOLOGY/HYDROGEOLOGY

Based on a review of PM's December 2013 and November 2021 soil boring logs, the geology encountered on the subject property generally consists of sand to depths up to 3.5 feet bgs, underlain by clay to a depth of at least 10.0 feet bgs, the maximum depth explored during PM's

2021 site investigation. Debris (brick, concrete, and/or asphalt) was encountered at depths ranging from 0.5 to 4.5 feet bgs in each of the soil borings advanced by PM in November 2021.

Groundwater was not encountered in any of the soil borings advanced on the subject property to a maximum depth of 10.0 feet bgs.

PM's November 2021 soil boring and temporary soil gas logs are included in Appendix B.

ANALYTICAL RESULTS

PM compared the previous and current analytical results of the samples collected from the subject property with the Michigan Department of Environment, Great Lakes, and Energy (EGLE) Generic Cleanup Criteria and Screening Levels as presented in Part 201 Rules 299.1 through 299.50, dated December 30, 2013 entitled "Cleanup Criteria Requirements for Response Activity", in accordance with Section 20120a(1) using the Residential and Nonresidential cleanup criteria.

PM also compared the soil and soil gas analytical results with Site-Specific Volatilization to Indoor Air Criteria (SSVIAC) developed by EGLE on March 21, 2022, for a residential slab-on-grade structure with elevator pit. The EGLE SSVIAC Memo is included in Appendix C.

The laboratory analytical reports and associated chain of custody documentation from PM's November 2021 site investigation are included in Appendix D. The laboratory analytical reports and associated chain of custody documentation for the previous site investigations conducted by PM and AKT are on file with EGLE in the previously submitted reports.

Summary of Soil Analytical Results and Exceedances

The sample locations and analytical summaries from the PM's December 2013 and November 2021 site investigations are included on Figures 3 and 4 and in Tables 1, 2, and 3.

The sample locations and analytical summaries from the previous site investigations conducted by AKT are included in Appendix A. The sample locations from the previous site investigations conducted by AKT are also included on PM's Figures 3 and 4.

Summary of Soil Exceedances

Location	Sample Date	Sample Depth (feet bgs)	Analysis	Compounds Exceeding the Part 201 Cleanup Criteria/SSVIAC
December 2010, AKT				
CO-SB-12	12/17/2010	**Soil:** 2.0-4.0	VOCs and PNAs	**GSIP:** fluoranthene, phenanthrene **DC(R):** benzo(a)pyrene **SSVIAC(R):** phenanthrene
December 2013, PM				
SB-2	12/18/2013	**Soil:** 3.0-4.0	VOCs and PNAs	**GSIP:** phenanthrene **SSVIAC(R):** phenanthrene

Location	Sample Date	Sample Depth (feet bgs)	Analysis	Compounds Exceeding the Part 201 Cleanup Criteria/SSVIAC
SB-7	12/18/2013	**Soil:** 3.0-4.0	VOCs and PNAs	**DC(R):** benzo(a)pyrene **GSIP:** fluoranthene **SSVIAC(R):** Naphthalene, phenanthrene
SB-8	12/18/2013	**Soil:** 2.0-3.0	VOCs, PNAs, PCBs, and Michigan 10 Metals	**DC(R):** lead **DC(R/NR):** benzo(a)pyrene **GSIP:** fluoranthene, phenanthrene, naphthalene **SSVIAC(R):** naphthalene, phenanthrene
November 2021, PM				
SB-13	11/22/2021	**Soil:** 4.5-5.5	VOCs, PNAs and Lead	**SSVIAC(R):** naphthalene
SB-14	11/22/2021	**Soil:** 3.0-4.0	VOCs, PNAs and Lead	**DC(R):** benzo(a)pyrene **GSIP:** fluoranthene, phenanthrene **SSVIAC(R):** phenanthrene
SB-16	11/22/2021	**Soil:** 3.0-4.0	VOCs, PNAs and Lead	**DC(R):** benzo(a)pyrene **GSIP:** fluoranthene, phenanthrene **SSVIAC(R):** phenanthrene, naphthalene
SB-17	11/22/2021	**Soil:** 3.5-4.5	VOCs, PNAs and Lead	**DC(R):** benzo(a)pyrene **GSIP:** fluoranthene, phenanthrene **SSVIAC(R):** phenanthrene
SB-18	11/22/2021	**Soil:** 2.5-3.5	VOCs, PNAs and Lead	**DC(R):** benzo(a)pyrene, lead **GSIP:** fluoranthene, phenanthrene **SSVIAC(R):** phenanthrene
SB-20	11/22/2021	**Soil:** 3.0-4.0	VOCs, PNAs and Lead	**DWP(R/NR):** lead **DC(R):** lead
		Soil: 5.0-6.0		**DC(R):** benzo(a)pyrene **GSIP:** fluoranthene, phenanthrene, naphthalene **SSVIAC(R):** phenanthrene, naphthalene
SB-21	11/22/2021	**Soil:** 2.5-3.5	VOCs, PNAs and Lead	**DC(R):** benzo(a)pyrene **GSIP:** fluoranthene, phenanthrene **SSVIAC(R):** 2-methylnaphthalene, phenanthrene, naphthalene
SB-22	11/22/2021	**Soil:** 2.5-3.5	VOCs, PNAs and Lead	**DWP(R/NR):** Lead **DC(R):** Lead
SB-23	11/22/2021	**Soil:** 2.5-3.5	VOCs, PNAs and Lead	**GSIP:** naphthalene, fluoranthene, phenanthrene **DWP(R/NR):** lead **DC(R):** benzo(a)pyrene **DC(R/NR):** lead **SSVIAC(R):** phenanthrene, naphthalene

R – Residential
DWP – Drinking Water Protection
DC – Direct Contact
NR – Nonresidential
GSIP – Groundwater Surface Water Interface Protection
SSVIAC – Site-Specific Volatilization to Indoor Air Criteria

No other concentrations of VOCs, PNAs, and/or lead was identified in the remaining soil samples above the laboratory MDLs, EGLE SSVIAC, and/or the most restrictive Part 201 Residential cleanup criteria.

Concentrations of GRO and DRO were identified in the soil samples collected from CO-SB-1 and CO-SB-2 above the laboratory MDLs. No concentrations of GRO exceed the Light Non-Aqueous Phase Liquid (LNAPL) screening levels indicating the potential presence of residual LNAPL in soils. A concentration of DRO was identified in soil sample CO-SB-1 indicating the potential presence of residual LNAPL in soil and above the LNAPL screening levels indicating that the generic Part 201 Soil Volatilization to Indoor Air Inhalation generic cleanup criteria are not appropriate for comparison; however, as previously discussed, EGLE generated SSVIAC for the subject property and no concentrations of VOCs and PNAs were identified in these samples exceeding the SSVIAC. No concentrations of DRO were identified at levels exceeding the LNAPL DC screening levels that would indicate that the generic Part 201 DC cleanup criteria are not appropriate for comparison.

Soil Gas Analytical Results

No concentrations of VOCs were detected in the soil gas samples collected in November 2013 and December 2021 analyzed from the subject property above laboratory MDLs and/or EGLE SSVIAC for a residential slab-on-grade building with elevator pit. No concentrations of PNAs and/or SVOCs, and Mercury were detected in the soil gas samples collected in December 2021 analyzed from the subject property above laboratory MDLs.

EXPOSURE PATHWAY EVALULATION

The following exposure pathways were evaluated and determined to be complete/potentially complete. Exposure pathways are eliminated when they are determined not to be complete, or it is demonstrated that unacceptable exposures do not exist and that response activities are not required to prevent or mitigate unacceptable exposures.

The subject property is currently zoned B-4: General Business District. However, the subject property will be redeveloped with a slab-on-grade residential building with elevator pit in the southern portion of the subject property (Figure 2). Therefore, the intended use and zoning is consistent with Residential property use as defined under Part 201. The subject property is available to be connected to municipal water and sewer, as well as natural gas, electrical, and telecommunications utilities. No water supply wells exist in association with the subject property.

The following exposure pathway analysis is based on the currently known information collected during the previous and current site investigations. If evidence is discovered of additional impact, the exposure pathways will need to be re-evaluated.

Complete and/or Potentially Complete Exposure Pathway?		
Pathway	**Yes/No**	**Justification**
Groundwater Ingestion	No	• Municipal water is available in the area of the subject property. • No potable or other supply wells exist on the subject property.

Complete and/or Potentially Complete Exposure Pathway?		
Pathway	**Yes/No**	**Justification**
Surface Water	No	• Surface water is not present at the subject property. • A combined sanitary/storm sewer system is utilized in the area of the subject property. • Lack of groundwater to act as a transport mechanism.
Indoor Air Inhalation	No*	• The subject property is currently vacant. • Concentrations of various VOCs and PNAs were identified in soil exceeding the applicable SSVIAC. • No concentrations of VOCs, semi-volatile organic compounds (SVOCs)/PNAs, and mercury were identified in the soil gas samples collected from the subject property above the SSVIAC.
Ambient Air Volatile Soil Inhalation	No	• No identified exceedances to the most restrictive Part 201 Residential Ambient Air Volatile Soil Inhalation (VSI) cleanup criteria.
Ambient Air Particulate Soil Inhalation	No	• No identified exceedances to the most restrictive Part 201 Residential Ambient Air Particulate Soil Inhalation (PSI) cleanup criteria.
Direct Contact	Yes	• Concentrations of benzo(a)pyrene and lead were detected in soil samples above the Part 201 Residential and/or Nonresidential DC cleanup criteria.

* - This pathway is incomplete based on the current absence of occupiable structures on the subject property. However, additional response activities (i.e., additional monitoring, remediation, and/or mitigation) is required in the event new buildings are constructed on the subject property.

OTHER PATHWAYS AND DUE CARE CONSIDERATIONS	
Migration Via Utility Corridors or other means	Utility corridors on or adjacent to the subject property may represent pathways for contaminant migration; however, were not specifically assessed by PM.
Fire and Explosion Hazards	No compounds were identified above the flammability and explosivity screening levels and mobile and/or migrating LNAPL has not been identified on the subject property.
Soil and Groundwater Management	In the event that soil and/or groundwater are to be moved at the subject property, additional characterization will be required to determine proper disposal. Water on the property is municipally supplied, and the property owner will assure that groundwater is not utilized for any purpose.

CONCLUSIONS

Contaminant concentrations identified in soil on the subject property during site investigations conducted between 2010 and 2021 document exceedances of the Part 201 Residential and Nonresidential, DWP, GSIP, and DC cleanup criteria and the EGLE SSVIAC. Therefore, the subject property is a "facility" under Part 201 of P.A. 451, as amended, and the rules promulgated thereunder. In addition, concentrations of various VOCs and PNAs were identified in soil samples collected from the subject property exceeding the SSVIAC, indicating a potential vapor intrusion condition as it relates to the planned residential redevelopment of the property.

Section 7a of Parts 201 imposes "due care" obligations on owners and operators of contaminated properties that are generally described as 1) prevent exacerbation; 2) mitigate unacceptable exposure and operate in a manner that protects the public health and safety; 3) take reasonable precautions against third party omissions; 4) reasonably cooperate with parties

authorized to conduct response activities; 5) comply with land or resource use restrictions; and, 6) not impede any land or resource use restrictions.

As previously discussed, concentrations of various VOCs, PNAs, and lead were identified that present a potential unacceptable exposure via the dermal contact and soil volatilization to indoor air inhalation pathways in association with the planned residential redevelopment of the subject property. Therefore, additional assessment (i.e., delineation), remediation (i.e., removal of source soils), and/or mitigation (i.e., installation of surface cover and/or vapor mitigation systems) are required to prevent unacceptable exposures based on the intended residential redevelopment of the subject property.

If you have any questions regarding the information in this report, please contact us at 800.313.2966.

Report Prepared By:
PM Environmental, Inc.

Jana Beumel
Staff Scientist

Report Reviewed By:
PM Environmental, Inc.

Nicholas Lieder
Regional Manager – Site Investigation Services

FIGURES

Figure 1: Property Vicinity Map
Figure 2: Subject Property and Adjoining Properties
Figure 3: Soil Analytical Results
Figure 4: Soil Gas Analytical Results

TABLES

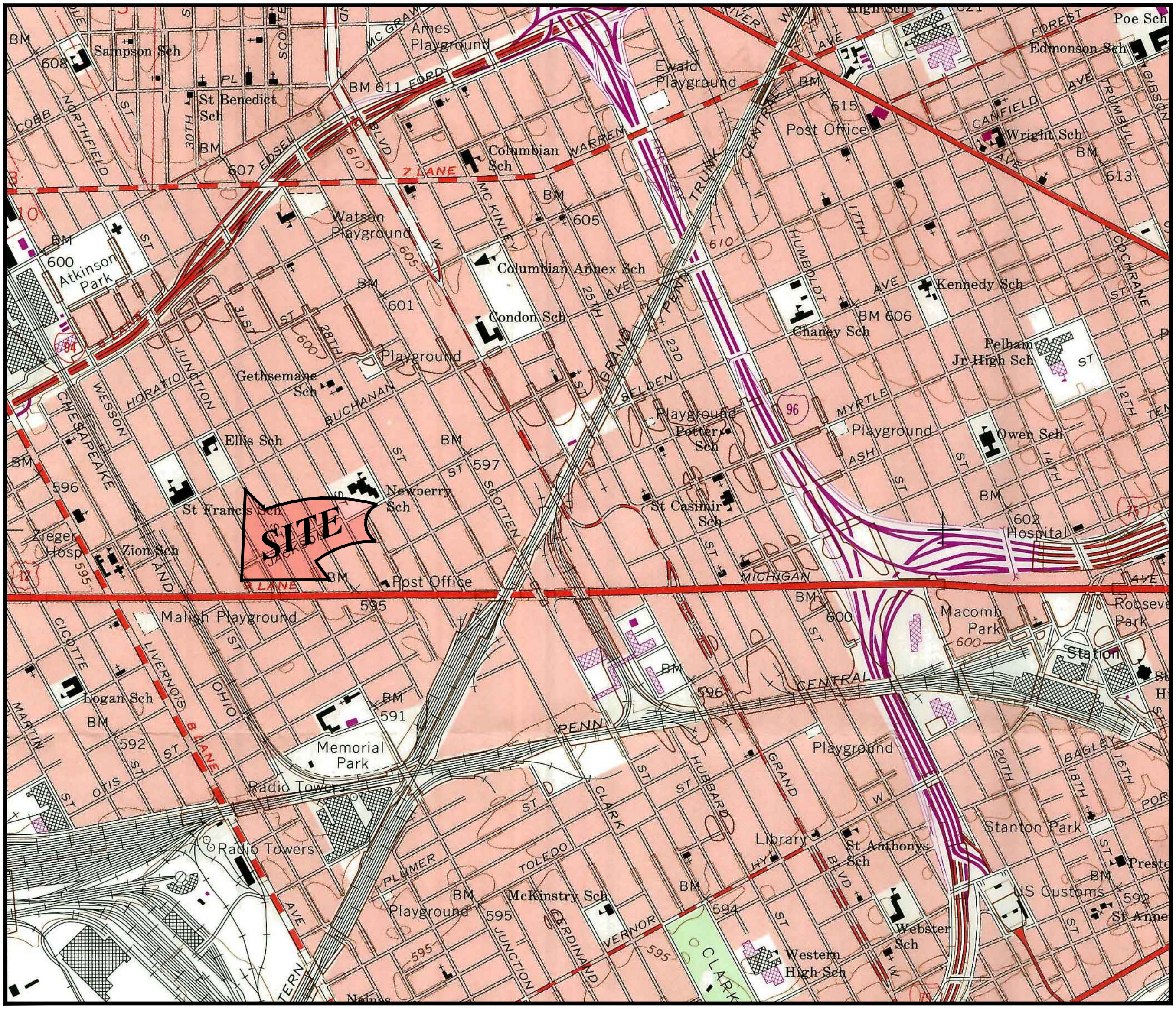
Table 1: Summary of Soil Analytical Results – VOCs, PNAs, and Lead
Table 2: Summary of Soil Analytical Results – PCBs, and Metals
Table 3: Summary of Soil Gas Analytical Results – VOCs, SVOCs, and Mercury

APPENDICES

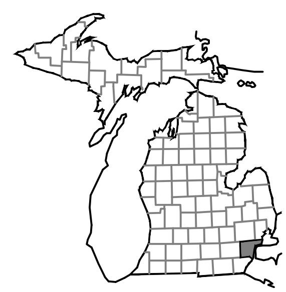
Appendix A: Relevant Tables and Figures from Previous Site Investigations
Appendix B: Soil Boring/Soil Gas Logs
Appendix C: Site-Specific Volatilization to Indoor Air Criteria Memo
Appendix D: Laboratory Analytical Reports

Figures

PM ENVIRONMENTAL Environmental & Engineering Services



WAYNE COUNTY



MICHIGAN QUADRANGLE LOCATION

SCALE 1:24,000

1 MILE   1/2 MILE   0   1 MILE

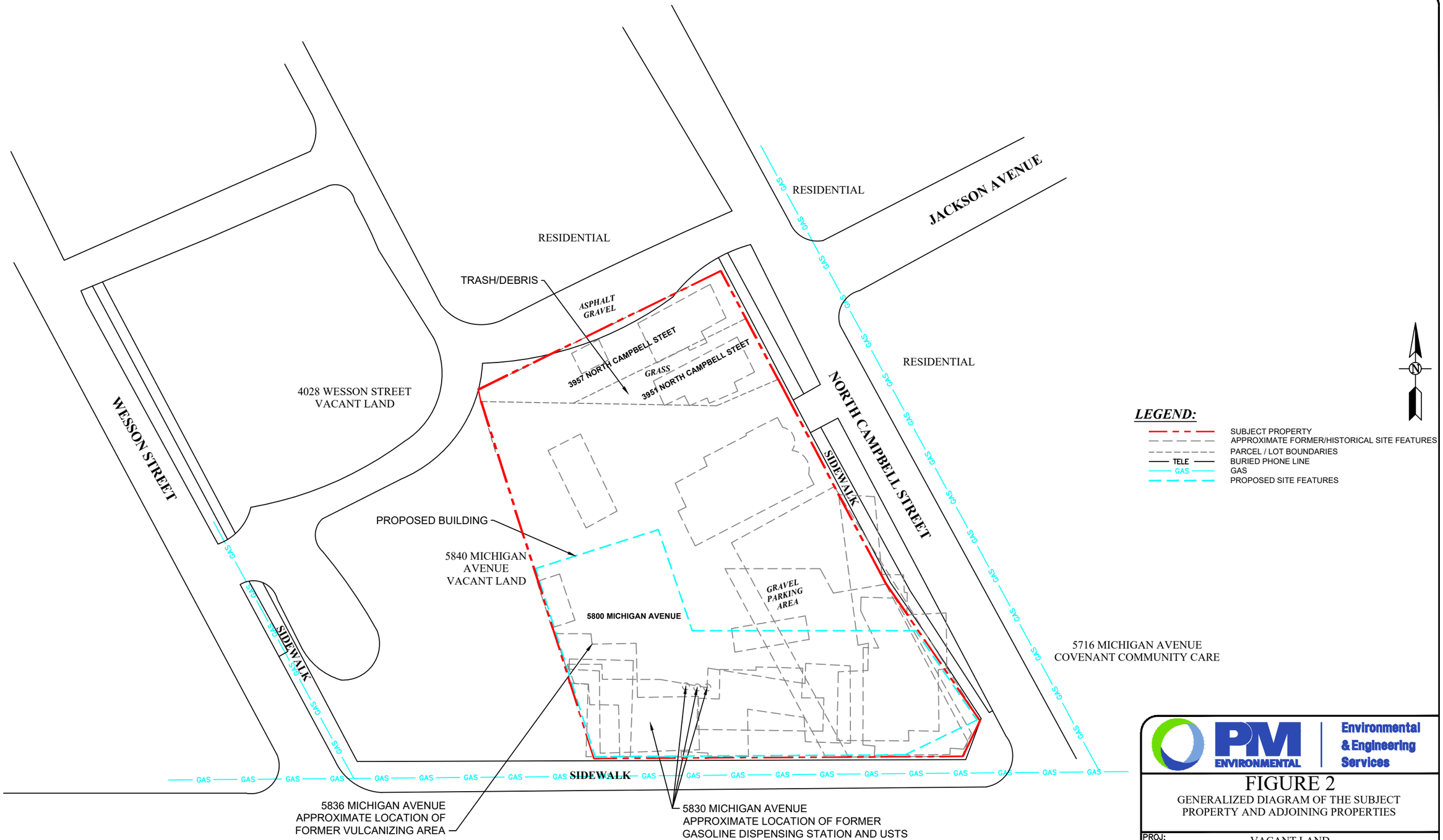
FIGURE 1

PROPERTY VICINITY MAP

USGS, 7.5 MINUTE SERIES

DETROIT, MI QUADRANGLE, 1968. PHOTO REVISED 1973 AND 1980.

PM ENVIRONMENTAL — Environmental & Engineering Services	PROJ: VACANT LAND 5800 MICHIGAN AVENUE AND 3951-39578 CAMPBELL STREET DETROIT, MI	THIS IS NOT A LEGAL SURVEY VERIFY SCALE 0 — 2,000' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	DRN BY: MM/CS/BP CHKD BY: BP FILE NAME: 01-12749-0-001F01R00	DATE: 1/11/2020 SCALE: 1" = 2,000'



MICHIGAN AVENUE

5845-5849 MICHIGAN AVENUE
VACANT COMMERCIAL BUILDING

5837-5841 MICHIGAN AVENUE
VACANT LAND

5831-5833 MICHIGAN AVENUE
VACANT COMMERCIAL BUILDING

5715 MICHIGAN AVENUE
SOCIAL SERVICES
ADMINISTRATION

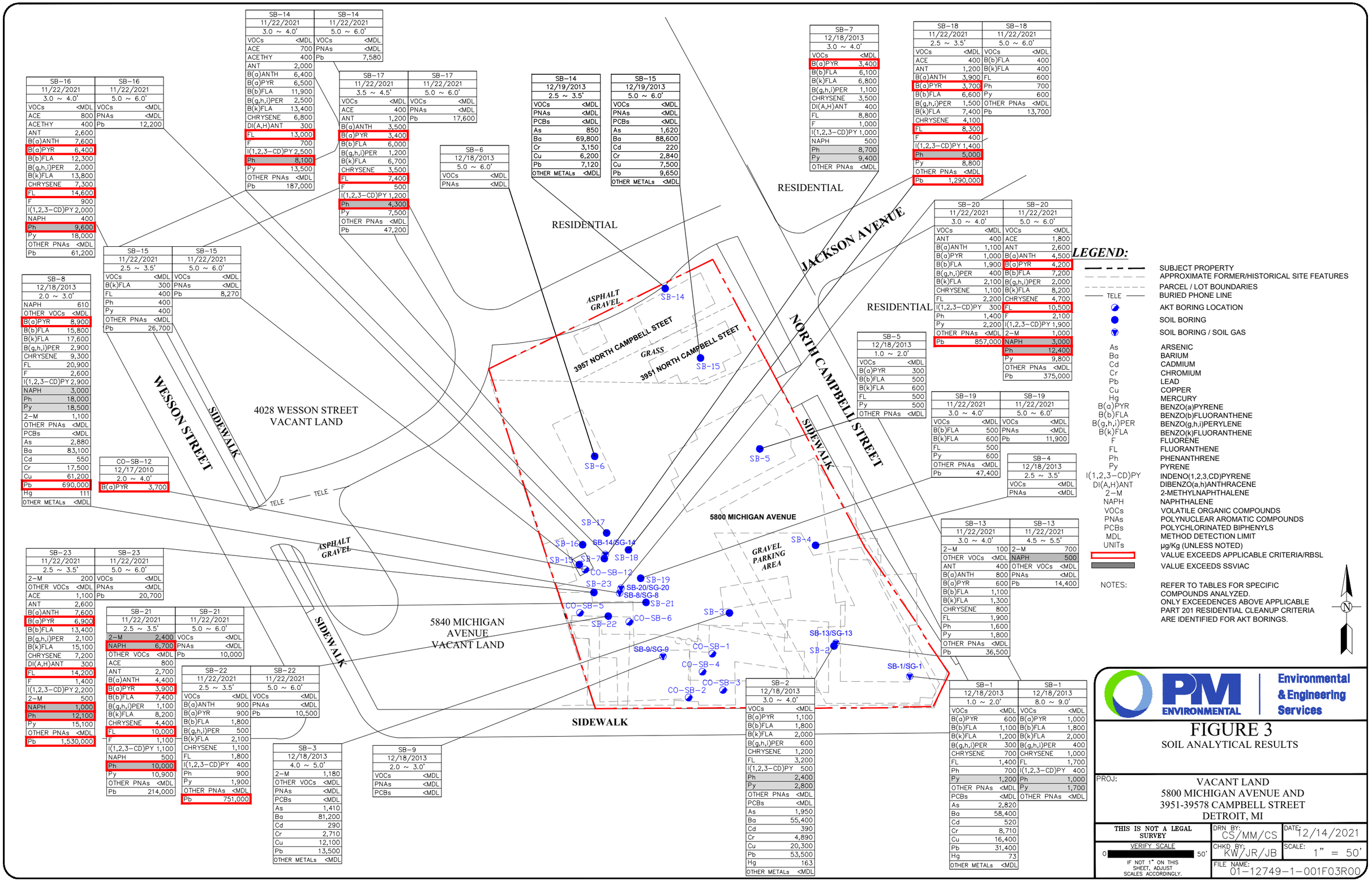
PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 2

GENERALIZED DIAGRAM OF THE SUBJECT PROPERTY AND ADJOINING PROPERTIES

PROJ: VACANT LAND
5800 MICHIGAN AVENUE AND
3951-39578 CAMPBELL STREET
DETROIT, MI

THIS IS NOT A LEGAL SURVEY	DRN BY: MM/CS/TS/MM/BP	DATE: 1/11/2020
VERIFY SCALE 0 — 50' IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	CHKD BY: BP	SCALE: 1" = 50'
	FILE NAME: 01-12749-0-001F02R00	



SB-14	SB-14
11/22/2021	11/22/2021
3.0 ~ 4.0'	5.0 ~ 6.0'
VOCs <MDL	VOCs <MDL
ACE 700	PNAs <MDL
ACETHY 400	Pb 7,580
ANT 2,000	
B(a)ANTH 6,400	
B(a)PYR 6,500	
B(b)FLA 11,900	
B(g,h,i)PER 2,500	
B(k)FLA 13,400	
CHRYSENE 6,800	
DI(A,H)ANT 300	
FL 13,000	
F 700	
I(1,2,3-CD)PY 2,500	
Ph 8,100	
Py 13,500	
OTHER PNAs <MDL	
Pb 187,000	

SB-16	SB-16
11/22/2021	11/22/2021
3.0 ~ 4.0'	5.0 ~ 6.0'
VOCs <MDL	VOCs <MDL
ACE 800	PNAs <MDL
ACETHY 400	Pb 12,200
ANT 2,600	
B(a)ANTH 7,600	
B(a)PYR 6,400	
B(b)FLA 12,300	
B(g,h,i)PER 2,000	
B(k)FLA 13,800	
CHRYSENE 7,300	
FL 14,600	
F 900	
I(1,2,3-CD)PY 2,000	
NAPH 400	
Ph 9,600	
Py 18,000	
OTHER PNAs <MDL	
Pb 61,200	

SB-17	SB-17
11/22/2021	11/22/2021
3.5 ~ 4.5'	5.0 ~ 6.0'
VOCs <MDL	VOCs <MDL
ACE 400	PNAs <MDL
ANT 1,200	Pb 17,600
B(a)ANTH 3,500	
B(a)PYR 3,400	
B(b)FLA 6,000	
B(g,h,i)PER 1,200	
B(k)FLA 6,700	
CHRYSENE 3,500	
FL 7,400	
F 500	
I(1,2,3-CD)PY 1,200	
Ph 4,300	
Py 7,500	
OTHER PNAs <MDL	
Pb 47,200	

SB-6
12/18/2013
5.0 ~ 6.0'
VOCs <MDL
PNAs <MDL

SB-14
12/19/2013
2.5 ~ 3.5'
VOCs <MDL
PNAs <MDL
PCBs <MDL
As 850
Ba 69,800
Cr 3,150
Cu 6,200
Pb 7,120
OTHER METALs <MDL

SB-15
12/19/2013
5.0 ~ 6.0'
VOCs <MDL
PNAs <MDL
PCBs <MDL
As 1,620
Ba 88,600
Cd 220
Cr 2,840
Cu 7,500
Pb 9,650
OTHER METALs <MDL

SB-7
12/18/2013
3.0 ~ 4.0'
VOCs <MDL
B(a)PYR 3,400
B(b)FLA 6,100
B(k)FLA 6,800
B(g,h,i)PER 1,100
CHRYSENE 3,500
DI(A,H)ANT 400
FL 8,800
F 1,000
I(1,2,3-CD)PY 1,000
NAPH 500
Ph 8,700
Py 9,400
OTHER PNAs <MDL

SB-18	SB-18
11/22/2021	11/22/2021
2.5 ~ 3.5'	5.0 ~ 6.0'
VOCs <MDL	VOCs <MDL
ACE 400	B(b)FLA 400
ANT 1,200	B(k)FLA 400
B(a)ANTH 3,900	FL 600
B(a)PYR 3,700	Ph 700
B(b)FLA 6,600	Py 600
B(g,h,i)PER 1,500	OTHER PNAs <MDL
B(k)FLA 7,400	Pb 13,700
CHRYSENE 4,100	
FL 8,300	
F 400	
I(1,2,3-CD)PY 1,400	
Ph 5,000	
Py 8,800	
OTHER PNAs <MDL	
Pb 1,290,000	

SB-20	SB-20
11/22/2021	11/22/2021
3.0 ~ 4.0'	5.0 ~ 6.0'
VOCs <MDL	VOCs <MDL
ANT 400	ACE 1,800
B(a)ANTH 1,100	ANT 2,600
B(a)PYR 1,000	B(a)ANTH 4,500
B(b)FLA 1,900	B(a)PYR 4,200
B(g,h,i)PER 400	B(b)FLA 7,200
B(k)FLA 2,100	B(g,h,i)PER 2,000
CHRYSENE 1,100	B(k)FLA 8,200
FL 2,200	CHRYSENE 4,700
I(1,2,3-CD)PY 300	FL 10,500
Ph 1,400	F 2,100
Py 2,200	I(1,2,3-CD)PY 1,900
OTHER PNAs <MDL	2-M 1,000
Pb 857,000	NAPH 3,000
	Ph 12,400
	Py 9,800
	OTHER PNAs <MDL
	Pb 375,000

SB-5
12/18/2013
1.0 ~ 2.0'
VOCs <MDL
B(a)PYR 300
B(b)FLA 500
B(k)FLA 600
FL 500
Py 500
OTHER PNAs <MDL

SB-19	SB-19
11/22/2021	11/22/2021
3.0 ~ 4.0'	5.0 ~ 6.0'
VOCs <MDL	VOCs <MDL
B(b)FLA 500	PNAs <MDL
B(k)FLA 600	Pb 11,900
FL 500	
Py 600	
OTHER PNAs <MDL	
Pb 47,400	

SB-4
12/18/2013
2.5 ~ 3.5'
VOCs <MDL
PNAs <MDL

SB-13	SB-13
11/22/2021	11/22/2021
3.0 ~ 4.0'	4.5 ~ 5.5'
2-M 100	2-M 700
OTHER VOCs <MDL	NAPH 500
ANT 400	OTHER VOCs <MDL
B(a)ANTH 800	PNAs <MDL
B(a)PYR 600	Pb 14,400
B(b)FLA 1,100	
B(k)FLA 1,300	
CHRYSENE 800	
FL 1,900	
Ph 1,600	
Py 1,800	
OTHER PNAs <MDL	
Pb 36,500	

SB-8
12/18/2013
2.0 ~ 3.0'
NAPH 610
OTHER VOCs <MDL
B(a)PYR 8,900
B(b)FLA 15,800
B(k)FLA 17,600
B(g,h,i)PER 2,900
CHRYSENE 9,300
FL 20,900
F 2,600
I(1,2,3-CD)PY 2,900
NAPH 3,000
Ph 18,000
Py 18,500
2-M 1,100
OTHER PNAs <MDL
PCBs <MDL
As 2,880
Ba 83,100
Cd 550
Cr 17,500
Cu 61,200
Pb 690,000
Hg 111
OTHER METALs <MDL

SB-15	SB-15
11/22/2021	11/22/2021
2.5 ~ 3.5'	5.0 ~ 6.0'
VOCs <MDL	VOCs <MDL
B(k)FLA 300	PNAs <MDL
FL 400	Pb 8,270
Ph 400	
Py 400	
OTHER PNAs <MDL	
Pb 26,700	

CO-SB-12
12/17/2010
2.0 ~ 4.0'
B(a)PYR 3,700

SB-23	SB-23
11/22/2021	11/22/2021
2.5 ~ 3.5'	5.0 ~ 6.0'
2-M 200	VOCs <MDL
OTHER VOCs <MDL	PNAs <MDL
ACE 1,100	Pb 20,700
ANT 2,600	
B(a)ANTH 7,600	
B(a)PYR 6,900	
B(b)FLA 13,400	
B(g,h,i)PER 2,100	
B(k)FLA 15,100	
CHRYSENE 7,200	
DI(A,H)ANT 300	
FL 14,200	
F 1,400	
I(1,2,3-CD)PY 2,200	
2-M 500	
NAPH 1,000	
Ph 12,100	
Py 15,100	
OTHER PNAs <MDL	
Pb 1,530,000	

SB-21	SB-21
11/22/2021	11/22/2021
2.5 ~ 3.5'	5.0 ~ 6.0'
2-M 2,400	VOCs <MDL
NAPH 6,700	PNAs <MDL
OTHER VOCs <MDL	Pb 10,000
ACE 800	
ANT 2,700	
B(a)ANTH 4,400	
B(a)PYR 3,900	
B(b)FLA 7,400	
B(g,h,i)PER 1,100	
B(k)FLA 8,200	
CHRYSENE 4,400	
FL 10,000	
F 1,100	
I(1,2,3-CD)PY 1,100	
NAPH 500	
Ph 10,000	
Py 10,900	
OTHER PNAs <MDL	
Pb 214,000	

SB-22	SB-22
11/22/2021	11/22/2021
2.5 ~ 3.5'	5.0 ~ 6.0'
VOCs <MDL	VOCs <MDL
B(a)ANTH 900	PNAs <MDL
B(a)PYR 900	Pb 10,500
B(b)FLA 1,800	
B(g,h,i)PER 500	
B(k)FLA 2,100	
CHRYSENE 1,100	
FL 1,800	
I(1,2,3-CD)PY 400	
Ph 900	
Py 1,900	
OTHER PNAs <MDL	
Pb 751,000	

SB-3
12/18/2013
4.0 ~ 5.0'
2-M 1,180
OTHER VOCs <MDL
PNAs <MDL
PCBs <MDL
As 1,410
Ba 81,200
Cd 290
Cr 2,710
Cu 12,100
Pb 13,500
OTHER METALs <MDL

SB-9
12/18/2013
2.0 ~ 3.0'
VOCs <MDL
PNAs <MDL
PCBs <MDL

SB-2
12/18/2013
3.0 ~ 4.0'
VOCs <MDL
B(a)PYR 1,100
B(b)FLA 1,800
B(k)FLA 2,000
B(g,h,i)PER 600
CHRYSENE 1,200
FL 3,200
I(1,2,3-CD)PY 500
Ph 2,400
Py 2,800
OTHER PNAs <MDL
PCBs <MDL
As 1,950
Ba 55,400
Cd 390
Cr 4,890
Cu 20,300
Pb 53,500
Hg 163
OTHER METALs <MDL

SB-1	SB-1
12/18/2013	12/18/2013
1.0 ~ 2.0'	8.0 ~ 9.0'
VOCs <MDL	VOCs <MDL
B(a)PYR 600	B(a)PYR 1,000
B(b)FLA 1,100	B(b)FLA 1,800
B(k)FLA 1,200	B(k)FLA 2,000
B(g,h,i)PER 300	B(g,h,i)PER 400
CHRYSENE 700	CHRYSENE 1,000
FL 1,400	FL 1,700
Ph 700	I(1,2,3-CD)PY 400
Py 1,200	Ph 1,000
OTHER PNAs <MDL	Py 1,700
PCBs <MDL	OTHER PNAs <MDL
As 2,820	
Ba 58,400	
Cd 520	
Cr 8,710	
Cu 16,400	
Pb 31,400	
Hg 73	
OTHER METALs <MDL	

LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- PARCEL / LOT BOUNDARIES
- TELE — BURIED PHONE LINE
- AKT BORING LOCATION
- SOIL BORING
- SOIL BORING / SOIL GAS

As	ARSENIC
Ba	BARIUM
Cd	CADMIUM
Cr	CHROMIUM
Pb	LEAD
Cu	COPPER
Hg	MERCURY
B(a)PYR	BENZO(a)PYRENE
B(b)FLA	BENZO(b)FLUORANTHENE
B(g,h,i)PER	BENZO(g,h,i)PERYLENE
B(k)FLA	BENZO(k)FLUORANTHENE
F	FLUORENE
FL	FLUORANTHENE
Ph	PHENANTHRENE
Py	PYRENE
I(1,2,3-CD)PY	INDENO(1,2,3,CD)PYRENE
DI(A,H)ANT	DIBENZO(a,h)ANTHRACENE
2-M	2-METHYLNAPHTHALENE
NAPH	NAPHTHALENE
VOCs	VOLATILE ORGANIC COMPOUNDS
PNAs	POLYNUCLEAR AROMATIC COMPOUNDS
PCBs	POLYCHLORINATED BIPHENYLS
MDL	METHOD DETECTION LIMIT
UNITs	µg/Kg (UNLESS NOTED)

VALUE EXCEEDS APPLICABLE CRITERIA/RBSL

VALUE EXCEEDS SSVIAC

NOTES:

REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED.
ONLY EXCEEDENCES ABOVE APPLICABLE PART 201 RESIDENTIAL CLEANUP CRITERIA ARE IDENTIFIED FOR AKT BORINGS.

