

HULL

Environment / Energy / Infrastructure

October 15, 2018

Mr. Larry Kovacs
Industrial Commercial Properties, LLC
6675 Parkland Blvd., Suite 100
Solon, Ohio 44139

Re: Limited Phase II Activities Conducted at the Sears Auto Center Property located at 4950 Midway Mall, Elyria, Ohio. ICP003.0002.

Dear Mr. Kovacs:

This letter summarizes the Limited Phase II activities completed at the Sears Auto Center Property located at 4950 Midway Mall, Elyria, Ohio, (referred to herein as the Property). Hull & Associates, Inc. (Hull) was contracted to conduct sampling activities at the Property on behalf of Industrial Commercial Properties, LLC (Client). The location of the Property is shown on Figure 1.

PROJECT DESCRIPTION

The Scope of Work (SOW) for this project was developed at the request of the Client to evaluate the Recognized Environmental Conditions (RECs) identified in the Professional Service Industries, Inc. (PSI) August 2018 Phase I Environmental Site Assessment (ESA) Report. Specifically, this SOW included the completion of Limited Phase II activities to evaluate potential impacts to environmental media through the sampling of soil, groundwater, and wipe samples at the Property to investigate the following RECs identified in the Phase I ESA:

The Phase I ESA conducted by PSI revealed the following conclusions about RECs in connection with the subject Property:

"The historical use of the Property as an auto repair shop, including the use of underground hydraulic lifts, petroleum products, above-ground storage tanks (ASTs), floor drains and oil/water separator are considered a REC for the subject Property.

A former used oil tank (UST) was located adjacent to the auto center building and was previously assessed; and approximately 22 tons of petroleum contaminated soil was removed from the UST area. This area of the site was subsequently issued a no further action status (NFA) by the Bureau of Underground Storage Tank Regulations (BUSTR). Therefore, the former UST area is considered to have been adequately addressed and investigated. Additionally, three of the hydraulic lifts were removed in the early 1990s and the areas were sampled and showed no significant impacts from these three lifts. However, multiple (approximately 10) other in-ground hydraulic lifts remained in use at the property and appear to have been abandoned in place at the time of the closure of the auto repair shop. Based on the large number of lifts present, and on the long duration of time the auto repair center was in operation, the lifts and auto repair operation are considered a REC for the Property.

The elevator room of the Sears Auto Center was observed to be covered with a large quantity of hydraulic oil from the elevator equipment. Based on the multiple seams and joints present in the concrete floor, this hydraulic oil leak/release is considered a REC with respect to the subject property (based on the potential for oil to have reached the subsurface)."

Hull reviewed PSI's August 2018 Phase I ESA, and determined the following RECs/Identified Areas (IAs) would need further evaluation:

1. **REC-1-Fomer Hydraulic Lifts-** Historically, there were approximately thirteen (13) hydraulic lifts located in the service areas of the facility, three of which were removed. The remaining ten lifts appeared to be closed in place by filling the lift cavities with concrete or some other fill material. The installation date of the lifts was not provided to PSI during the Phase I Property reconnaissance interview and was unable to be determined during historical records review. Given the age of the building (built in 1965), the hydraulic lifts were likely operated prior to the 1979 ban on the use of polychlorinated biphenyls (PCBs) in di-electric fluids and hydraulic oils by the Toxic Substances Control Act (TSCA); therefore, there is potential that the lifts historically contained PCB hydraulic oil. Due to the unknown nature of activities associated with the historical operation and closure of the lifts, impacts to the soil and groundwater may have occurred from PCBs, polycyclic aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons (TPH) C₂₀-C₃₄.
2. **REC-2- Oil/Water Separator** - An oil/water separator is located within the Sears Auto Center Building at the Property. The oil/water separator was reportedly installed in 1965 and was utilized to accept water from the drains in the service areas. Due to the age and nature of activities associated with the oil/water separator, impacts to the soil, soil vapor, and groundwater may have occurred from volatile organic compounds (VOCs) and TPH C₆-C₁₂, TPH C₁₀-C₂₀, and TPH C₂₀-C₃₄.
3. **REC-3- ASTs** – Three ASTs, including two new oil ASTs and one used oil AST are located within the Sears Auto Center Building. According to PSI's interview with the on-Property contact, the ASTs were empty. However, the concrete secondary containment area where the ASTs are located displayed signs of staining. Due to the observed staining during PSI's site reconnaissance, impacts to the soil, soil vapor and groundwater may have occurred from VOCs and TPH C₆-C₁₂, TPH C₁₀-C₂₀, and TPH C₂₀-C₃₄.
4. **REC-4- Elevator Room** - The elevator room associated with a hydraulic elevator located in the Sears Auto Center was observed to have hydraulic oil leaking on the entire floor area within the room and from under the door leading out of the room. Due to the hydraulic oil observed on the concrete floor, impacts to the soil and groundwater may have occurred from the hydraulic oil or PCBs.
5. **IA-1-Former Used Oil UST** – A former used oil tank UST located adjacent to the Sears Auto Center Building was previously assessed; and approximately 22 tons of petroleum contaminated soil was removed from the area of the UST. The area was issued NFA status by BUSTR on October 13, 2004.

SUMMARY OF LIMITED PHASE II ACTIVITIES

Soil Investigation Activities

On September 20, 2018, GPD Geotechnical Services, Inc. (GPD) installed ten (10) soil borings (HSB-1 through HSB-7 and HTW-1 through HTW-3). Borings HSB-1, HSB-2, HSB-3 and HTW-1 were installed in the vicinity of REC-1- Former Hydraulic Lifts; borings HSB-4 and HTW-2 were installed in the vicinity of REC-2- Oil/Water Separator; borings HSB-5 and HSB-6 were installed in the vicinity of REC-3- ASTs; and borings HSB-7 and HTW-3 were installed in the vicinity of IA-1- Former Used Oil UST. Soil borings were installed utilizing a truck-mounted GeoProbe 7822DT® and direct push technologies. Drilling activities were

conducted under the direct observation of a representative of Hull for collection of soil samples. Prior to all drilling activities, the Ohio Utility Protection Service (OUPS) was contacted regarding the locations of buried utilities. Additionally, all locations were investigated for utilities using an electromagnetic scanner and ground penetrating radar (GPR) operated by The Underground Detective.

Soil borings were continuously sampled from the ground surface to depths ranging from 9 to 16 feet below ground surface (bgs). Each soil sample was collected using a 2.25-inch diameter by 48-inch long direct push "dual tube sampler" with single-use acetate sampler liner. The soil boring logs are included in Attachment A.

The Hull field personnel wore a clean pair of nitrile gloves while handling each soil sample to maintain sample integrity. Sampling equipment was washed in a non-phosphate soap solution and then rinsed with potable water between each sampling location. All decontamination procedures were performed on-Property under the observation of Hull personnel.

A representative portion from the appropriate sample interval was split and one-half of the sample was placed in a clean Zip-loc® type bag for field headspace screening using a *Mini Rae Lite* photoionization detector (PID) equipped with a 10.6 eV lamp. The other half of the sample was placed in a clean Zip-loc® type bag and placed on ice for potential transfer to proper laboratory sampling containers to be shipped to the lab. Before screening samples, the PID was calibrated in accordance with the manufacturer's specifications using 100 parts per million (ppm) isobutylene gas standard. The portion of each soil sample collected for headspace screening was allowed to warm to ambient temperature to promote volatilization of VOCs. The PID probe was carefully inserted through the seal of each bag and the maximum meter response from each sample was recorded on the soil boring log. Soil sample PID screening results are depicted on the soil boring logs (refer to Attachment A).

Following collection of soil samples, soil borings HTW-1, HTW-2 and HTW-3 were converted to temporary wells by installing 1-inch diameter PVC slotted well screens with risers through the dual sampling system and withdrawing the drilling equipment, however, no groundwater samples were collected due to temporary wells being dry. The temporary well materials were subsequently removed, and all borings were then filled with bentonite and the surfaces were repaired to match the surrounding area.

The soil sample with the highest PID reading was selected for submittal to the laboratory from each of the soil borings (denoted as borings (HSB-1 through HSB-7 and HTW-1, through HTW-3). The selected samples were transferred from the Zip-loc® bags on ice to laboratory-supplied and preserved glassware, as appropriate, and were immediately placed on ice in coolers and shipped for chemical analysis to Pace Analytical Services, LLC (Pace) (Ohio Voluntary Action Program [VAP] Certified Lab #CL0065) under proper chain-of-custody procedures. Soil samples were analyzed for one or more of the following: VOCs in accordance with U.S. EPA Method 8260; PAHs in accordance with U.S. EPA Method 8270; PCBs in accordance with U.S. EPA Method 8082; TPH carbon fraction C₆-C₁₂ in accordance with U.S. EPA Method 8015 Modified; and TPH carbon fractions C₁₀-C₂₀ and C₂₀-C₃₄ in accordance with U.S. EPA Method 8015 Modified. A trip blank accompanied the cooler. The laboratory analytical report and associated chain-of-custody documentation are included in Attachment B. A soil sampling summary is presented in Table 1. Soil analytical results are presented in Table 2.

Groundwater Investigation Activities

Temporary monitoring wells HTW-1, HTW-2 and HTW-3 were installed at the Property on September 20 and 21, 2018, as part of this assessment. The locations of the monitoring wells were selected to

appropriately characterize groundwater in the uppermost saturated unit in the vicinity of REC-1- Former Hydraulic Lifts, REC-2, the Oil/Water Separator and IA-1 the Former Used Oil UST.

The temporary wells were installed to depths ranging from 15 to 16 feet bgs, where refusal was encountered in the top of the shale bedrock. Temporary well installation procedures were performed under the supervision of personnel from Hull. Groundwater was not encountered during drilling of borings HTW-1, HTW-2 or HTW-3, and groundwater was not subsequently encountered in the temporary wells after installation; therefore, no groundwater samples were collected.

PCB Wipe Investigation Activities

A single PCB wipe sample HWS-1, was taken at the Property on September 21, 2018, as part of this assessment. The location of the sample was selected to characterize the presence of PCBs in the hydraulic oil present on the floor of the REC-4- Elevator Room. The PCB wipe sample was analyzed for PCBs in accordance with U.S. EPA Method 8082. PCB analytical results are presented in Table 3.

DATA EVALUATION

Soil results were compared to their respective Ohio VAP generic numerical standards (GNS) for direct contact with soil for residential land use, commercial/industrial land use and construction/excavation activities in Table 2. The Property is currently utilized for commercial/industrial purposes and it is reasonably anticipated that the Property would remain as such in the future. As shown in Table 2, there were no PCBs detected in any of the soil samples analyzed. Six (6) VOCs (i.e., 1,2,4-Trimethylbenzene, Acetone, Ethylbenzene, n-Hexane, Toluene and Total Xylenes) were detected among locations HSB-6, HSB-7 and HTW-1; sixteen (16) SVOCs (i.e., 1,3,5-Trimethylbenzene, 2-Methylnaphthalene, Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Fluorene, Indeno(1,2,3-c,d)pyrene, Isopropylbenzene, Naphthalene, Phenanthrene and Pyrene) were detected among locations HSB-1, HSB-3, HSB-6, HSB-7, HTW-1, HTW-2 and HTW-3; and two (2) TPH fractions (i.e., TPH C₁₀-C₂₀ and C₂₀-C₃₄) were detected among locations HSB-6, HSB-7, HTW-1 and HTW-3. All detections were substantially lower than their corresponding Ohio VAP GNS for residential land use (i.e., the most protective land use category).

PCB wipe results were compared to the US EPA criterion of 10 ug/100 cm², as presented in 40 CFR §761 and explained further in U.S. EPA's PCB Q and A Manual, as of June 2014, in Table 3. Porous surfaces, such as the concrete elevator room floor sampled at this Property, with PCB concentrations of \leq 10 ug/100 cm² are authorized for use under 40 CFR §761.30(p) without further conditions, as this criterion is protective of both high occupancy areas (i.e. including residential and typical commercial/industrial settings) and low occupancy areas (i.e. including certain occupational settings with limited exposure), as outlined in *Polychlorinated Biphenyl (PCB) Site Revitalization Guidance Under the Toxic Substances Control Act (TSCA)* (U.S.EPA, 2005). As shown in Table 3, Aroclor 1242 was the only detected PCB at 3.6 ug/wipe or ug/100cm², which is lower than the US EPA criterion of 10 ug/100cm².

The groundwater investigation was performed for due diligence purposes, was limited in nature, and did not include a full hydrogeologic evaluation of the Property. As indicated in the previous section, temporary wells HTW-1, HTW-2 and HTW-3 were advanced until probe refusal in the top of the shale bedrock at depths of 15 to 16 feet bgs. Groundwater was not encountered in these borings during drilling, and groundwater was not encountered in temporary wells HTW-1, HTW-2 and HTW-3 following installation. With the exception of boring HSB-7, the soil encountered during drilling generally consisted of relatively impermeable clay. Groundwater was not encountered during drilling of any of the borings installed during this investigation, except for boring HSB-7, which appears to be located in the former tank cavity, as

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evidenced by the presence of fill material (i.e., cinders, concrete). The water encountered in boring HSB-7 during drilling appears to be localized and perched in the relatively more permeable granular fill material encountered in the suspected former tank cavity and does not appear to be representative of the uppermost water-bearing zone at the Property.

Based upon these limited investigation activities, there were no chemicals reported in the eleven soil samples above Ohio VAP GNS or residual soil saturation concentrations, and there were no PCBs reported above US EPA criterion for both high and low occupancy areas in the PCB wipe sample. Thus, based on the limited data collected, there is no indication that the RECs and IA identified have impacted the Property. Furthermore, given that VOCs detected in soil were substantially lower than the Ohio VAP GNS standards, the vapor intrusion exposure pathway within the existing building (i.e., soil vapor identified as potentially impacted media in association with REC-2 and REC-3) is not of concern. No additional investigation or remedial activities are considered necessary with respect to the RECs at the Property given the data reported from samples collected to date. Please recognize that this limited investigation does not constitute a complete evaluation of all complete and potentially complete exposure pathways at the Property. However, Hull does not believe, in its professional judgement, that any additional investigation or remediation is warranted at this time.

REPORT LIMITATIONS AND RELIANCE

The information presented herein is based on the level of effort and investigative techniques defined under the Scope of Work. Hull has conducted this investigation in a manner consistent with sound engineering practices and with professional judgment. No other warranty or guarantee, expressed or implied, is made. This report does not attempt to evaluate past or present compliance with federal, state and local environmental or land use laws and regulations, except to the extent the compliance relates to releases of hazardous substances or petroleum. Hull makes no guarantees regarding the completeness or accuracy of any information obtained in review of public or private files.

Furthermore, this report is prepared for, and made available for the use of Industrial Commercial Properties, LLC, its affiliates and the contents thereof may not be used or relied upon by any other person without the express written consent and authorization of Industrial Commercial Properties, LLC C and Hull or as otherwise provided in the agreement between Industrial Commercial Properties and Hull. Please contact the undersigned at (216) 505-7714 with any questions or comments.

Sincerely,



Lindsay Crow
Project Scientist



Eric H. Wilburn, P.E.
Principal

attachments

TABLES

**LIMITED PHASE II ASSESSMENT
SEARS AUTO CENTER PROPERTY
4950 MIDWAY MALL, ELYRIA, OHIO**

TABLE 1

SAMPLE SUMMARY

DESCRIPTION	Phase II Sampling ID#	LIMITED PHASE II SAMPLING LOCATIONS AND ANALYSIS												Comments			
		Sample Depths (feet)*							Soil Borings	Temporary Monitoring Well	Wipe Sample	Parameters					
		0.0-2.0	2.0-4.0	4.0-6.0	6.0-8.0	8.0-10.0	10.0-12.0	12.0-14.0				VOCs ^a	PAHs ^b	PCBs ^c	TPH C ₆ -C ₁₂	TPH C ₁₀ -C ₂₀ & C ₂₀ -C ₃₄	
REC- 1- Former Hydraulic Lifts	HSB-1			4.0-6.0					X			1	1	1	1	1	
	HSB-2	0.0-2.0							X			1	1	1	1	1	
	HSB-3				8.0-10.0				X			1	1	1	1	1	
	HTW-1					12.0-14.0			X	X		1	1	1	1	1	
REC-2- Oil/Water Separator	HSB-4		4.0-6.0						X			1	1		1	1	
	HTW-2					10.0-12.0			X	X		1	1		1	1	
REC-3 ASTs	HSB-5			6.0-8.0					X			1	1		1	1	
	HSB-6				8.0-10.0				X			1	1		1	1	
REC-4- Elevator Room	HWS-1			X							X			1			Wipe sample collected.
IA-1- Former Used Oil UST	HSB-7	0.0-2.0							X			1	1		1	1	
	HTW-3	0.0-2.0							14.0-16.0	X	X		2	2		2	2
Groundwater	HTW-1			X								0	0				
	HTW-2			X								0	0				
	HTW-3			X								0	0				

* One sample was collected from the interval with the highest PID reading. If no PID readings were indicated then the sample was taken from the 0-2 foot interval or the likely depth of potential impact.

a. Volatile Organic Compounds

b. Polycyclic Aromatic Hydrocarbons

c. Polychlorinated Biphenyls

**LIMITED PHASE II ASSESSMENT
SEARS AUTO CENTER PROPERTY
4950 MIDWAY MALL, ELYRIA, OHIO**

TABLE 2

SOIL ANALYTICAL RESULTS (MG/KG)

Sample Location:	Ohio VAP Direct Contact with Soil Standards (mg/kg) ^a			HSB-1	HSB-2	HSB-3	HSB-4	HSB-5	HSB-6	HSB-7	HTW-1	HTW-2
	Residential	Commercial/ Industrial	Construction/ Excavation	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/21/2018	9/20/2018	9/21/2018	9/20/2018
Sample Date:				ICP003: HSB-1: S040060	ICP003: HSB-2: S000020	ICP003: HSB-3: S080100	ICP003: HSB-4: S040060	ICP003: HSB-5: S060080	ICP003: HSB-6: S080100	ICP003: HSB-7: S000020	ICP003: HTW-1: S120140	ICP003: HTW-2: S100120
Field Sample ID:				4 - 6 ft	0 - 2 ft	8 - 10 ft	4 - 6 ft	6 - 8 ft	8 - 10 ft	0 - 2 ft	12 - 14 ft	10 - 12 ft
Sample Depth:												
Volatile Organic Compounds (VOCs) by U.S. EPA Method 8260												
1,1,1,2-Tetrachloroethane	46	240	680	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,1,1-Trichloroethane	640	640	640	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,1,2,2-Tetrachloroethane	14	75	670	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,1,2-Trichloroethane	26	140	1200	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,1-Dichloroethane	83	420	1700	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,1-Dichloroethene	360	1200	360	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,2,4-Trimethylbenzene	160	220	220	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	0.58	<0.0046	<0.0046
1,2-Dichloroethane	11	56	480	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,2-Dichloropropane	23	120	180	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,3-Dichloropropane	1500	1500	1500	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
2-Butanone	28000	28000	28000	<0.026	<0.02	<0.024	<0.027	<0.024	<0.025	<0.024	<0.023	<0.023
4-Methyl-2-pentanone	3400	3400	3400	<0.026	<0.02	<0.024	<0.027	<0.024	<0.025	<0.024	<0.023	<0.023
Acetone	110000	110000	110000	<0.1	<0.079	<0.097	<0.11	<0.096	0.1	<0.097	0.092	<0.092
Benzene	26	140	1200	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Bromodichloromethane	6.8	35	300	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Bromomethane	18	82	550	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Carbon Disulfide	740	740	740	<0.01	<0.0079	<0.0097	<0.011	<0.0096	<0.01	<0.0097	<0.0092	<0.0092
Carbon Tetrachloride	15	79	460	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Chlorobenzene	700	760	760	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Chloroethane	2100	2100	2100	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Chloroform	7.4	38	320	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Chloromethane	300	1300	1300	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
cis-1,2-Dichloroethene	--	--	--	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
cis-1,3-Dichloropropene	--	--	--	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Dibromochloromethane	17	84	770	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Dibromomethane	1600	2800	2800	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Dichlorodifluoromethane	850	850	850	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Ethyl Methacrylate	1100	1100	1100	<0.1	<0.079	<0.097	<0.11	<0.096	<0.1	<0.097	<0.092	<0.092
Ethylbenzene	130	480	480	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	0.076	<0.0046	<0.0046
Methyl tert-Butyl Ether (MTBE)	1100	5700	8900	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046