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 3

SOIL ANALYTICAL RESULTS

PROJ:

VACANT LAND
5800 MICHIGAN AVENUE AND
3951-39578 CAMPBELL STREET
DETROIT, MI

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE
0 50'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: CS/MM/CS
DATE: 12/14/2021
CHKD BY: KW/JR/JB
SCALE: 1" = 50'
FILE NAME: 01-12749-1-001F03R00

SG-14	
11/23/2021	
5.0'	
UNITS	ug/m³
HEXANE	11
OTHER VOCs	<MDL
ETHANOL	27,000
ISOP ALCOHOL	330
PROPENE	250
OTHER PNAs	<MDL

SG-20	
11/23/2021	
5.0'	
UNITS	ug/m³
ACETONE	120
CARBON DISF	19
CYCLOHEXANE	17
HEPTANE	33
HEXANE	49
OTHER VOCs	<MDL
ETHANOL	12,000
PROPENE	660
OTHER PNAs	<MDL

SG-13	
11/23/2021	
7.5'	
UNITS	ug/m³
ETHANOL	7,300
T	290
OTHER PNAs	<MDL

LEGEND:

- SUBJECT PROPERTY
- APPROXIMATE FORMER/HISTORICAL SITE FEATURES
- PARCEL / LOT BOUNDARIES
- TELE — BURIED PHONE LINE

- AKT BORING LOCATION
- SOIL BORING
- SOIL BORING / SOIL GAS

T	TOLUENE
CARBON DISF	CARBON DISULFIDE
ISOP ALCOHOL	ISOPROPYL ALCOHOL
VOCs	VOLATILE ORGANIC COMPOUNDS
PNAs	POLYNUCLEAR AROMATIC COMPOUNDS
MDL	METHOD DETECTION LIMIT
UNITs	µg/m³ (UNLESS NOTED)

NOTES: REFER TO TABLES FOR SPECIFIC COMPOUNDS ANALYZED.

PM ENVIRONMENTAL | Environmental & Engineering Services

FIGURE 4
SOIL GAS ANALYTICAL RESULTS

PROJ:
VACANT LAND
5800 MICHIGAN AVENUE AND
3951-39578 CAMPBELL STREET
DETROIT, MI

THIS IS NOT A LEGAL SURVEY

VERIFY SCALE
0 50'
IF NOT 1" ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DRN BY: CS/MM/CS
CHKD BY: KW/JR/JB
DATE: 12/14/2021
SCALE: 1" = 50'
FILE NAME: 01-12749-1-001F04R00

Tables

PM ENVIRONMENTAL Environmental & Engineering Services

TABLE 1
SUMMARY OF SOIL ANALYTICAL RESULTS
VOCs, PNAs AND LEAD
5800 MICHIGAN AVENUE AND 3951-3957 CAMPBELL STREET, DETROIT, MICHIGAN
PM PROJECT # 01-12749-1-0001

Volatile Organic Compounds (VOCs), Polynuclear Aromatic Compounds (PNAs), and Lead (µg/Kg)			2-Methylnaphthalene	Naphthalene	Other VOCs	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Lead
Chemical Abstract Service Number (CAS#)			91576	91203	Various	83329	208968	120127	56553	50328	205992	191242	207089	218019	53703	206440	86737	193395	91576	91203	85018	129000	7439921
Sample ID	**Sample Date**	**Sample Depth (feet bgs)**	**VOCs**			**PNAs**																	**Lead**
PM's 2013 Site Investigation																							
SB-1	12/18/2013	1.0-2.0	<450	<450	<MDL	<300	<300	<300	700	600	1,100	300	1,200	700	<300	1,400	<300	<300	<300	<300	700	1,200	31,400
SB-1	12/18/2013	8.0-9.0	<510	<510	<MDL	<300	<300	<300	900	1,000	1,800	400	2,000	1,000	<300	1,700	<300	400	<300	<300	1,000	1,700	NA
SB-2	12/18/2013	3.0-4.0	<510	<510	<MDL	<300	<300	500	1,200	1,100	1,800	600	2,000	1,200	<300	3,200	<300	500	<300	<300	**2,400**	2,800	53,500
SB-3	12/18/2013	4.0-5.0	1,180	<530	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	13,500
SB-4	12/18/2013	2.5-3.5	<430	<430	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	NA
SB-5	12/18/2013	1.0-2.0	<450	<450	<MDL	<300	<300	<300	<300	300	500	<300	600	<300	<300	500	<300	<300	<300	<300	<300	500	NA
SB-6	12/18/2013	5.0-6.0	<490	<490	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	NA
SB-7	12/18/2013	3.0-4.0	<490	<490	<MDL	900	<300	1,900	3,500	**3,400**	6,100	1,100	6,800	3,500	400	**8,800**	1,000	1,000	<300	500	8,700	9,400	NA
SB-8	12/18/2013	2.0-3.0	<580	610	<MDL	2,200	400	3,900	9,300	**8,900**	15,800	2,900	17,600	9,300	<300	**20,900**	2,600	2,900	1,100	**3,000**	**18,000**	18,500	**690,000**
SB-9	12/18/2013	2.0-3.0	<670	<670	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	NA
SB-14	12/19/2013	2.5-3.5	<500	<500	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	7,120
SB-15	12/19/2013	5.0-6.0	<520	<520	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	9,650
PM's 2021 Site Investigation																							
SB-13	11/22/2021	3.0-4.0	100	<300	<MDL	<300	<300	400	800	600	1,100	<300	1,300	800	<300	1,900	<300	<300	<300	<300	1,600	1,800	36,500
SB-13	11/22/2021	4.5-5.5	700	500	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	14,400
SB-14	11/22/2021	3.0-4.0	<100	<400	<MDL	700	400	2,000	6,400	**6,500**	11,900	2,500	13,400	6,800	300	**13,000**	700	2,500	<300	<300	**8,100**	13,500	187,000
SB-14	11/22/2021	5.0-6.0	<200	<400	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	7,580
SB-15	11/22/2021	2.5-3.5	<100	<300	<MDL	<300	<300	<300	<300	<300	<300	<300	300	<300	<300	400	<300	<300	<300	<300	400	400	26,700
SB-15	11/22/2021	5.0-6.0	<100	<400	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	8,270
SB-16	11/22/2021	3.0-4.0	<100	<300	<MDL	800	400	2,600	7,600	**6,400**	12,300	2,000	13,800	7,300	<300	**14,600**	900	2,000	<300	400	**9,600**	18,000	61,200
SB-16	11/22/2021	5.0-6.0	<100	<300	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	12,200
SB-17	11/22/2021	3.5-4.5	<100	<300	<MDL	400	<300	1,200	3,500	**3,400**	6,000	1,200	6,700	3,500	<300	**7,400**	500	1,200	<300	<300	**4,300**	7,500	47,200
SB-17	11/22/2021	5.0-6.0	<200	<400	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	17,600
SB-18	11/22/2021	2.5-3.5	<100	<400	<MDL	400	<300	1,200	3,900	**3,700**	6,600	1,500	7,400	4,100	<300	**8,300**	400	1,400	<300	<300	**5,000**	8,800	**1,290,000**
SB-18	11/22/2021	5.0-6.0	<100	<400	<MDL	<300	<300	<300	<300	<300	400	<300	400	<300	<300	600	<300	<300	<300	<300	700	600	13,700
SB-19	11/22/2021	3.0-4.0	<100	<300	<MDL	<300	<300	<300	<300	<300	500	<300	600	<300	<300	500	<300	<300	<300	<300	<300	600	47,400
SB-19	11/22/2021	5.0-6.0	<100	<400	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	11,900
SB-20	11/22/2021	3.0-4.0	<100	<300	<MDL	<300	<300	400	1,100	1,000	1,900	400	2,100	1,100	<300	2,200	<300	300	<300	<300	1,400	2,200	**857,000**
SB-20	11/22/2021	5.0-6.0	<200	<400	<MDL	1,800	<300	2,600	4,500	**4,200**	7,200	2,000	8,200	4,700	<300	**10,500**	2,100	1,900	1,000	**3,000**	**12,400**	9,800	375,000
SB-21	11/22/2021	2.5-3.5	2,400	**6,700**	<MDL	800	<300	2,700	4,400	**3,900**	7,400	1,100	8,200	4,400	<300	**10,000**	1,100	1,100	<300	500	**10,000**	10,900	214,000
SB-21	11/22/2021	5.0-6.0	<100	<400	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	10,000
SB-22	11/22/2021	2.5-3.5	<100	<400	<MDL	<300	<300	<300	900	900	1,800	500	2,100	1,100	<300	1,800	<300	400	<300	<300	900	1,900	**751,000**
SB-22	11/22/2021	5.0-6.0	<100	<400	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	10,500
SB-23	11/22/2021	2.5-3.5	200	<300	<MDL	1,100	<300	2,600	7,100	**6,900**	13,400	2,100	15,100	7,200	300	**14,200**	1,400	2,200	500	**1,000**	**12,100**	15,100	**1,530,000**
SB-23	11/22/2021	5.0-6.0	<100	<300	<MDL	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	20,700
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) **Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, June 25, 2018** **EGLE Volatilization to Indoor Air Pathway (VIAP) Screening Levels, September 4, 2020**																							
Residential (µg/Kg)																							
Typical Range of Data (2015 Background Soil Survey)			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<400 - 38,900
Statewide Default Background Levels			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21,000
Drinking Water Protection (Res DWP)			57,000	35,000	100	3.00E+05	5,900	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	3.90E+05	NLL	57,000	35,000	56,000	4.80E+05	7.00E+05
Groundwater Surface Water Interface Protection (GSIP)			4,200	730	1,200 {X}	8,700	ID	ID	NLL	NLL	NLL	NLL	NLL	NLL	NLL	5,500	5,300	NLL	4,200	730	2,100	ID	5.3E+6{G,X}
Soil Volatilization to Indoor Air Inhalation (Res SVII)			2.70E+06	2.50E+05	11,000	1.9E+08	1.60E+06	1.0E+9 {D}	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 {D}	5.8E+08	NLV	2.70E+06	2.50E+05	2.8E+06	1.0E+9 {D}	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Res VSI)			1.50E+06	3.00E+05	1.70E+05	8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.40E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			1.50E+06	3.00E+05	4.80E+05	8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			1.50E+06	3.00E+05	1.1E+06	8.1E+07	2.2E+06	1.4E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	7.4E+08	1.3E+08	NLV	1.50E+06	3.00E+05	1.60E+05	6.5E+08	NLV
Ambient Air Particulate Soil Inhalation (Res PSI)			6.70E+08	2.00E+08	2.7E+09	1.4E+10	2.3E+09	6.7E+10	ID	1.5E+06	ID	8.0E+08	ID	ID	ID	9.3E+09	9.3E+09	ID	6.70E+08	2.0E+08	6.7E+06	6.7E+09	1.00E+08
Direct Contact (Res DC)			8.10E+06	1.60E+07	2.0E+05 {C}	4.1E+07	1.6E+06	2.3E+08	20,000	2,000	20,000	2.5E+06	2.00E+05	2.0E+06	2,000	4.6E+07	2.7E+07	20,000	8.10E+06	1.6E+07	1.6E+06	2.9E+07	4.00E+05
Nonresidential (µg/Kg)																							
Drinking Water Protection (Nonres DWP)			1.70E+05	1.00E+05	100	8.80E+05	17,000	41,000	NLL	NLL	NLL	NLL	NLL	NLL	NLL	7.30E+05	8.90E+05	NLL	1.70E+05	1.00E+05	1.60E+05	4.80E+05	7.00E+05
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)			4.90E+06	4.70E+05	21,000	3.5E+08	3.0E+06	1.0E+9 {D}	NLV	NLV	ID	NLV	NLV	ID	NLV	1.0E+9 {D}	1.0E+9 {D}	NLV	4.90E+06	4.70E+05	5.1E+06	1.0E+9 {D}	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)			1.80E+06	3.50E+05	2.10E+05	9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.9E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			1.80E+06	3.50E+05	4.90E+05	9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			1.80E+06	3.50E+05	1.1E+06	9.7E+07	2.7E+06	1.6E+09	NLV	NLV	ID	NLV	NLV	ID	NLV	8.8E+08	1.5E+08	NLV	1.80E+06	3.50E+05	1.90E+05	7.8E+08	NLV
Ambient Air Particulate Soil Inhalation (Nonres PSI)			2.90E+08	8.80E+07	1.2E+09	6.2E+09	1.0E+09	2.9E+10	ID	1.9E+06	ID	3.5E+08	ID	ID	ID	4.1E+09	4.1E+09	ID	2.90E+08	8.8E+07	2.9E+06	2.9E+09	4.40E+07
Direct Contact (Nonres DC)			2.60E+07	5.20E+07	9.3E+05 {C}	1.3E+08	5.2E+06	7.3E+08	80,000	8,000	80,000	7.0E+06	8.00E+05	8.0E+06	8,000	1.3E+08	8.7E+07	80,000	2.60E+07	5.2E+07	5.2E+06	8.4E+07	9.0E+5 {DD}
Screening Levels (µg/Kg)																							
Soil Saturation Concentration Screening Levels (Csat)			NA	NA	Various	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Residential Site-Specific Volatilization to Infoor Air Criteria (VIAC)*			1,700	67(M)	Various	2.10E+05	NA	1.30E+07	1.6E+05(MM)	NA	NA	NA	NA	NA	NA	NA	4.70E+05	NA	1,700	67 (M)	1,700	2.50E+07	NA

	Criterion/RBSL Exceeded
BOLD	Value Exceeds Criterion/RBSL
	Value Exceeds Applicable VIAC
underline	Applicable VIAC Exceeded
µg/Kg	Micrograms per Kilogram
bgs	Below Ground Surface (feet)
NA	Not Applicable
NLV	Not Likely to Volatilize
NLL	Not Likely to Leach
NL	Not Listed
ID	Insufficient Data
{G}	Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on 146 mg/L CaCO3 Hardness: Station ID 259010, Detroit River; Detroit, MI.
{ }	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Criteria Tables, December 21, 2020
*	SSVIAC developed for a residential structure with a slab-on-grade foundation containing an elevator pit that extends 5.0 feet below grade, with a dpeth to water of 25.0 feet, and a sand soil type.

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS
PCBs AND METALS
5800 MICHIGAN AVENUE AND 3951-3957 CAMPBELL STREET, DETROIT, MICHIGAN
PM PROJECT # 01-12749-1-0001

Polychlorinated Biphenyls (PCBs), and Metals (µg/Kg)			PCBs	Arsenic	Barium	Cadmium	Chromium	Copper	Mercury	Selenium	Silver	Zinc
Chemical Abstract Service Number (CAS#)			1336363	7440382	7440393	7440439	16065831	7440508	7439976	7782492	7440224	7440666
Sample ID	**Sample Date**	**Sample Depth (bgs)**	**PCBs**	**Metals**								
PM's 2013 Site Investigation												
SB-1	12/18/2013	1.0-2.0	<330	2,820	58,400	520	8,710	16,400	73	<400	<200	50,600
SB-1	12/18/2013	8.0-9.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-2	12/18/2013	3.0-4.0	<330	1,950	55,400	390	4,890	20,300	163	<400	<200	59,000
SB-3	12/18/2013	4.0-5.0	<330	1,410	81,200	290	2,710	12,100	<50	<400	<200	47,900
SB-4	12/18/2013	2.5-3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-5	12/18/2013	1.0-2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-6	12/18/2013	5.0-6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-7	12/18/2013	3.0-4.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-8	12/18/2013	2.0-3.0	<330	2,880	83,100	550	17,500	61,200	111	<400	<200	217,000
SB-9	12/18/2013	2.0-3.0	<330	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-14	12/19/2013	2.5-3.5	<330	850	69,800	<200	3,150	6,200	<50	<400	<200	20,900
SB-15	12/19/2013	5.0-6.0	<330	1,620	88,600	220	2,840	7,500	<50	<400	<200	15,300
Cleanup Criteria Requirements for Response Activity (R 299.1 - R 299.50) **Generic Soil Cleanup Criteria Tables 2 and 3: Residential and Non-Residential Part 201 Generic Cleanup Criteria and Screening Levels/Part 213 Risk-Based Screening Levels, June 25, 2018** **Site-Specific Volatilization to Indoor Air Criteria (SSVIAC), March 21, 2022**												
Residential (µg/Kg)												
Typical Range of Data (2015 Background Soil Survey)			NA	<300 - 22,800	2,400 - 172,000	<50 - 2,000	<600 - 55,600	8,000 - 50,600	<10 - 500	<50 - 1,300	<30 - 1,400	3,000 - 118,000
Statewide Default Background Levels			NA	5,800	75,000	1,200	18,000	32,000	130	410	1,000	47,000
Drinking Water Protection (DWP)			NLL	4,600	1.30E+06	6,000	30,000	5.80E+06	1,700	4,000	4,500	2.40E+06
Groundwater Surface Water Interface Protection (GSIP)			NLL	4,600	5.6E+5 {G}	3.7E+5{G,X}	3,300	1.2E+5 {G}	50 {M}; 1.2	400	100 {M}; 27	2.7E+6 {G}
Soil Volatilization to Indoor Air Inhalation (SVII)			3.0E+06	NLV	NLV	NLV	NLV	NLV	48,000	NLV	NLV	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (VSI)			2.40E+05	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			7.9E+06	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			7.9E+06	NLV	NLV	NLV	NLV	NLV	52,000	NLV	NLV	NLV
Ambient Air Particulate Soil Inhalation (PSI)			5.2E+06	7.20E+05	3.30E+08	1.70E+06	2.60E+05	1.30E+08	2.00E+07	1.30E+08	6.70E+06	ID
Direct Contact (DC)			4,000 {T}	7,600	3.70E+07	5.50E+05	2.50E+06	2.00E+07	1.60E+05	2.60E+06	2.50E+06	1.70E+08
Nonresidential (µg/Kg)												
Drinking Water Protection (Nonres DWP)			NLL	4,600	1.30E+06	6,000	30,000	5.80E+06	1,700	4,000	4,500	5.00E+06
Soil Volatilization to Indoor Air Inhalation (Nonres SVII)			1.6E+07	NLV	NLV	NLV	NLV	NLV	89,000	NLV	NLV	NLV
Ambient Air Infinite Source Volatile Soil Inhalation (Nonres VSI)			8.10E+05	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV
Ambient Air Finite VSI for 5 Meter Source Thickness			2.8E+07	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV
Ambient Air Finite VSI for 2 Meter Source Thickness			2.8E+07	NLV	NLV	NLV	NLV	NLV	62,000	NLV	NLV	NLV
Ambient Air Particulate Soil Inhalation (Nonres PSI)			6.5E+06	9.10E+05	1.50E+08	2.20E+06	2.40E+05	5.90E+07	8.80E+06	5.90E+07	2.90E+06	ID
Direct Contact (Nonres DC)			16,000 {T}	37,000	1.30E+08	2.10E+06	9.20E+06	7.30E+07	5.80E+05	9.60E+06	9.00E+06	6.30E+08
Screening Levels (µg/Kg)												
Soil Saturation Concentration Screening Levels (Csat)			ID	NA	NA	NA	NA	NA	NA	NA	NA	NA
Residential Site-Specific Volatilization to Indoor Air Criteria (VIAC)			ID	NA	NA	NA	NA	NA	NL	NA	NA	NA

	Criterion/RBSL Exceeded
BOLD	Value Exceeds Criterion/RBSL
	Value Exceeds Applicable VIAC
underline	Applicable VIAC Exceeded
µg/Kg	Micrograms Per Kilogram
bgs	Below Ground Surface
<MDL	Not detected at levels above the laboratory Method Detection Limit (MDL)
NA	Not Applicable
NL	Not Listed
NLL	Not Likely to Leach
NLV	Not Likely to Volatilize
ID	Insufficient Data
VIAC	Volatilization to Indoor Air Criteria
*	SSVIAC developed for a residential structure with a slab-on-grade foundation containing an elevator pit that extends 5.0 feet below grade, with a dpeth to water of 25.0 feet, and a sand soil type.
{G}	Metal GSIP Criteria for Surface Water Not Protected for Drinking Water Use based on #416 mg/L CaCO3 Hardness: Station ID 259010, Detroit River, Detroit, MI.
{T}	Refer to the Toxic Substance Control Act (TSCA), 40 CFR 761, Subparts D and G, as amended, to determine the applicability of TSCA cleanup standards.
	Alternatives to compliance with the standards listed below are possible under Subpart D. New releases may be subject to the standards identified in Subpart G.
	Use Part 201 soil direct contact criteria in the table below where TSCA standards are not applicable.

LAND USE CATEGORY	TSCA Subpart D	Part 201
Residential	1,000 µg/kg, or	4,000 µg/Kg
Nonresidential	10,000 µg/kg if capped	16,000 µg/Kg

TABLE 3 (1 OF 2)
SUMMARY OF SOIL GAS ANALYTICAL RESULTS
VOCs
5800 MICHIGAN AVENUE AND 3951-3957 CAMPBELL STREET, DETROIT, MICHIGAN
PM PROJECT # 01-12749-1-0001

Volatile Organic Compounds (VOCs) (ppbv)			Acetone	Benzene	Carbon disulfide	Chloromethane	Cyclohexane	Dichlorodifluoromethane	m-Dichlorobenzene	Ethanol	Ethylbenzene	Ethyl Acetate	Freon 113	Heptane	Hexane	Isopropyl Alcohol	Methylene chloride	Methyl ethyl ketone	Propylene	1,2,4-Trimethylbenzene	2,2,4-Trimethylpentane	Tertiary Butyl Alcohol	Tetrachloroethylene	Tetrahydrofuran	Toluene	Trichloroethylene	Trichlorofluoromethane	Xylenes (total)	Other VOCs
Chemical Abstract Service Number (CAS#)			67641	71432	75150	74873	110827	75718	541731	64175	100414	141786	76131	142825	110543	67630	75092	78933	115071	95636	540841	75650	127184	109999	108883	79016	75694	1330207	Various
Sample ID	**Sample Date**	**Sample Depth (feet bgs)**	**VOCs**																										
SG-1	12/18/2013	1.0	52.7	2.80	<2.5	0.9	<2.8	3.4	<6.8	30.9	3.3	46.4	88.1	2.8	21.0	135	76.1	9.4	<3.4	2.5	2.0	2.70	1.20	7.7	19.0	0.86	2.4	16.0	<MDL
SG-8	12/18/2013	2.0	112.0	2.70	2.60	1.2	1.3	2.9	9.6	20.0	3.3	<2.9	110.0	3.7	30.0	1,240	106.0	7.4	18.4	2.2	<3.7	2.50	2.60	1.2	18.0	<0.86	2.4	16.0	<MDL
SG-9	12/18/2013	2.0	36.8	4.8	<2.5	1.3	<2.8	2.9	6.0	19.6	3.4	16.0	95.0	4.9	27.0	777	7.3	2.90	12.0	2.3	<3.7	<2.4	1.80	1.8	28.0	<0.86	4.5	17.0	<MDL
SG-10	12/18/2013	4.5	94.5	4.5	<2.5	1.1	<2.8	2.8	8.4	21.5	4.3	<2.9	85.8	5.3	26.0	846	57.6	6.8	24.0	4.30	<3.7	2.4	37.0	2.9	28.0	1.10	2.1	19.0	<MDL
Site-Specific Volatilization to Indoor Air Criteria (SSVIAC), March 21, 2022																													
EGLE Residential/Nonresidential Site-Specific Volatilization to Indoor Air Criteria (VIAC) (µg/m3)																													
Residential Site-Specific Volatilization to Indoor Air Criteria (VIAC)*			1,000,000	110	24,000	140,000	210,000	11,000	100	630,000 (EE)	340	NL	660,000	120,000	24,000	7,000	21,000	170,000	NR	2,100	120,000	2,500	1,400 (EE)	34,000	70,000	67	15,000	7,600	Various

VIAC Exceeded

BOLD Value Exceeds Applicable VIAC

<MDL Not detected at or above laboratory reporting or detection limits

bgs Below Ground Surface

µg/m^3 micrograms per cubic meter

( ) Other Alpha notation, please refer to EGLE Footnotes in the March 2022 SSVIAC Memo

* SSVIAC developed for a residential structure with a slab-on-grade foundation containing an elevator pit that extends 5.0 feet below grade, with a dpeth to water of 25.0 feet, and a sand soil type.

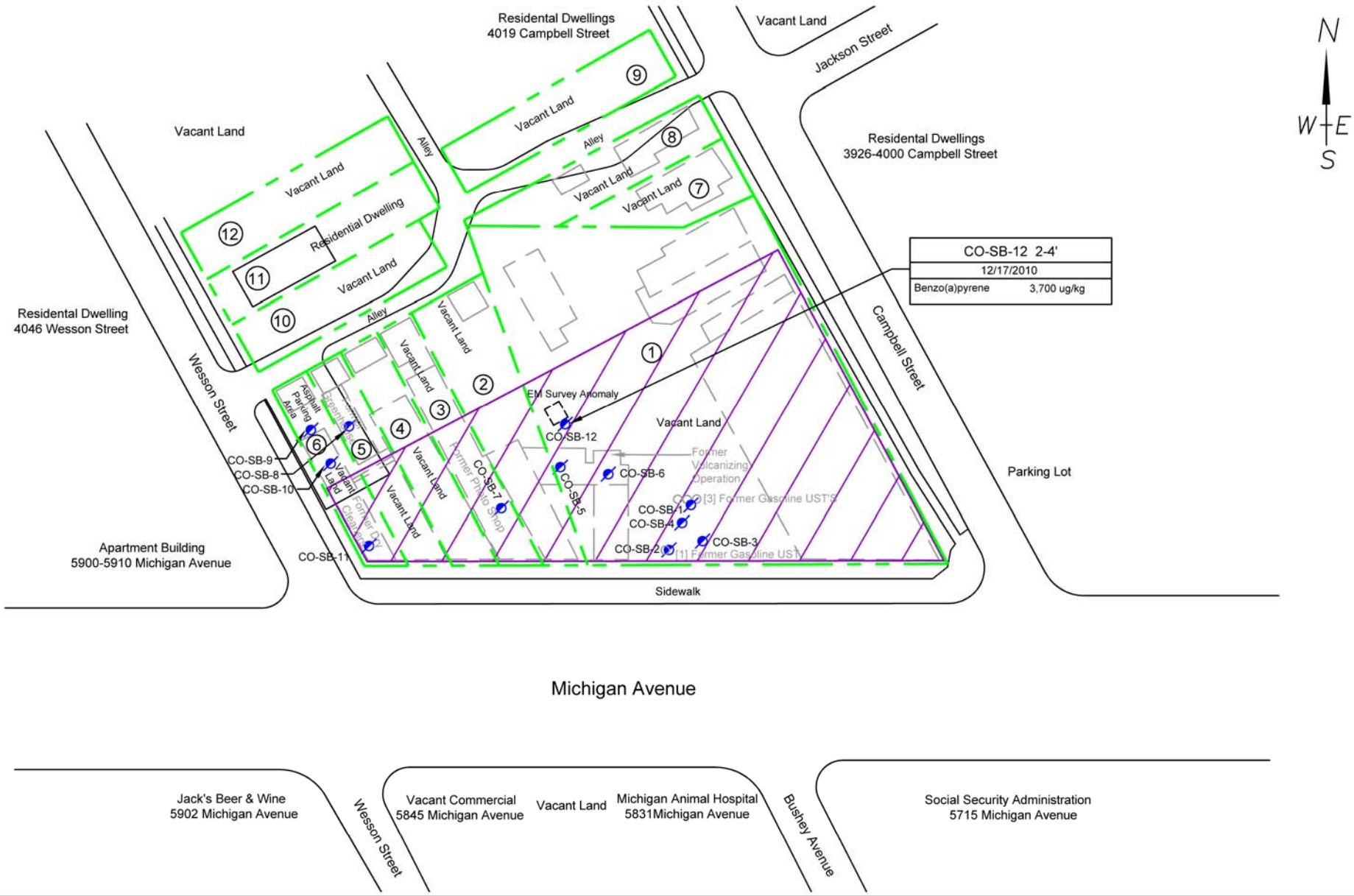
TABLE 3 (2 OF 2)
SUMMARY OF SOIL GAS ANALYTICAL RESULTS
VOCs, SVOCs, AND MERCURY
5800 MICHIGAN AVENUE AND 3951-3957 CAMPBELL STREET, DETROIT, MICHIGAN
PM PROJECT # 01-12749-1-0001

Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), and Mercury ($\mu g/m^3$)			Acetone	Carbon disulfide	Cyclohexane	Heptane	Hexane	Other VOCs	Ethanaol	Isopropyl alcohol	Propene	Toluene	Other PNAs	Mercury
Chemical Abstract Service Number (CAS#)			67641	75150	110827	142825	110543	Various	34175	67630	115071	108883	Various	7439-97-6
Sample ID	**Sample Date**	**Sample Depth (feet bgs)**	**VOCs**						**SVOCs**					**Mercury**
SG-13	11/23/2021	7.5	NA	NA	NA	NA	NA	NA	7,300	<MDL	<MDL	290	<MDL	<MDL
SG-14	11/23/2021	5.0	<48	<16	<6.9	<8.2	11	<MDL	27,000	330	250	<MDL	<MDL	NA
SG-20	11/23/2021	5.0	120	19	17	33	49	<MDL	12,000	<MDL	660	<MDL	<MDL	NA
Site-Specific Volatilization to Indoor Air Criteria (SSVIAC), March 21, 2022														
EGLE Residential/Nonresidential Site-Specific Volatilization to Indoor Air Criteria (VIAC) (µg/m3)														
Residential Site-Specific Volatilization to Indoor Air Criteria (VIAC)*			1,000,000	24,000	210,000	120,000	24,000	Various	1.5E+08 (EE)	7,000	NL	170,000	Various	NL

	VIAC Exceeded
BOLD	Value Exceeds Applicable VIAC
<MDL	Not detected at or above laboratory reporting or detection limits
bgs	Below Ground Surface
$\mu g/m^3$	micrograms per cubic meter
{ }	Other Alpha notation, please refer to EGLE Footnotes R 299.49 Footnotes for Generic Cleanup Criteria Tables, December 21, 2020
*	SSVIAC developed for a residential structure with a slab-on-grade foundation containing an elevator pit that extends 5.0 feet below grade, with a dpeth to water of 25.0 feet, and a sand soil type.