**LIMITED PHASE II ASSESSMENT
SEARS AUTO CENTER PROPERTY
4950 MIDWAY MALL, ELYRIA, OHIO**

TABLE 2

SOIL ANALYTICAL RESULTS (MG/KG)

Sample Location:	Ohio VAP Direct Contact with Soil Standards (mg/kg) ^a			HSB-1	HSB-2	HSB-3	HSB-4	HSB-5	HSB-6	HSB-7	HTW-1	HTW-2
	Residential	Commercial/ Industrial	Construction/ Excavation	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/21/2018	9/20/2018	9/21/2018	9/20/2018
Sample Date:				ICP003: HSB-1: S040060	ICP003: HSB-2: S000020	ICP003: HSB-3: S080100	ICP003: HSB-4: S040060	ICP003: HSB-5: S060080	ICP003: HSB-6: S080100	ICP003: HSB-7: S000020	ICP003: HTW-1: S120140	ICP003: HTW-2: S100120
Field Sample ID:				4 - 6 ft	0 - 2 ft	8 - 10 ft	4 - 6 ft	6 - 8 ft	8 - 10 ft	0 - 2 ft	12 - 14 ft	10 - 12 ft
Sample Depth:												
Methylene Chloride	750	3300	3300	<0.021	<0.016	<0.019	<0.022	<0.019	<0.02	<0.019	<0.018	<0.018
n-Hexane	140	140	140	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	0.078	<0.0046	<0.0046
Styrene	870	870	870	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Tetrachloroethene	170	170	170	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Toluene	820	820	820	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	0.034	<0.0046	<0.0046
trans-1,2-Dichloroethene	370	1700	1700	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
trans-1,3-Dichloropropene	--	--	--	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Trichloroethene	11	51	17	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Trichlorofluoromethane	1200	1200	1200	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Vinyl Chloride	1.3	50	280	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Xylenes, Total	260	260	260	<0.01	<0.0079	<0.0097	<0.011	<0.0096	<0.01	0.32	<0.0092	<0.0092
Semi-Volatile Organic Compounds (SVOCs) by U.S. EPA Method 8270												
1,2,4-Trichlorobenzene	150	400	400	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,2-Dichlorobenzene	380	380	380	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
1,3,5-Trimethylbenzene	--	--	--	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	0.14	<0.0046	<0.0046
1,4-Dichlorobenzene	61	310	2600	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
2-Methylnaphthalene	460	6000	5200	<0.0059	<0.0056	0.0067	<0.0058	<0.0057	0.026	0.0097	0.049	<0.0056
Acenaphthene	6900	90000	780000	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	<0.0058	<0.006	<0.0056	<0.0056
Acenaphthylene	--	--	--	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	<0.0058	<0.006	<0.0056	<0.0056
Anthracene	34000	450000	1000000	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	0.0065	<0.006	<0.0056	<0.0056
Benzo(a)anthracene	12	58	1200	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	0.0063	0.018	<0.0056	<0.0056
Benzo(a)pyrene	1.2	5.8	120	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	<0.0058	0.017	<0.0056	<0.0056
Benzo(b)fluoranthene	12	58	1200	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	0.0058	0.014	<0.0056	<0.0056
Benzo(g,h,i)perylene	--	--	--	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	0.0069	0.012	<0.0056	<0.0056
Benzo(k)fluoranthene	120	580	12000	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	<0.0058	0.021	<0.0056	<0.0056
Bromoform	1200	6200	130000	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	<0.0048	<0.0046	<0.0046
Chrysene	1200	5800	120000	0.0066	<0.0056	<0.0056	<0.0058	<0.0057	0.02	0.019	0.013	<0.0056
Dibenz(a,h)anthracene	1.2	5.8	120	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	<0.0058	<0.006	<0.0056	<0.0056
Fluoranthene	4600	60000	160000	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	0.009	0.036	<0.0056	<0.0056
Fluorene	4600	60000	520000	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	0.008	<0.006	<0.0056	<0.0056
Indeno(1,2,3-c,d)pyrene	12	58	1200	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	<0.0058	0.011	<0.0056	<0.0056

**LIMITED PHASE II ASSESSMENT
SEARS AUTO CENTER PROPERTY
4950 MIDWAY MALL, ELYRIA, OHIO**

TABLE 2

SOIL ANALYTICAL RESULTS (MG/KG)

Sample Location:	Ohio VAP Direct Contact with Soil Standards (mg/kg) ^a			HSB-1	HSB-2	HSB-3	HSB-4	HSB-5	HSB-6	HSB-7	HTW-1	HTW-2
	Residential	Commercial/ Industrial	Construction/ Excavation	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/20/2018	9/21/2018	9/20/2018	9/21/2018	9/20/2018
Sample Date:				ICP003: HSB-1: S040060	ICP003: HSB-2: S000020	ICP003: HSB-3: S080100	ICP003: HSB-4: S040060	ICP003: HSB-5: S060080	ICP003: HSB-6: S080100	ICP003: HSB-7: S000020	ICP003: HTW-1: S120140	ICP003: HTW-2: S100120
Field Sample ID:				4 - 6 ft	0 - 2 ft	8 - 10 ft	4 - 6 ft	6 - 8 ft	8 - 10 ft	0 - 2 ft	12 - 14 ft	10 - 12 ft
Sample Depth:												
Isopropylbenzene	270	270	270	<0.0052	<0.004	<0.0049	<0.0055	<0.0048	<0.005	0.011	<0.0046	<0.0046
Naphthalene	90	450	560	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	0.016	0.011	0.018	<0.0056
Phenanthrene	--	--	--	0.0066	<0.0056	<0.0056	<0.0058	<0.0057	0.037	0.016	0.037	<0.0056
Pyrene	3400	45000	390000	<0.0059	<0.0056	<0.0056	<0.0058	<0.0057	0.012	0.031	<0.0056	<0.0056
Vinyl Acetate	620	2700	620	<0.1	<0.079	<0.097	<0.11	<0.096	<0.1	<0.097	<0.092	<0.092
Total Petroleum Hydrocarbons (TPH) by U.S. Method 8015^a												
TPH C6-C12		5000		<1.2	<1.1	<1.1	<1.2	<1.2	<1.2	<1.2	<1.1	<1.1
TPH C10-C20		10000		<11.9	<11	<11.3	<11.6	<11.5	15.9	<12	18.5	<11.3
TPH C20-C34		20000		<11.9	<11	<11.3	<11.6	<11.5	17.1	31.2	16.7	<11.3
Polychlorinated Biphenyls PCBs by U.S. EPA Method 8082												
Aroclor 1016	7.9	100	260	<0.12	<0.11	<0.11	NA	NA	NA	NA	<0.11	NA
Aroclor 1221	3.1	14	210	<0.12	<0.11	<0.11	NA	NA	NA	NA	<0.11	NA
Aroclor 1232	3.1	14	73	<0.12	<0.11	<0.11	NA	NA	NA	NA	<0.11	NA
Aroclor 1242	4.4	20	440	<0.12	<0.11	<0.11	NA	NA	NA	NA	<0.11	NA
Aroclor 1248	4.4	20	440	<0.12	<0.11	<0.11	NA	NA	NA	NA	<0.11	NA
Aroclor 1254	2.2	20	75	<0.12	<0.11	<0.11	NA	NA	NA	NA	<0.11	NA
Aroclor 1260	4.4	20	440	<0.12	<0.11	<0.11	NA	NA	NA	NA	<0.11	NA

Notes:

All results are presented in mg/kg

BOLD - Detected Parameter

NA - Not Analyzed

-- = No standard

a. The standard shown for TPH is a residual soil saturation concentration for silty/clayey sand type per 3745-300-09, effective May 26, 2016.

**LIMITED PHASE II ASSESSMENT
SEARS AUTO CENTER PROPERTY
4950 MIDWAY MALL, ELYRIA, OHIO**

TABLE 2

SOIL ANALYTICAL RESULTS (MG/KG)

Sample Location:	Ohio VAP Direct Contact with Soil Standards (mg/kg)^a			HTW-3	HTW-3
	Residential	Commercial/ Industrial	Construction/ Excavation		
Sample Date:				9/20/2018	9/20/2018
Field Sample ID:				ICP003: HTW-3: S000020	ICP003: HTW-3: S140160
Sample Depth:				0 - 2 ft	14 - 16 ft
Volatile Organic Compounds (VOCs) by U.S. EPA Method 8260					
1,1,1,2-Tetrachloroethane	46	240	680	<0.0046	<0.0043
1,1,1-Trichloroethane	640	640	640	<0.0046	<0.0043
1,1,2,2-Tetrachloroethane	14	75	670	<0.0046	<0.0043
1,1,2-Trichloroethane	26	140	1200	<0.0046	<0.0043
1,1-Dichloroethane	83	420	1700	<0.0046	<0.0043
1,1-Dichloroethene	360	1200	360	<0.0046	<0.0043
1,2,4-Trimethylbenzene	160	220	220	<0.0046	<0.0043
1,2-Dichloroethane	11	56	480	<0.0046	<0.0043
1,2-Dichloropropane	23	120	180	<0.0046	<0.0043
1,3-Dichloropropane	1500	1500	1500	<0.0046	<0.0043
2-Butanone	28000	28000	28000	<0.023	<0.022
4-Methyl-2-pentanone	3400	3400	3400	<0.023	<0.022
Acetone	110000	110000	110000	<0.093	<0.087
Benzene	26	140	1200	<0.0046	<0.0043
Bromodichloromethane	6.8	35	300	<0.0046	<0.0043
Bromomethane	18	82	550	<0.0046	<0.0043
Carbon Disulfide	740	740	740	<0.0093	<0.0087
Carbon Tetrachloride	15	79	460	<0.0046	<0.0043
Chlorobenzene	700	760	760	<0.0046	<0.0043
Chloroethane	2100	2100	2100	<0.0046	<0.0043
Chloroform	7.4	38	320	<0.0046	<0.0043
Chloromethane	300	1300	1300	<0.0046	<0.0043
cis-1,2-Dichloroethene	--	--	--	<0.0046	<0.0043
cis-1,3-Dichloropropene	--	--	--	<0.0046	<0.0043
Dibromochloromethane	17	84	770	<0.0046	<0.0043
Dibromomethane	1600	2800	2800	<0.0046	<0.0043
Dichlorodifluoromethane	850	850	850	<0.0046	<0.0043
Ethyl Methacrylate	1100	1100	1100	<0.093	<0.087
Ethylbenzene	130	480	480	<0.0046	<0.0043
Methyl tert-Butyl Ether (MTBE)	1100	5700	8900	<0.0046	<0.0043

LIMITED PHASE II ASSESSMENT
SEARS AUTO CENTER PROPERTY
4950 MIDWAY MALL, ELYRIA, OHIO

TABLE 2

SOIL ANALYTICAL RESULTS (MG/KG)

Sample Location:	Ohio VAP Direct Contact with Soil Standards (mg/kg)^a			HTW-3	HTW-3
	Residential	Commercial/ Industrial	Construction/ Excavation		
Sample Date:				9/20/2018	9/20/2018
Field Sample ID:				ICP003: HTW-3: S000020	ICP003: HTW-3: S140160
Sample Depth:				0 - 2 ft	14 - 16 ft
Methylene Chloride	750	3300	3300	<0.019	<0.017
n-Hexane	140	140	140	<0.0046	<0.0043
Styrene	870	870	870	<0.0046	<0.0043
Tetrachloroethene	170	170	170	<0.0046	<0.0043
Toluene	820	820	820	<0.0046	<0.0043
trans-1,2-Dichloroethene	370	1700	1700	<0.0046	<0.0043
trans-1,3-Dichloropropene	--	--	--	<0.0046	<0.0043
Trichloroethene	11	51	17	<0.0046	<0.0043
Trichlorofluoromethane	1200	1200	1200	<0.0046	<0.0043
Vinyl Chloride	1.3	50	280	<0.0046	<0.0043
Xylenes, Total	260	260	260	<0.0093	<0.0087
Semi-Volatile Organic Compounds (SVOCs) by U.S. EPA Method 8270					
1,2,4-Trichlorobenzene	150	400	400	<0.0046	<0.0043
1,2-Dichlorobenzene	380	380	380	<0.0046	<0.0043
1,3,5-Trimethylbenzene	--	--	--	<0.0046	<0.0043
1,4-Dichlorobenzene	61	310	2600	<0.0046	<0.0043
2-Methylnaphthalene	460	6000	5200	0.0099	<0.0055
Acenaphthene	6900	90000	780000	<0.0059	<0.0055
Acenaphthylene	--	--	--	<0.0059	<0.0055
Anthracene	34000	450000	1000000	<0.0059	<0.0055
Benzo(a)anthracene	12	58	1200	<0.0059	<0.0055
Benzo(a)pyrene	1.2	5.8	120	<0.0059	<0.0055
Benzo(b)fluoranthene	12	58	1200	<0.0059	<0.0055
Benzo(g,h,i)perylene	--	--	--	<0.0059	<0.0055
Benzo(k)fluoranthene	120	580	12000	<0.0059	<0.0055
Bromoform	1200	6200	130000	<0.0046	<0.0043
Chrysene	1200	5800	120000	<0.0059	<0.0055
Dibenz(a,h)anthracene	1.2	5.8	120	<0.0059	<0.0055
Fluoranthene	4600	60000	160000	<0.0059	<0.0055
Fluorene	4600	60000	520000	<0.0059	<0.0055
Indeno(1,2,3-c,d)pyrene	12	58	1200	<0.0059	<0.0055

**LIMITED PHASE II ASSESSMENT
SEARS AUTO CENTER PROPERTY
4950 MIDWAY MALL, ELYRIA, OHIO**

TABLE 2

SOIL ANALYTICAL RESULTS (MG/KG)

Sample Location:	Ohio VAP Direct Contact with Soil Standards (mg/kg)^a			HTW-3	HTW-3
	Residential	Commercial/ Industrial	Construction/ Excavation		
Sample Date:				9/20/2018	9/20/2018
Field Sample ID:				ICP003: HTW-3: S000020	ICP003: HTW-3: S140160
Sample Depth:				0 - 2 ft	14 - 16 ft
Isopropylbenzene	270	270	270	<0.0046	<0.0043
Naphthalene	90	450	560	<0.0059	0.013
Phenanthrene	--	--	--	0.01	0.01
Pyrene	3400	45000	390000	<0.0059	<0.0055
Vinyl Acetate	620	2700	620	<0.093	<0.087
Total Petroleum Hydrocarbons (TPH) by U.S. Method 8015^a					
TPH C6-C12		5000		<1.2	<1.1
TPH C10-C20		10000		20.9	<11.1
TPH C20-C34		20000		21.6	<11.1
Polychlorinated Biphenyls PCBs by U.S. EPA Method 8082					
Aroclor 1016	7.9	100	260	NA	NA
Aroclor 1221	3.1	14	210	NA	NA
Aroclor 1232	3.1	14	73	NA	NA
Aroclor 1242	4.4	20	440	NA	NA
Aroclor 1248	4.4	20	440	NA	NA
Aroclor 1254	2.2	20	75	NA	NA
Aroclor 1260	4.4	20	440	NA	NA

Notes:

All results are presented in mg/kg

BOLD - Detected Parameter

NA - Not Analyzed

-- = No standard

a. The standard shown for TPH is a residual soil saturation concentration for silty/clayey sand type per 3745-300-09, effective May 26, 2016.

**LIMITED PHASE II ASSESSMENT
SEARS AUTO CENTER PROPERTY
4950 MIDWAY MALL, ELYRIA, OHIO**

TABLE 3

PCB WIPE ANALYTICAL RESULTS (ug/100 cm²)

Station Location:	US EPA Criterion ^a	WS-1
Sample Date:		9/21/2018
Field Sample ID:		ICP003:WS-1:Z092118
Polychlorinated Biphenyls (PCBs) by U.S. Analytical Method 8082		
Aroclor 1016	10	<1
Aroclor 1221	10	<1
Aroclor 1232	10	<1
Aroclor 1242	10	3.6
Aroclor 1248	10	<1
Aroclor 1254	10	<1
Aroclor 1260	10	<1

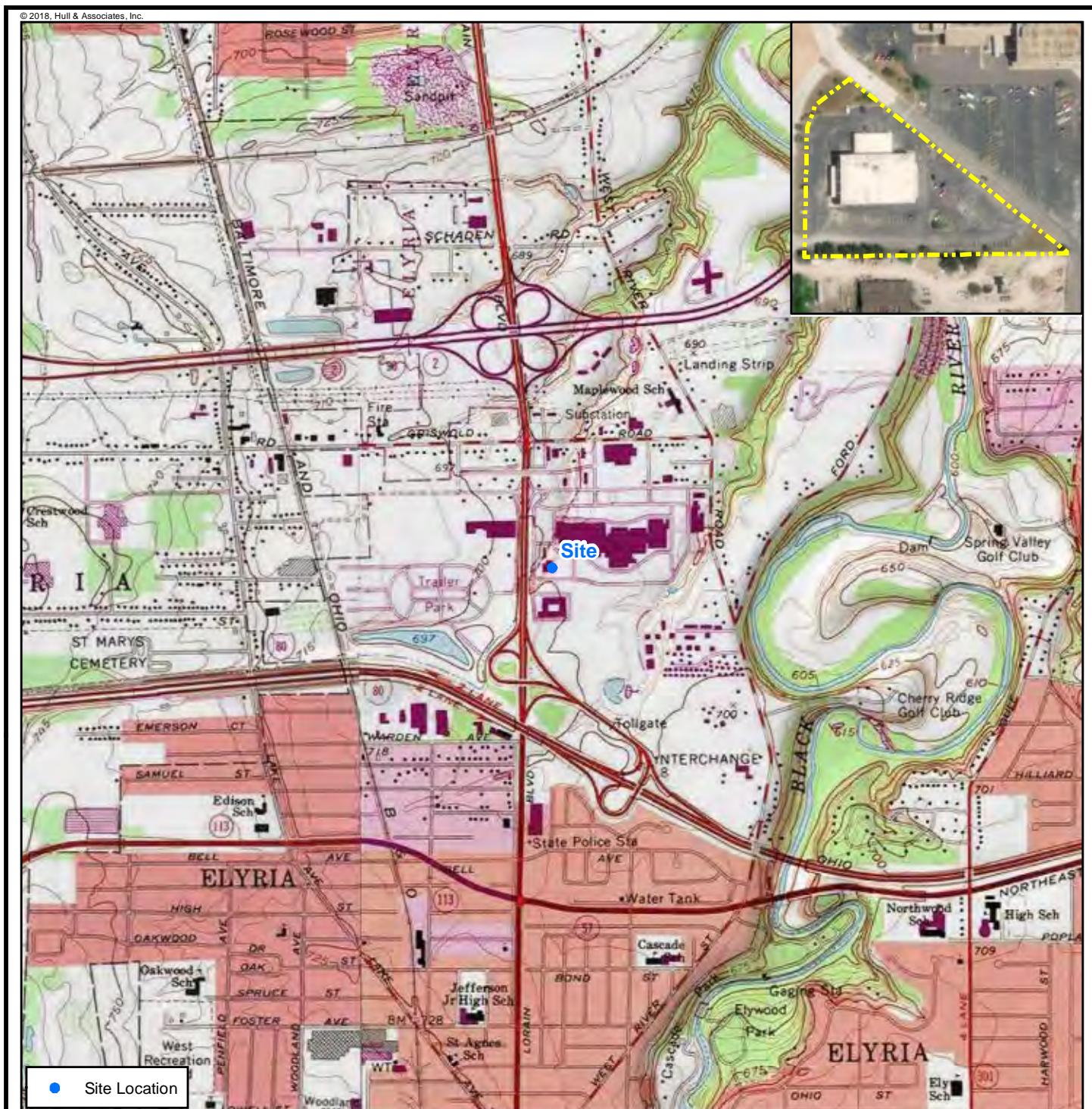
Notes:

a. US EPA Revisions to the PCB Q and A Manual, June 2014.

Units are presented as ug/100 cm² which is equivalent to ug/wipe since a standard wipe is 10 cm x 10 cm in size.

BOLD - Detected Parameter

FIGURES



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0 500 1,000 2,000
Feet



Quad: Avon

Source: The topographic map was acquired through the USGS Topographic Map web service.

The aerial photo in the inset was acquired through the ESRI Imagery web service. Aerial photography dated 2016.