Appendix A

PM ENVIRONMENTAL Environmental & Engineering Services



AKTPEERLESS
environmental & energy services
CHICAGO DETROIT FARMINGTON LANSING SAGINAW
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SITE MAP WITH SOIL RESULTS EXCEEDING MDNRE GRCC
CHILDREN'S OUTREACH
5800 MICHIGAN AVENUE
DETROIT, MICHIGAN
PROJECT NUMBER : 6861F-1-20

LEGEND
= PROPERTY LINE
= PARCEL LINE
= SOIL BORING
= GEOPHYSICAL SURVEY AREA
= FORMER STRUCTURE

DRAWN BY: JWB
DATE: 1/11/2011
0 40 80
SCALE: 1" = 80'±0

FIGURE 3

AKT PEERLESS environmental services

Table 1
Summary of Soil Analytical Results
Children's Outreach
5800-5864 Michigan Avenue, 4028-4044 Wesson Avenue, and 3951-4007 Campbell Avenue
Detroit, Michigan
AKT Peerless Project No. 6861F-1-20

Guidesheet Number →		#10	#11	#12	#13	#14	#15	#18	#19	#20							
Parameters*	**Chemical Abstract Service Number**	**Statewide Default Background Levels**	**Residential and Commercial I Drinking Water Protection Criteria and RBSLs**	**Groundwater Surface Water Interface Protection Criteria and RBSLs**	**Groundwater Contact Protection Criteria and RBSLs**	**Soil Volatilization to Indoor Air Inhalation Criteria and RBSLs**	**Infinite Source Volatile Soil Inhalation Criteria (VSIC) and RBSLs**	**Particulate Soil Inhalation Criteria and RBSLs**	**Direct Contact Criteria and RBSLs**	**Soil Saturation Concentration Screening Levels**	Sample Location	CO-SB-1	CO-SB-1	CO-SB-2	CO-SB-2	CO-SB-3	CO-SB-3	CO-SB-4
**(Refer to detailed laboratory report for method reference data)*											Collection Date	12/17/2010	12/17/2010	12/17/2010	12/17/2010	12/17/2010	12/17/2010	12/17/2010
											Depth (feet)	4-6	10-12	4-6	10-12	1-3	4-6	2-4
		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Metals																		
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	2.3E+8	NLV	NLV	1.7E+6	5.5E+5	NA		210	<200	<200	<200	340	<200	420
Chromium, Total	7440-47-3	18,000 (total)	30,000	3,300	1.4E+8	NLV	NLV	2.6E+5	2.5E+6	NA		2,310	3,260	3,030	3,860	3,450	2,730	3,570
Lead (B)	7439-92-1	21,000	7.0E+5	(G,X)	ID	NLV	NLV	1.0E+8	4.0E+5	NA		12,900	4,850	8,750	5,430	27,400	6,280	12,100
Semivolatiles, PNAs																		
Acenaphthene	83-32-9	NA	3.0E+5	4,400	9.7E+5	1.9E+8	8.1E+7	1.4E+10	4.1E+7	NA		<300	<300	<300	<300	<300	<300	<300
Acenaphthylene	208-96-8	NA	5,900	ID	4.4E+5	1.6E+6	2.2E+6	2.3E+9	1.6E+6	NA		<300	<300	<300	<300	<300	<300	<300
Anthracene	120-12-7	NA	41,000	ID	41,000	1.0E+9 (D)	1.4E+9	6.7E+10	2.3E+8	NA		<300	<300	<300	<300	<300	<300	<300
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLL	NLV	NLV	ID	20,000	NA		<300	<300	<300	<300	<300	<300	<300
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLL	NLV	NLV	1.5E+6	2,000	NA		<300	<300	<300	<300	<300	<300	<300
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	NLL	ID	ID	ID	20,000	NA		<300	<300	<300	<300	<300	<300	<300
Benzo(g,h,i)perylene	191-24-2	NA	NLL	NLL	NLL	NLV	NLV	8.0E+8	2.5E+6	NA		<300	<300	<300	<300	<300	<300	<300
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLL	NLV	NLV	ID	2.0E+5	NA		<300	<300	<300	<300	<300	<300	<300
Chrysene (Q)	218-01-9	NA	NLL	NLL	NLL	ID	ID	ID	2.0E+6	NA		<300	<300	<300	<300	<300	<300	<300
Dibenzo(a,h)anthracene (Q)	53-70-3	NA	NLL	NLL	NLL	NLV	NLV	ID	2,000	NA		<300	<300	<300	<300	<300	<300	<300
Fluoranthene	206-44-0	NA	7.3E+5	5,500	7.3E+5	1.0E+9 (D)	7.4E+8	9.3E+9	4.6E+7	NA		<300	<300	<300	<300	500	<300	<300
Fluorene	86-73-7	NA	3.9E+5	5,300	8.9E+5	5.8E+8	1.3E+8	9.3E+9	2.7E+7	NA		<300	<300	<300	<300	<300	<300	<300
Indeno(1,2,3-cd)pyrene (Q)	193-39-5	NA	NLL	NLL	NLL	NLV	NLV	ID	20,000	NA		<300	<300	<300	<300	<300	<300	<300
2-Methylnaphthalene	91-57-6	NA	57,000	ID	5.5E+6	ID	ID	ID	8.1E+6	NA		<300	<300	<300	<300	<300	<300	<300
Naphthalene	91-20-3	NA	35,000	870	2.1E+6	2.5E+5	3.0E+5	2.0E+8	1.6E+7	NA		<300	<300	<300	<300	<300	<300	<300
Phenanthrene	85-01-8	NA	56,000	5,300	1.1E+6	2.8E+6	1.6E+5	6.7E+6	1.6E+6	NA		<300	<300	<300	<300	<300	<300	<300
Pyrene	129-00-0	NA	4.8E+5	ID	4.8E+5	1.0E+9 (D)	6.5E+8	6.7E+9	2.9E+7	NA		<300	<300	<300	<300	400	<300	<300
Volatiles																		
Acrylonitrile (I)	107-13-1	NA	100 (M); 52	100 (M,X); 98	2.8E+5	6,600	5,000	4.6E+7	16,000	8.3E+6		<200	<200	<200	<200	<200	<200	<100
Bromomethane	74-83-9	NA	200	700	1.4E+6	860	11,000	3.3E+8	3.2E+5	2.2E+6		<300	<300	<300	<300	<400	<300	<300
sec-Butylbenzene	135-98-8	NA	1,600	ID	88,000	ID	ID	ID	2.5E+6	1.0E+7		110	<90	<80	<90	<90	<80	<70
1,3-Dichlorobenzene	541-73-1	NA	170	1,100	51,000	ID	ID	ID	1.7E+5 (C)	1.7E+5		<200	<200	<200	<200	<200	<200	<100
Ethylene dibromide	106-93-4	NA	20 (M); 1.0	20 (M); 4.0	500	670	1,700	1.4E+7	92	8.9E+5		<30	<30	<30	<30	<40	<30	<30
Methylene chloride	75-09-2	NA	100	19,000 (X)	2.3E+6 (C)	45,000	2.1E+5	6.6E+9	1.3E+6	2.3E+6		<200	<200	<200	<200	<200	<200	<100
Tetrahydrofuran	109-99-9	NA	1,900	2.2E+5 (X)	3.2E+7	1.3E+6	1.3E+7	3.9E+11	2.9E+6	1.2E+8		<2,000	<2,000	<2,000	<2,000	<2,000	<2,000	<1,000
1,1,2-Trichloroethane	79-00-5	NA	100	6,600 (X)	4.2E+5	4,600	17,000	1.9E+8	1.8E+5	9.2E+5		<600	<90	<220	<90	<90	<80	<70
Vinyl chloride	75-01-4	NA	40	300	20,000	270	4,200	3.5E+8	3,800	4.9E+5		<80	<90	<80	<90	<90	<80	<70
Xylenes (I)	1330-20-7	NA	5,600	700	1.5E+5 (C)	1.5E+5 (C)	4.6E+7	2.9E+11	1.5E+5 (C)	1.5E+5		<280	<290	<280	<290	<290	<280	<170
Remaining VOCs	varies	NA	-	-	-	-	-	-	-	-		BDL	BDL	BDL	BDL	BDL	BDL	BDL
Total Petroleum Hydrocarbons																		
TPH GRO (C6-C10)		NA	5.5E+05	5.5E+05	5.5E+05	5.5E+05	5.5E+05	5.5E+05	5.5E+05	5.5E+05		34,000	NS	25,000	NS	NS	NS	NS
TPH DRO (C10-C28)		NA	1.0E+06	1.0E+06	1.0E+06	1.0E+06	1.0E+06	1.0E+06	1.0E+06	1.0E+06		6.1E+05	NS	9,000	NS	NS	NS	NS

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Guidesheet Number →		#10	#11	#12	#13	#14	#15	#18	#19	#20								
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											Collection Date	12/17/2010	12/17/2010	12/17/2010	12/17/2010	12/17/2010	12/17/2010	12/17/2010
											Depth (feet)	2-4	4-6	2-4	4-6	1-3	4-6	1-3
		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Metals																		
Arsenic	7440-38-2	5,800	4,600	70,000 (X)	2.0E+6	NLV	NLV	7.2E+5	7,600	NA		1,240	NS	NS	NS	2,480	3,060	NS
Barium (B)	7440-39-3	75,000	1.3E+6	(G,X)	1.0E+9 (D)	NLV	NLV	3.3E+8	3.7E+7	NA		53,800	NS	NS	NS	52,500	50,200	NS
Cadmium (B)	7440-43-9	1,200	6,000	(G,X)	2.3E+8	NLV	NLV	1.7E+6	5.5E+5	NA		210	NS	NS	NS	320	330	NS
Chromium, Total	7440-47-3	18,000 (total)	30,000	3,300	1.4E+8	NLV	NLV	2.6E+5	2.5E+6	NA		2,790	NS	NS	NS	4,390	17,800	NS
Copper (B)	7440-50-8	32,000	5.8E+6	(G)	1.0E+9 (D)	NLV	NLV	1.3E+8	2.0E+7	NA		8,100	NS	NS	NS	18,500	15,400	NS
Lead (B)	7439-92-1	21,000	7.0E+5	(G,X)	ID	NLV	NLV	1.0E+8	4.0E+5	NA		15,900	NS	NS	NS	71,700	46,200	NS
Mercury, Total	7439-97-6	130	1,700	50 (M); 1.2	47,000	48,000	52,000	2.0E+7	1.6E+5	NA		<50	NS	NS	NS	210	<50	NS
Selenium (B)	7782-49-2	410	4,000	400	7.8E+7	NLV	NLV	1.3E+8	2.6E+6	NA		<500	NS	NS	NS	<500	<500	NS
Silver (B)	7440-22-4	1,000	4,500	100 (M); 27	2.0E+8	NLV	NLV	6.7E+6	2.5E+6	NA		<200	NS	NS	NS	<200	<200	NS
Zinc (B)	7440-66-6	47,000	2.4E+6	(G)	1.0E+9 (D)	NLV	NLV	ID	1.7E+8	NA		24,100	NS	NS	NS	61,000	55,000	NS
Pesticides																		
2,4-Dichlorophenoxyacetic acid	94-75-7	NA	1,400	4,400	2.4E+6	NLV	NLV	6.7E+9	2.5E+6	NA		NS	NS	NS	NS	NS	NS	<240
Silvex (2,4,5-TP)	93-72-1	NA	3,600	2,200	3.1E+6	NLV	NLV	ID	1.7E+6	NA		NS	NS	NS	NS	NS	NS	<240
Pesticides, Chlorinated																		
Aldrin	309-00-2	NA	NLL	NLL	NLL	1.3E+6	58,000	6.4E+5	1,000	NA		NS	NS	NS	NS	NS	NS	<20
Chlordane (J)	57-74-9	NA	NLL	NLL	NLL	1.1E+7	1.2E+6	3.1E+7	31,000	NA		NS	NS	NS	NS	NS	NS	<20
4-4'-DDD	72-54-8	NA	NLL	NLL	NLL	NLV	NLV	4.4E+7	95,000	NA		NS	NS	NS	NS	NS	NS	<20
4-4'-DDE	72-55-9	NA	NLL	NLL	NLL	NLV	NLV	3.2E+7	45,000	NA		NS	NS	NS	NS	NS	NS	<20
4-4'-DDT	50-29-3	NA	NLL	NLL	NLL	NLV	NLV	3.2E+7	57,000	NA		NS	NS	NS	NS	NS	NS	<20
Dieldrin	60-57-1	NA	NLL	NLL	NLL	1.4E+5	19,000	6.8E+5	1,100	NA		NS	NS	NS	NS	NS	NS	<20
Endrin	72-20-8	NA	NLL	NLL	NLL	NLV	NLV	ID	65,000	NA		NS	NS	NS	NS	NS	NS	<20
Heptachlor	76-44-8	NA	NLL	NLL	NLL	3.5E+5	62,000	2.4E+6	5,600	NA		NS	NS	NS	NS	NS	NS	<20
Heptachlor epoxide	1024-57-3	NA	NLL	NLL	NLL	NLV	NLV	1.2E+6	3,100	NA		NS	NS	NS	NS	NS	NS	<20
alpha-Hexachlorocyclohexane	319-84-6	NA	18	NA	2,500	30,000	12,000	1.7E+6	2,600	NA		NS	NS	NS	NS	NS	NS	<20
beta-Hexachlorocyclohexane	319-85-7	NA	37	ID	5,100	NLV	NLV	5.9E+6	5,400	NA		NS	NS	NS	NS	NS	NS	<20
Lindane	58-89-9	NA	20 (M); 7.0	20 (M); 0.99	7,100	ID	ID	ID	8,300	NA		NS	NS	NS	NS	NS	NS	<20
Methoxychlor	72-43-5	NA	16,000	NA	18,000	ID	ID	ID	1.9E+6	NA		NS	NS	NS	NS	NS	NS	<50

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AKT Peerless Project No. 6861F-1-20

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											Collection Date	12/17/2010	12/17/2010
											Depth (feet)	13-15	2-4
		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg		ug/kg	ug/kg
Semivolatiles, PNAs													
Acenaphthene	83-32-9	NA	3.0E+5	4,400	9.7E+5	1.9E+8	8.1E+7	1.4E+10	4.1E+7	NA		NS	500
Acenaphthylene	208-96-8	NA	5,900	ID	4.4E+5	1.6E+6	2.2E+6	2.3E+9	1.6E+6	NA		NS	400
Anthracene	120-12-7	NA	41,000	ID	41,000	1.0E+9 (D)	1.4E+9	6.7E+10	2.3E+8	NA		NS	1,600
Benzo(a)anthracene (Q)	56-55-3	NA	NLL	NLL	NLL	NLV	NLV	ID	20,000	NA		NS	4,200
Benzo(a)pyrene (Q)	50-32-8	NA	NLL	NLL	NLL	NLV	NLV	1.5E+6	**2,000**	NA		NS	**3,700**
Benzo(b)fluoranthene (Q)	205-99-2	NA	NLL	NLL	NLL	ID	ID	ID	20,000	NA		NS	3,700
Benzo(g,h,i)perylene	191-24-2	NA	NLL	NLL	NLL	NLV	NLV	8.0E+8	2.5E+6	NA		NS	1,000
Benzo(k)fluoranthene (Q)	207-08-9	NA	NLL	NLL	NLL	NLV	NLV	ID	2.0E+5	NA		NS	3,600
Chrysene (Q)	218-01-9	NA	NLL	NLL	NLL	ID	ID	ID	2.0E+6	NA		NS	4,200
Dibenzo(a,h)anthracene (Q)	53-70-3	NA	NLL	NLL	NLL	NLV	NLV	ID	2,000	NA		NS	<300
Fluoranthene	206-44-0	NA	7.3E+5	**5,500**	7.3E+5	1.0E+9 (D)	7.4E+8	9.3E+9	4.6E+7	NA		NS	**8,600**
Fluorene	86-73-7	NA	3.9E+5	5,300	8.9E+5	5.8E+8	1.3E+8	9.3E+9	2.7E+7	NA		NS	700
Indeno(1,2,3-cd)pyrene (Q)	193-39-5	NA	NLL	NLL	NLL	NLV	NLV	ID	20,000	NA		NS	1,000
2-Methylnaphthalene	91-57-6	NA	57,000	ID	5.5E+6	ID	ID	ID	8.1E+6	NA		NS	<300
Naphthalene	91-20-3	NA	35,000	870	2.1E+6	2.5E+5	3.0E+5	2.0E+8	1.6E+7	NA		NS	<300
Phenanthrene	85-01-8	NA	56,000	**5,300**	1.1E+6	2.8E+6	1.6E+5	6.7E+6	1.6E+6	NA		NS	**6,500**
Pyrene	129-00-0	NA	4.8E+5	ID	4.8E+5	1.0E+9 (D)	6.5E+8	6.7E+9	2.9E+7	NA		NS	8,000
Volatiles													
Acrylonitrile (I)	107-13-1	NA	100 (M); 52	100 (M,X); 98	2.8E+5	6,600	5,000	4.6E+7	16,000	8.3E+6		<200	<200
1,3-Dichlorobenzene	541-73-1	NA	170	1,100	51,000	ID	ID	ID	1.7E+5 (C)	1.7E+5		<200	<200
Ethylene dibromide	106-93-4	NA	20 (M); 1.0	20 (M); 4.0	500	670	1,700	1.4E+7	92	8.9E+5		<40	<30
Methylene chloride	75-09-2	NA	100	19,000 (X)	2.3E+6 (C)	45,000	2.1E+5	6.6E+9	1.3E+6	2.3E+6		<200	<200
Tetrahydrofuran	109-99-9	NA	1,900	2.2E+5 (X)	3.2E+7	1.3E+6	1.3E+7	3.9E+11	2.9E+6	1.2E+8		<2,000	<2,000
Vinyl chloride	75-01-4	NA	40	300	20,000	270	4,200	3.5E+8	3,800	4.9E+5		<90	<80
Remaining VOCs	varies	-	-	-	-	-	-	-	-	-		BDL	BDL

Appendix B

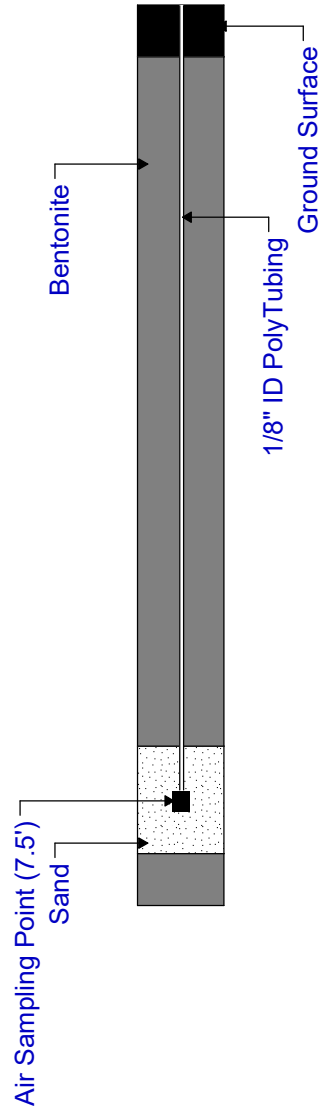
PM ENVIRONMENTAL Environmental & Engineering Services

Well Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Well No.: SB/TSG-13
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)
		Ground Surface			
0		***TOP SOIL***		90	0.0
		SW- (Loose) SAND (moist) Brown, fine to medium., trace gravel			
		CONCRETE DEBRIS		90	0.0
2		***SW- (Loose) SAND (saturated)*** Brown, fine to medium., trace gravel		90	0.0
		CL- (Medium Stiff) CLAY (damp) Gray, low plasticity, trace gravel, trace sand	SB-13 3.0-4.0'	90	0.0
4		***CL- (Stiff) CLAY (damp)*** Dark Brown, low plasticity, trace gravel, trace sand, concrete/brick/asphalt debris		90	0.0
			SB-13 4.5-5.5'	90	0.0
6		***CL- (Medium Stiff) CLAY (damp)*** Brown, low plasticity, trace gravel		90	0.0
				90	0.0
8				90	0.0
				90	0.0
10				90	0.0



Completion Notes: EOB @ 10'

Legend:

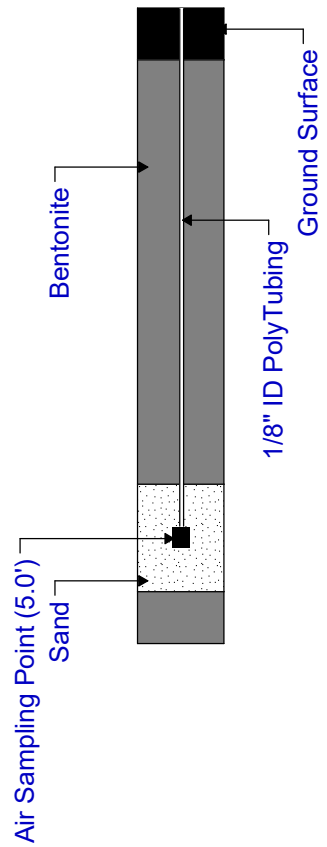
EOB	End of Boring
bgs	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet
in	Inches

Well Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Well No.: SB/TSG-14
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)
0		Ground Surface			
		TOP SOIL		90	0.0
		SW- (Loose) SAND (damp) Brown, fine to medium., trace gravel		90	0.0
2				90	0.0
			SB-14	90	0.0
4		***CL- (Medium Stiff) CLAY (damp)*** Dark Brown, medium plasticity, trace gravel, trace sand, asphalt debris	3.0-4.0'	90	0.0
		CL- (Medium Stiff) CLAY (damp) Brown, medium plasticity, trace gravel	SB-14	90	0.0
6			5.0-6.0'	90	0.0
				90	0.0
8				90	0.0
				90	0.0
10					



Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
bgs	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet
in	Inches

Boring Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Boring No.: SB-15
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)	No Well Installed
		Ground Surface				
0		***TOP SOIL***		75	0.0	
		SW- (Loose) SAND (damp) Brown, fine to medium., trace gravel		75	0.0	
2				75	0.0	
			SB-15			
		CL- (Stiff) CLAY (damp) Dark Brown, medium plasticity, trace gravel, trace sand, concrete/brick/asphalt debris	2.5-3.5'	75	0.0	
4				75	0.0	
		CL- (Medium Stiff) CLAY (damp) Brown, high plasticity, trace gravel	SB-15	90	0.0	
			5.0-6.0'			
6				90	0.0	
				90	0.0	
8				90	0.0	
				90	0.0	
10						

Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
Bgs.	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet

Boring Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Boring No.: SB-16
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)	No Well Installed
		Ground Surface				
0		***TOP SOIL***		80	0.0	
		SW- (Loose) SAND (damp) Brown, fine to medium., trace gravel		80	0.0	
2				80	0.0	
			SB-16 3.0-4.0'	80	0.0	
4		***CL- (Stiff) CLAY (damp)*** Dark Brown, medium plasticity, trace gravel, trace sand, concrete/brick/asphalt debris		80	0.0	
		CL- (Medium Stiff) CLAY (damp) Brown, medium plasticity, trace gravel	SB-16 5.0-6.0'	80	0.0	
6				80	0.0	
		CL- (Soft) CLAY (damp) Brown, high plasticity, trace gravel		80	0.0	
8				80	0.0	
				80	0.0	
10						

Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
Bgs.	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet

Boring Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Boring No.: SB-17
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)	No Well Installed
		Ground Surface				
0		***TOP SOIL***		75	0.0	
		SW- (Loose) SAND (damp) Brown, fine to medium., trace gravel		75	0.0	
2				75	0.0	
				75	0.0	
			SB-17			
4		***CL- (Stiff) CLAY (damp)*** Dark Brown, low plasticity, trace gravel, trace sand, concrete/brick/asphalt debris	3.5-4.5'	75	0.0	
		CL- (Medium Stiff) CLAY (damp) Brown, low plasticity, trace gravel	SB-17	90	0.0	
6			5.0-6.0'	90	0.0	
		CL- (Soft) CLAY (damp) Brown, high plasticity, trace gravel		90	0.0	
8				90	0.0	
				90	0.0	
10						

Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
Bgs.	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet

Boring Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Boring No.: SB-18
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)	No Well Installed
		Ground Surface				
0		***TOP SOIL***		90	0.0	
		SW- (Loose) SAND (damp) Brown, fine to medium., trace gravel		90	0.0	
2				90	0.0	
			SB-18			
		CL- (Stiff) CLAY (damp) Dark Brown, low plasticity, trace gravel, trace sand, concrete/asphalt debris	2.5-3.5'	90	0.0	
4		***CL- (Soft) CLAY (damp)*** Brown, medium plasticity, trace gravel		90	0.0	
			SB-18	90	0.0	
			5.0-6.0'			
6				90	0.0	
				90	0.0	
8				90	0.0	
				90	0.0	
10						

Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
Bgs.	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet

Boring Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Boring No.: SB-19
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)	No Well Installed
		Ground Surface				
0		***TOP SOIL***		85	0.0	
		SW- (Loose) SAND (damp) Brown, fine to medium., trace gravel		85	0.0	
2				85	0.0	
			SB-19 3.0-4.0'	85	0.0	
4		***CL- (Stiff) CLAY (damp)*** Dark Brown, low plasticity, trace gravel, trace sand, concrete/brick/asphalt debris		85	0.0	
		CL- (Stiff) CLAY (damp) Brown, low plasticity, trace gravel	SB-19 5.0-6.0'	85	0.0	
6		***CL- (Soft) CLAY (damp)*** Brown, medium plasticity, trace gravel		85	0.0	
				85	0.0	
8				85	0.0	
				85	0.0	
10						

Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
Bgs.	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet

Well Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

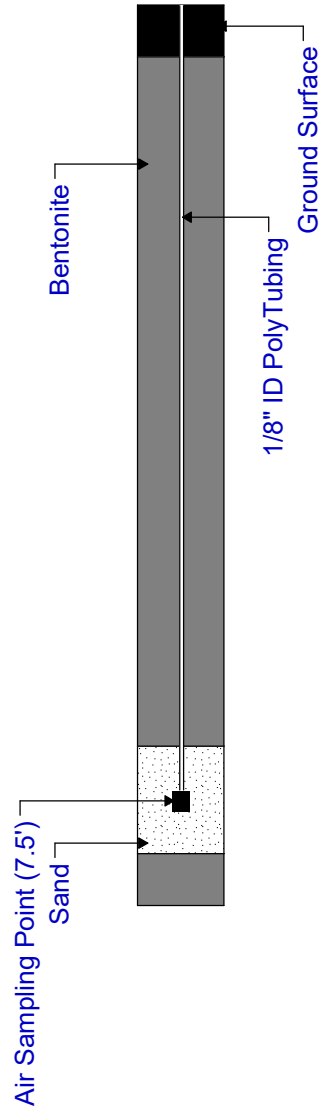
Well No.: SB/TSG-20
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

SUBSURFACE PROFILE

Depth (ft)	Description and Comments	Sample Interval	% Recovery	PID (ppm)
0	Ground Surface			
	TOP SOIL		75	0.1
	SW- (Loose) SAND (moist) Brown, fine to medium., trace gravel		75	0.1
2			75	0.1
		SB-20	75	0.8
4	**CL- (Stiff) CLAY (damp)** Dark Brown, medium plasticity, trace gravel, trace sand, concrete/brick/asphalt debris	3.0-4.0'		
	CL- (Medium Stiff) CLAY (damp) Dark Brown/Brown, medium plasticity, trace gravel		75	0.1
		SB-20	75	0.1
6		5.0-6.0'	75	0.1
			75	0.1
8	**CL- (Stiff) CLAY (damp)** Brown, medium plasticity, trace gravel		75	0.1
			75	0.1
10				

SAMPLE

Completion Details



Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
bgs	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet
in	Inches

Boring Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Boring No.: SB-21
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)	No Well Installed
		Ground Surface				
0		***TOP SOIL***		80	0.0	
		SW- (Loose) SAND (damp) Brown, fine to medium., trace gravel		80	0.0	
2				80	0.0	
			SB-21			
		CL- (Stiff) CLAY (damp) Dark Brown, low plasticity, trace gravel, trace sand, concrete/asphalt debris	2.5-3.5'	80	0.0	
4		***CL- (Stiff) CLAY (damp)*** Gray, low plasticity, trace gravel, trace sand		80	0.0	
		CL- (Soft) CLAY (damp) GRay/Brown, high plasticity, trace gravel	SB-21	90	0.0	
6			5.0-6.0'	90	0.0	
				90	0.0	
8				90	0.0	
				90	0.0	
10						

Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
Bgs.	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet

Boring Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Boring No.: SB-22
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)	No Well Installed
		Ground Surface				
0		***TOP SOIL***		75	0.0	
		SW- (Loose) SAND (damp) Brown, fine to medium., trace gravel		75	0.0	
2				75	0.0	
			SB-22 2.5-3.5'			
		CL- (Medium Stiff) CLAY (damp) Dark Brown, medium plasticity, trace gravel, trace sand, brick/asphalt debris		75	0.0	
4		***CL- (Soft) CLAY (damp)*** Brown, high plasticity, trace gravel		75	0.0	
			SB-22 5.0-6.0'	75	0.0	
6				75	0.0	
				75	0.0	
8				75	0.0	
				75	0.0	
10						

Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
Bgs.	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet

Boring Log

Project No.: 01-12749-1-001
Project Name: Vacant Land
Address: 5800 Michigan Avenue, Detroit, MI
Facility ID#:
Date Drilled: 11/22/21
Logged By: H. Iglewski

Boring No.: SB-23
Drill Rig: 6712 DT
Drilling Method: Direct Push
Sampling Method: Grab
Drilling Contractor: PM

Depth (ft)	Soil Type Graphic	Description and Comments	Sample Interval	% Recovery	PID (ppm)	No Well Installed
		Ground Surface				
0		***TOP SOIL***		100	0.0	
		SW- (Loose) SAND (damp) Brown, fine to medium., trace gravel		100	0.0	
2				100	0.0	
			SB-23			
		CL- (Stiff) CLAY (damp) Dark Brown, medium plasticity, trace gravel, trace sand, concrete/brick/asphalt debris	2.5-3.5'	100	0.0	
4		***CL- (Medium Stiff) CLAY (damp)*** Brown, high plasticity, trace gravel		100	0.0	
			SB-23	100	0.0	
			5.0-6.0'			
6				100	0.0	
				100	0.0	
		CL- (Stiff) CLAY (damp) Brown, high plasticity, trace gravel				
8				100	0.0	
				100	0.0	
10						

Completion Notes: EOB @ 10'

Legend:

EOB	End of Boring
Bgs.	Below Ground Surface
NR	No Recovery
NA	Not Applicable
ft	Feet

Appendix C

PM ENVIRONMENTAL Environmental & Engineering Services

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY
WARREN DISTRICT OFFICE

GRETCHEN WHITMER
GOVERNOR

LIESL EICHLER CLARK
DIRECTOR

March 21, 2022

MEMO

DELIVERED VIA ELECTRONIC MAIL 3/21/2022

TO: Jana Beumel, PM Environmental

FROM: Jeanne Schlaufman, EQS
Remediation and Redevelopment Division
Southeast Michigan District

SUBJECT: Request for Site-Specific Criteria for:
Proposed Residential Development
5800 Michigan Avenue, Detroit, Wayne County
Site ID # 82008002

The Department of Environment, Great Lakes, and Energy (EGLE) has developed site-specific volatilization to indoor air criteria for the subject site in response to your request received February 18, 2022.

Inserted within the body of this memo are tables that contain site-specific volatilization to indoor air criteria (SSVIAC) under Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451 as amended, which represent EGLE's determination of values that reflect best available information regarding the toxicity and exposure risks posed by the hazardous substances present at the Proposed Residential Development, 5800 Michigan Avenue, Detroit, Wayne County. These values may be used as SSVIAC without further documentation to evaluate the volatilization to indoor air pathway (VIAP). If representative groundwater and soil sampling indicate that site concentrations are below unrestricted residential SSVIAC, there is not a vapor source and there is not a requirement to evaluate the migration of vapors with vapor sampling. Exceedance of unrestricted residential SSVIAC for any media necessitates a representative vapor investigation to evaluate the VIAP. Other values may be developed by a person consistent with the statutory provisions for development of site-specific criteria or screening levels and provided for EGLE review and approval.

Exceedances of these residential SSVIAC will require restrictions or institutional controls for closure or aid in the determination of off-site migration.