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Bedford, Ohio 44146

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Phase II Environmental Site Assessment

Site Location Map

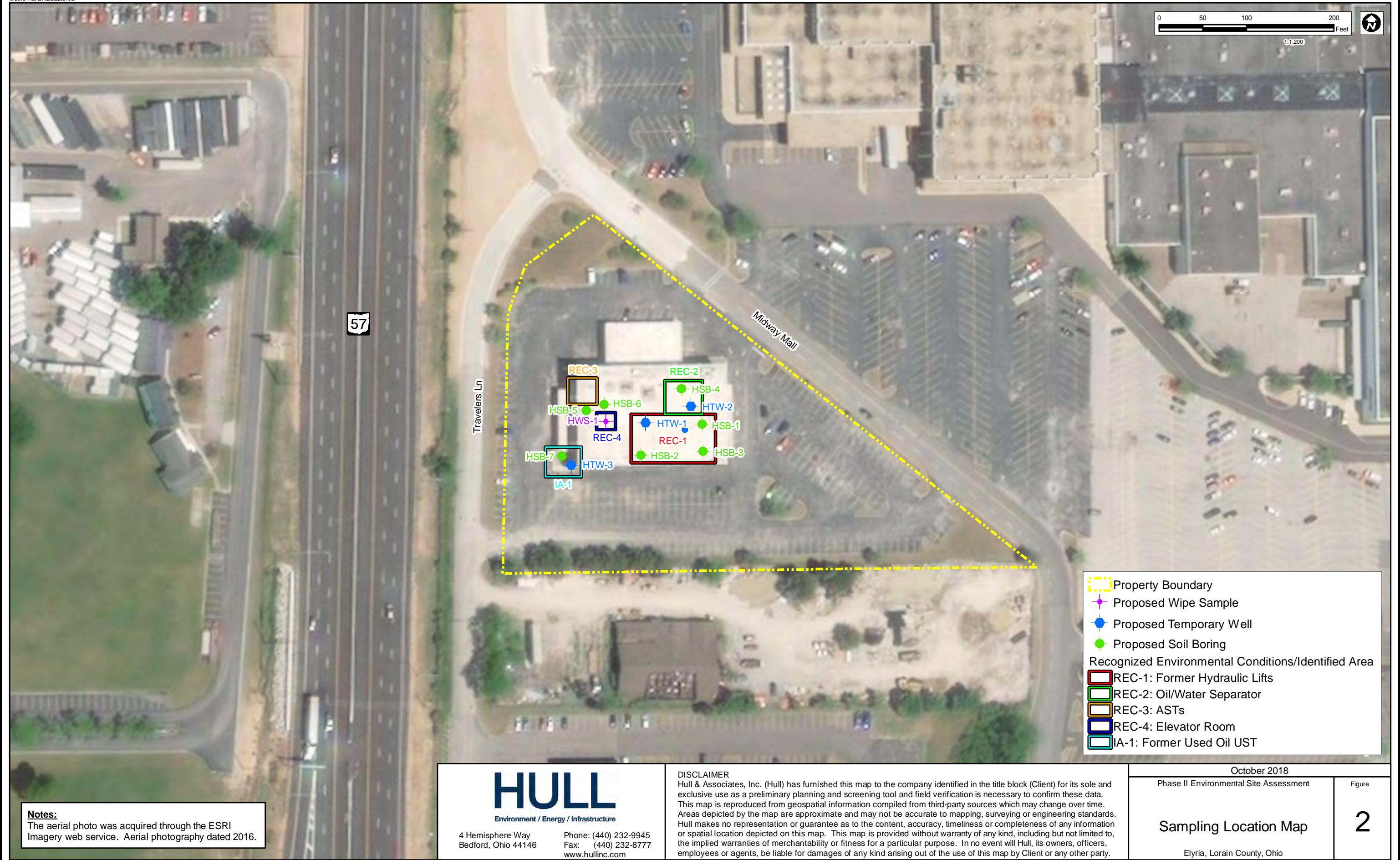
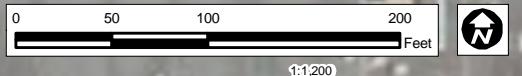
Elyria, Lorain County, Ohio

Date:

October 2018

File Name:
ICP003_01_Fig01_SLM.mxd
Edited: 10/3/2018 By: mopal

Figure
1



ATTACHMENT A

Boring Logs

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Industrial Commercial Properties LLC
 Sears Auto Center Property
 4950 Midway Mall
 Elyria, Ohio
 ICP003

Date Started : 9-20-18
 Date Completed : 9-20-18
 Logged By : D. Sansone
 Reviewed By : L. Crow
 Drilling Contractor : GPD
 Drilling Method : GeoProbe 7822DT
 Sampling Method : 4' Dual Tube
 Total Depth : 15.5
 Lab Samples : 1
 PID Model : Mini RAE Lite

LOG OF BORING HSB-1

(Page 1 of 1)

PID Calibration : 100 ppm Isobutylene

Depth in Feet	Length Drive/ Sample Recovery (ft.)	Sample Number/ Sample Interval	PID	Blow Count (6"-12"-6")	Samples	GRAPHIC	Soil Samples  Sample Interval  Lab Sample	Water Levels  Static  During drilling	Water Level	REMARKS	DESCRIPTION	
0	DP-1 4.0/1.0	SS-1 0.0-1.0	8.1	NA			FILL: Concrete.					
1							FILL: Concrete fragments and fine loose sand, moist.					
4	DP-2 4.0/4.0	SS-2 4.0-6.0	10.3	NA			Brown, firm, lean CLAY, mottled gray, little sand, mottled, moist.				Soil Sample SS-2 ICP003: HSB-1:S040060 submitted for laboratory analysis.	
6		SS-3 6.0-8.0	9.8	NA								
8	DP-3 4.0/4.0	SS-4 8.0-10.0	8.7	NA			Gray, firm, lean CLAY, some sand, moist.					
10		SS-5 10.0-12.0	7.6	NA								
12	DP-4 3.5/3.5	SS-6 12.0-14.0	9.9	NA								
14		SS-7 14.0-15.5	9.0	NA			Red, SHALE, weathered, dry.					
15												
16							Probe refusal, end of boring at 15.5 feet bgs.					
17												
18												
19												
20												

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Environment / Energy / Infrastructure

Industrial Commercial Properties LLC
 Sears Auto Center Property
 4950 Midway Mall
 Elyria, Ohio
 ICP003

Date Started : 9-20-18
 Date Completed : 9-20-18
 Logged By : D. Sansone
 Reviewed By : L. Crow
 Drilling Contractor : GPD
 Drilling Method : GeoProbe 7822DT
 Sampling Method : 4' Dual Tube
 Total Depth : 16.0
 Lab Samples : 1
 PID Model : Mini RAE Lite

LOG OF BORING HSB-2

(Page 1 of 1)

PID Calibration : 100 ppm Isobutylene

Depth in Feet	Length Drive/ Sample Recovery (ft.)	Sample Number/ Sample Interval	PID	Blow Count (6"-12"-6")	Samples	GRAPHIC	Soil Samples		Water Levels	Water Level	REMARKS
							Sample Interval	Lab Sample			
DESCRIPTION											
0	DP-1 4.0/3.0	SS-1 0.0-2.0	13.5	NA			FILL: Concrete. Brown, firm, lean CLAY, mottled gray, little sand, moist.				Soil Sample SS-1 ICP003: HSB-2:S000020 submitted for laboratory analysis.
1		SS-2 2.0-3.0	12.2	NA							
2											
3											
4	DP-2 4.0/3.0	SS-3 4.0-6.0	11.3	NA							
5		SS-4 6.0-7.0	12.9	NA							
6											
7											
8	DP-3 4.0/4.0	SS-5 8.0-10.0	11.5	NA							
9		SS-6 10.0-12.0	7.6	NA							
10							Hard, gray, lean CLAY, little sand, moist.				
11											
12	DP-4 3.2/3.2	SS-7 12.0-14.0	6.1	NA							
13		SS-8 14.0-15.2	5.9	NA							
14											
15							Red, SHALE, weathered, dry.				
16							Probe refusal, end of boring at 16.0 feet bgs.				
17											
18											
19											
20											

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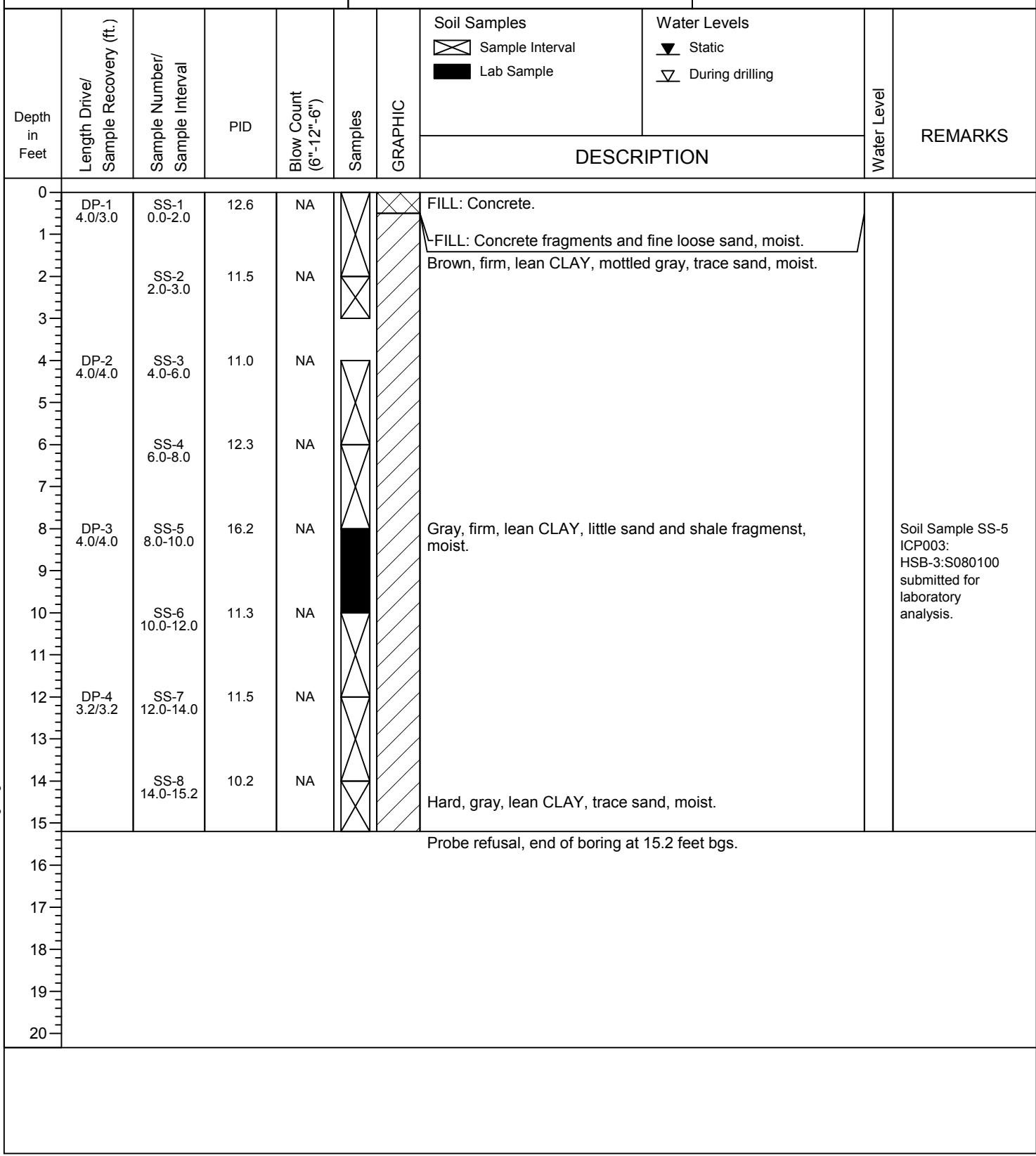
Industrial Commercial Properties LLC
 Sears Auto Center Property
 4950 Midway Mall
 Elyria, Ohio
 ICP003

Date Started : 9-20-18
 Date Completed : 9-20-18
 Logged By : D. Sansone
 Reviewed By : L. Crow
 Drilling Contractor : GPD
 Drilling Method : GeoProbe 7822DT
 Sampling Method : 4' Dual Tube
 Total Depth : 15.2
 Lab Samples : 1
 PID Model : Mini RAE Lite

LOG OF BORING HSB-3

(Page 1 of 1)

PID Calibration : 100 ppm Isobutylene



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Environment / Energy / Infrastructure

Industrial Commercial Properties LLC
 Sears Auto Center Property
 4950 Midway Mall
 Elyria, Ohio
 ICP003

Date Started : 9-20-18
 Date Completed : 9-20-18
 Logged By : D. Sansone
 Reviewed By : L. Crow
 Drilling Contractor : GPD
 Drilling Method : GeoProbe 7822DT
 Sampling Method : 4' Dual Tube
 Total Depth : 16
 Lab Samples : 1
 PID Model : Mini RAE Lite

LOG OF BORING HSB-4

(Page 1 of 1)

PID Calibration : 100 ppm Isobutylene

Depth in Feet	Length Drive/ Sample Recovery (ft.)	Sample Number/ Sample Interval	PID	Blow Count (6"-12"-6")	Samples	GRAPHIC	Soil Samples		Water Levels	Water Level	REMARKS
							Sample Interval	Lab Sample			
DESCRIPTION											
0	DP-1 4.0/2.5	SS-1 0.0-2.0	8.1	NA					FILL: Concrete. Brown, fine SAND and gravel, dry. Brown and gray, firm CLAY, some sand, mottled, moist.		
1		SS-2 2.0-2.5	10.1	NA							
2											
3											
4	DP-2 4.0/4.0	SS-3 4.0-6.0	10.5	NA					Gray, firm, sandy CLAY, moist. Brown gray, firm CLAY, little sand.		
5		SS-4 6.0-8.0	9.9	NA							
6											
7											
8	DP-3 4.0/4.0	SS-5 8.0-10.0	10.0	NA					becomes gray.		
9											
10		SS-6 10.0-12.0	8.7	NA							
11											
12	DP-4 4.0/4.0	SS-7 12.0-14.0	9.3	NA					becomes hard.		
13											
14		SS-8 14.0-16.0	8.1	NA					Hard, red gray CLAY, to weathered shale.		
15											
16									End of boring at 16.0 feet bgs.		
17											
18											
19											
20											



Environment / Energy / Infrastructure

Industrial Commercial Properties LLC
Sears Auto Center Property
4950 Midway Mall
Elyria, Ohio
ICP003

Date Started : 9-20-18
Date Completed : 9-20-18
Logged By : D. Sansone
Reviewed By : L. Crow
Drilling Contractor : GPD
Drilling Method : GeoProbe 7822DT
Sampling Method : 4' Dual Tube
Total Depth : 10.0
Lab Samples : 1
PID Model : Mini RAE Lite

LOG OF BORING HSB-5

(Page 1 of 1)

HULL

Environment / Energy / Infrastructure

Environment / Energy / Infrastructure

Industrial Commercial Properties LLC
Sears Auto Center Property
4950 Midway Mall
Elyria, Ohio
ICP003

Date Started : 9-21-18
Date Completed : 9-21-18
Logged By : D. Sansone
Reviewed By : L. Crow
Drilling Contractor : GPD
Drilling Method : GeoProbe 7822DT
Sampling Method : 4' Dual Tube
Total Depth : 10.0
Lab Samples : 1
PID Model : Mini RAE Lite

LOG OF BORING HSB-6

(Page 1 of 1)



Environment / Energy / Infrastructure

Industrial Commercial Properties LLC
Sears Auto Center Property
4950 Midway Mall
Elyria, Ohio
ICP003

Date Started : 9-20-18
Date Completed : 9-20-18
Logged By : D. Sansone
Reviewed By : L. Crow
Drilling Contractor : GPD
Drilling Method : GeoProbe 7822DT
Sampling Method : 4' Dual Tube
Total Depth : 10.0
Lab Samples : 1
PJD Model : Mini RAE Lite

LOG OF BORING HSB-7

(Page 1 of 1)

Depth in Feet	Length Driven/ Sample Recovery (ft.)	Sample Number/ Sample Interval	PID	Blow Count (6"-12"-6")	Samples	GRAPHIC	Soil Samples		Water Levels		Water Level	REMARKS
							Sample Interval	Lab Sample	Static	During drilling		
DESCRIPTION												
0	DP-1 4.0/1.8	SS-1 0.0-1.8	7.3	NA				FILL: Concrete. FILL: firm, gray, lean CLAY, brown mottles.			Soil Sample SS-1 ICP003: HSB-7:S000020 submitted for laboratory analysis.	
1												
2												
3												
4	DP-2 1.5/1.0	SS-3 4.0-5.0	8.2	NA				FILL: Gray SAND, rock fragments, cinders, wet.			▽	
5												
6	DP-3 3.0/1.0	SS-4 5.5-6.5	5.4	NA				FILL: SAND, wet.				
7												
8												
9	DP-4 0.5/0.5	SS-5 8.5-9.0	6.2	NA				FILL: Cinders and concrete.				
10												
11												
12												

Probe refusal, end of boring at 9.0 feet bgs.

HULL

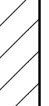
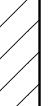
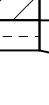
Environment / Energy / Infrastructure

Industrial Commercial Properties LLC
 Sears Auto Center Property
 4950 Midway Mall
 Elyria, Ohio
 ICP003

Date Started : 9-21-18
 Date Completed : 9-21-18
 Logged By : D. Sansone
 Reviewed By : L. Crow
 Drilling Contractor : GPD
 Drilling Method : GeoProbe 7822DT
 Sampling Method : 4' Dual Tube
 Total Depth : 15.5
 Lab Samples : 1
 PID Model : Mini RAE Lite

LOG OF BORING HTW-1

(Page 1 of 1)

Depth in Feet	Length Drive/ Sample Recovery (ft.)	Sample Number/ Sample Interval	PID	Blow Count (6"-12"-6")	Samples	GRAPHIC	Soil Samples		Water Levels	Water Level	REMARKS		
							Sample Interval	Lab Sample					
DESCRIPTION													
0	DP-1 4.0/2.0	SS-1 0.0-2.0	4.5	NA			FILL: Concrete. Firm, gray brown, sandy CLAY, moist. Firm, gray, lean CLAY, little sand, moist.						
1													
2													
3													
4	DP-2 4.0/2.5	SS-2 4.0-6.0	5.5	NA			Brown gray, lean CLAY, some sand, mottled, moist.						
5													
6		SS-3 6.0-6.5	6.3	NA									
7													
8	DP-3 4.0/4.0	SS-4 8.0-10.0	5.4	NA			Hard, brown, lean CLAY, few shale fragments, moist.						
9													
10		SS-5 10.-12.0	4.4	NA									
11													
12	3.5/3.5	SS-6 12.0-14.0	7.6	NA			Red, SHALE, weathered, dry.						
13													
14		SS-7 14.0-15.5	5.9	NA									
15													
16							Probe Refusal, end of boring at 15.5 feet bgs.						
17													
18													
19													
20													



Environment / Energy / Infrastructure

Industrial Commercial Properties LLC
Sears Auto Center Property
4950 Midway Mall
Elyria, Ohio
ICP003

Date Started : 9-20-18
Date Completed : 9-20-18
Logged By : D. Sansone
Reviewed By : L. Crow
Drilling Contractor : GPD
Drilling Method : GeoProbe 7822DT
Sampling Method : 4' Dual Tube
Total Depth : 15
Lab Samples : 1
PID Model : Mini RAE Lite

LOG OF BORING HTW-2

(Page 1 of 1)

HULL

Environment / Energy / Infrastructure

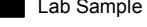
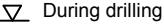
Industrial Commercial Properties LLC
 Sears Auto Center Property
 4950 Midway Mall
 Elyria, Ohio
 ICP003

Date Started : 9-20-18
 Date Completed : 9-20-18
 Logged By : D. Sansone
 Reviewed By : L. Crow
 Drilling Contractor : GPD
 Drilling Method : GeoProbe 7822DT
 Sampling Method : 4' Dual Tube
 Total Depth : 16
 Lab Samples : 2
 PID Model : Mini RAE Lite

LOG OF BORING HTW-3

(Page 1 of 1)