The results of this evaluation are as follows:

Table 1. Residential Part 201 SSVIAC or Part 213 VIAP STTLs. The following **restricted** site-specific values apply to a residential structure that has a **slab-on-grade** foundation with an **elevator pit that extends 5 feet below grade**, the depth to groundwater submitted for this site (i.e. 25 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (µg/L)	Soil (µg/kg)	Soil Vapor** (µg/m^3)
83329	Acenaphthene	3,900 (S) sol	2.1E+05 nc	7,300 nc
208968	Acenaphthylene	65 (CC) nc	DATA	7,300 nc
67641	Acetone	3.5E+07 (EE) st	2.6E+05 (EE) st	1.0E+06 (EE) st
107131	Acrylonitrile	130 ca	1.2 (M) ca	12 ca
994058	t-Amyl methyl ether (TAME)	3,900 nc	34 (M) nc	2,200 nc
120127	Anthracene	43 (S) sol	1.3E+07 nc	35,000 nc
71432	Benzene	36 ca	1.7 (M) ca	110 ca
56553	Benzo(a)anthracene	9.4 (S) (MM) sol	1.6E+05 (MM) mut	5.8 (MM) mut
205992	Benzo(b)fluoranthene	NA	NA	NA
207089	Benzo(k)fluoranthene	NA	NA	NA
191242	Benzo(g,h,i)perylene	NA	NA	NA
50328	Benzo(a)pyrene	NA	NA	NA
108861	Bromobenzene	3,600 nc	160 nc	2,100 nc
75274	Bromodichloromethane	65 ca	0.61 (M) ca	48 ca
75252	Bromoform	7,000 ca	45 (M) ca	770 ca
74839	Bromomethane	63 nc	0.90 (M) nc	350 nc
78933	2-Butanone (MEK)	4.4E+06 (DD) dev	31,000 (DD) dev	1.7E+05 (DD) dev
75650	t-Butyl alcohol	4.4E+05 nc	3,200 nc	2,500 nc
104518	n-Butylbenzene	2,200 nc	560 nc	7,000 nc
135988	sec-Butylbenzene	10,000 nc	3,800 nc	14 nc
98066	t-Butylbenzene	3.7 nc	0.64 (M) nc	14 nc
75150	Carbon disulfide	2,400 nc	52 (M) nc	24,000 nc
56235	Carbon tetrachloride	15 ca	0.31 (M) ca	150 ca
108907	Chlorobenzene	1,400 nc	82 nc	1,700 nc

Table 1. Residential Part 201 SSVIAC or Part 213 VIAP STTLs. The following **restricted** site-specific values apply to a residential structure that has a **slab-on-grade** foundation with an **elevator pit that extends 5 feet below grade**, the depth to groundwater submitted for this site (i.e. 25 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (µg/L)	Soil (µg/kg)	Soil Vapor** (µg/m^3)
75003	Chloroethane	17,000 nc	330 nc	1.4E+05 nc
67663	Chloroform	20 ca	0.26 (M) ca	37 ca
74873	Chloromethane	370 nc	6.9 (M) nc	3,100 nc
218019	Chrysene	NA	NA	NA
110827	Cyclohexane	2,800 nc	320 (M) nc	2.1E+05 nc
53703	Dibenzo(a,h)anthracene	NA	NA	NA
124481	Dibromochloromethane	63 (MM) mut	0.40 (MM) (M) mut	14 (MM) mut
96128	Dibromochloropropane	4.5E-04 (MM) (M) (CC) mut	DATA	6.2E-02 (MM) mut
95501	1,2-Dichlorobenzene	20,000 nc	1,500 nc	10,000 nc
541731	1,3-Dichlorobenzene	140 nc	10 (M) nc	100 nc
106467	1,4-Dichlorobenzene	330 ca	23 (M) ca	220 ca
75718	Dichlorodifluoromethane	76 nc	12 (M) nc	11,000 nc
75343	1,1-Dichloroethane	170 ca	2.6 (M) ca	530 ca
107062	1,2-Dichloroethane	54 ca	0.82 (M) ca	33 ca
75354	1,1-Dichloroethylene	440 nc	12 (M) nc	7,000 nc
156592	cis-1,2-Dichloroethylene	120 nc	2.1 (M) nc	280 nc
156605	trans-1,2-Dichloroethylene	510 nc	12 (M) nc	2,800 nc
78875	1,2-Dichloropropane	110 nc	2.1 (M) nc	140 nc
542756	1,3-Dichloropropene	140 (J) ca	3.1 (M) (J) ca	210 (J) ca
60297	Diethyl ether	47,000 nc	350 nc	35,000 nc
108203	Diisopropyl ether	22,000 (DD) dev	200 (M) (DD) dev	23,000 (DD) dev
64175	Ethanol	1.5E+08 (EE) st	1.3E+06 (EE) st	6.3E+05 (EE) st
637923	Ethyl-tert-butyl ether (ETBE)	22 (CC) nc	DATA	13,000 nc
100414	Ethylbenzene	120 ca	12 (M) ca	340 ca

Table 1. Residential Part 201 SSVIAC or Part 213 VIAP STTLs. The following **restricted** site-specific values apply to a residential structure that has a **slab-on-grade** foundation with an **elevator pit that extends 5 feet below grade**, the depth to groundwater submitted for this site (i.e. 25 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (µg/L)	Soil (µg/kg)	Soil Vapor** (µg/m^3)
106934	Ethylene dibromide	8.6 ca	7.4E-02 (M) ca	1.4 ca
206440	Fluoranthene	NA	NA	NA
86737	Fluorene	1,700 (S) sol	4.7E+05 nc	4,900 nc
142825	n-Heptane	160 nc	130 nc	1.2E+05 nc
67721	Hexachloroethane	140 ca	3.3 (M) ca	85 ca
110543	n-Hexane	29 (GW) nc	25 nc	24,000 nc
193395	Indeno(1,2,3-cd)pyrene	NA	NA	NA
67630	Isopropyl alcohol	1.2E+06 nc	9,900 nc	7,000 nc
98828	Isopropyl benzene	27 ca	3.8 (M) ca	81 ca
108101	4-Methyl-2-pentanone (MIBK)	4.6E+05 (EE) st	3,300 (EE) st	27,000 (EE) st
1634044	Methyl-tert-butyl ether (MTBE)	11,000 ca	74 (M) ca	3,300 ca
96377	Methylcyclopentane	130 nc	29 (M) nc	24,000 nc
75092	Methylene chloride	9,700 nc	130 nc	21,000 nc
91576	2-Methylnaphthalene	3,700 nc	1,700 nc	350 nc
91203	Naphthalene	210 ca	67 (M) ca	25 ca
109660	Pentane	48 (M) nc	36 (M) nc	35,000 nc
85018	Phenanthrene	530 nc	1,700 nc	3.5 nc
1336363	Polychlorinated biphenyls (PCBs)	3.1E-02 (M) (CC) (J) ca	DATA	8.5 (J) ca
103651	n-Propylbenzene	11,000 (DD) dev	1,800 (DD) dev	33,000 (DD) dev
129000	Pyrene	140 (S) sol	2.5E+07 nc	3,500 nc
100425	Styrene	1,500 ca	150 ca	1,500 ca
630206	1,1,1,2-Tetrachloroethane	190 ca	3.2 (M) ca	110 ca
79345	1,1,2,2-Tetrachloroethane	140 ca	2.7 (M) ca	15 ca
127184	Tetrachloroethylene	270 (EE) st	6.2 (M) (EE) st	1,400 (EE) st

Table 1. Residential Part 201 SSVIAC or Part 213 VIAP STTLs. The following **restricted** site-specific values apply to a residential structure that has a **slab-on-grade** foundation with an **elevator pit that extends 5 feet below grade**, the depth to groundwater submitted for this site (i.e. 25 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (µg/L)	Soil (µg/kg)	Soil Vapor** (µg/m^3)
109999	Tetrahydrofuran	1.4E+06 nc	13,000 nc	70,000 nc
108883	Toluene	60,000 nc	3,700 nc	1.7E+05 nc
87616	1,2,3-Trichlorobenzene	4,400 nc	840 nc	940 nc
120821	1,2,4-Trichlorobenzene	290 nc	53 (M) nc	70 nc
71556	1,1,1-Trichloroethane	23,000 (EE) st	450 (EE) st	1.7E+05 (EE) st
79005	1,1,2-Trichloroethane	22 nc	0.37 (M) nc	7.0 nc
79016	Trichloroethylene	16 (DD) dev	0.33 (M) (DD) dev	67 (DD) dev
75694	Trichlorofluoromethane	320 nc	19 (M) nc	15,000 nc
76131	1,1,2-Trichloro-1,2,2-trifluoroethane	7,700 nc	860 nc	6.6E+05 nc
540841	2,2,4-Trimethyl pentane	160 (GW) nc	130 (M) nc	1.2E+05 nc
526738	1,2,3-Trimethylbenzene	2,200 (JT) nc	270 (JT) nc	2,100 (JT) nc
95636	1,2,4-Trimethylbenzene	1,200 (JT) nc	150 (JT) nc	2,100 (JT) nc
108678	1,3,5-Trimethylbenzene	860 (JT) nc	100 (JT) nc	2,100 (JT) nc
75014	Vinyl chloride	2.3 (MM) mut	8.2E-02 (MM) (M) mut	54 (MM) mut
1330207	Xylenes	3,200 (J) nc	280 (J) nc	7,600 (J) nc
115071	Propene	NR	NR	NR

Table 2. Residential Part 201 SSVIAC or Part 213 VIAP STTLs. The following **unrestricted** site-specific values apply to a residential house that has a **basement** foundation, the depth to groundwater submitted for this site (i.e. 25 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (µg/L)	Soil (µg/kg)	Soil Vapor** (µg/m^3)
83329	Acenaphthene	3,900 (S) sol	2.0E+05 nc	7,300 nc
208968	Acenaphthylene	65 (CC) nc	DATA	7,300 nc
67641	Acetone	2.3E+07 (EE) st	2.6E+05 (EE) st	1.0E+06 (EE) st
107131	Acrylonitrile	83 ca	1.2 (M) ca	12 ca
994058	t-Amyl methyl ether (TAME)	2,400 nc	34 (M) nc	2,200 nc
120127	Anthracene	43 (S) sol	1.3E+07 nc	35,000 nc
71432	Benzene	23 ca	1.7 (M) ca	110 ca
56553	Benzo(a)anthracene	9.4 (S) (MM) sol	1.6E+05 (MM) mut	5.8 (MM) mut
205992	Benzo(b)fluoranthene	NA	NA	NA
207089	Benzo(k)fluoranthene	NA	NA	NA
191242	Benzo(g,h,i)perylene	NA	NA	NA
50328	Benzo(a)pyrene	NA	NA	NA
108861	Bromobenzene	2,200 nc	160 nc	2,100 nc
75274	Bromodichloromethane	40 ca	0.61 (M) ca	48 ca
75252	Bromoform	4,200 ca	45 (M) ca	770 ca
74839	Bromomethane	40 nc	0.90 (M) nc	350 nc
78933	2-Butanone (MEK)	2.8E+06 (DD) dev	31,000 (DD) dev	1.7E+05 (DD) dev
75650	t-Butyl alcohol	2.8E+05 nc	3,200 nc	2,500 nc
104518	n-Butylbenzene	1,300 nc	550 nc	7,000 nc
135988	sec-Butylbenzene	6,400 nc	3,800 nc	14 nc
98066	t-Butylbenzene	2.2 nc	0.64 (M) nc	14 nc
75150	Carbon disulfide	1,500 nc	52 (M) nc	24,000 nc
56235	Carbon tetrachloride	9.0 ca	0.31 (M) ca	150 ca
108907	Chlorobenzene	890 nc	82 nc	1,700 nc

Table 2. Residential Part 201 SSVIAC or Part 213 VIAP STTLs. The following **unrestricted** site-specific values apply to a residential house that has a **basement** foundation, the depth to groundwater submitted for this site (i.e. 25 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (µg/L)	Soil (µg/kg)	Soil Vapor** (µg/m^3)
75003	Chloroethane	11,000 nc	330 nc	1.4E+05 nc
67663	Chloroform	12 ca	0.26 (M) ca	37 ca
74873	Chloromethane	240 nc	6.9 (M) nc	3,100 nc
218019	Chrysene	NA	NA	NA
110827	Cyclohexane	1,700 nc	320 (M) nc	2.1E+05 nc
53703	Dibenzo(a,h)anthracene	NA	NA	NA
124481	Dibromochloromethane	37 (MM) mut	0.40 (MM) (M) mut	14 (MM) mut
96128	Dibromochloropropane	4.5E-04 (MM) (M) (CC) mut	DATA	6.2E-02 (MM) mut
95501	1,2-Dichlorobenzene	12,000 nc	1,500 nc	10,000 nc
541731	1,3-Dichlorobenzene	88 nc	10 (M) nc	100 nc
106467	1,4-Dichlorobenzene	200 ca	23 (M) ca	220 ca
75718	Dichlorodifluoromethane	47 nc	12 (M) nc	11,000 nc
75343	1,1-Dichloroethane	110 ca	2.6 (M) ca	530 ca
107062	1,2-Dichloroethane	34 ca	0.82 (M) ca	33 ca
75354	1,1-Dichloroethylene	270 nc	12 (M) nc	7,000 nc
156592	cis-1,2-Dichloroethylene	77 nc	2.1 (M) nc	280 nc
156605	trans-1,2-Dichloroethylene	320 nc	12 (M) nc	2,800 nc
78875	1,2-Dichloropropane	70 nc	2.1 (M) nc	140 nc
542756	1,3-Dichloropropene	86 (J) ca	3.1 (M) (J) ca	210 (J) ca
60297	Diethyl ether	30,000 nc	350 nc	35,000 nc
108203	Diisopropyl ether	13,000 (DD) dev	190 (M) (DD) dev	23,000 (DD) dev
64175	Ethanol	9.9E+07 (EE) st	1.3E+06 (EE) st	6.3E+05 (EE) st
637923	Ethyl-tert-butyl ether (ETBE)	22 (CC) nc	DATA	13,000 nc
100414	Ethylbenzene	74 ca	12 (M) ca	340 ca

Table 2. Residential Part 201 SSVIAC or Part 213 VIAP STTLs. The following **unrestricted** site-specific values apply to a residential house that has a **basement** foundation, the depth to groundwater submitted for this site (i.e. 25 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (µg/L)	Soil (µg/kg)	Soil Vapor** (µg/m^3)
106934	Ethylene dibromide	5.2 ca	7.4E-02 (M) ca	1.4 ca
206440	Fluoranthene	NA	NA	NA
86737	Fluorene	1,700 (S) sol	4.7E+05 nc	4,900 nc
142825	n-Heptane	150 (GW) nc	130 nc	1.2E+05 nc
67721	Hexachloroethane	82 ca	3.2 (M) ca	85 ca
110543	n-Hexane	29 (GW) nc	25 nc	24,000 nc
193395	Indeno(1,2,3-cd)pyrene	NA	NA	NA
67630	Isopropyl alcohol	8.1E+05 nc	9,800 nc	7,000 nc
98828	Isopropyl benzene	17 ca	3.8 (M) ca	81 ca
108101	4-Methyl-2-pentanone (MIBK)	2.9E+05 (EE) st	3,300 (EE) st	27,000 (EE) st
1634044	Methyl-tert-butyl ether (MTBE)	6,600 ca	74 (M) ca	3,300 ca
96377	Methylcyclopentane	83 nc	29 (M) nc	24,000 nc
75092	Methylene chloride	6,200 nc	130 nc	21,000 nc
91576	2-Methylnaphthalene	2,300 nc	1,700 nc	350 nc
91203	Naphthalene	130 ca	67 (M) ca	25 ca
109660	Pentane	40 (M) (GW) nc	36 (M) nc	35,000 nc
85018	Phenanthrene	320 nc	1,700 nc	3.5 nc
1336363	Polychlorinated biphenyls (PCBs)	3.1E-02 (M) (CC) (J) ca	DATA	8.5 (J) ca
103651	n-Propylbenzene	6,800 (DD) dev	1,800 (DD) dev	33,000 (DD) dev
129000	Pyrene	140 (S) sol	2.5E+07 nc	3,500 nc
100425	Styrene	920 ca	150 ca	1,500 ca
630206	1,1,1,2-Tetrachloroethane	120 ca	3.2 (M) ca	110 ca
79345	1,1,2,2-Tetrachloroethane	85 ca	2.7 (M) ca	15 ca
127184	Tetrachloroethylene	160 (EE) st	6.2 (M) (EE) st	1,400 (EE) st

Table 2. Residential Part 201 SSVIAC or Part 213 VIAP STTLs. The following **unrestricted** site-specific values apply to a residential house that has a **basement** foundation, the depth to groundwater submitted for this site (i.e. 25 ft), and USDA soil type of **sand**.

CAS#	Hazardous Substance	Groundwater Not In Contact (µg/L)	Soil (µg/kg)	Soil Vapor** (µg/m^3)
109999	Tetrahydrofuran	8.9E+05 nc	13,000 nc	70,000 nc
108883	Toluene	37,000 nc	3,700 nc	1.7E+05 nc
87616	1,2,3-Trichlorobenzene	2,600 nc	830 nc	940 nc
120821	1,2,4-Trichlorobenzene	170 nc	53 (M) nc	70 nc
71556	1,1,1-Trichloroethane	14,000 (EE) st	450 (EE) st	1.7E+05 (EE) st
79005	1,1,2-Trichloroethane	14 nc	0.37 (M) nc	7.0 nc
79016	Trichloroethylene	10 (DD) dev	0.33 (M) (DD) dev	67 (DD) dev
75694	Trichlorofluoromethane	200 nc	19 (M) nc	15,000 nc
76131	1,1,2-Trichloro-1,2,2-trifluoroethane	4,600 nc	860 nc	6.6E+05 nc
540841	2,2,4-Trimethyl pentane	160 (GW) nc	130 (M) nc	1.2E+05 nc
526738	1,2,3-Trimethylbenzene	1,300 (JT) nc	270 (JT) nc	2,100 (JT) nc
95636	1,2,4-Trimethylbenzene	740 (JT) nc	150 (JT) nc	2,100 (JT) nc
108678	1,3,5-Trimethylbenzene	520 (JT) nc	100 (JT) nc	2,100 (JT) nc
75014	Vinyl chloride	1.5 (MM) mut	8.2E-02 (MM) (M) mut	54 (MM) mut
1330207	Xylenes	2,000 (J) nc	280 (J) nc	7,600 (J) nc
115071	Propene	NR	NR	NR

FOOTNOTES

**Soil vapor site-specific volatilization to indoor air criteria (SSVIAC) are applicable for all depths.

- Acceptable Air Values (AAV) endpoint basis used for SSVIAC: (**ca**) = Carcinogenetic; (**nc**) = Non-Carcinogenetic; (**dev**) = Developmental; (**mut**) = Mutagenic cancer; (**st**) = Short-term (i.e., less than chronic exposure).
- Footnote (**#**): Acceptable air concentrations (AAC) cannot be adjusted to a 12-hour exposure time for hazardous substance.
- Footnote **AA**: Health-based groundwater SSVIAC are not available due to insufficient toxicological data. Dissolved-phase methane in groundwater is not explosive; however, if liberated and allowed to accumulate in an enclosed structure the principle health and safety concerns are explosive, flammable, and asphyxiant properties of gas phase methane. The acceptable groundwater concentration is the flammability and explosivity screening level (**FESL**) of 10,000 µg/L.
- Footnote **C**: The health-based SSVIAC exceeds the chemical-specific soil saturation screening level (**Csat**). Because this table does not list Csat values both were provided, with the calculated (health-based) value listed first and Csat provided in parenthesis. The person proposing or implementing response activity must document whether additional response activity is required to control non aqueous phase liquid (**NAPL**) to protect against risks associated with NAPL by using methods appropriate for the NAPL present.
- Footnote **CC**: Insufficient chemical-physical input parameters have been identified to allow the development of a health-based SSVIAC using standard methods. The health based SSVIAC for groundwater is developed based solely on the approach that the department uses for shallow groundwater. If groundwater detections are present, soil vapor may be the most appropriate media to evaluate risk posed from the VIAP.
- Footnote **DATA**: Insufficient physical chemical parameters to calculate a health based SSVIAC for specified media. If detections are present in specified media, health-based soil vapor SSVIAC should be used to evaluate risk.
- Footnote **DD**: Hazardous substance causes developmental effects. Residential SSVIAC are protective of both prenatal exposure using a pregnant female receptor and postnatal exposure using a child receptor. Nonresidential SSVIAC are protective of prenatal exposure using a pregnant female receptor. Prenatal developmental effects may occur after an acute (i.e. short-term) or full-term exposure.
- Footnote **EE**: The acceptable air concentration (**AAC**) for the volatile hazardous substances is not derived using standard methods. The hazardous substance may cause adverse human health effects for less than chronic exposures (i.e. short-term or acute). The AAC for these hazardous substances is the acute or intermediate minimum risk level (MRL) developed by the Agency for Toxic Substances and Disease Registry (ATSDR), a United States Environmental Protection Agency Integrated Risk Information System (IRIS) acute reference concentration, or EGLE's Air Quality Division acute initial threshold screening level (ITSL).
- Footnote **FF**: The AAC for the volatile hazardous substances are based on toxicity values that have been identified to have the potential to cause adverse human health effects for less than chronic exposures (i.e. short-term or acute). The short-term exposure for shallow groundwater health based SSVIAC are based on modification of the standard methods by the department to develop applicable shallow groundwater values.
- Footnote **GG**: Health-based SSVIAC for soil vapor are not available due to insufficient toxicological data. The soil vapor value addresses the health and safety concerns of explosive, flammable, and asphyxiant properties of gas phase methane. The acceptable soil vapor concentration is derived based on 25% of the lower explosive level (**LEL**) for methane.
- Footnote **GW**: The calculated health based SSVIAC for a hazardous substance based upon shallow groundwater is considered protective when it is greater than the calculated value for groundwater.
- Footnote **ID**: Requires further evaluation to determine the appropriate media to sample.
- Footnote **J**: Hazardous substance may be present in several isomer forms. Isomer-specific concentrations must be added together for comparison to criteria.
- Footnote **JT**: Hazardous substance may be present in several isomer forms. The health-based SSVIAC may be used for the individual isomer provided that it is the sole isomer detected; however, when multiple isomers are detected in a medium, the isomer-specific concentrations must be added together and compared to the most restrictive health-based SSVIAC of the detected isomers.
- Footnote **M**: The health based SSVIAC may be below target detection limits (**TDL**). In accordance with Sec. 20120a(10) when the TDL for a hazardous substance is greater than the developed health-based SSVIAC, the TDL is used to evaluate the risk posed from the pathway.
- Footnote **MM**: Hazardous substance is a carcinogen with a mutagenic mode of action. The cancer potency values used in calculating health-based SSVIAC are modified using age-dependent adjustment factors for those carcinogenic chemicals identified as mutagenic.
- Footnote **NA**: The hazardous substance does not meet the department's definition of a volatile; therefore, no health based SSVIAC were developed.
- Footnote **NR**: The hazardous substance has not been previously evaluated by the Remediation and Redevelopment Division Toxicology Unit. The identification, collection, and evaluation of toxicological literature and chemical-physical data cannot be completed within the timeframe requested.
- Footnote **S**: Calculated health-based SSVIAC exceeds the hazardous substance-specific water solubility limit; therefore, the water solubility limit is used to evaluate the risk posed from the pathway. When this occurs the basis for the screening level is noted as "sol".
- Footnote **TX**: The Remediation and Redevelopment Division Toxicology Unit has not identified an inhalation toxicity value for the hazardous substance.

Appendix D

PM ENVIRONMENTAL Environmental & Engineering Services

Analytical Laboratory Report

Report ID: S30665.01(01)
Generated on 12/02/2021

Report to

Attention: Jana Beumel
PM Environmental, Inc.
4080 W. Eleven Mile
Berkley, MI 48072

Phone: O:248-336-9988 D:248-414-1859 FAX:
Email: Beumel@pmenv.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S30665.01-S30665.33
Project: 01-12749-1-0001 / Vacant Land
Collected Date(s): 11/22/2021
Submitted Date/Time: 11/23/2021 15:45
Sampled by: Hailey Iglewski
P.O. #: 01-12749-1-0001

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
When MDL results are provided, then 'Not detected' indicates that parameter was not found at a level equal to or greater than the MDL.
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.
Report shall not be reproduced except in full, without the written approval of Merit Laboratories, Inc.
Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
SM2540B	Standard Method 2540 B 2011
SW3050B	SW 846 Method 3050B Revision 2 December 1996
SW3546	SW 846 Method 3546 Revision 0 February 2007
SW5035A	SW 846 Method 5035A Revision 1 July 2002
SW5035A/8260C	SW 846 Method 8260C Revision 3 August 2006 / 5035A Revision 1 July 2002
SW6020A	SW 846 Method 6020A Revision 1 February 2007
SW7471B	SW 846 Method 7471B Revision 2 February 2007
SW8270D	SW 846 Method 8270D Revision 4 February 2007

Sample Summary (33 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S30665.01	SB-13 3-4'	Soil	11/22/21 14:55
S30665.02	SB-13 4.5-5.5'	Soil	11/22/21 15:00
S30665.03	SB-13 7-8'	Soil	11/22/21 15:05
S30665.04	SB-14 3-4'	Soil	11/22/21 10:00
S30665.05	SB-14 5-6'	Soil	11/22/21 10:05
S30665.06	SB-14 7-8'	Soil	11/22/21 10:10
S30665.07	SB-15 2.5-3.5'	Soil	11/22/21 10:35
S30665.08	SB-15 5-6'	Soil	11/22/21 10:40
S30665.09	SB-15 7-8'	Soil	11/22/21 10:45
S30665.10	SB-16 3-4'	Soil	11/22/21 11:10
S30665.11	SB-16 5-6'	Soil	11/22/21 11:15
S30665.12	SB-16 7-8'	Soil	11/22/21 11:20
S30665.13	SB-17 3.5-4.5'	Soil	11/22/21 11:35
S30665.14	SB-17 5-6'	Soil	11/22/21 11:40
S30665.15	SB-17 7-8'	Soil	11/22/21 11:45
S30665.16	SB-18 2.5-3.5'	Soil	11/22/21 12:00
S30665.17	SB-18 5-6'	Soil	11/22/21 12:05
S30665.18	SB-18 7-8'	Soil	11/22/21 12:10
S30665.19	SB-19 3-4'	Soil	11/22/21 12:25
S30665.20	SB-19 5-6'	Soil	11/22/21 12:30
S30665.21	SB-19 7-8'	Soil	11/22/21 12:35
S30665.22	SB-20 3-4'	Soil	11/22/21 12:50
S30665.23	SB-20 5-6'	Soil	11/22/21 12:55
S30665.24	SB-20 7-8'	Soil	11/22/21 13:00
S30665.25	SB-21 2.5-3.5'	Soil	11/22/21 13:15
S30665.26	SB-21 5-6'	Soil	11/22/21 13:20
S30665.27	SB-21 7-8'	Soil	11/22/21 13:25
S30665.28	SB-22 2.5-3.5'	Soil	11/22/21 13:45
S30665.29	SB-22 5-6'	Soil	11/22/21 13:50
S30665.30	SB-22 7-8'	Soil	11/22/21 13:55
S30665.31	SB-23 2.5-3.5'	Soil	11/22/21 14:10
S30665.32	SB-23 5-6'	Soil	11/22/21 14:15
S30665.33	SB-23 7-8'	Soil	11/22/21 14:20

Analytical Laboratory Report

Lab Sample ID: S30665.01
Sample Tag: SB-13 3-4'
Collected Date/Time: 11/22/2021 14:55
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/24/21 17:00	JWR	
Sample wt. (g) / Methanol (ml)*	9.766/10	SW5035A	11/24/21 10:28	BML	
Mercury Digestion	Completed	SW7471B	11/30/21 10:15	JRH	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:00, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	85	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:10, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	36.5	0.30		mg/kg	274	7439-92-1	

Method: SW7471B, Run Date: 11/30/21 14:19, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	0.128	0.050		mg/kg	70	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 06:25, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	400	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	800	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	600	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	1,100	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	1,300	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	800	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	1,900	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	1,600	300		ug/kg	10	85-01-8	
Pyrene	1,800	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.01 (continued)
Sample Tag: SB-13 3-4'

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/30/21 14:34, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	69.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	69.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	69.1	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	69.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	69.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	69.1	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	69.1	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	69.1	75-71-8	
Chloromethane	Not detected	300		ug/kg	69.1	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	69.1	75-01-4	
Bromomethane	Not detected	300		ug/kg	69.1	74-83-9	
Chloroethane	Not detected	300		ug/kg	69.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	69.1	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	69.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	69.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	69.1	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	69.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	69.1	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	69.1	109-99-9	
Chloroform	Not detected	70		ug/kg	69.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	69.1	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	69.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	69.1	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	69.1	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	69.1	56-23-5	
Benzene	Not detected	70		ug/kg	69.1	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	69.1	107-06-2	
Trichloroethene	Not detected	70		ug/kg	69.1	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	69.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	69.1	75-27-4	
Dibromomethane	Not detected	300		ug/kg	69.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	69.1	10061-01-5	
Toluene	Not detected	70		ug/kg	69.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	69.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	69.1	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	69.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	69.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	69.1	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	69.1	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	69.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	69.1	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	69.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	69.1		
o-Xylene	Not detected	70		ug/kg	69.1	95-47-6	
Styrene	Not detected	70		ug/kg	69.1	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	69.1	98-82-8	
Bromoform	Not detected	100		ug/kg	69.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	69.1	79-34-5	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.01 (continued)
Sample Tag: SB-13 3-4'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/30/21 14:34, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2,3-Trichloropropane	Not detected	100		ug/kg	69.1	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	69.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	69.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	69.1	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	69.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	69.1	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	69.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	69.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	69.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	69.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	69.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	69.1	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	69.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	69.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	69.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	460		ug/kg	69.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	460		ug/kg	69.1	87-61-6	
Naphthalene	Not detected	300		ug/kg	69.1	91-20-3	
2-Methylnaphthalene	100	100		ug/kg	69.1	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S30665.02
Sample Tag: SB-13 4.5-5.5'
Collected Date/Time: 11/22/2021 15:00
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/24/21 17:00	JWR	
Sample wt. (g) / Methanol (ml)*	10.466/10	SW5035A	11/24/21 10:28	BML	
Mercury Digestion	Completed	SW7471B	11/30/21 10:15	JRH	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:00, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	77	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:12, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	14.4	0.30		mg/kg	299	7439-92-1	

Method: SW7471B, Run Date: 11/30/21 14:20, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Mercury	Not detected	0.050		mg/kg	70	7439-97-6	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 06:42, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Lab Sample ID: S30665.02 (continued)
Sample Tag: SB-13 4.5-5.5'

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/24/21 23:54, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	77	60-29-7	
Acetone	Not detected	2,000		ug/kg	77	67-64-1	
Methyl iodide	Not detected	200		ug/kg	77	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	77	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	77	1634-04-4	
Acrylonitrile	Not detected	200		ug/kg	77	107-13-1	
2-Butanone (MEK)	Not detected	1,200		ug/kg	77	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	77	75-71-8	
Chloromethane	Not detected	400		ug/kg	77	74-87-3	
Vinyl chloride	Not detected	80		ug/kg	77	75-01-4	
Bromomethane	Not detected	300		ug/kg	77	74-83-9	
Chloroethane	Not detected	400		ug/kg	77	75-00-3	
Trichlorofluoromethane	Not detected	200		ug/kg	77	75-69-4	
1,1-Dichloroethene	Not detected	80		ug/kg	77	75-35-4	
Methylene chloride	Not detected	200		ug/kg	77	75-09-2	
trans-1,2-Dichloroethene	Not detected	80		ug/kg	77	156-60-5	
1,1-Dichloroethane	Not detected	80		ug/kg	77	75-34-3	
cis-1,2-Dichloroethene	Not detected	80		ug/kg	77	156-59-2	
Tetrahydrofuran*	Not detected	2,000		ug/kg	77	109-99-9	
Chloroform	Not detected	80		ug/kg	77	67-66-3	
Bromochloromethane	Not detected	200		ug/kg	77	74-97-5	
1,1,1-Trichloroethane	Not detected	80		ug/kg	77	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	77	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	77	591-78-6	
Carbon tetrachloride	Not detected	80		ug/kg	77	56-23-5	
Benzene	Not detected	80		ug/kg	77	71-43-2	
1,2-Dichloroethane	Not detected	80		ug/kg	77	107-06-2	
Trichloroethene	Not detected	80		ug/kg	77	79-01-6	
1,2-Dichloropropane	Not detected	80		ug/kg	77	78-87-5	
Bromodichloromethane	Not detected	200		ug/kg	77	75-27-4	
Dibromomethane	Not detected	400		ug/kg	77	74-95-3	
cis-1,3-Dichloropropene	Not detected	80		ug/kg	77	10061-01-5	
Toluene	Not detected	80		ug/kg	77	108-88-3	
trans-1,3-Dichloropropene	Not detected	80		ug/kg	77	10061-02-6	
1,1,2-Trichloroethane	Not detected	80		ug/kg	77	79-00-5	
Tetrachloroethene	Not detected	80		ug/kg	77	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	80		ug/kg	77	110-57-6	
Dibromochloromethane	Not detected	200		ug/kg	77	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	77	106-93-4	M
Chlorobenzene	Not detected	80		ug/kg	77	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	200		ug/kg	77	630-20-6	
Ethylbenzene	Not detected	80		ug/kg	77	100-41-4	
p,m-Xylene	Not detected	200		ug/kg	77		
o-Xylene	Not detected	80		ug/kg	77	95-47-6	
Styrene	Not detected	80		ug/kg	77	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	77	98-82-8	
Bromoform	Not detected	200		ug/kg	77	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	80		ug/kg	77	79-34-5	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.02 (continued)
Sample Tag: SB-13 4.5-5.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/24/21 23:54, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,2,3-Trichloropropane	Not detected	200		ug/kg	77	96-18-4	
n-Propylbenzene	Not detected	80		ug/kg	77	103-65-1	
Bromobenzene	Not detected	200		ug/kg	77	108-86-1	
1,3,5-Trimethylbenzene	Not detected	80		ug/kg	77	108-67-8	
tert-Butylbenzene	Not detected	80		ug/kg	77	98-06-6	
1,2,4-Trimethylbenzene	Not detected	80		ug/kg	77	95-63-6	
sec-Butylbenzene	Not detected	80		ug/kg	77	135-98-8	
p-Isopropyltoluene	Not detected	200		ug/kg	77	99-87-6	
1,3-Dichlorobenzene	Not detected	200		ug/kg	77	541-73-1	
1,4-Dichlorobenzene	Not detected	200		ug/kg	77	106-46-7	
1,2-Dichlorobenzene	Not detected	200		ug/kg	77	95-50-1	
1,2,3-Trimethylbenzene	Not detected	80		ug/kg	77	526-73-8	
n-Butylbenzene	Not detected	80		ug/kg	77	104-51-8	
Hexachloroethane	Not detected	500		ug/kg	77	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	77	96-12-8	
1,2,4-Trichlorobenzene	Not detected	510		ug/kg	77	120-82-1	
1,2,3-Trichlorobenzene	Not detected	510		ug/kg	77	87-61-6	
Naphthalene	500	400		ug/kg	77	91-20-3	
2-Methylnaphthalene	700	200		ug/kg	77	91-57-6	