PID Calibration : 100 ppm Isobutylene

Depth in Feet	Length Drive/ Sample Recovery (ft.)	Sample Number/ Sample Interval	PID	Blow Count (6"-12"-6")	Samples	GRAPHIC	Soil Samples  Sample Interval  Lab Sample	Water Levels  Static  During drilling	Water Level	REMARKS	DESCRIPTION	
0	DP-1 4.0/3.0	SS-1 0.0-2.0	5.2	NA			FILL: Asphalt, with sand/gravel subbase, moist.				Soil sample SS-1 ICP003: HTW-3:S000020 submitted for laboratory analysis	
1		SS-2 2.0-3.0	4.9	NA			Firm, gray CLAY, little sand, moist.					
2		SS-3 4.0-6.0	4.8	NA								
3		SS-4 6.0-7.5	6.1	NA								
4	DP-2 4.0/3.5	SS-5 8.0-10.0	7.3	NA								
5		SS-6 10.-12.0	7.0	NA								
6		SS-7 12.0-14.0	6.6	NA								
7		SS-8 14.0-16.0	8.8	NA								
8							Hard, gray CLAY, few shale fragments, dry.					
9												
10												
11												
12												
13												
14												
15							Red, SHALE, weathered, dry.					
16								End of boring at 16.0 feet bgs.				
17												
18												

ATTACHMENT B

Laboratory Analytical Report and
Chain-of-Custody Documentation

October 01, 2018

Ms. Lindsay Crow
Hull & Associates, Inc.
4 Hemisphere Way
Bedford, OH 44146

RE: Project: ICP003
Pace Project No.: 50206212

Dear Ms. Crow:

Enclosed are the analytical results for sample(s) received by the laboratory on September 22, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Tina Sayer
tina.sayer@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Hull Data/EDD Admin
Ms. Sarah Ewing, Hull & Associates



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ICP003
Pace Project No.: 50206212

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #: E-10177
Kentucky UST Certification #: 80226
Kentucky WW Certification #: 98019

Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2017-124
Texas Certification #: T104704355-18-12
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-16-00257

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ICP003
 Pace Project No.: 50206212

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50206212001	ICP003:EB-1:W092118	Water	09/21/18 16:40	09/22/18 08:40
50206212002	ICP003:TB-2:W092118	Water	09/21/18 16:45	09/22/18 08:40
50206212003	ICP003:TB-3:W092118	Water	09/21/18 16:46	09/22/18 08:40
50206212004	ICP003:HSB-6:S080100	Solid	09/21/18 15:40	09/22/18 08:40
50206212005	ICP003:HTW-1:S120140	Solid	09/21/18 15:15	09/22/18 08:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ICP003
 Pace Project No.: 50206212

Lab ID	Sample ID	Method	Analysts	Analytics Reported
50206212001	ICP003:EB-1:W092118	EPA 8015 Mod Ext	KAV	4
		EPA 8082	RID	8
		EPA 5030B/8015D	CWL	2
		EPA 8270 by SIM LVE	TBP	19
		EPA 8260	MKM	50
50206212002	ICP003:TB-2:W092118	EPA 8260	MKM	50
50206212004	ICP003:HSB-6:S080100	EPA 8015 Mod Ext	KAV	4
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	GRM	51
		SM 2540G	CDR	1
50206212005	ICP003:HTW-1:S120140	EPA 8015 Mod Ext	KAV	4
		EPA 8082	BJW	8
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	GRM	51
		SM 2540G	CDR	1

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: ICP003
 Pace Project No.: 50206212

Lab Sample ID	Client Sample ID	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50206212001	ICP003:EB-1:W092118						
EPA 8270 by SIM LVE	Naphthalene		1.1	ug/L		1.0 10/01/18 16:02	IO
50206212004	ICP003:HSB-6:S080100						
EPA 8015 Mod Ext	Total Petroleum Hydrocarbons		33.0	mg/kg		23.3 09/27/18 20:12	R1
EPA 8015 Mod Ext	TPH (C10-C20)		15.9	mg/kg		11.7 09/27/18 20:12	
EPA 8015 Mod Ext	TPH (C20-C34)		17.1	mg/kg		11.7 09/27/18 20:12	
EPA 8270 by SIM	Anthracene		0.0065	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	Benzo(a)anthracene		0.0063	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	Benzo(b)fluoranthene		0.0058	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	Benzo(g,h,i)perylene		0.0069	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	Chrysene		0.020	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	Fluoranthene		0.0090	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	Fluorene		0.0080	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	2-Methylnaphthalene		0.026	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	Naphthalene		0.016	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	Phenanthrene		0.037	mg/kg		0.0058 09/28/18 16:57	
EPA 8270 by SIM	Pyrene		0.012	mg/kg		0.0058 09/28/18 16:57	
SM 2540G	Percent Moisture		14.2	%		0.10 09/26/18 14:58	
50206212005	ICP003:HTW-1:S120140						
EPA 8015 Mod Ext	Total Petroleum Hydrocarbons		35.2	mg/kg		22.8 09/27/18 20:34	
EPA 8015 Mod Ext	TPH (C10-C20)		18.5	mg/kg		11.4 09/27/18 20:34	
EPA 8015 Mod Ext	TPH (C20-C34)		16.7	mg/kg		11.4 09/27/18 20:34	
EPA 8270 by SIM	Chrysene		0.013	mg/kg		0.0056 09/28/18 17:13	
EPA 8270 by SIM	2-Methylnaphthalene		0.049	mg/kg		0.0056 09/28/18 17:13	
EPA 8270 by SIM	Naphthalene		0.018	mg/kg		0.0056 09/28/18 17:13	
EPA 8270 by SIM	Phenanthrene		0.037	mg/kg		0.0056 09/28/18 17:13	
SM 2540G	Percent Moisture		12.3	%		0.10 09/26/18 14:58	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: EPA 8015 Mod Ext

Description: 8015 TPH Ohio Microwave

Client: Hull & Associates, Inc. (Bedford)

Date: October 01, 2018

General Information:

2 samples were analyzed for EPA 8015 Mod Ext. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 463665

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50206212004

R1: RPD value was outside control limits.

- MSD (Lab ID: 2139922)
- Total Petroleum Hydrocarbons

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 8015 Mod Ext**

Description: 8015 TPH Ohio

Client: Hull & Associates, Inc. (Bedford)

Date: October 01, 2018

General Information:

1 sample was analyzed for EPA 8015 Mod Ext. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 8082**
Description: 8082 GCS PCB Solids
Client: Hull & Associates, Inc. (Bedford)
Date: October 01, 2018

General Information:

1 sample was analyzed for EPA 8082. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 463678

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50206101001

R1: RPD value was outside control limits.

- MSD (Lab ID: 2139954)
- PCB-1016 (Aroclor 1016)

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 8082**
Description: 8082 GCS PCB RV Waters
Client: Hull & Associates, Inc. (Bedford)
Date: October 01, 2018

General Information:

1 sample was analyzed for EPA 8082. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 8015D**
Description: 8015D Gasoline Range Organics
Client: Hull & Associates, Inc. (Bedford)
Date: October 01, 2018

General Information:

2 samples were analyzed for EPA 8015D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 5030B/8015D**

Description: Gasoline Range Organics

Client: Hull & Associates, Inc. (Bedford)

Date: October 01, 2018

General Information:

1 sample was analyzed for EPA 5030B/8015D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 463088

S0: Surrogate recovery outside laboratory control limits.

- MSD (Lab ID: 2137642)
- 4-Bromofluorobenzene (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 8270 by SIM LVE**

Description: 8270 MSSV PAHLV

Client: Hull & Associates, Inc. (Bedford)

Date: October 01, 2018

General Information:

1 sample was analyzed for EPA 8270 by SIM LVE. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 8270 by SIM**

Description: 8270 PAH Soil

Client: Hull & Associates, Inc. (Bedford)

Date: October 01, 2018

General Information:

2 samples were analyzed for EPA 8270 by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 8260**
Description: 8260/5030 MSV
Client: Hull & Associates, Inc. (Bedford)
Date: October 01, 2018

General Information:

2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 464066

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 8260**
Description: 8260 MSV 5035A VOA
Client: Hull & Associates, Inc. (Bedford)
Date: October 01, 2018

General Information:

2 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

QC Batch: 464038

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- ICP003:HSB-6:S080100 (Lab ID: 50206212004)
 - Acetone
- ICP003:HTW-1:S120140 (Lab ID: 50206212005)
 - Acetone

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 464038

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206212

Method: **EPA 8260**

Description: 8260 MSV 5035A VOA

Client: Hull & Associates, Inc. (Bedford)

Date: October 01, 2018

Analyte Comments:

QC Batch: 464038

1d: The internal standard response was below the laboratory acceptance limits. The results reported are from the most QC compliant analysis and may be biased high. grm 10-1-18

- ICP003:HSB-6:S080100 (Lab ID: 50206212004)
 - Dibromofluoromethane (S)
- ICP003:HTW-1:S120140 (Lab ID: 50206212005)
 - Dibromofluoromethane (S)

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206212

Sample: ICP003:EB-1:W092118	Lab ID: 50206212001	Collected: 09/21/18 16:40	Received: 09/22/18 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3510							
Total Petroleum Hydrocarbons	ND	mg/L	0.80	1	09/26/18 20:35	09/27/18 04:38		
TPH (C10-C20)	ND	mg/L	0.40	1	09/26/18 20:35	09/27/18 04:38		
TPH (C20-C34)	ND	mg/L	0.40	1	09/26/18 20:35	09/27/18 04:38		
Surrogates								
n-Pentacosane (S)	50	%.	10-127	1	09/26/18 20:35	09/27/18 04:38	629-99-2	
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510							
PCB-1016 (Aroclor 1016)	ND	ug/L	0.10	1	09/28/18 13:28	09/28/18 22:23	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.20	1	09/28/18 13:28	09/28/18 22:23	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.10	1	09/28/18 13:28	09/28/18 22:23	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.10	1	09/28/18 13:28	09/28/18 22:23	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.10	1	09/28/18 13:28	09/28/18 22:23	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.10	1	09/28/18 13:28	09/28/18 22:23	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.10	1	09/28/18 13:28	09/28/18 22:23	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	44	%.	14-132	1	09/28/18 13:28	09/28/18 22:23	877-09-8	
Gasoline Range Organics	Analytical Method: EPA 5030B/8015D							
TPH (C06-C12)	ND	mg/L	0.20	1			09/24/18 17:57	
Surrogates								
4-Bromofluorobenzene (S)	128	%.	60-133	1			09/24/18 17:57	460-00-4
8270 MSSV PAHLV	Analytical Method: EPA 8270 by SIM LVE Preparation Method: EPA 3510							
Acenaphthene	ND	ug/L	1.0	1	09/28/18 09:45	10/01/18 16:02	83-32-9	
Acenaphthylene	ND	ug/L	1.0	1	09/28/18 09:45	10/01/18 16:02	208-96-8	
Anthracene	ND	ug/L	0.10	1	09/28/18 09:45	10/01/18 16:02	120-12-7	
Benzo(a)anthracene	ND	ug/L	0.10	1	09/28/18 09:45	10/01/18 16:02	56-55-3	
Benzo(a)pyrene	ND	ug/L	0.10	1	09/28/18 09:45	10/01/18 16:02	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	0.10	1	09/28/18 09:45	10/01/18 16:02	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	0.10	1	09/28/18 09:45	10/01/18 16:02	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	0.10	1	09/28/18 09:45	10/01/18 16:02	207-08-9	
Chrysene	ND	ug/L	0.50	1	09/28/18 09:45	10/01/18 16:02	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	0.092	1	09/28/18 09:45	10/01/18 16:02	53-70-3	
Fluoranthene	ND	ug/L	1.0	1	09/28/18 09:45	10/01/18 16:02	206-44-0	
Fluorene	ND	ug/L	1.0	1	09/28/18 09:45	10/01/18 16:02	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/L	0.10	1	09/28/18 09:45	10/01/18 16:02	193-39-5	
2-Methylnaphthalene	ND	ug/L	1.0	1	09/28/18 09:45	10/01/18 16:02	91-57-6	
Naphthalene	1.1	ug/L	1.0	1	09/28/18 09:45	10/01/18 16:02	91-20-3	IO
Phenanthrene	ND	ug/L	1.0	1	09/28/18 09:45	10/01/18 16:02	85-01-8	
Pyrene	ND	ug/L	1.0	1	09/28/18 09:45	10/01/18 16:02	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	61	%.	10-108	1	09/28/18 09:45	10/01/18 16:02	321-60-8	
p-Terphenyl-d14 (S)	133	%.	10-167	1	09/28/18 09:45	10/01/18 16:02	1718-51-0	
8260/5030 MSV	Analytical Method: EPA 8260							
Acetone	ND	ug/L	100	1			09/29/18 03:33	67-64-1
Benzene	ND	ug/L	5.0	1			09/29/18 03:33	71-43-2
								M5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206212