Lab Sample ID: S30665.03
Sample Tag: SB-13 7-8'
Collected Date/Time: 11/22/2021 15:05
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Lab Sample ID: S30665.04
Sample Tag: SB-14 3-4'
Collected Date/Time: 11/22/2021 10:00
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/24/21 17:00	JWR	
Sample wt. (g) / Methanol (ml)*	9.897/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:00, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	83	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:13, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	187	0.30		mg/kg	264	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 09:51, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	700	300		ug/kg	10	83-32-9	
Acenaphthylene	400	300		ug/kg	10	208-96-8	
Anthracene	2,000	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	6,400	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	6,500	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	11,900	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	13,400	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	2,500	300		ug/kg	10	191-24-2	
Chrysene	6,800	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	300	300		ug/kg	10	53-70-3	
Fluoranthene	13,000	300		ug/kg	10	206-44-0	
Fluorene	700	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	2,500	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	8,100	300		ug/kg	10	85-01-8	
Pyrene	13,500	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 00:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	71.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	71.1	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.04 (continued)
Sample Tag: SB-14 3-4'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 00:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	71.1	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	71.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	71.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	71.1	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	71.1	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	71.1	75-71-8	
Chloromethane	Not detected	400		ug/kg	71.1	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	71.1	75-01-4	
Bromomethane	Not detected	300		ug/kg	71.1	74-83-9	
Chloroethane	Not detected	400		ug/kg	71.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	71.1	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	71.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	71.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	71.1	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	71.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	71.1	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	71.1	109-99-9	
Chloroform	Not detected	70		ug/kg	71.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	71.1	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	71.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	71.1	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	71.1	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	71.1	56-23-5	
Benzene	Not detected	70		ug/kg	71.1	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	71.1	107-06-2	
Trichloroethene	Not detected	70		ug/kg	71.1	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	71.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	71.1	75-27-4	
Dibromomethane	Not detected	400		ug/kg	71.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	71.1	10061-01-5	
Toluene	Not detected	70		ug/kg	71.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	71.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	71.1	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	71.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	71.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	71.1	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	71.1	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	71.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	71.1	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	71.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	71.1		
o-Xylene	Not detected	70		ug/kg	71.1	95-47-6	
Styrene	Not detected	70		ug/kg	71.1	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	71.1	98-82-8	
Bromoform	Not detected	100		ug/kg	71.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	71.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	71.1	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	71.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	71.1	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.04 (continued)

Sample Tag: SB-14 3-4'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 00:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	71.1	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	71.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	71.1	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	71.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	71.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	71.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	71.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	71.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	71.1	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	71.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	71.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	71.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	470		ug/kg	71.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	470		ug/kg	71.1	87-61-6	
Naphthalene	Not detected	400		ug/kg	71.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	71.1	91-57-6	

Lab Sample ID: S30665.05
Sample Tag: SB-14 5-6'
Collected Date/Time: 11/22/2021 10:05
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/24/21 17:00	JWR	
Sample wt. (g) / Methanol (ml)*	9.617/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	81	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:14, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	7.58	0.30		mg/kg	262	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 06:59, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 00:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	75.9	60-29-7	
Acetone	Not detected	2,000		ug/kg	75.9	67-64-1	
Methyl iodide	Not detected	200		ug/kg	75.9	74-88-4	

Lab Sample ID: S30665.05 (continued)
Sample Tag: SB-14 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 00:40, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon disulfide	Not detected	400		ug/kg	75.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	75.9	1634-04-4	
Acrylonitrile	Not detected	200		ug/kg	75.9	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	75.9	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	75.9	75-71-8	
Chloromethane	Not detected	400		ug/kg	75.9	74-87-3	
Vinyl chloride	Not detected	80		ug/kg	75.9	75-01-4	
Bromomethane	Not detected	300		ug/kg	75.9	74-83-9	
Chloroethane	Not detected	400		ug/kg	75.9	75-00-3	
Trichlorofluoromethane	Not detected	200		ug/kg	75.9	75-69-4	
1,1-Dichloroethene	Not detected	80		ug/kg	75.9	75-35-4	
Methylene chloride	Not detected	200		ug/kg	75.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	80		ug/kg	75.9	156-60-5	
1,1-Dichloroethane	Not detected	80		ug/kg	75.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	80		ug/kg	75.9	156-59-2	
Tetrahydrofuran*	Not detected	2,000		ug/kg	75.9	109-99-9	
Chloroform	Not detected	80		ug/kg	75.9	67-66-3	
Bromochloromethane	Not detected	200		ug/kg	75.9	74-97-5	
1,1,1-Trichloroethane	Not detected	80		ug/kg	75.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	75.9	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	75.9	591-78-6	
Carbon tetrachloride	Not detected	80		ug/kg	75.9	56-23-5	
Benzene	Not detected	80		ug/kg	75.9	71-43-2	
1,2-Dichloroethane	Not detected	80		ug/kg	75.9	107-06-2	
Trichloroethene	Not detected	80		ug/kg	75.9	79-01-6	
1,2-Dichloropropane	Not detected	80		ug/kg	75.9	78-87-5	
Bromodichloromethane	Not detected	200		ug/kg	75.9	75-27-4	
Dibromomethane	Not detected	400		ug/kg	75.9	74-95-3	
cis-1,3-Dichloropropene	Not detected	80		ug/kg	75.9	10061-01-5	
Toluene	Not detected	80		ug/kg	75.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	80		ug/kg	75.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	80		ug/kg	75.9	79-00-5	
Tetrachloroethene	Not detected	80		ug/kg	75.9	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	80		ug/kg	75.9	110-57-6	
Dibromochloromethane	Not detected	200		ug/kg	75.9	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	75.9	106-93-4	M
Chlorobenzene	Not detected	80		ug/kg	75.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	200		ug/kg	75.9	630-20-6	
Ethylbenzene	Not detected	80		ug/kg	75.9	100-41-4	
p,m-Xylene	Not detected	200		ug/kg	75.9		
o-Xylene	Not detected	80		ug/kg	75.9	95-47-6	
Styrene	Not detected	80		ug/kg	75.9	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	75.9	98-82-8	
Bromoform	Not detected	200		ug/kg	75.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	80		ug/kg	75.9	79-34-5	
1,2,3-Trichloropropane	Not detected	200		ug/kg	75.9	96-18-4	
n-Propylbenzene	Not detected	80		ug/kg	75.9	103-65-1	
Bromobenzene	Not detected	200		ug/kg	75.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	80		ug/kg	75.9	108-67-8	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.05 (continued)

Sample Tag: SB-14 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 00:40, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
tert-Butylbenzene	Not detected	80		ug/kg	75.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	80		ug/kg	75.9	95-63-6	
sec-Butylbenzene	Not detected	80		ug/kg	75.9	135-98-8	
p-Isopropyltoluene	Not detected	200		ug/kg	75.9	99-87-6	
1,3-Dichlorobenzene	Not detected	200		ug/kg	75.9	541-73-1	
1,4-Dichlorobenzene	Not detected	200		ug/kg	75.9	106-46-7	
1,2-Dichlorobenzene	Not detected	200		ug/kg	75.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	80		ug/kg	75.9	526-73-8	
n-Butylbenzene	Not detected	80		ug/kg	75.9	104-51-8	
Hexachloroethane	Not detected	500		ug/kg	75.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	75.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	500		ug/kg	75.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	500		ug/kg	75.9	87-61-6	
Naphthalene	Not detected	400		ug/kg	75.9	91-20-3	
2-Methylnaphthalene	Not detected	200		ug/kg	75.9	91-57-6	

Lab Sample ID: S30665.06
Sample Tag: SB-14 7-8'
Collected Date/Time: 11/22/2021 10:10
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Lab Sample ID: S30665.07
Sample Tag: SB-15 2.5-3.5'
Collected Date/Time: 11/22/2021 10:35
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/24/21 17:00	JWR	
Sample wt. (g) / Methanol (ml)*	10.844/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	89	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:16, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	26.7	0.30		mg/kg	226	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 07:16, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	300	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	400	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	400	300		ug/kg	10	85-01-8	
Pyrene	400	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 01:02, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	58	60-29-7	
Acetone	Not detected	1,000		ug/kg	58	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.07 (continued)
Sample Tag: SB-15 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 01:02, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	58	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	58	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	58	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	58	107-13-1	
2-Butanone (MEK)	Not detected	870		ug/kg	58	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	58	75-71-8	
Chloromethane	Not detected	300		ug/kg	58	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	58	75-01-4	
Bromomethane	Not detected	200		ug/kg	58	74-83-9	
Chloroethane	Not detected	300		ug/kg	58	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	58	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	58	75-35-4	
Methylene chloride	Not detected	100		ug/kg	58	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	58	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	58	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	58	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	58	109-99-9	
Chloroform	Not detected	60		ug/kg	58	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	58	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	58	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	58	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	58	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	58	56-23-5	
Benzene	Not detected	60		ug/kg	58	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	58	107-06-2	
Trichloroethene	Not detected	60		ug/kg	58	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	58	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	58	75-27-4	
Dibromomethane	Not detected	300		ug/kg	58	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	58	10061-01-5	
Toluene	Not detected	60		ug/kg	58	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	58	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	58	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	58	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	58	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	58	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	58	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	58	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	58	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	58	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	58		
o-Xylene	Not detected	60		ug/kg	58	95-47-6	
Styrene	Not detected	60		ug/kg	58	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	58	98-82-8	
Bromoform	Not detected	100		ug/kg	58	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	58	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	58	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	58	103-65-1	
Bromobenzene	Not detected	100		ug/kg	58	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.07 (continued)
Sample Tag: SB-15 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 01:02, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	58	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	58	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	58	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	58	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	58	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	58	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	58	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	58	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	58	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	58	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	58	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	58	96-12-8	
1,2,4-Trichlorobenzene	Not detected	380		ug/kg	58	120-82-1	
1,2,3-Trichlorobenzene	Not detected	380		ug/kg	58	87-61-6	
Naphthalene	Not detected	300		ug/kg	58	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	58	91-57-6	

Lab Sample ID: S30665.08
Sample Tag: SB-15 5-6'
Collected Date/Time: 11/22/2021 10:40
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	9.915/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	83	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:17, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	8.27	0.30		mg/kg	254	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 03:51, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 01:25, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	71	60-29-7	
Acetone	Not detected	1,000		ug/kg	71	67-64-1	
Methyl iodide	Not detected	100		ug/kg	71	74-88-4	

Lab Sample ID: S30665.08 (continued)
Sample Tag: SB-15 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 01:25, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon disulfide	Not detected	400		ug/kg	71	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	71	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	71	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	71	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	71	75-71-8	
Chloromethane	Not detected	400		ug/kg	71	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	71	75-01-4	
Bromomethane	Not detected	300		ug/kg	71	74-83-9	
Chloroethane	Not detected	400		ug/kg	71	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	71	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	71	75-35-4	
Methylene chloride	Not detected	100		ug/kg	71	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	71	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	71	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	71	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	71	109-99-9	
Chloroform	Not detected	70		ug/kg	71	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	71	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	71	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	71	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	71	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	71	56-23-5	
Benzene	Not detected	70		ug/kg	71	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	71	107-06-2	
Trichloroethene	Not detected	70		ug/kg	71	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	71	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	71	75-27-4	
Dibromomethane	Not detected	400		ug/kg	71	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	71	10061-01-5	
Toluene	Not detected	70		ug/kg	71	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	71	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	71	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	71	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	71	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	71	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	71	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	71	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	71	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	71	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	71		
o-Xylene	Not detected	70		ug/kg	71	95-47-6	
Styrene	Not detected	70		ug/kg	71	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	71	98-82-8	
Bromoform	Not detected	100		ug/kg	71	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	71	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	71	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	71	103-65-1	
Bromobenzene	Not detected	100		ug/kg	71	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	71	108-67-8	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.08 (continued)
Sample Tag: SB-15 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 01:25, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
tert-Butylbenzene	Not detected	70		ug/kg	71	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	71	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	71	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	71	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	71	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	71	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	71	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	71	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	71	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	71	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	71	96-12-8	
1,2,4-Trichlorobenzene	Not detected	470		ug/kg	71	120-82-1	
1,2,3-Trichlorobenzene	Not detected	470		ug/kg	71	87-61-6	
Naphthalene	Not detected	400		ug/kg	71	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	71	91-57-6	

Lab Sample ID: S30665.09
Sample Tag: SB-15 7-8'
Collected Date/Time: 11/22/2021 10:45
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Analytical Laboratory Report

Lab Sample ID: S30665.10
Sample Tag: SB-16 3-4'
Collected Date/Time: 11/22/2021 11:10
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.526/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	87	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:18, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	61.2	0.30		mg/kg	248	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 11:16, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	800	300		ug/kg	10	83-32-9	
Acenaphthylene	400	300		ug/kg	10	208-96-8	
Anthracene	2,600	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	7,600	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	6,400	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	12,300	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	13,800	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	2,000	300		ug/kg	10	191-24-2	
Chrysene	7,300	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	14,600	300		ug/kg	10	206-44-0	
Fluorene	900	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	2,000	300		ug/kg	10	193-39-5	
Naphthalene	400	300		ug/kg	10	91-20-3	
Phenanthrene	9,600	300		ug/kg	10	85-01-8	
Pyrene	18,000	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 01:47, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	62.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	62.1	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.10 (continued)
Sample Tag: SB-16 3-4'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 01:47, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	62.1	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	62.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	62.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	62.1	107-13-1	
2-Butanone (MEK)	Not detected	930		ug/kg	62.1	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	62.1	75-71-8	
Chloromethane	Not detected	300		ug/kg	62.1	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	62.1	75-01-4	
Bromomethane	Not detected	200		ug/kg	62.1	74-83-9	
Chloroethane	Not detected	300		ug/kg	62.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	62.1	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	62.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	62.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	62.1	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	62.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	62.1	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	62.1	109-99-9	
Chloroform	Not detected	60		ug/kg	62.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	62.1	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	62.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	62.1	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	62.1	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	62.1	56-23-5	
Benzene	Not detected	60		ug/kg	62.1	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	62.1	107-06-2	
Trichloroethene	Not detected	60		ug/kg	62.1	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	62.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	62.1	75-27-4	
Dibromomethane	Not detected	300		ug/kg	62.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	62.1	10061-01-5	
Toluene	Not detected	60		ug/kg	62.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	62.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	62.1	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	62.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	62.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	62.1	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	62.1	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	62.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	62.1	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	62.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	62.1		
o-Xylene	Not detected	60		ug/kg	62.1	95-47-6	
Styrene	Not detected	60		ug/kg	62.1	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	62.1	98-82-8	
Bromoform	Not detected	100		ug/kg	62.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	62.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	62.1	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	62.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	62.1	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.10 (continued)
Sample Tag: SB-16 3-4'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 01:47, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	62.1	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	62.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	62.1	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	62.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	62.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	62.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	62.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	62.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	62.1	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	62.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	62.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	62.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	410		ug/kg	62.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	410		ug/kg	62.1	87-61-6	
Naphthalene	Not detected	300		ug/kg	62.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	62.1	91-57-6	

Lab Sample ID: S30665.11
Sample Tag: SB-16 5-6'
Collected Date/Time: 11/22/2021 11:15
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.340/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	83	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:19, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	12.2	0.30		mg/kg	262	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 04:08, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 02:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	68.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	68.5	67-64-1	
Methyl iodide	Not detected	100		ug/kg	68.5	74-88-4	

Lab Sample ID: S30665.11 (continued)
Sample Tag: SB-16 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 02:09, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon disulfide	Not detected	300		ug/kg	68.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	68.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	68.5	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	68.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	68.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	68.5	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	68.5	75-01-4	
Bromomethane	Not detected	300		ug/kg	68.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	68.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	68.5	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	68.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	68.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	68.5	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	68.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	68.5	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	68.5	109-99-9	
Chloroform	Not detected	70		ug/kg	68.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	68.5	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	68.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	68.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	68.5	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	68.5	56-23-5	
Benzene	Not detected	70		ug/kg	68.5	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	68.5	107-06-2	
Trichloroethene	Not detected	70		ug/kg	68.5	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	68.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	68.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	68.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	68.5	10061-01-5	
Toluene	Not detected	70		ug/kg	68.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	68.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	68.5	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	68.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	68.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	68.5	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	68.5	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	68.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	68.5	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	68.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	68.5		
o-Xylene	Not detected	70		ug/kg	68.5	95-47-6	
Styrene	Not detected	70		ug/kg	68.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	68.5	98-82-8	
Bromoform	Not detected	100		ug/kg	68.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	68.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	68.5	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	68.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	68.5	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	68.5	108-67-8	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.11 (continued)
Sample Tag: SB-16 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 02:09, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
tert-Butylbenzene	Not detected	70		ug/kg	68.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	68.5	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	68.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	68.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	68.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	68.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	68.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	68.5	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	68.5	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	68.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	68.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	450		ug/kg	68.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	450		ug/kg	68.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	68.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	68.5	91-57-6	

Lab Sample ID: S30665.12
Sample Tag: SB-16 7-8'
Collected Date/Time: 11/22/2021 11:20
Matrix: Soil
COC Reference: 144332

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Lab Sample ID: S30665.13
Sample Tag: SB-17 3.5-4.5'
Collected Date/Time: 11/22/2021 11:35
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.395/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	85	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:21, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	47.2	0.30		mg/kg	243	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 09:17, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	400	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	1,200	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	3,500	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	3,400	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	6,000	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	6,700	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	1,200	300		ug/kg	10	191-24-2	
Chrysene	3,500	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	7,400	300		ug/kg	10	206-44-0	
Fluorene	500	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	1,200	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	4,300	300		ug/kg	10	85-01-8	
Pyrene	7,500	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 02:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	65.4	60-29-7	
Acetone	Not detected	1,000		ug/kg	65.4	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.13 (continued)
Sample Tag: SB-17 3.5-4.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 02:32, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	65.4	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	65.4	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	65.4	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	65.4	107-13-1	
2-Butanone (MEK)	Not detected	980		ug/kg	65.4	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	65.4	75-71-8	
Chloromethane	Not detected	300		ug/kg	65.4	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	65.4	75-01-4	
Bromomethane	Not detected	300		ug/kg	65.4	74-83-9	
Chloroethane	Not detected	300		ug/kg	65.4	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	65.4	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	65.4	75-35-4	
Methylene chloride	Not detected	100		ug/kg	65.4	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	65.4	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	65.4	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	65.4	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	65.4	109-99-9	
Chloroform	Not detected	70		ug/kg	65.4	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	65.4	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	65.4	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	65.4	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	65.4	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	65.4	56-23-5	
Benzene	Not detected	70		ug/kg	65.4	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	65.4	107-06-2	
Trichloroethene	Not detected	70		ug/kg	65.4	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	65.4	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	65.4	75-27-4	
Dibromomethane	Not detected	300		ug/kg	65.4	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	65.4	10061-01-5	
Toluene	Not detected	70		ug/kg	65.4	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	65.4	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	65.4	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	65.4	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	65.4	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	65.4	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	65.4	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	65.4	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	65.4	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	65.4	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	65.4		
o-Xylene	Not detected	70		ug/kg	65.4	95-47-6	
Styrene	Not detected	70		ug/kg	65.4	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	65.4	98-82-8	
Bromoform	Not detected	100		ug/kg	65.4	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	65.4	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	65.4	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	65.4	103-65-1	
Bromobenzene	Not detected	100		ug/kg	65.4	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.13 (continued)
Sample Tag: SB-17 3.5-4.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 02:32, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	65.4	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	65.4	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	65.4	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	65.4	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	65.4	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	65.4	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	65.4	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	65.4	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	65.4	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	65.4	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	65.4	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	65.4	96-12-8	
1,2,4-Trichlorobenzene	Not detected	430		ug/kg	65.4	120-82-1	
1,2,3-Trichlorobenzene	Not detected	430		ug/kg	65.4	87-61-6	
Naphthalene	Not detected	300		ug/kg	65.4	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	65.4	91-57-6	

Lab Sample ID: S30665.14
Sample Tag: SB-17 5-6'
Collected Date/Time: 11/22/2021 11:40
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	8.910/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	83	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:22, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	17.6	0.30		mg/kg	276	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 04:25, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 02:55, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	77.9	60-29-7	
Acetone	Not detected	2,000		ug/kg	77.9	67-64-1	
Methyl iodide	Not detected	200		ug/kg	77.9	74-88-4	

Lab Sample ID: S30665.14 (continued)
Sample Tag: SB-17 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 02:55, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon disulfide	Not detected	400		ug/kg	77.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	77.9	1634-04-4	
Acrylonitrile	Not detected	200		ug/kg	77.9	107-13-1	
2-Butanone (MEK)	Not detected	1,200		ug/kg	77.9	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	77.9	75-71-8	
Chloromethane	Not detected	400		ug/kg	77.9	74-87-3	
Vinyl chloride	Not detected	80		ug/kg	77.9	75-01-4	
Bromomethane	Not detected	300		ug/kg	77.9	74-83-9	
Chloroethane	Not detected	400		ug/kg	77.9	75-00-3	
Trichlorofluoromethane	Not detected	200		ug/kg	77.9	75-69-4	
1,1-Dichloroethene	Not detected	80		ug/kg	77.9	75-35-4	
Methylene chloride	Not detected	200		ug/kg	77.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	80		ug/kg	77.9	156-60-5	
1,1-Dichloroethane	Not detected	80		ug/kg	77.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	80		ug/kg	77.9	156-59-2	
Tetrahydrofuran*	Not detected	2,000		ug/kg	77.9	109-99-9	
Chloroform	Not detected	80		ug/kg	77.9	67-66-3	
Bromochloromethane	Not detected	200		ug/kg	77.9	74-97-5	
1,1,1-Trichloroethane	Not detected	80		ug/kg	77.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	77.9	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	77.9	591-78-6	
Carbon tetrachloride	Not detected	80		ug/kg	77.9	56-23-5	
Benzene	Not detected	80		ug/kg	77.9	71-43-2	
1,2-Dichloroethane	Not detected	80		ug/kg	77.9	107-06-2	
Trichloroethene	Not detected	80		ug/kg	77.9	79-01-6	
1,2-Dichloropropane	Not detected	80		ug/kg	77.9	78-87-5	
Bromodichloromethane	Not detected	200		ug/kg	77.9	75-27-4	
Dibromomethane	Not detected	400		ug/kg	77.9	74-95-3	
cis-1,3-Dichloropropene	Not detected	80		ug/kg	77.9	10061-01-5	
Toluene	Not detected	80		ug/kg	77.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	80		ug/kg	77.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	80		ug/kg	77.9	79-00-5	
Tetrachloroethene	Not detected	80		ug/kg	77.9	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	80		ug/kg	77.9	110-57-6	
Dibromochloromethane	Not detected	200		ug/kg	77.9	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	77.9	106-93-4	M
Chlorobenzene	Not detected	80		ug/kg	77.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	200		ug/kg	77.9	630-20-6	
Ethylbenzene	Not detected	80		ug/kg	77.9	100-41-4	
p,m-Xylene	Not detected	200		ug/kg	77.9		
o-Xylene	Not detected	80		ug/kg	77.9	95-47-6	
Styrene	Not detected	80		ug/kg	77.9	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	77.9	98-82-8	
Bromoform	Not detected	200		ug/kg	77.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	80		ug/kg	77.9	79-34-5	
1,2,3-Trichloropropane	Not detected	200		ug/kg	77.9	96-18-4	
n-Propylbenzene	Not detected	80		ug/kg	77.9	103-65-1	
Bromobenzene	Not detected	200		ug/kg	77.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	80		ug/kg	77.9	108-67-8	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.14 (continued)
Sample Tag: SB-17 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 02:55, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
tert-Butylbenzene	Not detected	80		ug/kg	77.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	80		ug/kg	77.9	95-63-6	
sec-Butylbenzene	Not detected	80		ug/kg	77.9	135-98-8	
p-Isopropyltoluene	Not detected	200		ug/kg	77.9	99-87-6	
1,3-Dichlorobenzene	Not detected	200		ug/kg	77.9	541-73-1	
1,4-Dichlorobenzene	Not detected	200		ug/kg	77.9	106-46-7	
1,2-Dichlorobenzene	Not detected	200		ug/kg	77.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	80		ug/kg	77.9	526-73-8	
n-Butylbenzene	Not detected	80		ug/kg	77.9	104-51-8	
Hexachloroethane	Not detected	500		ug/kg	77.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	77.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	510		ug/kg	77.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	510		ug/kg	77.9	87-61-6	
Naphthalene	Not detected	400		ug/kg	77.9	91-20-3	
2-Methylnaphthalene	Not detected	200		ug/kg	77.9	91-57-6	

Lab Sample ID: S30665.15
Sample Tag: SB-17 7-8'
Collected Date/Time: 11/22/2021 11:45
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Analytical Laboratory Report

Lab Sample ID: S30665.16
Sample Tag: SB-18 2.5-3.5'
Collected Date/Time: 11/22/2021 12:00
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.383/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	81	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:34, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	1,290	0.30		mg/kg	288	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 08:59, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	400	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	1,200	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	3,900	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	3,700	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	6,600	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	7,400	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	1,500	300		ug/kg	10	191-24-2	
Chrysene	4,100	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	8,300	300		ug/kg	10	206-44-0	
Fluorene	400	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	1,400	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	5,000	300		ug/kg	10	85-01-8	
Pyrene	8,800	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 03:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	71.2	60-29-7	
Acetone	Not detected	1,000		ug/kg	71.2	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.16 (continued)
Sample Tag: SB-18 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 03:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	71.2	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	71.2	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	71.2	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	71.2	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	71.2	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	71.2	75-71-8	
Chloromethane	Not detected	400		ug/kg	71.2	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	71.2	75-01-4	
Bromomethane	Not detected	300		ug/kg	71.2	74-83-9	
Chloroethane	Not detected	400		ug/kg	71.2	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	71.2	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	71.2	75-35-4	
Methylene chloride	Not detected	100		ug/kg	71.2	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	71.2	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	71.2	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	71.2	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	71.2	109-99-9	
Chloroform	Not detected	70		ug/kg	71.2	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	71.2	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	71.2	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	71.2	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	71.2	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	71.2	56-23-5	
Benzene	Not detected	70		ug/kg	71.2	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	71.2	107-06-2	
Trichloroethene	Not detected	70		ug/kg	71.2	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	71.2	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	71.2	75-27-4	
Dibromomethane	Not detected	400		ug/kg	71.2	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	71.2	10061-01-5	
Toluene	Not detected	70		ug/kg	71.2	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	71.2	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	71.2	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	71.2	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	71.2	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	71.2	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	71.2	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	71.2	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	71.2	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	71.2	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	71.2		
o-Xylene	Not detected	70		ug/kg	71.2	95-47-6	
Styrene	Not detected	70		ug/kg	71.2	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	71.2	98-82-8	
Bromoform	Not detected	100		ug/kg	71.2	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	71.2	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	71.2	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	71.2	103-65-1	
Bromobenzene	Not detected	100		ug/kg	71.2	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.16 (continued)

Sample Tag: SB-18 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 03:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	71.2	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	71.2	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	71.2	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	71.2	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	71.2	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	71.2	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	71.2	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	71.2	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	71.2	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	71.2	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	71.2	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	71.2	96-12-8	
1,2,4-Trichlorobenzene	Not detected	470		ug/kg	71.2	120-82-1	
1,2,3-Trichlorobenzene	Not detected	470		ug/kg	71.2	87-61-6	
Naphthalene	Not detected	400		ug/kg	71.2	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	71.2	91-57-6	

Lab Sample ID: S30665.17
Sample Tag: SB-18 5-6'
Collected Date/Time: 11/22/2021 12:05
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.467/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	81	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:37, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	13.7	0.30		mg/kg	272	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 04:42, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	400	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	400	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	600	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	700	300		ug/kg	10	85-01-8	
Pyrene	600	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 03:40, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	70.7	60-29-7	
Acetone	Not detected	1,000		ug/kg	70.7	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.17 (continued)
Sample Tag: SB-18 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 03:40, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	70.7	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	70.7	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	70.7	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	70.7	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	70.7	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	70.7	75-71-8	
Chloromethane	Not detected	400		ug/kg	70.7	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	70.7	75-01-4	
Bromomethane	Not detected	300		ug/kg	70.7	74-83-9	
Chloroethane	Not detected	400		ug/kg	70.7	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	70.7	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	70.7	75-35-4	
Methylene chloride	Not detected	100		ug/kg	70.7	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	70.7	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	70.7	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	70.7	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	70.7	109-99-9	
Chloroform	Not detected	70		ug/kg	70.7	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	70.7	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	70.7	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	70.7	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	70.7	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	70.7	56-23-5	
Benzene	Not detected	70		ug/kg	70.7	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	70.7	107-06-2	
Trichloroethene	Not detected	70		ug/kg	70.7	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	70.7	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	70.7	75-27-4	
Dibromomethane	Not detected	400		ug/kg	70.7	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	70.7	10061-01-5	
Toluene	Not detected	70		ug/kg	70.7	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	70.7	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	70.7	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	70.7	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	70.7	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	70.7	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	70.7	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	70.7	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	70.7	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	70.7	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	70.7		
o-Xylene	Not detected	70		ug/kg	70.7	95-47-6	
Styrene	Not detected	70		ug/kg	70.7	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	70.7	98-82-8	
Bromoform	Not detected	100		ug/kg	70.7	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	70.7	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	70.7	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	70.7	103-65-1	
Bromobenzene	Not detected	100		ug/kg	70.7	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.17 (continued)
Sample Tag: SB-18 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 03:40, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	70.7	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	70.7	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	70.7	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	70.7	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	70.7	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	70.7	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	70.7	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	70.7	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	70.7	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	70.7	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	70.7	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	70.7	96-12-8	
1,2,4-Trichlorobenzene	Not detected	470		ug/kg	70.7	120-82-1	
1,2,3-Trichlorobenzene	Not detected	470		ug/kg	70.7	87-61-6	
Naphthalene	Not detected	400		ug/kg	70.7	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	70.7	91-57-6	

Lab Sample ID: S30665.18
Sample Tag: SB-18 7-8'
Collected Date/Time: 11/22/2021 12:10
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Lab Sample ID: S30665.19
Sample Tag: SB-19 3-4'
Collected Date/Time: 11/22/2021 12:25
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.618/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	92	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:38, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	47.4	0.30		mg/kg	234	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 10:25, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	500	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	600	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	500	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	600	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 04:02, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	200		ug/kg	55.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	55.5	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.19 (continued)
Sample Tag: SB-19 3-4'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 04:02, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	55.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	55.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	200		ug/kg	55.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	55.5	107-13-1	
2-Butanone (MEK)	Not detected	830		ug/kg	55.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	55.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	55.5	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	55.5	75-01-4	
Bromomethane	Not detected	200		ug/kg	55.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	55.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	55.5	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	55.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	55.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	55.5	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	55.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	55.5	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	55.5	109-99-9	
Chloroform	Not detected	60		ug/kg	55.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	55.5	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	55.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	55.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	55.5	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	55.5	56-23-5	
Benzene	Not detected	60		ug/kg	55.5	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	55.5	107-06-2	
Trichloroethene	Not detected	60		ug/kg	55.5	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	55.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	55.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	55.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	55.5	10061-01-5	
Toluene	Not detected	60		ug/kg	55.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	55.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	55.5	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	55.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	55.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	55.5	124-48-1	
1,2-Dibromoethane	Not detected	20		ug/kg	55.5	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	55.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	55.5	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	55.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	55.5		
o-Xylene	Not detected	60		ug/kg	55.5	95-47-6	
Styrene	Not detected	60		ug/kg	55.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	55.5	98-82-8	
Bromoform	Not detected	100		ug/kg	55.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	55.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	55.5	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	55.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	55.5	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.19 (continued)
Sample Tag: SB-19 3-4'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 04:02, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	55.5	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	55.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	55.5	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	55.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	55.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	55.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	55.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	55.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	55.5	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	55.5	104-51-8	
Hexachloroethane	Not detected	300		ug/kg	55.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	55.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	370		ug/kg	55.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	370		ug/kg	55.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	55.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	55.5	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S30665.20
Sample Tag: SB-19 5-6'
Collected Date/Time: 11/22/2021 12:30
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.089/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	81	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:39, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	11.9	0.30		mg/kg	272	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 04:59, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 04:24, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	72.9	60-29-7	
Acetone	Not detected	1,000		ug/kg	72.9	67-64-1	
Methyl iodide	Not detected	100		ug/kg	72.9	74-88-4	

Lab Sample ID: S30665.20 (continued)
Sample Tag: SB-19 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 04:24, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon disulfide	Not detected	400		ug/kg	72.9	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	72.9	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	72.9	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	72.9	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	72.9	75-71-8	
Chloromethane	Not detected	400		ug/kg	72.9	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	72.9	75-01-4	
Bromomethane	Not detected	300		ug/kg	72.9	74-83-9	
Chloroethane	Not detected	400		ug/kg	72.9	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	72.9	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	72.9	75-35-4	
Methylene chloride	Not detected	100		ug/kg	72.9	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	72.9	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	72.9	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	72.9	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	72.9	109-99-9	
Chloroform	Not detected	70		ug/kg	72.9	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	72.9	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	72.9	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	72.9	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	72.9	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	72.9	56-23-5	
Benzene	Not detected	70		ug/kg	72.9	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	72.9	107-06-2	
Trichloroethene	Not detected	70		ug/kg	72.9	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	72.9	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	72.9	75-27-4	
Dibromomethane	Not detected	400		ug/kg	72.9	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	72.9	10061-01-5	
Toluene	Not detected	70		ug/kg	72.9	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	72.9	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	72.9	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	72.9	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	72.9	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	72.9	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	72.9	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	72.9	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	72.9	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	72.9	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	72.9		
o-Xylene	Not detected	70		ug/kg	72.9	95-47-6	
Styrene	Not detected	70		ug/kg	72.9	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	72.9	98-82-8	
Bromoform	Not detected	100		ug/kg	72.9	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	72.9	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	72.9	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	72.9	103-65-1	
Bromobenzene	Not detected	100		ug/kg	72.9	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	72.9	108-67-8	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.20 (continued)

Sample Tag: SB-19 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 04:24, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
tert-Butylbenzene	Not detected	70		ug/kg	72.9	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	72.9	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	72.9	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	72.9	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	72.9	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	72.9	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	72.9	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	72.9	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	72.9	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	72.9	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	72.9	96-12-8	
1,2,4-Trichlorobenzene	Not detected	480		ug/kg	72.9	120-82-1	
1,2,3-Trichlorobenzene	Not detected	480		ug/kg	72.9	87-61-6	
Naphthalene	Not detected	400		ug/kg	72.9	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	72.9	91-57-6	

Lab Sample ID: S30665.21
Sample Tag: SB-19 7-8'
Collected Date/Time: 11/22/2021 12:35
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Lab Sample ID: S30665.22
Sample Tag: SB-20 3-4'
Collected Date/Time: 11/22/2021 12:50
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.026/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	88	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:41, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	857	0.30		mg/kg	244	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 16:55, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	400	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	1,100	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	1,000	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	1,900	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	2,100	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	400	300		ug/kg	10	191-24-2	
Chrysene	1,100	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	2,200	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	300	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	1,400	300		ug/kg	10	85-01-8	
Pyrene	2,200	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 04:47, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	63.5	60-29-7	
Acetone	Not detected	1,000		ug/kg	63.5	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.22 (continued)
Sample Tag: SB-20 3-4'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 04:47, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	63.5	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	63.5	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	63.5	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	63.5	107-13-1	
2-Butanone (MEK)	Not detected	950		ug/kg	63.5	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	63.5	75-71-8	
Chloromethane	Not detected	300		ug/kg	63.5	74-87-3	
Vinyl chloride	Not detected	60		ug/kg	63.5	75-01-4	
Bromomethane	Not detected	300		ug/kg	63.5	74-83-9	
Chloroethane	Not detected	300		ug/kg	63.5	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	63.5	75-69-4	
1,1-Dichloroethene	Not detected	60		ug/kg	63.5	75-35-4	
Methylene chloride	Not detected	100		ug/kg	63.5	75-09-2	
trans-1,2-Dichloroethene	Not detected	60		ug/kg	63.5	156-60-5	
1,1-Dichloroethane	Not detected	60		ug/kg	63.5	75-34-3	
cis-1,2-Dichloroethene	Not detected	60		ug/kg	63.5	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	63.5	109-99-9	
Chloroform	Not detected	60		ug/kg	63.5	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	63.5	74-97-5	
1,1,1-Trichloroethane	Not detected	60		ug/kg	63.5	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	63.5	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	63.5	591-78-6	
Carbon tetrachloride	Not detected	60		ug/kg	63.5	56-23-5	
Benzene	Not detected	60		ug/kg	63.5	71-43-2	
1,2-Dichloroethane	Not detected	60		ug/kg	63.5	107-06-2	
Trichloroethene	Not detected	60		ug/kg	63.5	79-01-6	
1,2-Dichloropropane	Not detected	60		ug/kg	63.5	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	63.5	75-27-4	
Dibromomethane	Not detected	300		ug/kg	63.5	74-95-3	
cis-1,3-Dichloropropene	Not detected	60		ug/kg	63.5	10061-01-5	
Toluene	Not detected	60		ug/kg	63.5	108-88-3	
trans-1,3-Dichloropropene	Not detected	60		ug/kg	63.5	10061-02-6	
1,1,2-Trichloroethane	Not detected	60		ug/kg	63.5	79-00-5	
Tetrachloroethene	Not detected	60		ug/kg	63.5	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	60		ug/kg	63.5	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	63.5	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	63.5	106-93-4	M
Chlorobenzene	Not detected	60		ug/kg	63.5	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	63.5	630-20-6	
Ethylbenzene	Not detected	60		ug/kg	63.5	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	63.5		
o-Xylene	Not detected	60		ug/kg	63.5	95-47-6	
Styrene	Not detected	60		ug/kg	63.5	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	63.5	98-82-8	
Bromoform	Not detected	100		ug/kg	63.5	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	60		ug/kg	63.5	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	63.5	96-18-4	
n-Propylbenzene	Not detected	60		ug/kg	63.5	103-65-1	
Bromobenzene	Not detected	100		ug/kg	63.5	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.22 (continued)
Sample Tag: SB-20 3-4'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 04:47, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	60		ug/kg	63.5	108-67-8	
tert-Butylbenzene	Not detected	60		ug/kg	63.5	98-06-6	
1,2,4-Trimethylbenzene	Not detected	60		ug/kg	63.5	95-63-6	
sec-Butylbenzene	Not detected	60		ug/kg	63.5	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	63.5	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	63.5	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	63.5	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	63.5	95-50-1	
1,2,3-Trimethylbenzene	Not detected	60		ug/kg	63.5	526-73-8	
n-Butylbenzene	Not detected	60		ug/kg	63.5	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	63.5	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	63.5	96-12-8	
1,2,4-Trichlorobenzene	Not detected	420		ug/kg	63.5	120-82-1	
1,2,3-Trichlorobenzene	Not detected	420		ug/kg	63.5	87-61-6	
Naphthalene	Not detected	300		ug/kg	63.5	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	63.5	91-57-6	

Analytical Laboratory Report

Lab Sample ID: S30665.23
Sample Tag: SB-20 5-6'
Collected Date/Time: 11/22/2021 12:55
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	9.849/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	76	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:43, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	375	0.30		mg/kg	304	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 05:17, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	1,800	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	2,600	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	4,500	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	4,200	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	7,200	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	8,200	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	2,000	300		ug/kg	10	191-24-2	
Chrysene	4,700	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	10,500	300		ug/kg	10	206-44-0	
Fluorene	2,100	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	1,900	300		ug/kg	10	193-39-5	
Naphthalene	3,000	300		ug/kg	10	91-20-3	
Phenanthrene	12,400	300		ug/kg	10	85-01-8	
Pyrene	9,800	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	1,000	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 05:09, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	82.6	60-29-7	
Acetone	Not detected	2,000		ug/kg	82.6	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.23 (continued)
Sample Tag: SB-20 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 05:09, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	200		ug/kg	82.6	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	82.6	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	82.6	1634-04-4	
Acrylonitrile	Not detected	200		ug/kg	82.6	107-13-1	
2-Butanone (MEK)	Not detected	1,200		ug/kg	82.6	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	82.6	75-71-8	
Chloromethane	Not detected	400		ug/kg	82.6	74-87-3	
Vinyl chloride	Not detected	80		ug/kg	82.6	75-01-4	
Bromomethane	Not detected	300		ug/kg	82.6	74-83-9	
Chloroethane	Not detected	400		ug/kg	82.6	75-00-3	
Trichlorofluoromethane	Not detected	200		ug/kg	82.6	75-69-4	
1,1-Dichloroethene	Not detected	80		ug/kg	82.6	75-35-4	
Methylene chloride	Not detected	200		ug/kg	82.6	75-09-2	
trans-1,2-Dichloroethene	Not detected	80		ug/kg	82.6	156-60-5	
1,1-Dichloroethane	Not detected	80		ug/kg	82.6	75-34-3	
cis-1,2-Dichloroethene	Not detected	80		ug/kg	82.6	156-59-2	
Tetrahydrofuran*	Not detected	2,000		ug/kg	82.6	109-99-9	
Chloroform	Not detected	80		ug/kg	82.6	67-66-3	
Bromochloromethane	Not detected	200		ug/kg	82.6	74-97-5	
1,1,1-Trichloroethane	Not detected	80		ug/kg	82.6	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	82.6	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	82.6	591-78-6	
Carbon tetrachloride	Not detected	80		ug/kg	82.6	56-23-5	
Benzene	Not detected	80		ug/kg	82.6	71-43-2	
1,2-Dichloroethane	Not detected	80		ug/kg	82.6	107-06-2	
Trichloroethene	Not detected	80		ug/kg	82.6	79-01-6	
1,2-Dichloropropane	Not detected	80		ug/kg	82.6	78-87-5	
Bromodichloromethane	Not detected	200		ug/kg	82.6	75-27-4	
Dibromomethane	Not detected	400		ug/kg	82.6	74-95-3	
cis-1,3-Dichloropropene	Not detected	80		ug/kg	82.6	10061-01-5	
Toluene	Not detected	80		ug/kg	82.6	108-88-3	
trans-1,3-Dichloropropene	Not detected	80		ug/kg	82.6	10061-02-6	
1,1,2-Trichloroethane	Not detected	80		ug/kg	82.6	79-00-5	
Tetrachloroethene	Not detected	80		ug/kg	82.6	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	80		ug/kg	82.6	110-57-6	
Dibromochloromethane	Not detected	200		ug/kg	82.6	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	82.6	106-93-4	M
Chlorobenzene	Not detected	80		ug/kg	82.6	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	200		ug/kg	82.6	630-20-6	
Ethylbenzene	Not detected	80		ug/kg	82.6	100-41-4	
p,m-Xylene	Not detected	200		ug/kg	82.6		
o-Xylene	Not detected	80		ug/kg	82.6	95-47-6	
Styrene	Not detected	80		ug/kg	82.6	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	82.6	98-82-8	
Bromoform	Not detected	200		ug/kg	82.6	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	80		ug/kg	82.6	79-34-5	
1,2,3-Trichloropropane	Not detected	200		ug/kg	82.6	96-18-4	
n-Propylbenzene	Not detected	80		ug/kg	82.6	103-65-1	
Bromobenzene	Not detected	200		ug/kg	82.6	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.23 (continued)
Sample Tag: SB-20 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 05:09, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	80		ug/kg	82.6	108-67-8	
tert-Butylbenzene	Not detected	80		ug/kg	82.6	98-06-6	
1,2,4-Trimethylbenzene	Not detected	80		ug/kg	82.6	95-63-6	
sec-Butylbenzene	Not detected	80		ug/kg	82.6	135-98-8	
p-Isopropyltoluene	Not detected	200		ug/kg	82.6	99-87-6	
1,3-Dichlorobenzene	Not detected	200		ug/kg	82.6	541-73-1	
1,4-Dichlorobenzene	Not detected	200		ug/kg	82.6	106-46-7	
1,2-Dichlorobenzene	Not detected	200		ug/kg	82.6	95-50-1	
1,2,3-Trimethylbenzene	Not detected	80		ug/kg	82.6	526-73-8	
n-Butylbenzene	Not detected	80		ug/kg	82.6	104-51-8	
Hexachloroethane	Not detected	500		ug/kg	82.6	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	82.6	96-12-8	
1,2,4-Trichlorobenzene	Not detected	550		ug/kg	82.6	120-82-1	
1,2,3-Trichlorobenzene	Not detected	550		ug/kg	82.6	87-61-6	
Naphthalene	Not detected	400		ug/kg	82.6	91-20-3	
2-Methylnaphthalene	Not detected	200		ug/kg	82.6	91-57-6	

Lab Sample ID: S30665.24
Sample Tag: SB-20 7-8'
Collected Date/Time: 11/22/2021 13:00
Matrix: Soil
COC Reference: 144371

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Lab Sample ID: S30665.25
Sample Tag: SB-21 2.5-3.5'
Collected Date/Time: 11/22/2021 13:15
Matrix: Soil
COC Reference: 146343

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	9.996/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	87	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:46, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	214	0.30		mg/kg	265	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 10:59, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	800	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	2,700	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	4,400	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	3,900	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	7,400	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	8,200	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	1,100	300		ug/kg	10	191-24-2	
Chrysene	4,400	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	10,000	300		ug/kg	10	206-44-0	
Fluorene	1,100	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	1,100	300		ug/kg	10	193-39-5	
Naphthalene	500	300		ug/kg	10	91-20-3	
Phenanthrene	10,000	300		ug/kg	10	85-01-8	
Pyrene	10,900	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 05:32, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	65	60-29-7	
Acetone	Not detected	1,000		ug/kg	65	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.25 (continued)
Sample Tag: SB-21 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 05:32, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	65	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	65	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	65	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	65	107-13-1	
2-Butanone (MEK)	Not detected	980		ug/kg	65	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	65	75-71-8	
Chloromethane	Not detected	300		ug/kg	65	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	65	75-01-4	
Bromomethane	Not detected	300		ug/kg	65	74-83-9	
Chloroethane	Not detected	300		ug/kg	65	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	65	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	65	75-35-4	
Methylene chloride	Not detected	100		ug/kg	65	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	65	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	65	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	65	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	65	109-99-9	
Chloroform	Not detected	70		ug/kg	65	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	65	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	65	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	65	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	65	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	65	56-23-5	
Benzene	Not detected	70		ug/kg	65	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	65	107-06-2	
Trichloroethene	Not detected	70		ug/kg	65	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	65	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	65	75-27-4	
Dibromomethane	Not detected	300		ug/kg	65	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	65	10061-01-5	
Toluene	Not detected	70		ug/kg	65	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	65	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	65	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	65	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	65	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	65	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	65	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	65	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	65	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	65	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	65		
o-Xylene	Not detected	70		ug/kg	65	95-47-6	
Styrene	Not detected	70		ug/kg	65	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	65	98-82-8	
Bromoform	Not detected	100		ug/kg	65	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	65	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	65	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	65	103-65-1	
Bromobenzene	Not detected	100		ug/kg	65	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.25 (continued)
Sample Tag: SB-21 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 05:32, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	65	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	65	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	65	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	65	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	65	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	65	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	65	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	65	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	65	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	65	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	65	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	65	96-12-8	
1,2,4-Trichlorobenzene	Not detected	430		ug/kg	65	120-82-1	
1,2,3-Trichlorobenzene	Not detected	430		ug/kg	65	87-61-6	
Naphthalene	6,700	300		ug/kg	65	91-20-3	
2-Methylnaphthalene	2,400	100		ug/kg	65	91-57-6	

Lab Sample ID: S30665.26
Sample Tag: SB-21 5-6'
Collected Date/Time: 11/22/2021 13:20
Matrix: Soil
COC Reference: 146343

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	9.880/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	81	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:47, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	10.0	0.30		mg/kg	272	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 05:34, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 05:54, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	74.2	60-29-7	
Acetone	Not detected	1,000		ug/kg	74.2	67-64-1	
Methyl iodide	Not detected	100		ug/kg	74.2	74-88-4	

Lab Sample ID: S30665.26 (continued)
Sample Tag: SB-21 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 05:54, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon disulfide	Not detected	400		ug/kg	74.2	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	74.2	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	74.2	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	74.2	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	74.2	75-71-8	
Chloromethane	Not detected	400		ug/kg	74.2	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	74.2	75-01-4	
Bromomethane	Not detected	300		ug/kg	74.2	74-83-9	
Chloroethane	Not detected	400		ug/kg	74.2	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	74.2	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	74.2	75-35-4	
Methylene chloride	Not detected	100		ug/kg	74.2	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	74.2	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	74.2	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	74.2	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	74.2	109-99-9	
Chloroform	Not detected	70		ug/kg	74.2	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	74.2	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	74.2	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	74.2	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	74.2	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	74.2	56-23-5	
Benzene	Not detected	70		ug/kg	74.2	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	74.2	107-06-2	
Trichloroethene	Not detected	70		ug/kg	74.2	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	74.2	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	74.2	75-27-4	
Dibromomethane	Not detected	400		ug/kg	74.2	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	74.2	10061-01-5	
Toluene	Not detected	70		ug/kg	74.2	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	74.2	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	74.2	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	74.2	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	74.2	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	74.2	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	74.2	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	74.2	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	74.2	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	74.2	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	74.2		
o-Xylene	Not detected	70		ug/kg	74.2	95-47-6	
Styrene	Not detected	70		ug/kg	74.2	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	74.2	98-82-8	
Bromoform	Not detected	100		ug/kg	74.2	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	74.2	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	74.2	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	74.2	103-65-1	
Bromobenzene	Not detected	100		ug/kg	74.2	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	74.2	108-67-8	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.26 (continued)
Sample Tag: SB-21 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 05:54, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
tert-Butylbenzene	Not detected	70		ug/kg	74.2	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	74.2	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	74.2	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	74.2	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	74.2	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	74.2	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	74.2	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	74.2	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	74.2	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	74.2	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	74.2	96-12-8	
1,2,4-Trichlorobenzene	Not detected	490		ug/kg	74.2	120-82-1	
1,2,3-Trichlorobenzene	Not detected	490		ug/kg	74.2	87-61-6	
Naphthalene	Not detected	400		ug/kg	74.2	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	74.2	91-57-6	

Lab Sample ID: S30665.27
Sample Tag: SB-21 7-8'
Collected Date/Time: 11/22/2021 13:25
Matrix: Soil
COC Reference: 146343

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Analytical Laboratory Report

Lab Sample ID: S30665.28
Sample Tag: SB-22 2.5-3.5'
Collected Date/Time: 11/22/2021 13:45
Matrix: Soil
COC Reference: 146343

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	9.710/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	82	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:48, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	751	0.30		mg/kg	253	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 08:42, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	900	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	900	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	1,800	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	2,100	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	500	300		ug/kg	10	191-24-2	
Chrysene	1,100	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	1,800	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	400	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	900	300		ug/kg	10	85-01-8	
Pyrene	1,900	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 06:17, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	73.8	60-29-7	
Acetone	Not detected	1,000		ug/kg	73.8	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.28 (continued)
Sample Tag: SB-22 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 06:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	73.8	74-88-4	
Carbon disulfide	Not detected	400		ug/kg	73.8	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	73.8	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	73.8	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	73.8	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	73.8	75-71-8	
Chloromethane	Not detected	400		ug/kg	73.8	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	73.8	75-01-4	
Bromomethane	Not detected	300		ug/kg	73.8	74-83-9	
Chloroethane	Not detected	400		ug/kg	73.8	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	73.8	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	73.8	75-35-4	
Methylene chloride	Not detected	100		ug/kg	73.8	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	73.8	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	73.8	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	73.8	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	73.8	109-99-9	
Chloroform	Not detected	70		ug/kg	73.8	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	73.8	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	73.8	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	73.8	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	73.8	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	73.8	56-23-5	
Benzene	Not detected	70		ug/kg	73.8	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	73.8	107-06-2	
Trichloroethene	Not detected	70		ug/kg	73.8	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	73.8	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	73.8	75-27-4	
Dibromomethane	Not detected	400		ug/kg	73.8	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	73.8	10061-01-5	
Toluene	Not detected	70		ug/kg	73.8	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	73.8	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	73.8	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	73.8	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	73.8	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	73.8	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	73.8	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	73.8	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	73.8	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	73.8	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	73.8		
o-Xylene	Not detected	70		ug/kg	73.8	95-47-6	
Styrene	Not detected	70		ug/kg	73.8	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	73.8	98-82-8	
Bromoform	Not detected	100		ug/kg	73.8	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	73.8	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	73.8	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	73.8	103-65-1	
Bromobenzene	Not detected	100		ug/kg	73.8	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.28 (continued)
Sample Tag: SB-22 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 06:17, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	73.8	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	73.8	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	73.8	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	73.8	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	73.8	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	73.8	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	73.8	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	73.8	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	73.8	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	73.8	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	73.8	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	73.8	96-12-8	
1,2,4-Trichlorobenzene	Not detected	490		ug/kg	73.8	120-82-1	
1,2,3-Trichlorobenzene	Not detected	490		ug/kg	73.8	87-61-6	
Naphthalene	Not detected	400		ug/kg	73.8	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	73.8	91-57-6	

Lab Sample ID: S30665.29
Sample Tag: SB-22 5-6'
Collected Date/Time: 11/22/2021 13:50
Matrix: Soil
COC Reference: 146343

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.575/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	81	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 13:51, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	10.5	0.30		mg/kg	279	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 05:51, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 06:39, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	70.1	60-29-7	
Acetone	Not detected	1,000		ug/kg	70.1	67-64-1	
Methyl iodide	Not detected	100		ug/kg	70.1	74-88-4	

Lab Sample ID: S30665.29 (continued)
Sample Tag: SB-22 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 06:39, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon disulfide	Not detected	400		ug/kg	70.1	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	70.1	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	70.1	107-13-1	
2-Butanone (MEK)	Not detected	1,100		ug/kg	70.1	78-93-3	
Dichlorodifluoromethane	Not detected	400		ug/kg	70.1	75-71-8	
Chloromethane	Not detected	400		ug/kg	70.1	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	70.1	75-01-4	
Bromomethane	Not detected	300		ug/kg	70.1	74-83-9	
Chloroethane	Not detected	400		ug/kg	70.1	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	70.1	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	70.1	75-35-4	
Methylene chloride	Not detected	100		ug/kg	70.1	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	70.1	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	70.1	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	70.1	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	70.1	109-99-9	
Chloroform	Not detected	70		ug/kg	70.1	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	70.1	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	70.1	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	4,000		ug/kg	70.1	108-10-1	
2-Hexanone	Not detected	4,000		ug/kg	70.1	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	70.1	56-23-5	
Benzene	Not detected	70		ug/kg	70.1	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	70.1	107-06-2	
Trichloroethene	Not detected	70		ug/kg	70.1	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	70.1	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	70.1	75-27-4	
Dibromomethane	Not detected	400		ug/kg	70.1	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	70.1	10061-01-5	
Toluene	Not detected	70		ug/kg	70.1	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	70.1	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	70.1	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	70.1	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	70.1	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	70.1	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	70.1	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	70.1	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	70.1	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	70.1	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	70.1		
o-Xylene	Not detected	70		ug/kg	70.1	95-47-6	
Styrene	Not detected	70		ug/kg	70.1	100-42-5	
Isopropylbenzene	Not detected	400		ug/kg	70.1	98-82-8	
Bromoform	Not detected	100		ug/kg	70.1	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	70.1	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	70.1	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	70.1	103-65-1	
Bromobenzene	Not detected	100		ug/kg	70.1	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	70.1	108-67-8	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.29 (continued)
Sample Tag: SB-22 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 06:39, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
tert-Butylbenzene	Not detected	70		ug/kg	70.1	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	70.1	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	70.1	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	70.1	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	70.1	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	70.1	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	70.1	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	70.1	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	70.1	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	70.1	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	400		ug/kg	70.1	96-12-8	
1,2,4-Trichlorobenzene	Not detected	460		ug/kg	70.1	120-82-1	
1,2,3-Trichlorobenzene	Not detected	460		ug/kg	70.1	87-61-6	
Naphthalene	Not detected	400		ug/kg	70.1	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	70.1	91-57-6	

Lab Sample ID: S30665.30
Sample Tag: SB-22 7-8'
Collected Date/Time: 11/22/2021 13:55
Matrix: Soil
COC Reference: 146343

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Analytical Laboratory Report

Lab Sample ID: S30665.31
Sample Tag: SB-23 2.5-3.5'
Collected Date/Time: 11/22/2021 14:10
Matrix: Soil
COC Reference: 146343

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	9.527/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	87	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 14:13, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	1,530	0.30		mg/kg	259	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 10:42, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	1,100	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	2,600	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	7,100	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	6,900	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	13,400	300		ug/kg	10	205-99-2	p
Benzo(k)fluoranthene	15,100	300		ug/kg	10	207-08-9	p
Benzo(ghi)perylene	2,100	300		ug/kg	10	191-24-2	
Chrysene	7,200	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	300	300		ug/kg	10	53-70-3	
Fluoranthene	14,200	300		ug/kg	10	206-44-0	
Fluorene	1,400	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	2,200	300		ug/kg	10	193-39-5	
Naphthalene	1,000	300		ug/kg	10	91-20-3	
Phenanthrene	12,100	300		ug/kg	10	85-01-8	
Pyrene	15,100	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	500	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/30/21 14:57, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	67.8	60-29-7	
Acetone	Not detected	1,000		ug/kg	67.8	67-64-1	

p-Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.

Lab Sample ID: S30665.31 (continued)
Sample Tag: SB-23 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/30/21 14:57, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Methyl iodide	Not detected	100		ug/kg	67.8	74-88-4	
Carbon disulfide	Not detected	300		ug/kg	67.8	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	67.8	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	67.8	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	67.8	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	67.8	75-71-8	
Chloromethane	Not detected	300		ug/kg	67.8	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	67.8	75-01-4	
Bromomethane	Not detected	300		ug/kg	67.8	74-83-9	
Chloroethane	Not detected	300		ug/kg	67.8	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	67.8	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	67.8	75-35-4	
Methylene chloride	Not detected	100		ug/kg	67.8	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	67.8	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	67.8	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	67.8	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	67.8	109-99-9	
Chloroform	Not detected	70		ug/kg	67.8	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	67.8	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	67.8	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	67.8	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	67.8	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	67.8	56-23-5	
Benzene	Not detected	70		ug/kg	67.8	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	67.8	107-06-2	
Trichloroethene	Not detected	70		ug/kg	67.8	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	67.8	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	67.8	75-27-4	
Dibromomethane	Not detected	300		ug/kg	67.8	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	67.8	10061-01-5	
Toluene	Not detected	70		ug/kg	67.8	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	67.8	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	67.8	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	67.8	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	67.8	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	67.8	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	67.8	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	67.8	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	67.8	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	67.8	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	67.8		
o-Xylene	Not detected	70		ug/kg	67.8	95-47-6	
Styrene	Not detected	70		ug/kg	67.8	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	67.8	98-82-8	
Bromoform	Not detected	100		ug/kg	67.8	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	67.8	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	67.8	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	67.8	103-65-1	
Bromobenzene	Not detected	100		ug/kg	67.8	108-86-1	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.31 (continued)
Sample Tag: SB-23 2.5-3.5'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/30/21 14:57, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	67.8	108-67-8	
tert-Butylbenzene	Not detected	70		ug/kg	67.8	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	67.8	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	67.8	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	67.8	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	67.8	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	67.8	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	67.8	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	67.8	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	67.8	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	67.8	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	67.8	96-12-8	
1,2,4-Trichlorobenzene	Not detected	450		ug/kg	67.8	120-82-1	
1,2,3-Trichlorobenzene	Not detected	450		ug/kg	67.8	87-61-6	
Naphthalene	Not detected	300		ug/kg	67.8	91-20-3	
2-Methylnaphthalene	200	100		ug/kg	67.8	91-57-6	

Lab Sample ID: S30665.32
Sample Tag: SB-23 5-6'
Collected Date/Time: 11/22/2021 14:15
Matrix: Soil
COC Reference: 146343

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Metal Digestion	Completed	SW3050B	11/30/21 12:30	JRH	
PNA Extraction*	Completed	SW3546	11/28/21 12:00	JW	
Sample wt. (g) / Methanol (ml)*	10.579/10	SW5035A	11/24/21 10:28	BML	

Inorganics

Method: SM2540B, Run Date: 11/29/21 15:15, Analyst: ELR

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Total Solids*	82	1		%	1		

Metals

Method: SW6020A, Run Date: 11/30/21 14:17, Analyst: JRH

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Lead	20.7	0.30		mg/kg	269	7439-92-1	

Organics - Semi-Volatiles

Polynuclear Aromatics, Method: SW8270D, Run Date: 12/01/21 06:08, Analyst: PL

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acenaphthene	Not detected	300		ug/kg	10	83-32-9	
Acenaphthylene	Not detected	300		ug/kg	10	208-96-8	
Anthracene	Not detected	300		ug/kg	10	120-12-7	
Benzo(a)anthracene	Not detected	300		ug/kg	10	56-55-3	
Benzo(a)pyrene	Not detected	300		ug/kg	10	50-32-8	
Benzo(b)fluoranthene	Not detected	300		ug/kg	10	205-99-2	
Benzo(k)fluoranthene	Not detected	300		ug/kg	10	207-08-9	
Benzo(ghi)perylene	Not detected	300		ug/kg	10	191-24-2	
Chrysene	Not detected	300		ug/kg	10	218-01-9	
Dibenzo(ah)anthracene	Not detected	300		ug/kg	10	53-70-3	
Fluoranthene	Not detected	300		ug/kg	10	206-44-0	
Fluorene	Not detected	300		ug/kg	10	86-73-7	
Indeno(1,2,3-cd)pyrene	Not detected	300		ug/kg	10	193-39-5	
Naphthalene	Not detected	300		ug/kg	10	91-20-3	
Phenanthrene	Not detected	300		ug/kg	10	85-01-8	
Pyrene	Not detected	300		ug/kg	10	129-00-0	
2-Methylnaphthalene	Not detected	300		ug/kg	10	91-57-6	

Organics - Volatiles

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 10:03, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Diethyl ether	Not detected	300		ug/kg	68.6	60-29-7	
Acetone	Not detected	1,000		ug/kg	68.6	67-64-1	
Methyl iodide	Not detected	100		ug/kg	68.6	74-88-4	

Lab Sample ID: S30665.32 (continued)
Sample Tag: SB-23 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 10:03, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon disulfide	Not detected	300		ug/kg	68.6	75-15-0	
tert-Methyl butyl ether (MTBE)	Not detected	300		ug/kg	68.6	1634-04-4	
Acrylonitrile	Not detected	100		ug/kg	68.6	107-13-1	
2-Butanone (MEK)	Not detected	1,000		ug/kg	68.6	78-93-3	
Dichlorodifluoromethane	Not detected	300		ug/kg	68.6	75-71-8	
Chloromethane	Not detected	300		ug/kg	68.6	74-87-3	
Vinyl chloride	Not detected	70		ug/kg	68.6	75-01-4	
Bromomethane	Not detected	300		ug/kg	68.6	74-83-9	
Chloroethane	Not detected	300		ug/kg	68.6	75-00-3	
Trichlorofluoromethane	Not detected	100		ug/kg	68.6	75-69-4	
1,1-Dichloroethene	Not detected	70		ug/kg	68.6	75-35-4	
Methylene chloride	Not detected	100		ug/kg	68.6	75-09-2	
trans-1,2-Dichloroethene	Not detected	70		ug/kg	68.6	156-60-5	
1,1-Dichloroethane	Not detected	70		ug/kg	68.6	75-34-3	
cis-1,2-Dichloroethene	Not detected	70		ug/kg	68.6	156-59-2	
Tetrahydrofuran*	Not detected	1,000		ug/kg	68.6	109-99-9	
Chloroform	Not detected	70		ug/kg	68.6	67-66-3	
Bromochloromethane	Not detected	100		ug/kg	68.6	74-97-5	
1,1,1-Trichloroethane	Not detected	70		ug/kg	68.6	71-55-6	
4-Methyl-2-pentanone (MIBK)	Not detected	3,000		ug/kg	68.6	108-10-1	
2-Hexanone	Not detected	3,000		ug/kg	68.6	591-78-6	
Carbon tetrachloride	Not detected	70		ug/kg	68.6	56-23-5	
Benzene	Not detected	70		ug/kg	68.6	71-43-2	
1,2-Dichloroethane	Not detected	70		ug/kg	68.6	107-06-2	
Trichloroethene	Not detected	70		ug/kg	68.6	79-01-6	
1,2-Dichloropropane	Not detected	70		ug/kg	68.6	78-87-5	
Bromodichloromethane	Not detected	100		ug/kg	68.6	75-27-4	
Dibromomethane	Not detected	300		ug/kg	68.6	74-95-3	
cis-1,3-Dichloropropene	Not detected	70		ug/kg	68.6	10061-01-5	
Toluene	Not detected	70		ug/kg	68.6	108-88-3	
trans-1,3-Dichloropropene	Not detected	70		ug/kg	68.6	10061-02-6	
1,1,2-Trichloroethane	Not detected	70		ug/kg	68.6	79-00-5	
Tetrachloroethene	Not detected	70		ug/kg	68.6	127-18-4	
trans-1,4-Dichloro-2-butene	Not detected	70		ug/kg	68.6	110-57-6	
Dibromochloromethane	Not detected	100		ug/kg	68.6	124-48-1	
1,2-Dibromoethane	Not detected	30		ug/kg	68.6	106-93-4	M
Chlorobenzene	Not detected	70		ug/kg	68.6	108-90-7	
1,1,1,2-Tetrachloroethane	Not detected	100		ug/kg	68.6	630-20-6	
Ethylbenzene	Not detected	70		ug/kg	68.6	100-41-4	
p,m-Xylene	Not detected	100		ug/kg	68.6		
o-Xylene	Not detected	70		ug/kg	68.6	95-47-6	
Styrene	Not detected	70		ug/kg	68.6	100-42-5	
Isopropylbenzene	Not detected	300		ug/kg	68.6	98-82-8	
Bromoform	Not detected	100		ug/kg	68.6	75-25-2	
1,1,2,2-Tetrachloroethane	Not detected	70		ug/kg	68.6	79-34-5	
1,2,3-Trichloropropane	Not detected	100		ug/kg	68.6	96-18-4	
n-Propylbenzene	Not detected	70		ug/kg	68.6	103-65-1	
Bromobenzene	Not detected	100		ug/kg	68.6	108-86-1	
1,3,5-Trimethylbenzene	Not detected	70		ug/kg	68.6	108-67-8	

M-Result reported to MDL not RDL

Lab Sample ID: S30665.32 (continued)
Sample Tag: SB-23 5-6'

Volatile Organics 5035, Method: SW5035A/8260C, Run Date: 11/25/21 10:03, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
tert-Butylbenzene	Not detected	70		ug/kg	68.6	98-06-6	
1,2,4-Trimethylbenzene	Not detected	70		ug/kg	68.6	95-63-6	
sec-Butylbenzene	Not detected	70		ug/kg	68.6	135-98-8	
p-Isopropyltoluene	Not detected	100		ug/kg	68.6	99-87-6	
1,3-Dichlorobenzene	Not detected	100		ug/kg	68.6	541-73-1	
1,4-Dichlorobenzene	Not detected	100		ug/kg	68.6	106-46-7	
1,2-Dichlorobenzene	Not detected	100		ug/kg	68.6	95-50-1	
1,2,3-Trimethylbenzene	Not detected	70		ug/kg	68.6	526-73-8	
n-Butylbenzene	Not detected	70		ug/kg	68.6	104-51-8	
Hexachloroethane	Not detected	400		ug/kg	68.6	67-72-1	
1,2-Dibromo-3-chloropropane	Not detected	300		ug/kg	68.6	96-12-8	
1,2,4-Trichlorobenzene	Not detected	450		ug/kg	68.6	120-82-1	
1,2,3-Trichlorobenzene	Not detected	450		ug/kg	68.6	87-61-6	
Naphthalene	Not detected	300		ug/kg	68.6	91-20-3	
2-Methylnaphthalene	Not detected	100		ug/kg	68.6	91-57-6	

Lab Sample ID: S30665.33
Sample Tag: SB-23 7-8'
Collected Date/Time: 11/22/2021 14:20
Matrix: Soil
COC Reference: 146343

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	40ml Glass	MeOH	Yes	3.8	IR
1	4oz Glass	None	Yes	3.8	IR

Other / Misc.

Method: , Run Date: 11/29/21 09:00, Analyst: MMC

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Hold until notified*	Completed				1		

Merit Laboratories Login Checklist

Lab Set ID: S30665
Client: PME02 (PM Environmental, Inc. - Berkley)
Project: 01-12749-1-0001 / Vacant Land
Submitted: 11/23/2021 15:45 Login User: MMC

Attention: Jana Beumel
Address: PM Environmental, Inc.
4080 W. Eleven Mile
Berkley, MI 48072

Phone: O:248-336-9988 FAX:
Email: Beumel@pmenv.com

Selection				Description	Note
Sample Receiving					
01.	[X] Yes	[ ] No	[ ] N/A	Samples are received at 4C +/- 2C Thermometer #	IR 3.8
02.	[X] Yes	[ ] No	[ ] N/A	Received on ice/ cooling process begun	
03.	[ ] Yes	[X] No	[ ] N/A	Samples shipped	
04.	[ ] Yes	[X] No	[ ] N/A	Samples left in 24 hr. drop box	
05.	[ ] Yes	[ ] No	[X] N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	[X] Yes	[ ] No	[ ] N/A	COC adequately filled out	
07.	[X] Yes	[ ] No	[ ] N/A	COC signed and relinquished to the lab	
08.	[X] Yes	[ ] No	[ ] N/A	Sample tag on bottles match COC	
09.	[ ] Yes	[X] No	[ ] N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	[X] Yes	[ ] No	[ ] N/A	Do sample have correct chemical preservation	
11.	[ ] Yes	[ ] No	[X] N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	[ ] Yes	[X] No	[ ] N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	[X] Yes	[ ] No	[ ] N/A	All bottles intact	
14.	[X] Yes	[ ] No	[ ] N/A	Appropriate analytical bottles are used	
15.	[X] Yes	[ ] No	[ ] N/A	Merit bottles used	
16.	[X] Yes	[ ] No	[ ] N/A	Sufficient sample volume received	
17.	[ ] Yes	[X] No	[ ] N/A	Samples require laboratory filtration	
18.	[X] Yes	[ ] No	[ ] N/A	Samples submitted within holding time	
19.	[ ] Yes	[ ] No	[X] N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 3

144332

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Jana Beumel
COMPANY: PM Environmental
ADDRESS: 4080 W Eleven Mile Rd
CITY: Berkley STATE: MI ZIP CODE: 48072
PHONE NO.: FAX NO.: P.O. NO.:
E-MAIL ADDRESS: Beumel@pmenv.com QUOTE NO.:

INVOICE TO

CONTACT NAME: X SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 01-12749-1-0001 / Vacant Land
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Hailey Iglewski

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	PNAs	Lead	Mercury	Special Instructions
30665.01	11/22/21	1455	SB-13 3-4'	S	2	1					1		X	X	X	X	
.02	11/22/21	1500	SB-13 4.5-5.5'	S	2	1					1		X	X	X	X	
.03	11/22/21	1505	SB-13 7-8'	S	2	1					1		X	X	X	X	Hold
.04	11/22/21	1000	SB-14 3-4'	S	2	1					1		X	X	X		
.05	11/22/21	1005	SB-14 5-6'	S	2	1					1		X	X	X		
.06	11/22/21	1010	SB-14 7-8'	S	2	1					1		X	X	X		Hold
.07	11/22/21	1035	SB-15 2.5-3.5'	S	2	1					1		X	X	X		
.08	11/22/21	1040	SB-15 5-6'	S	2	1					1		X	X	X		
.09	11/22/21	1045	SB-15 7-8'	S	2	1					1		X	X	X		Hold
.10	11/22/21	1110	SB-16 3-4'	S	2	1					1		X	X	X		
.11	11/22/21	1115	SB-16 5-6'	S	2	1					1		X	X	X		
.12	11/22/21	1120	SB-16 7-8'	S	2	1					1		X	X	X		Hold

RELINQUISHED BY: SIGNATURE/ORGANIZATION [signature] / PM — X Sampler — DATE 11/22/21 TIME 1615
RECEIVED BY: SIGNATURE/ORGANIZATION PM Cold Storage — DATE 11/22/21 TIME 1615
RELINQUISHED BY: SIGNATURE/ORGANIZATION [signature] Merit — DATE 11-23-21 TIME 1545
RECEIVED BY: SIGNATURE/ORGANIZATION M Chilcote — DATE 11/23/21 TIME 1545

RELINQUISHED BY: SIGNATURE/ORGANIZATION — DATE — TIME
RECEIVED BY: SIGNATURE/ORGANIZATION [signature] — DATE 11-23-21 TIME 13:00

SEAL NO. — SEAL INTACT YES ☐ NO ☐ — INITIALS
SEAL NO. — SEAL INTACT YES ☐ NO ☐ — INITIALS

NOTES: TEMP. ON ARRIVAL 3.8

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

Merit Laboratories, Inc.
2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 2 OF 3

144371

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Jana Beumel
COMPANY: PM Environmental
ADDRESS: 4080 W Eleven Mile Rd
CITY: Berkley STATE: MI ZIP CODE: 48072
PHONE NO.: FAX NO.: P.O. NO.:
E-MAIL ADDRESS: Beumel@pmenv.com QUOTE NO.:

INVOICE TO

CONTACT NAME: ☒ SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 01-12749-1-0001 / Vacant Land
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Hailey Iglewski /

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	PVAs	Lead	Special Instructions
30665.13	11/22/21	1135	SB-17 3.5-4.5'	S	2	1					1		x	x	x	
.14	11/22/21	1140	SB-17 5-6'	S	2	1					1		x	x	x	
.15	11/22/21	1145	SB-17 7-8'	S	2	1					1		x	x	x	Hold
.16	11/22/21	1200	SB-18 2.5-3.5'	S	2	1					1		x	x	x	
.17	11/22/21	1205	SB-18 5-6'	S	2	1					1		x	x	x	
.18	11/22/21	1210	SB-18 7-8'	S	2	1					1		x	x	x	Hold
.19	11/22/21	1225	SB-19 3-4'	S	2	1					1		x	x	x	
.20	11/22/21	1230	SB-19 5-6'	S	2	1					1		x	x	x	
.21	11/22/21	1235	SB-19 7-8'	S	2	1					1		x	x	x	Hold
.22	11/22/21	1250	SB-20 3-4'	S	2	1					1		x	x	x	
.23	11/22/21	1255	SB-20 5-6'	S	2	1					1		x	x	x	
.24	11/22/21	1300	SB-20 7-8'	S	2	1					1		x	x	x	Hold

RELINQUISHED BY: SIGNATURE/ORGANIZATION: PME	☒ Sampler	DATE: 11/22/21	TIME: 1615	
RECEIVED BY: SIGNATURE/ORGANIZATION: PM Cold storage		DATE: 11/22/21	TIME: 1615	
RELINQUISHED BY: SIGNATURE/ORGANIZATION: Merit		DATE: 11/23/21	TIME: 1545	
RECEIVED BY: SIGNATURE/ORGANIZATION: M Chilcote		DATE: 11/23/21	TIME: 1545	

RELINQUISHED BY: SIGNATURE/ORGANIZATION:		DATE:	TIME:
RECEIVED BY: SIGNATURE/ORGANIZATION:		DATE: 11/23/21	TIME: 1800
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	NOTES: TEMP. ON ARRIVAL: 3.8
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

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C.O.C. PAGE # 3 OF 3

146343

CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME: Jana Beumel
COMPANY: PM Environmental
ADDRESS: 4080 W Eleven Mile Rd
CITY: Berkley STATE: MI ZIP CODE: 48072
PHONE NO.: FAX NO.: P.O. NO.:
E-MAIL ADDRESS: Beumel@pmenv.com QUOTE NO.:

INVOICE TO

CONTACT NAME: X SAME
COMPANY:
ADDRESS:
CITY: STATE: ZIP CODE:
PHONE NO.: E-MAIL ADDRESS:

PROJECT NO./NAME: 01-12749-1-6001 / Vacant Land
SAMPLER(S) - PLEASE PRINT/SIGN NAME: Hailey Iglewski /

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER

DELIVERABLES REQUIRED ☐ STD ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER

MATRIX CODE: GW=GROUNDWATER WW=WASTEWATER S=SOIL L=LIQUID SD=SOLID SL=SLUDGE DW=DRINKING WATER O=OIL WP=WIPE A=AIR W=WASTE

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

Certifications: ☐ OHIO VAP ☐ Drinking Water ☐ DoD ☐ NPDES
Project Locations: ☐ Detroit ☐ New York ☐ Other
Special Instructions

MERIT LAB NO. (FOR LAB USE ONLY)	YEAR DATE	YEAR TIME	SAMPLE TAG IDENTIFICATION-DESCRIPTION	MATRIX	# OF BOTTLES	# Containers & Preservatives: NONE	HCl	HNO_3	H_2SO_4	NaOH	MeOH	OTHER	VOCs	PNAs	Lead	Special Instructions
30616525	11/22/21	1315	SB-21 2.5-3.5'	S	2	1					1		X	X	X	
.26	11/22/21	1320	SB-21 5-6'	S	2	1					1		X	X	X	
.27	11/22/21	1325	SB-21 7-8'	S	2	1					1		X	X	X	Hold
.28	11/22/21	1345	SB-22 2.5-3.5'	S	2	1					1		X	X	X	
.29	11/22/21	1350	SB-22 5-6'	S	2	1					1		X	X	X	
.30	11/22/21	1355	SB-22 7-8'	S	2	1					1		X	X	X	Hold
.31	11/22/21	1410	SB-23 2.5-3.5'	S	2	1					1		X	X	X	
.32	11/22/21	1415	SB-23 5-6'	S	2	1					1		X	X	X	
.33	11/22/21	1420	SB-23 7-8'	S	2	1					1		X	X	X	Hold

RELINQUISHED BY: SIGNATURE/ORGANIZATION: / PME — X Sampler — DATE 11/22/21 TIME 1615
RECEIVED BY: SIGNATURE/ORGANIZATION: PM Cold Storage — DATE 11/22/21 TIME 1615
RELINQUISHED BY: SIGNATURE/ORGANIZATION: — DATE 11.23.21 TIME 1545
RECEIVED BY: SIGNATURE/ORGANIZATION: — DATE 11/23/21 TIME 1545

RELINQUISHED BY: SIGNATURE/ORGANIZATION: — DATE TIME
RECEIVED BY: SIGNATURE/ORGANIZATION: — DATE 11-23-21 TIME 1200

SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS
SEAL NO. SEAL INTACT YES ☐ NO ☐ INITIALS

NOTES: TEMP. ON ARRIVAL 3.8

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 5.18.12

Analytical Laboratory Report

Report ID: S30666.01(01)
Generated on 11/29/2021

Report to

Attention: Jana Beumel
PM Environmental, Inc.
4080 W. Eleven Mile
Berkley, MI 48072

Phone: O:248-336-9988 D:248-414-1859 FAX:
Email: Beumel@pmenv.com

Report produced by

Merit Laboratories, Inc.
2680 East Lansing Drive
East Lansing, MI 48823

Phone: (517) 332-0167 FAX: (517) 332-6333

Contacts for report questions:
John Laverty (johnlaverty@meritlabs.com)
Barbara Ball (bball@meritlabs.com)

Report Summary

Lab Sample ID(s): S30666.01-S30666.02
Project: 01-12749-1-0001 / Vacant Land
Collected Date(s): 11/23/2021
Submitted Date/Time: 11/23/2021 15:45
Sampled by: Hailey Iglewski
P.O. #: 01-12749-1-0001

Table of Contents

Maya Murshak
Technical Director

General Report Notes

Analytical results relate only to the samples tested, in the condition received by the laboratory.
Methods may be modified for improved performance.
Results reported on a dry weight basis where applicable.
'Not detected' indicates that parameter was not found at a level equal to or greater than the reporting limit (RL).
40 CFR Part 136 Table II Required Containers, Preservation Techniques and Holding Times for the Clean Water Act specify that samples for acrolein and acrylonitrile need to be preserved at a pH in the range of 4 to 5 or if not preserved, analyzed within 3 days of sampling.
QA/QC corresponding to this analytical report is a separate document with the same Merit ID reference and is available upon request.
Full accreditation certificates are available upon request. Starred (*) analytes are not NELAP accredited.
Samples are held by the lab for 30 days from the final report date unless a written request to hold longer is provided by the client.

Limits for drinking water samples, are listed as the MCL Limits (Maximum Contaminant Level Concentrations)
PFAS requirement: Section 9.3.8 of U.S. EPA Method 537.1 states "If the method analyte(s) found in the Field Sample is present in the FRB at a concentration greater than 1/3 the MRL, then all samples collected with that FRB are invalid and must be recollected and reanalyzed."
Samples submitted without an accompanying FRB may not be acceptable for compliance purposes.
Wisconsin PFAs analysis: MDL = LOD; RL = LOQ. LOD and LOQ are adjusted for dilution.

Report Narrative

There is no additional narrative for this analytical report

Laboratory Certifications

Authority	Certification ID
Michigan DEQ	#9956
DOD ELAP/ISO 17025	#69699
WBENC	#2005110032
Ohio VAP	#CL0002
Indiana DOH	#C-MI-07
New York NELAC	#11814
North Carolina DENR	#680
North Carolina DOH	#26702
Alaska CSLAP	#17-001
Pennsylvania DEP	#68-05884
Wisconsin DNR	FID# 399147320

Qualifier Descriptions

Qualifier	Description
!	Result is outside of stated limit criteria
B	Compound also found in associated method blank
E	Concentration exceeds calibration range
F	Analysis run outside of holding time
G	Estimated result due to extraction run outside of holding time
H	Sample submitted and run outside of holding time
I	Matrix interference with internal standard
J	Estimated value less than reporting limit, but greater than MDL
L	Elevated reporting limit due to low sample amount
M	Result reported to MDL not RDL
O	Analysis performed by outside laboratory. See attached report.
R	Preliminary result
S	Surrogate recovery outside of control limits
T	No correction for total solids
X	Elevated reporting limit due to matrix interference
Y	Elevated reporting limit due to high target concentration
b	Value detected less than reporting limit, but greater than MDL
e	Reported value estimated due to interference
j	Analyte also found in associated method blank
p	Benzo(b)Fluoranthene and Benzo(k)Fluoranthene integrated as one peak.
x	Preserved from bulk sample

Glossary of Abbreviations

Abbreviation	Description
RL/RDL	Reporting Limit
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
SW	EPA SW 846 (Soil and Wastewater) Methods
E	EPA Methods
SM	Standard Methods
LN	Linear
BR	Branched

Method Summary

Method	Version
N/A	Not Applicable
TO-15	EPA TO-15 Second Edition January 1999

Sample Summary (2 samples)

Sample ID	Sample Tag	Matrix	Collected Date/Time
S30666.01	SG-14	Air	11/23/21 09:00 - 11/23/21 09:06
S30666.02	SG-20	Air	11/23/21 08:50 - 11/23/21 08:56

Analytical Laboratory Report

Lab Sample ID: S30666.01
Sample Tag: SG-14
Collected Date/Time: 11/23/2021 09:00 - 11/23/2021 09:06
Matrix: Air
COC Reference: A6849

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Air Canister	None	No	RT	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Pressure check for TO-15*	-3	N/A	11/24/21 10:10	NDK	

Organics - Volatiles

TO-15, Method: TO-15, Run Date: 11/24/21 14:58, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	20		ppbv	10	67-64-1	
1,3-Butadiene	Not detected	20		ppbv	10	106-99-0	
Benzene	Not detected	2		ppbv	10	71-43-2	
Bromodichloromethane	Not detected	2		ppbv	10	75-27-4	
Bromoform	Not detected	2		ppbv	10	75-25-2	
Bromomethane	Not detected	2		ppbv	10	74-83-9	
Vinyl bromide	Not detected	2		ppbv	10	593-60-2	
Benzyl chloride	Not detected	2		ppbv	10	100-44-7	
Carbon disulfide	Not detected	5		ppbv	10	75-15-0	
Chlorobenzene	Not detected	2		ppbv	10	108-90-7	
Chloroethane	Not detected	20		ppbv	10	75-00-3	
Chloroform	Not detected	2		ppbv	10	67-66-3	
Chloromethane	Not detected	20		ppbv	10	74-87-3	
3-Chloropropene	Not detected	20		ppbv	10	107-05-1	
2-Chlorotoluene	Not detected	2		ppbv	10	95-49-8	
Carbon tetrachloride	Not detected	2		ppbv	10	56-23-5	
Cyclohexane	Not detected	2		ppbv	10	110-82-7	
1,1-Dichloroethane	Not detected	2		ppbv	10	75-34-3	
1,1-Dichloroethene	Not detected	2		ppbv	10	75-35-4	
1,2-Dibromoethane	Not detected	2		ppbv	10	106-93-4	
1,2-Dichloroethane	Not detected	2		ppbv	10	107-06-2	
1,2-Dichloropropane	Not detected	2		ppbv	10	78-87-5	
1,4-Dioxane	Not detected	25		ppbv	10	123-91-1	
Dichlorodifluoromethane	Not detected	2		ppbv	10	75-71-8	
Dibromochloromethane	Not detected	2		ppbv	10	124-48-1	
trans-1,2-Dichloroethene	Not detected	2		ppbv	10	156-60-5	
cis-1,2-Dichloroethene	Not detected	2		ppbv	10	156-59-2	
cis-1,3-Dichloropropene	Not detected	2		ppbv	10	10061-01-5	
1,3-Dichlorobenzene	Not detected	2		ppbv	10	541-73-1	
1,2-Dichlorobenzene	Not detected	2		ppbv	10	95-50-1	
1,4-Dichlorobenzene	Not detected	2		ppbv	10	106-46-7	
trans-1,3-Dichloropropene	Not detected	2		ppbv	10	10061-02-6	
Ethanol*	Not detected	25		ppbv	10	64-17-5	
Ethylbenzene	Not detected	2		ppbv	10	100-41-4	
Ethyl Acetate*	Not detected	20		ppbv	10	141-78-6	
4-Ethyltoluene	Not detected	2		ppbv	10	622-96-8	
Freon 113	Not detected	2		ppbv	10	76-13-1	

Lab Sample ID: S30666.01 (continued)
Sample Tag: SG-14

TO-15, Method: TO-15, Run Date: 11/24/21 14:58, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Freon 114	Not detected	2		ppbv	10	76-14-2	
Heptane	Not detected	2		ppbv	10	142-82-5	
Hexachlorobutadiene	Not detected	2		ppbv	10	87-68-3	
Hexane	3	2		ppbv	10	110-54-3	
2-Hexanone*	Not detected	5		ppbv	10	591-78-6	
Isopropyl Alcohol*	Not detected	20		ppbv	10	67-63-0	
Methylene chloride	Not detected	5		ppbv	10	75-09-2	
2-Butanone (MEK)	Not detected	20		ppbv	10	78-93-3	
4-Methyl-2-pentanone (MIBK)	Not detected	5		ppbv	10	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	2		ppbv	10	1634-04-4	
Methyl methacrylate	Not detected	2		ppbv	10	80-62-6	
Naphthalene	Not detected	2		ppbv	10	91-20-3	
Propylene*	Not detected	100		ppbv	10	115-07-1	
Styrene	Not detected	2		ppbv	10	100-42-5	
1,1,1-Trichloroethane	Not detected	2		ppbv	10	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	2		ppbv	10	79-34-5	
1,1,2-Trichloroethane	Not detected	2		ppbv	10	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ppbv	10	120-82-1	
1,2,4-Trimethylbenzene	Not detected	2		ppbv	10	95-63-6	
1,3,5-Trimethylbenzene	Not detected	2		ppbv	10	108-67-8	
2,2,4-Trimethylpentane	Not detected	2		ppbv	10	540-84-1	
Tert-butyl Alcohol	Not detected	10		ppbv	10	75-65-0	
Tetrachloroethene	Not detected	2		ppbv	10	127-18-4	
Tetrahydrofuran*	Not detected	2		ppbv	10	109-99-9	
Toluene	Not detected	2		ppbv	10	108-88-3	
Trichloroethene	Not detected	2		ppbv	10	79-01-6	
Trichlorofluoromethane	Not detected	2		ppbv	10	75-69-4	
Vinyl chloride	Not detected	2		ppbv	10	75-01-4	
Vinyl acetate	Not detected	20		ppbv	10	108-05-4	
p,m-Xylene	Not detected	4		ppbv	10		
o-Xylene	Not detected	2		ppbv	10	95-47-6	
Total Xylenes	Not detected	6		ppbv	10	1330-20-7	

TO-15, Method: TO-15, Run Date: 11/24/21 14:58, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	Not detected	48		ug/m3	10	67-64-1	
1,3-Butadiene	Not detected	44		ug/m3	10	106-99-0	
Benzene	Not detected	6.4		ug/m3	10	71-43-2	
Bromodichloromethane	Not detected	13		ug/m3	10	75-27-4	
Bromoform	Not detected	21		ug/m3	10	75-25-2	
Bromomethane	Not detected	7.8		ug/m3	10	74-83-9	
Vinyl bromide	Not detected	8.7		ug/m3	10	593-60-2	
Benzyl chloride	Not detected	10		ug/m3	10	100-44-7	
Carbon disulfide	Not detected	16		ug/m3	10	75-15-0	
Chlorobenzene	Not detected	9.2		ug/m3	10	108-90-7	
Chloroethane	Not detected	53		ug/m3	10	75-00-3	
Chloroform	Not detected	9.8		ug/m3	10	67-66-3	
Chloromethane	Not detected	41		ug/m3	10	74-87-3	
3-Chloropropene	Not detected	63		ug/m3	10	107-05-1	
2-Chlorotoluene	Not detected	10		ug/m3	10	95-49-8	

Lab Sample ID: S30666.01 (continued)
Sample Tag: SG-14

TO-15, Method: TO-15, Run Date: 11/24/21 14:58, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Carbon tetrachloride	Not detected	13		ug/m3	10	56-23-5	
Cyclohexane	Not detected	6.9		ug/m3	10	110-82-7	
1,1-Dichloroethane	Not detected	8.1		ug/m3	10	75-34-3	
1,1-Dichloroethene	Not detected	7.9		ug/m3	10	75-35-4	
1,2-Dibromoethane	Not detected	15		ug/m3	10	106-93-4	
1,2-Dichloroethane	Not detected	8.1		ug/m3	10	107-06-2	
1,2-Dichloropropane	Not detected	9.2		ug/m3	10	78-87-5	
1,4-Dioxane	Not detected	90		ug/m3	10	123-91-1	
Dichlorodifluoromethane	Not detected	9.9		ug/m3	10	75-71-8	
Dibromochloromethane	Not detected	17		ug/m3	10	124-48-1	
trans-1,2-Dichloroethene	Not detected	7.9		ug/m3	10	156-60-5	
cis-1,2-Dichloroethene	Not detected	7.9		ug/m3	10	156-59-2	
cis-1,3-Dichloropropene	Not detected	9.1		ug/m3	10	10061-01-5	
1,3-Dichlorobenzene	Not detected	12		ug/m3	10	541-73-1	
1,2-Dichlorobenzene	Not detected	12		ug/m3	10	95-50-1	
1,4-Dichlorobenzene	Not detected	12		ug/m3	10	106-46-7	
trans-1,3-Dichloropropene	Not detected	9.1		ug/m3	10	10061-02-6	
Ethanol*	Not detected	47		ug/m3	10	64-17-5	
Ethylbenzene	Not detected	8.7		ug/m3	10	100-41-4	
Ethyl Acetate*	Not detected	72		ug/m3	10	141-78-6	
4-Ethyltoluene	Not detected	9.8		ug/m3	10	622-96-8	
Freon 113	Not detected	15		ug/m3	10	76-13-1	
Freon 114	Not detected	14		ug/m3	10	76-14-2	
Heptane	Not detected	8.2		ug/m3	10	142-82-5	
Hexachlorobutadiene	Not detected	21		ug/m3	10	87-68-3	
Hexane	11	7.0		ug/m3	10	110-54-3	
2-Hexanone*	Not detected	20		ug/m3	10	591-78-6	
Isopropyl Alcohol*	Not detected	49		ug/m3	10	67-63-0	
Methylene chloride	Not detected	17		ug/m3	10	75-09-2	
2-Butanone (MEK)	Not detected	59		ug/m3	10	78-93-3	
4-Methyl-2-pentanone (MIBK)	Not detected	20		ug/m3	10	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	7.2		ug/m3	10	1634-04-4	
Methyl methacrylate	Not detected	8.2		ug/m3	10	80-62-6	
Naphthalene	Not detected	10		ug/m3	10	91-20-3	
Propylene*	Not detected	170		ug/m3	10	115-07-1	
Styrene	Not detected	8.5		ug/m3	10	100-42-5	
1,1,1-Trichloroethane	Not detected	11		ug/m3	10	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	14		ug/m3	10	79-34-5	
1,1,2-Trichloroethane	Not detected	11		ug/m3	10	79-00-5	
1,2,4-Trichlorobenzene	Not detected	37		ug/m3	10	120-82-1	
1,2,4-Trimethylbenzene	Not detected	9.8		ug/m3	10	95-63-6	
1,3,5-Trimethylbenzene	Not detected	9.8		ug/m3	10	108-67-8	
2,2,4-Trimethylpentane	Not detected	9.3		ug/m3	10	540-84-1	
Tert-butyl Alcohol	Not detected	30		ug/m3	10	75-65-0	
Tetrachloroethene	Not detected	14		ug/m3	10	127-18-4	
Tetrahydrofuran*	Not detected	5.9		ug/m3	10	109-99-9	
Toluene	Not detected	7.5		ug/m3	10	108-88-3	
Trichloroethene	Not detected	11		ug/m3	10	79-01-6	
Trichlorofluoromethane	Not detected	11		ug/m3	10	75-69-4	
Vinyl chloride	Not detected	5.1		ug/m3	10	75-01-4	

Lab Sample ID: S30666.01 (continued)
Sample Tag: SG-14

TO-15, Method: TO-15, Run Date: 11/24/21 14:58, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Vinyl acetate	Not detected	70		ug/m3	10	108-05-4	
p,m-Xylene	Not detected	17		ug/m3	10		
o-Xylene	Not detected	8.7		ug/m3	10	95-47-6	
Total Xylenes	Not detected	26		ug/m3	10	1330-20-7	

Lab Sample ID: S30666.02
Sample Tag: SG-20
Collected Date/Time: 11/23/2021 08:50 - 11/23/2021 08:56
Matrix: Air
COC Reference: A6849

Sample Containers

#	Type	Preservative(s)	Refrigerated?	Arrival Temp. (C)	Thermometer #
1	Air Canister	None	No	RT	IR

Extraction / Prep.

Parameter	Result	Method	Run Date	Analyst	Flags
Pressure check for TO-15*	-3	N/A	11/24/21 10:10	NDK	

Organics - Volatiles

TO-15, Method: TO-15, Run Date: 11/24/21 15:30, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	50	20		ppbv	10	67-64-1	
1,3-Butadiene	Not detected	20		ppbv	10	106-99-0	
Benzene	Not detected	2		ppbv	10	71-43-2	
Bromodichloromethane	Not detected	2		ppbv	10	75-27-4	
Bromoform	Not detected	2		ppbv	10	75-25-2	
Bromomethane	Not detected	2		ppbv	10	74-83-9	
Vinyl bromide	Not detected	2		ppbv	10	593-60-2	
Benzyl chloride	Not detected	2		ppbv	10	100-44-7	
Carbon disulfide	6	5		ppbv	10	75-15-0	
Chlorobenzene	Not detected	2		ppbv	10	108-90-7	
Chloroethane	Not detected	20		ppbv	10	75-00-3	
Chloroform	Not detected	2		ppbv	10	67-66-3	
Chloromethane	Not detected	20		ppbv	10	74-87-3	
3-Chloropropene	Not detected	20		ppbv	10	107-05-1	
2-Chlorotoluene	Not detected	2		ppbv	10	95-49-8	
Carbon tetrachloride	Not detected	2		ppbv	10	56-23-5	
Cyclohexane	5	2		ppbv	10	110-82-7	
1,1-Dichloroethane	Not detected	2		ppbv	10	75-34-3	
1,1-Dichloroethene	Not detected	2		ppbv	10	75-35-4	
1,2-Dibromoethane	Not detected	2		ppbv	10	106-93-4	
1,2-Dichloroethane	Not detected	2		ppbv	10	107-06-2	
1,2-Dichloropropane	Not detected	2		ppbv	10	78-87-5	
1,4-Dioxane	Not detected	25		ppbv	10	123-91-1	
Dichlorodifluoromethane	Not detected	2		ppbv	10	75-71-8	
Dibromochloromethane	Not detected	2		ppbv	10	124-48-1	
trans-1,2-Dichloroethene	Not detected	2		ppbv	10	156-60-5	
cis-1,2-Dichloroethene	Not detected	2		ppbv	10	156-59-2	
cis-1,3-Dichloropropene	Not detected	2		ppbv	10	10061-01-5	
1,3-Dichlorobenzene	Not detected	2		ppbv	10	541-73-1	
1,2-Dichlorobenzene	Not detected	2		ppbv	10	95-50-1	
1,4-Dichlorobenzene	Not detected	2		ppbv	10	106-46-7	
trans-1,3-Dichloropropene	Not detected	2		ppbv	10	10061-02-6	
Ethanol*	Not detected	25		ppbv	10	64-17-5	
Ethylbenzene	Not detected	2		ppbv	10	100-41-4	
Ethyl Acetate*	Not detected	20		ppbv	10	141-78-6	
4-Ethyltoluene	Not detected	2		ppbv	10	622-96-8	
Freon 113	Not detected	2		ppbv	10	76-13-1	

Lab Sample ID: S30666.02 (continued)
Sample Tag: SG-20

TO-15, Method: TO-15, Run Date: 11/24/21 15:30, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Freon 114	Not detected	2		ppbv	10	76-14-2	
Heptane	8	2		ppbv	10	142-82-5	
Hexachlorobutadiene	Not detected	2		ppbv	10	87-68-3	
Hexane	14	2		ppbv	10	110-54-3	
2-Hexanone*	Not detected	5		ppbv	10	591-78-6	
Isopropyl Alcohol*	Not detected	20		ppbv	10	67-63-0	
Methylene chloride	Not detected	5		ppbv	10	75-09-2	
2-Butanone (MEK)	Not detected	20		ppbv	10	78-93-3	
4-Methyl-2-pentanone (MIBK)	Not detected	5		ppbv	10	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	2		ppbv	10	1634-04-4	
Methyl methacrylate	Not detected	2		ppbv	10	80-62-6	
Naphthalene	Not detected	2		ppbv	10	91-20-3	
Propylene*	Not detected	301		ppbv	10	115-07-1	X
Styrene	Not detected	2		ppbv	10	100-42-5	
1,1,1-Trichloroethane	Not detected	2		ppbv	10	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	2		ppbv	10	79-34-5	
1,1,2-Trichloroethane	Not detected	2		ppbv	10	79-00-5	
1,2,4-Trichlorobenzene	Not detected	5		ppbv	10	120-82-1	
1,2,4-Trimethylbenzene	Not detected	2		ppbv	10	95-63-6	
1,3,5-Trimethylbenzene	Not detected	2		ppbv	10	108-67-8	
2,2,4-Trimethylpentane	Not detected	2		ppbv	10	540-84-1	
Tert-butyl Alcohol	Not detected	10		ppbv	10	75-65-0	
Tetrachloroethene	Not detected	2		ppbv	10	127-18-4	
Tetrahydrofuran*	Not detected	2		ppbv	10	109-99-9	
Toluene	Not detected	2		ppbv	10	108-88-3	
Trichloroethene	Not detected	2		ppbv	10	79-01-6	
Trichlorofluoromethane	Not detected	2		ppbv	10	75-69-4	
Vinyl chloride	Not detected	2		ppbv	10	75-01-4	
Vinyl acetate	Not detected	20		ppbv	10	108-05-4	
p,m-Xylene	Not detected	4		ppbv	10		
o-Xylene	Not detected	2		ppbv	10	95-47-6	
Total Xylenes	Not detected	6		ppbv	10	1330-20-7	

TO-15, Method: TO-15, Run Date: 11/24/21 15:30, Analyst: KAG

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Acetone	120	48		ug/m3	10	67-64-1	
1,3-Butadiene	Not detected	44		ug/m3	10	106-99-0	
Benzene	Not detected	6.4		ug/m3	10	71-43-2	
Bromodichloromethane	Not detected	13		ug/m3	10	75-27-4	
Bromoform	Not detected	21		ug/m3	10	75-25-2	
Bromomethane	Not detected	7.8		ug/m3	10	74-83-9	
Vinyl bromide	Not detected	8.7		ug/m3	10	593-60-2	
Benzyl chloride	Not detected	10		ug/m3	10	100-44-7	
Carbon disulfide	19	16		ug/m3	10	75-15-0	
Chlorobenzene	Not detected	9.2		ug/m3	10	108-90-7	
Chloroethane	Not detected	53		ug/m3	10	75-00-3	
Chloroform	Not detected	9.8		ug/m3	10	67-66-3	
Chloromethane	Not detected	41		ug/m3	10	74-87-3	
3-Chloropropene	Not detected	63		ug/m3	10	107-05-1	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S30666.02 (continued)
Sample Tag: SG-20

TO-15, Method: TO-15, Run Date: 11/24/21 15:30, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
2-Chlorotoluene	Not detected	10		ug/m3	10	95-49-8	
Carbon tetrachloride	Not detected	13		ug/m3	10	56-23-5	
Cyclohexane	17	6.9		ug/m3	10	110-82-7	
1,1-Dichloroethane	Not detected	8.1		ug/m3	10	75-34-3	
1,1-Dichloroethene	Not detected	7.9		ug/m3	10	75-35-4	
1,2-Dibromoethane	Not detected	15		ug/m3	10	106-93-4	
1,2-Dichloroethane	Not detected	8.1		ug/m3	10	107-06-2	
1,2-Dichloropropane	Not detected	9.2		ug/m3	10	78-87-5	
1,4-Dioxane	Not detected	90		ug/m3	10	123-91-1	
Dichlorodifluoromethane	Not detected	9.9		ug/m3	10	75-71-8	
Dibromochloromethane	Not detected	17		ug/m3	10	124-48-1	
trans-1,2-Dichloroethene	Not detected	7.9		ug/m3	10	156-60-5	
cis-1,2-Dichloroethene	Not detected	7.9		ug/m3	10	156-59-2	
cis-1,3-Dichloropropene	Not detected	9.1		ug/m3	10	10061-01-5	
1,3-Dichlorobenzene	Not detected	12		ug/m3	10	541-73-1	
1,2-Dichlorobenzene	Not detected	12		ug/m3	10	95-50-1	
1,4-Dichlorobenzene	Not detected	12		ug/m3	10	106-46-7	
trans-1,3-Dichloropropene	Not detected	9.1		ug/m3	10	10061-02-6	
Ethanol*	Not detected	47		ug/m3	10	64-17-5	
Ethylbenzene	Not detected	8.7		ug/m3	10	100-41-4	
Ethyl Acetate*	Not detected	72		ug/m3	10	141-78-6	
4-Ethyltoluene	Not detected	9.8		ug/m3	10	622-96-8	
Freon 113	Not detected	15		ug/m3	10	76-13-1	
Freon 114	Not detected	14		ug/m3	10	76-14-2	
Heptane	33	8.2		ug/m3	10	142-82-5	
Hexachlorobutadiene	Not detected	21		ug/m3	10	87-68-3	
Hexane	49	7.0		ug/m3	10	110-54-3	
2-Hexanone*	Not detected	20		ug/m3	10	591-78-6	
Isopropyl Alcohol*	Not detected	49		ug/m3	10	67-63-0	
Methylene chloride	Not detected	17		ug/m3	10	75-09-2	
2-Butanone (MEK)	Not detected	59		ug/m3	10	78-93-3	
4-Methyl-2-pentanone (MIBK)	Not detected	20		ug/m3	10	108-10-1	
tert-Methyl butyl ether (MTBE)	Not detected	7.2		ug/m3	10	1634-04-4	
Methyl methacrylate	Not detected	8.2		ug/m3	10	80-62-6	
Naphthalene	Not detected	10		ug/m3	10	91-20-3	
Propylene*	Not detected	518		ug/m3	10	115-07-1	X
Styrene	Not detected	8.5		ug/m3	10	100-42-5	
1,1,1-Trichloroethane	Not detected	11		ug/m3	10	71-55-6	
1,1,2,2-Tetrachloroethane	Not detected	14		ug/m3	10	79-34-5	
1,1,2-Trichloroethane	Not detected	11		ug/m3	10	79-00-5	
1,2,4-Trichlorobenzene	Not detected	37		ug/m3	10	120-82-1	
1,2,4-Trimethylbenzene	Not detected	9.8		ug/m3	10	95-63-6	
1,3,5-Trimethylbenzene	Not detected	9.8		ug/m3	10	108-67-8	
2,2,4-Trimethylpentane	Not detected	9.3		ug/m3	10	540-84-1	
Tert-butyl Alcohol	Not detected	30		ug/m3	10	75-65-0	
Tetrachloroethene	Not detected	14		ug/m3	10	127-18-4	
Tetrahydrofuran*	Not detected	5.9		ug/m3	10	109-99-9	
Toluene	Not detected	7.5		ug/m3	10	108-88-3	
Trichloroethene	Not detected	11		ug/m3	10	79-01-6	

X-Elevated reporting limit due to matrix interference

Lab Sample ID: S30666.02 (continued)

Sample Tag: SG-20

TO-15, Method: TO-15, Run Date: 11/24/21 15:30, Analyst: KAG (continued)

Parameter	Result	RL	MDL	Units	Dilution	CAS#	Flags
Trichlorofluoromethane	Not detected	11		ug/m3	10	75-69-4	
Vinyl chloride	Not detected	5.1		ug/m3	10	75-01-4	
Vinyl acetate	Not detected	70		ug/m3	10	108-05-4	
p,m-Xylene	Not detected	17		ug/m3	10		
o-Xylene	Not detected	8.7		ug/m3	10	95-47-6	
Total Xylenes	Not detected	26		ug/m3	10	1330-20-7	

Merit Laboratories Login Checklist

Lab Set ID: S30666
Client: PME02 (PM Environmental, Inc. - Berkley)
Project: 01-12749-1-0001 / Vacant Land
Submitted: 11/23/2021 15:45 Login User: JRM

Attention: Jana Beumel
Address: PM Environmental, Inc.
4080 W. Eleven Mile
Berkley, MI 48072

Phone: O:248-336-9988 FAX:
Email: Beumel@pmenv.com

Selection				Description	Note
Sample Receiving					
01.	☐ Yes	☒ No	☐ N/A	Samples are received at 4C +/- 2C Thermometer #	RT
02.	☐ Yes	☒ No	☐ N/A	Received on ice/ cooling process begun	
03.	☐ Yes	☒ No	☐ N/A	Samples shipped	
04.	☐ Yes	☒ No	☐ N/A	Samples left in 24 hr. drop box	
05.	☐ Yes	☐ No	☒ N/A	Are there custody seals/tape or is the drop box locked	
Chain of Custody					
06.	☒ Yes	☐ No	☐ N/A	COC adequately filled out	
07.	☒ Yes	☐ No	☐ N/A	COC signed and relinquished to the lab	
08.	☒ Yes	☐ No	☐ N/A	Sample tag on bottles match COC	
09.	☐ Yes	☒ No	☐ N/A	Subcontracting needed? Subcontacted to:	
Preservation					
10.	☒ Yes	☐ No	☐ N/A	Do sample have correct chemical preservation	
11.	☐ Yes	☐ No	☒ N/A	Completed pH checks on preserved samples? (no VOAs)	
12.	☐ Yes	☒ No	☐ N/A	Did any samples need to be preserved in the lab?	
Bottle Conditions					
13.	☒ Yes	☐ No	☐ N/A	All bottles intact	
14.	☒ Yes	☐ No	☐ N/A	Appropriate analytical bottles are used	
15.	☒ Yes	☐ No	☐ N/A	Merit bottles used	
16.	☒ Yes	☐ No	☐ N/A	Sufficient sample volume received	
17.	☐ Yes	☒ No	☐ N/A	Samples require laboratory filtration	
18.	☒ Yes	☐ No	☐ N/A	Samples submitted within holding time	
19.	☐ Yes	☐ No	☒ N/A	Do water VOC or TOX bottles contain headspace	

Corrective action for all exceptions is to call the client and to notify the project manager.

Client Review By: _____ Date: _____

Merit Laboratories, Inc.

2680 East Lansing Dr., East Lansing, MI 48823
Phone (517) 332-0167 Fax (517) 332-4034
www.meritlabs.com

C.O.C. PAGE # 1 OF 1

A 6849

AIR/GAS SAMPLES CHAIN OF CUSTODY RECORD

REPORT TO

CONTACT NAME	Jana Beumel
COMPANY	PM Environmental
ADDRESS	4080 W Eleven Mile Rd
CITY	Berkley
STATE	MI
ZIP CODE	48072
PHONE NO.	
FAX NO.	
P.O. NO.	
EMAIL ADDRESS	Beumel@pmenv.com
QUOTE NO.	

INVOICE TO

CONTACT NAME	X SAME
COMPANY	
ADDRESS	
CITY	
STATE	
ZIP CODE	
PHONE NO.	
EMAIL ADDRESS	

ANALYSIS (ATTACH LIST IF MORE SPACE IS REQUIRED)

PROJECT NO./NAME: 01-12749-1-0001 / Vacant Land

SAMPLER(S) - PLEASE PRINT/SIGN NAME: Hailey Iglesia

TURNAROUND TIME REQUIRED ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☒ STANDARD ☐ OTHER _____

DELIVERABLES REQUIRED ☐ LEVEL II ☐ LEVEL III ☐ LEVEL IV ☐ EDD ☐ OTHER _____

Certifications ☐ DoD ☐ NELAP

MERIT LAB NO. FOR LAB USE ONLY	SAMPLE TAG IDENTIFICATION-DESCRIPTION	Start Date	Start Time	Stop Date	Stop Time	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	Sample Type: Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (specify in notes)	Analyses: TO-15	Other (specify in notes)
3066601	SG-14	11/23/21	0900	11/23/21	0906	-27	-5	334	13722			X			X	
*.02	SG-20	11/23/21	0850	11/23/21	0856	-26	-5	323	13710			X			X	

HI

Temperature (Fahrenheit)	Interior	Ambient	Notes
Start		24°	
Stop		24°	

Pressure (inches of Hg)	Interior	Ambient	Notes
Start		30.22	
Stop		30.22	

Notes

RELINQUISHED BY: SIGNATURE/ORGANIZATION	PME	X Sampler	DATE 11/23/21 TIME 1145
RECEIVED BY: SIGNATURE/ORGANIZATION	PM Storage		DATE 11/23/21 TIME 1145
RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE 11.23 TIME 1545
RECEIVED BY: SIGNATURE/ORGANIZATION	Johanna Munung		DATE 11/23/21 TIME 1545

RELINQUISHED BY: SIGNATURE/ORGANIZATION			DATE TIME
RECEIVED BY: SIGNATURE/ORGANIZATION			DATE 11/23 TIME
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	TEMP. ON ARRIVAL
SEAL NO.	SEAL INTACT YES ☐ NO ☐	INITIALS	RT

PLEASE NOTE: SIGNING ACKNOWLEDGES ADHERENCE TO MERIT'S SAMPLE ACCEPTANCE POLICY ON REVERSE SIDE

Rev. 06/28/19

ANALYTICAL REPORT

Report Date: December 07, 2021

Jana Beumel
PM Environmental
4080 West Eleven Mile Road
Berkley, MI 48072

Phone: 248-414-1859

E-mail: beumel@pmenv.com

Workorder: **34-2133706**
Client Project ID: 01-12706-1-0008
Purchase Order: 01-12706-1-0008
Project Manager: Bevan Meade

Analytical Results

Sample ID: **SG-13 Hg** Collected: 11/23/2021
Lab ID: 2133706004 Received: 12/01/2021

Method: NIOSH 6009 Mod. **Media:** SKC 226-17-1A, Hopcalite Tube **Instrument:** AACV02
Dilution: 1 **Sampling Parameter:** Air Volume 12 L **Analyzed:** 12/06/2021 (287985)

Analyte	Result (ug/sample)	Result (mg/m³)	Result (ppm)	RL (ug/sample)
Mercury	<0.010	<0.00083	<0.00010	0.010

Sample ID: **Blank** Collected: 11/23/2021
Lab ID: 2133706005 Received: 12/01/2021

Method: NIOSH 6009 Mod. **Media:** SKC 226-17-1A, Hopcalite Tube **Instrument:** AACV02
Dilution: 1 **Sampling Parameter:** Air Volume Not Applicable **Analyzed:** 12/06/2021 (287985)

Analyte	Result (ug/sample)	Result (mg/m³)	Result (ppm)	RL (ug/sample)
Mercury	<0.010	NA	NA	0.010

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method (Analysis Batch)	Analyst	Peer Review
NIOSH 6009 Mod. (287985)	/S/ Emilee Johnson 12/06/2021 16:23	/S/ Shaina Wiest 12/07/2021 08:52

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsslc.com

ANALYTICAL REPORT

Workorder: **34-2133706**
Client Project ID: 01-12706-1-0008
Purchase Order: 01-12706-1-0008
Project Manager: Bevan Meade

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
The following was provided by the client: Sample ID, Collection Date, Sampling Location, Media Type, Sampling Parameter.
Collection Date, Media Type, and Sampling Parameter can potentially affect the validity of the results.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	PJLA (DoD ELAP)	L20-57	http://www.pjlabs.com
	PJLA (ISO 17025)	L20-58	http://www.pjlabs.com
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP)	101574	http://www.aihaaccreditedlabs.org
	DOECAP-AP	L20-59	http://www.pjlabs.com
	Washington	C596	https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Laboratory-Accreditation
Dietary Supplements	PJLA (ISO 17025)	L20-58	http://www.pjlabs.com

Definitions

LOD = Limit of Detection = MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.
LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
ND = Not Detected, Testing result not detected above the LOD or LOQ.
NA = Not Applicable.
** No result could be reported, see sample comments for details.
< Means this testing result is less than the numerical value.
( ) This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

ANALYTICAL REPORT

Report Date: December 08, 2021

Jana Beumel
PM Environmental
4080 West Eleven Mile Road
Berkley, MI 48072

Phone: 248-414-1859

E-mail: beumel@pmenv.com

Workorder: **34-2133745**
Project ID: 01-12706-1-0008 112321
Purchase Order: 01-12706-1-0008
Project Manager Bevan Meade

Client Sample ID	Lab ID	Collect Date	Receive Date	Sampling Site
SG-14	2133745001	11/23/21	12/02/21	01-12706-1-0008
SG-20	2133745002	11/23/21	12/02/21	01-12706-1-0008
SG-13	2133745003	11/23/21	12/02/21	01-12706-1-0008

ANALYTICAL REPORT

Workorder: 34-2133745
Client: PM Environmental Services
Project Manager: Bevan Meade

Analytical Results

Sample ID: **SG-14**
Lab ID: 2133745001
Matrix: Air

Sampling Site: 01-12706-1-0008
Media: Carbo Trap 300
Sampling Parameter: Air Volume 100 mL

Collected: 11/23/2021
Received: 12/02/2021

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable

Analysis: EPA TO-17, Air
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 10:42

Instrument ID: 5975-X

Analyte	Result (ng/sample)	Result (ug/m³)	Result (ppb)	RL (ng/sample)	Dilution	Qual
Propene	**25**	**250**	**150**	25	1	
Dichlorodifluoromethane	ND	<250	<51	25	1	
Chloromethane	ND	<250	<120	25	1	
Freon 114	ND	<250	<36	25	1	
Vinyl chloride	ND	<250	<98	25	1	
1,3-Butadiene	ND	<250	<110	25	1	
Bromomethane	ND	<250	<64	25	1	
Chloroethane	ND	<250	<95	25	1	
Ethanol	**2700**	**27000**	**14000**	25	1	E
Isopropyl alcohol	**33**	**330**	**130**	25	1	
Freon 11	ND	<250	<44	25	1	
Freon 113	ND	<250	<33	25	1	
Acetone	ND	<250	<110	25	1	
Carbon disulfide	ND	<250	<80	25	1	
1,1-Dichloroethene	ND	<250	<63	25	1	
Methylene chloride	ND	<250	<72	25	1	
trans-1,2-Dichloroethene	ND	<250	<63	25	1	
1,1-Dichloroethane	ND	<250	<62	25	1	
Methyl t-butyl ether	ND	<250	<69	25	1	
Vinyl acetate	ND	<250	<71	25	1	
2-Butanone	ND	<250	<85	25	1	
cis-1,2-Dichloroethene	ND	<250	<63	25	1	
Ethyl acetate	ND	<250	<69	25	1	
Hexane	ND	<250	<71	25	1	
Chloroform	ND	<250	<51	25	1	
Tetrahydrofuran	ND	<250	<85	25	1	
1,2-Dichloroethane	ND	<250	<62	25	1	
1,1,1-Trichloroethane	ND	<250	<46	25	1	
Benzene	ND	<250	<78	25	1	
Carbon tetrachloride	ND	<250	<40	25	1	
1,2-Dichloropropane	ND	<250	<51	25	1	
Bromodichloromethane	ND	<250	<37	25	1	
Cyclohexane	ND	<250	<73	25	1	
Trichloroethene	ND	<250	<47	25	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-2133745
Client: PM Environmental Services
Project Manager: Bevan Meade

Analytical Results

Sample ID: **SG-14** | Sampling Site: 01-12706-1-0008 | Collected: 11/23/2021
Lab ID: 2133745001 | Media: Carbo Trap 300 | Received: 12/02/2021
Matrix: Air | Sampling Parameter: Air Volume 100 mL

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable | **Analysis:** EPA TO-17, Air | **Instrument ID:** 5975-X
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 10:42

Analyte	Result (ng/sample)	Result (ug/m³)	Result (ppb)	RL (ng/sample)	Dilution	Qual
Heptane	ND	<250	<61	25	1	
cis-1,3-Dichloropropene	ND	<250	<55	25	1	
4-Methyl-2-pentanone	ND	<250	<61	25	1	
trans-1,3-Dichloropropene	ND	<250	<55	25	1	
1,1,2-Trichloroethane	ND	<250	<46	25	1	
Toluene	ND	<250	<66	25	1	
2-Hexanone	ND	<250	<61	25	1	
Dibromochloromethane	ND	<250	<29	25	1	
Tetrachloroethene	ND	<250	<37	25	1	
1,2-Dibromoethane	ND	<250	<33	25	1	
Chlorobenzene	ND	<250	<54	25	1	
Ethylbenzene	ND	<250	<58	25	1	
m,p-Xylene	ND	<250	<58	25	1	
Bromoform	ND	<250	<24	25	1	
Styrene	ND	<250	<59	25	1	
1,1,2,2-Tetrachloroethane	ND	<250	<36	25	1	
o-Xylene	ND	<250	<58	25	1	
4-Ethyl toluene	ND	<250	<51	25	1	
1,3,5-Trimethylbenzene	ND	<250	<51	25	1	
1,2,4-Trimethylbenzene	ND	<250	<51	25	1	
1,3-Dichlorobenzene	ND	<250	<42	25	1	
1,4-Dichlorobenzene	ND	<250	<42	25	1	
Benzyl chloride	ND	<250	<48	25	1	
1,2-Dichlorobenzene	ND	<250	<42	25	1	
1,2,4-Trichlorobenzene	ND	<250	<34	25	1	
Hexachlorobutadiene	ND	<250	<23	25	1	
Total Volatile Organics	1300	13000	3100	NA	1	J

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable | **Analysis:** EPA TO-17, Air | **Instrument ID:** 5975-X
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 10:42

Tentatively Identified Compound	Result (ng/sample)	Retention Time	Dilution	Qual
Unknown	66	3.20	1	J
p-Cymene	48	10.87	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-2133745
Client: PM Environmental Services
Project Manager: Bevan Meade

Analytical Results

Sample ID: **SG-14** | Sampling Site: 01-12706-1-0008 | Collected: 11/23/2021
Lab ID: 2133745001 | Media: Carbo Trap 300 | Received: 12/02/2021
Matrix: Air | Sampling Parameter: Air Volume 100 mL

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable
Analysis: EPA TO-17, Air | **Instrument ID:** 5975-X
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 10:42

Tentatively Identified Compound	Result (ng/sample)	Retention Time	Dilution	Qual
D-Limonene	110	11.02	1	J
Benzenamine, 3-ethoxy-	34	12.05	1	J
Unknown	40	12.16	1	J
D-Carvone	120	13.16	1	J
Isopropyl palmitate	51	14.86	1	J
Napthalene	<0	12.80	1	J

Sample ID: **SG-20** | Sampling Site: 01-12706-1-0008 | Collected: 11/23/2021
Lab ID: 2133745002 | Media: Carbo Trap 300 | Received: 12/02/2021
Matrix: Air | Sampling Parameter: Air Volume 100 mL

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable
Analysis: EPA TO-17, Air | **Instrument ID:** 5975-X
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 11:03

Analyte	Result (ng/sample)	Result (ug/m³)	Result (ppb)	RL (ng/sample)	Dilution	Qual
Propene	**66**	**660**	**390**	25	1	
Dichlorodifluoromethane	ND	<250	<51	25	1	
Chloromethane	ND	<250	<120	25	1	
Freon 114	ND	<250	<36	25	1	
Vinyl chloride	ND	<250	<98	25	1	
1,3-Butadiene	ND	<250	<110	25	1	
Bromomethane	ND	<250	<64	25	1	
Chloroethane	ND	<250	<95	25	1	
Ethanol	**1200**	**12000**	**6500**	25	1	E
Isopropyl alcohol	ND	<250	<100	25	1	
Freon 11	ND	<250	<44	25	1	
Freon 113	ND	<250	<33	25	1	
Acetone	ND	<250	<110	25	1	
Carbon disulfide	ND	<250	<80	25	1	
1,1-Dichloroethene	ND	<250	<63	25	1	
Methylene chloride	ND	<250	<72	25	1	
trans-1,2-Dichloroethene	ND	<250	<63	25	1	
1,1-Dichloroethane	ND	<250	<62	25	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-2133745
Client: PM Environmental Services
Project Manager: Bevan Meade

Analytical Results

Sample ID: **SG-20**
Lab ID: 2133745002
Matrix: Air
Sampling Site: 01-12706-1-0008
Media: Carbo Trap 300
Sampling Parameter: Air Volume 100 mL
Collected: 11/23/2021
Received: 12/02/2021

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable
Analysis: EPA TO-17, Air
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 11:03
Instrument ID: 5975-X

Analyte	Result (ng/sample)	Result (ug/m³)	Result (ppb)	RL (ng/sample)	Dilution	Qual
Methyl t-butyl ether	ND	<250	<69	25	1	
Vinyl acetate	ND	<250	<71	25	1	
2-Butanone	ND	<250	<85	25	1	
cis-1,2-Dichloroethene	ND	<250	<63	25	1	
Ethyl acetate	ND	<250	<69	25	1	
Hexane	ND	<250	<71	25	1	
Chloroform	ND	<250	<51	25	1	
Tetrahydrofuran	ND	<250	<85	25	1	
1,2-Dichloroethane	ND	<250	<62	25	1	
1,1,1-Trichloroethane	ND	<250	<46	25	1	
Benzene	ND	<250	<78	25	1	
Carbon tetrachloride	ND	<250	<40	25	1	
1,2-Dichloropropane	ND	<250	<51	25	1	
Bromodichloromethane	ND	<250	<37	25	1	
Cyclohexane	ND	<250	<73	25	1	
Trichloroethene	ND	<250	<47	25	1	
Heptane	ND	<250	<61	25	1	
cis-1,3-Dichloropropene	ND	<250	<55	25	1	
4-Methyl-2-pentanone	ND	<250	<61	25	1	
trans-1,3-Dichloropropene	ND	<250	<55	25	1	
1,1,2-Trichloroethane	ND	<250	<46	25	1	
Toluene	ND	<250	<66	25	1	
2-Hexanone	ND	<250	<61	25	1	
Dibromochloromethane	ND	<250	<29	25	1	
Tetrachloroethene	ND	<250	<37	25	1	
1,2-Dibromoethane	ND	<250	<33	25	1	
Chlorobenzene	ND	<250	<54	25	1	
Ethylbenzene	ND	<250	<58	25	1	
m,p-Xylene	ND	<250	<58	25	1	
Bromoform	ND	<250	<24	25	1	
Styrene	ND	<250	<59	25	1	
1,1,2,2-Tetrachloroethane	ND	<250	<36	25	1	
o-Xylene	ND	<250	<58	25	1	
4-Ethyl toluene	ND	<250	<51	25	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-2133745
Client: PM Environmental Services
Project Manager: Bevan Meade

Analytical Results

Sample ID: **SG-20** | Sampling Site: 01-12706-1-0008 | Collected: 11/23/2021
Lab ID: 2133745002 | Media: Carbo Trap 300 | Received: 12/02/2021
Matrix: Air | Sampling Parameter: Air Volume 100 mL

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable | **Analysis:** EPA TO-17, Air | **Batch:** IVOA/5483 (HBN: 288018) | **Analyzed:** 12/03/2021 11:03 | **Instrument ID:** 5975-X

Analyte	Result (ng/sample)	Result (ug/m³)	Result (ppb)	RL (ng/sample)	Dilution	Qual
1,3,5-Trimethylbenzene	ND	<250	<51	25	1	
1,2,4-Trimethylbenzene	ND	<250	<51	25	1	
1,3-Dichlorobenzene	ND	<250	<42	25	1	
1,4-Dichlorobenzene	ND	<250	<42	25	1	
Benzyl chloride	ND	<250	<48	25	1	
1,2-Dichlorobenzene	ND	<250	<42	25	1	
1,2,4-Trichlorobenzene	ND	<250	<34	25	1	
Hexachlorobutadiene	ND	<250	<23	25	1	
Total Volatile Organics	680	6800	1700	NA	1	J

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable | **Analysis:** EPA TO-17, Air | **Batch:** IVOA/5483 (HBN: 288018) | **Analyzed:** 12/03/2021 11:03 | **Instrument ID:** 5975-X

Tentatively Identified Compound	Result (ng/sample)	Retention Time	Dilution	Qual
Unknown	72	3.11	1	J
Isobutane	38	3.36	1	J
Butane	78	3.47	1	J
Butane, 2-methyl-	47	3.82	1	J
Pentane	25	3.98	1	J
D-Limonene	44	11.02	1	J
D-Carvone	36	13.17	1	J
Napthalene	<0	12.80	1	J

Sample ID: **SG-13** | Sampling Site: 01-12706-1-0008 | Collected: 11/23/2021
Lab ID: 2133745003 | Media: Carbo Trap 300 | Received: 12/02/2021
Matrix: Air | Sampling Parameter: Air Volume 100 mL

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable | **Analysis:** EPA TO-17, Air | **Batch:** IVOA/5483 (HBN: 288018) | **Analyzed:** 12/03/2021 11:25 | **Instrument ID:** 5975-X

Analyte	Result (ng/sample)	Result (ug/m³)	Result (ppb)	RL (ng/sample)	Dilution	Qual
Propene	ND	<250	<150	25	1	
Dichlorodifluoromethane	ND	<250	<51	25	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-2133745
Client: PM Environmental Services
Project Manager: Bevan Meade

Analytical Results

Sample ID: **SG-13** | Sampling Site: 01-12706-1-0008 | Collected: 11/23/2021
Lab ID: 2133745003 | Media: Carbo Trap 300 | Received: 12/02/2021
Matrix: Air | Sampling Parameter: Air Volume 100 mL

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable
Analysis: EPA TO-17, Air
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 11:25
Instrument ID: 5975-X

Analyte	Result (ng/sample)	Result (ug/m³)	Result (ppb)	RL (ng/sample)	Dilution	Qual
Chloromethane	ND	<250	<120	25	1	
Freon 114	ND	<250	<36	25	1	
Vinyl chloride	ND	<250	<98	25	1	
1,3-Butadiene	ND	<250	<110	25	1	
Bromomethane	ND	<250	<64	25	1	
Chloroethane	ND	<250	<95	25	1	
Ethanol	**730**	**7300**	**3900**	25	1	
Isopropyl alcohol	ND	<250	<100	25	1	
Freon 11	ND	<250	<44	25	1	
Freon 113	ND	<250	<33	25	1	
Acetone	ND	<250	<110	25	1	
Carbon disulfide	ND	<250	<80	25	1	
1,1-Dichloroethene	ND	<250	<63	25	1	
Methylene chloride	ND	<250	<72	25	1	
trans-1,2-Dichloroethene	ND	<250	<63	25	1	
1,1-Dichloroethane	ND	<250	<62	25	1	
Methyl t-butyl ether	ND	<250	<69	25	1	
Vinyl acetate	ND	<250	<71	25	1	
2-Butanone	ND	<250	<85	25	1	
cis-1,2-Dichloroethene	ND	<250	<63	25	1	
Ethyl acetate	ND	<250	<69	25	1	
Hexane	ND	<250	<71	25	1	
Chloroform	ND	<250	<51	25	1	
Tetrahydrofuran	ND	<250	<85	25	1	
1,2-Dichloroethane	ND	<250	<62	25	1	
1,1,1-Trichloroethane	ND	<250	<46	25	1	
Benzene	ND	<250	<78	25	1	
Carbon tetrachloride	ND	<250	<40	25	1	
1,2-Dichloropropane	ND	<250	<51	25	1	
Bromodichloromethane	ND	<250	<37	25	1	
Cyclohexane	ND	<250	<73	25	1	
Trichloroethene	ND	<250	<47	25	1	
Heptane	ND	<250	<61	25	1	
cis-1,3-Dichloropropene	ND	<250	<55	25	1	

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-2133745
Client: PM Environmental Services
Project Manager: Bevan Meade

Analytical Results

Sample ID: **SG-13** | Sampling Site: 01-12706-1-0008 | Collected: 11/23/2021
Lab ID: 2133745003 | Media: Carbo Trap 300 | Received: 12/02/2021
Matrix: Air | Sampling Parameter: Air Volume 100 mL

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable
Analysis: EPA TO-17, Air | **Instrument ID:** 5975-X
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 11:25

Analyte	Result (ng/sample)	Result (ug/m³)	Result (ppb)	RL (ng/sample)	Dilution	Qual
4-Methyl-2-pentanone	ND	<250	<61	25	1	
trans-1,3-Dichloropropene	ND	<250	<55	25	1	
1,1,2-Trichloroethane	ND	<250	<46	25	1	
Toluene	**29**	**290**	**76**	25	1	
2-Hexanone	ND	<250	<61	25	1	
Dibromochloromethane	ND	<250	<29	25	1	
Tetrachloroethene	ND	<250	<37	25	1	
1,2-Dibromoethane	ND	<250	<33	25	1	
Chlorobenzene	ND	<250	<54	25	1	
Ethylbenzene	ND	<250	<58	25	1	
m,p-Xylene	ND	<250	<58	25	1	
Bromoform	ND	<250	<24	25	1	
Styrene	ND	<250	<59	25	1	
1,1,2,2-Tetrachloroethane	ND	<250	<36	25	1	
o-Xylene	ND	<250	<58	25	1	
4-Ethyl toluene	ND	<250	<51	25	1	
1,3,5-Trimethylbenzene	ND	<250	<51	25	1	
1,2,4-Trimethylbenzene	ND	<250	<51	25	1	
1,3-Dichlorobenzene	ND	<250	<42	25	1	
1,4-Dichlorobenzene	ND	<250	<42	25	1	
Benzyl chloride	ND	<250	<48	25	1	
1,2-Dichlorobenzene	ND	<250	<42	25	1	
1,2,4-Trichlorobenzene	ND	<250	<34	25	1	
Hexachlorobutadiene	ND	<250	<23	25	1	
Total Volatile Organics	800	8000	2000	NA	1	J

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable
Analysis: EPA TO-17, Air | **Instrument ID:** 5975-X
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 11:25

Tentatively Identified Compound	Result (ng/sample)	Retention Time	Dilution	Qual
Hexane, 1,1,1,2,2,3,3,4,4,5,6,6,6-tridecafluoro-	220	3.11	1	J
Butane, 2-methyl-	660	3.82	1	J
Pentane	320	3.98	1	J
1-Pentene	27	4.55	1	J

Results Continued on Next Page

ANALYTICAL REPORT

Workorder: 34-2133745
Client: PM Environmental Services
Project Manager: Bevan Meade

Analytical Results

Sample ID: **SG-13** | Sampling Site: 01-12706-1-0008 | Collected: 11/23/2021
Lab ID: 2133745003 | Media: Carbo Trap 300 | Received: 12/02/2021
Matrix: Air | Sampling Parameter: Air Volume 100 mL

Analysis Method - EPA TO-17 Mod.

Preparation: Not Applicable
Analysis: EPA TO-17, Air | **Instrument ID:** 5975-X
Batch: IVOA/5483 (HBN: 288018)
Analyzed: 12/03/2021 11:25

Tentatively Identified Compound	Result (ng/sample)	Retention Time	Dilution	Qual
Napthalene	<0	12.80	1	J

Comments

Quality Control: EPA TO-17 Mod. - (Batch: 288018)

TO-17 Modification: All results are semi-quantitative based on Daily CCV Standard.

QC limits for this method are advisory.

“Total Volatile Organic Compounds” is the sum of all peaks in the chromatogram quantitated against Toluene.

Not all compounds in the LCS/LCSD were within performance limits. This is not a method requirement.

Compounds flagged with an "E" qualifier are above instrument calibration

Naphthalene was not detected in samples 001-003 greater than 25 ng.

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method	Analyst	Peer Review
EPA TO-17 Mod. (288018)	/S/ Paul Kelly 12/03/2021 14:39	/S/ Thomas J. Masoian 12/08/2021 08:38

Laboratory Contact Information

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ANALYTICAL REPORT

Workorder: 34-2133745
Client: PM Environmental Services
Project Manager: Bevan Meade

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
The following was provided by the client: Sample ID, Collection Date, Sampling Location, Media Type, Sampling Parameter.
Collection Date, Media Type, and Sampling Parameter can potentially affect the validity of the results.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Environmental	PJLA (DoD ELAP)	L20-57	http://www.pjlabs.com
	PJLA (ISO 17025)	L20-58	http://www.pjlabs.com
Industrial Hygiene	AIHA (ISO 17025 & AIHA IHLAP)	101574	http://www.aihaaccreditedlabs.org
	DOECAP-AP	L20-59	http://www.pjlabs.com
	Washington	C596	https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Laboratory-Accreditation
Dietary Supplements	PJLA (ISO 17025)	L20-58	http://www.pjlabs.com

Result Symbol Definitions

MDL = Method Detection Limit, a statistical estimate of method/media/instrument sensitivity.
RL = Reporting Limit, a verified value of method/media/instrument sensitivity.
CRDL = Contract Required Detection Limit
Reg. Limit = Regulatory Limit.
ND = Not Detected, testing result not detected above the MDL or RL.
< Means this testing result is less than the numerical value.
** No result could be reported, see sample comments for details.

Qualifier Symbol Definitions

U = Qualifier indicates that the analyte was not detected above the MDL.
J = Qualifier Indicates that the analyte value is between the MDL and the RL. It is also used to indicate an estimated value for tentatively identified compounds in mass spectrometry where a 1:1 response is assumed.
B = Qualifier indicates that the analyte was detected in the blank.
E = Qualifier indicates that the analyte result exceeds calibration range.
P = Qualifier indicates that the RPD between the two columns is greater than 40%.
Q = Qualifier indicates that the analyte was outside the limits in a lab QC sample.