Sample: ICP003:EB-1:W092118	Lab ID: 50206212001	Collected: 09/21/18 16:40	Received: 09/22/18 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260							
Bromodichloromethane	ND	ug/L	5.0	1		09/29/18 03:33	75-27-4	M5
Bromoform	ND	ug/L	5.0	1		09/29/18 03:33	75-25-2	M5
Bromomethane	ND	ug/L	5.0	1		09/29/18 03:33	74-83-9	M5
2-Butanone (MEK)	ND	ug/L	25.0	1		09/29/18 03:33	78-93-3	M5
Carbon disulfide	ND	ug/L	10.0	1		09/29/18 03:33	75-15-0	M5
Carbon tetrachloride	ND	ug/L	5.0	1		09/29/18 03:33	56-23-5	M5
Chlorobenzene	ND	ug/L	5.0	1		09/29/18 03:33	108-90-7	M5
Chloroethane	ND	ug/L	5.0	1		09/29/18 03:33	75-00-3	M5
Chloroform	ND	ug/L	5.0	1		09/29/18 03:33	67-66-3	M5
Chloromethane	ND	ug/L	5.0	1		09/29/18 03:33	74-87-3	M5
Dibromochloromethane	ND	ug/L	5.0	1		09/29/18 03:33	124-48-1	M5
Dibromomethane	ND	ug/L	5.0	1		09/29/18 03:33	74-95-3	M5
1,2-Dichlorobenzene	ND	ug/L	5.0	1		09/29/18 03:33	95-50-1	M5
1,4-Dichlorobenzene	ND	ug/L	5.0	1		09/29/18 03:33	106-46-7	M5
Dichlorodifluoromethane	ND	ug/L	5.0	1		09/29/18 03:33	75-71-8	M5
1,1-Dichloroethane	ND	ug/L	5.0	1		09/29/18 03:33	75-34-3	M5
1,2-Dichloroethane	ND	ug/L	5.0	1		09/29/18 03:33	107-06-2	M5
1,1-Dichloroethene	ND	ug/L	5.0	1		09/29/18 03:33	75-35-4	M5
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		09/29/18 03:33	156-59-2	M5
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		09/29/18 03:33	156-60-5	M5
1,2-Dichloropropane	ND	ug/L	5.0	1		09/29/18 03:33	78-87-5	M5
1,3-Dichloropropane	ND	ug/L	5.0	1		09/29/18 03:33	142-28-9	M5
cis-1,3-Dichloropropene	ND	ug/L	4.1	1		09/29/18 03:33	10061-01-5	M5
trans-1,3-Dichloropropene	ND	ug/L	4.1	1		09/29/18 03:33	10061-02-6	M5
Ethylbenzene	ND	ug/L	5.0	1		09/29/18 03:33	100-41-4	M5
Ethyl methacrylate	ND	ug/L	100	1		09/29/18 03:33	97-63-2	M5
n-Hexane	ND	ug/L	5.0	1		09/29/18 03:33	110-54-3	M5
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		09/29/18 03:33	98-82-8	M5
Methylene Chloride	ND	ug/L	5.0	1		09/29/18 03:33	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		09/29/18 03:33	108-10-1	M5
Methyl-tert-butyl ether	ND	ug/L	4.0	1		09/29/18 03:33	1634-04-4	M5
Styrene	ND	ug/L	5.0	1		09/29/18 03:33	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		09/29/18 03:33	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		09/29/18 03:33	79-34-5	M5
Tetrachloroethene	ND	ug/L	5.0	1		09/29/18 03:33	127-18-4	M5
Toluene	ND	ug/L	5.0	1		09/29/18 03:33	108-88-3	M5
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1		09/29/18 03:33	120-82-1	M5
1,1,1-Trichloroethane	ND	ug/L	5.0	1		09/29/18 03:33	71-55-6	M5
1,1,2-Trichloroethane	ND	ug/L	5.0	1		09/29/18 03:33	79-00-5	M5
Trichloroethene	ND	ug/L	5.0	1		09/29/18 03:33	79-01-6	M5
Trichlorofluoromethane	ND	ug/L	5.0	1		09/29/18 03:33	75-69-4	M5
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		09/29/18 03:33	95-63-6	M5
Vinyl acetate	ND	ug/L	50.0	1		09/29/18 03:33	108-05-4	M5
Vinyl chloride	ND	ug/L	2.0	1		09/29/18 03:33	75-01-4	M5
Xylene (Total)	ND	ug/L	10.0	1		09/29/18 03:33	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	103	%.	89-116	1		09/29/18 03:33	1868-53-7	M5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
 Pace Project No.: 50206212

Sample: ICP003:EB-1:W092118	Lab ID: 50206212001	Collected: 09/21/18 16:40	Received: 09/22/18 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260							
Surrogates								
4-Bromofluorobenzene (S)	94	%.	85-111	1		09/29/18 03:33	460-00-4	M5
Toluene-d8 (S)	97	%.	87-110	1		09/29/18 03:33	2037-26-5	M5

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206212

Sample: ICP003:TB-2:W092118	Lab ID: 50206212002	Collected: 09/21/18 16:45	Received: 09/22/18 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260							
Acetone	ND	ug/L	100	1		09/29/18 04:04	67-64-1	M5
Benzene	ND	ug/L	5.0	1		09/29/18 04:04	71-43-2	M5
Bromodichloromethane	ND	ug/L	5.0	1		09/29/18 04:04	75-27-4	M5
Bromoform	ND	ug/L	5.0	1		09/29/18 04:04	75-25-2	M5
Bromomethane	ND	ug/L	5.0	1		09/29/18 04:04	74-83-9	M5
2-Butanone (MEK)	ND	ug/L	25.0	1		09/29/18 04:04	78-93-3	M5
Carbon disulfide	ND	ug/L	10.0	1		09/29/18 04:04	75-15-0	M5
Carbon tetrachloride	ND	ug/L	5.0	1		09/29/18 04:04	56-23-5	M5
Chlorobenzene	ND	ug/L	5.0	1		09/29/18 04:04	108-90-7	M5
Chloroethane	ND	ug/L	5.0	1		09/29/18 04:04	75-00-3	M5
Chloroform	ND	ug/L	5.0	1		09/29/18 04:04	67-66-3	M5
Chloromethane	ND	ug/L	5.0	1		09/29/18 04:04	74-87-3	M5
Dibromochloromethane	ND	ug/L	5.0	1		09/29/18 04:04	124-48-1	M5
Dibromomethane	ND	ug/L	5.0	1		09/29/18 04:04	74-95-3	M5
1,2-Dichlorobenzene	ND	ug/L	5.0	1		09/29/18 04:04	95-50-1	M5
1,4-Dichlorobenzene	ND	ug/L	5.0	1		09/29/18 04:04	106-46-7	M5
Dichlorodifluoromethane	ND	ug/L	5.0	1		09/29/18 04:04	75-71-8	M5
1,1-Dichloroethane	ND	ug/L	5.0	1		09/29/18 04:04	75-34-3	M5
1,2-Dichloroethane	ND	ug/L	5.0	1		09/29/18 04:04	107-06-2	M5
1,1-Dichloroethene	ND	ug/L	5.0	1		09/29/18 04:04	75-35-4	M5
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		09/29/18 04:04	156-59-2	M5
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		09/29/18 04:04	156-60-5	M5
1,2-Dichloropropane	ND	ug/L	5.0	1		09/29/18 04:04	78-87-5	M5
1,3-Dichloropropane	ND	ug/L	5.0	1		09/29/18 04:04	142-28-9	M5
cis-1,3-Dichloropropene	ND	ug/L	4.1	1		09/29/18 04:04	10061-01-5	M5
trans-1,3-Dichloropropene	ND	ug/L	4.1	1		09/29/18 04:04	10061-02-6	M5
Ethylbenzene	ND	ug/L	5.0	1		09/29/18 04:04	100-41-4	M5
Ethyl methacrylate	ND	ug/L	100	1		09/29/18 04:04	97-63-2	M5
n-Hexane	ND	ug/L	5.0	1		09/29/18 04:04	110-54-3	M5
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		09/29/18 04:04	98-82-8	M5
Methylene Chloride	ND	ug/L	5.0	1		09/29/18 04:04	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		09/29/18 04:04	108-10-1	M5
Methyl-tert-butyl ether	ND	ug/L	4.0	1		09/29/18 04:04	1634-04-4	M5
Styrene	ND	ug/L	5.0	1		09/29/18 04:04	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		09/29/18 04:04	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		09/29/18 04:04	79-34-5	M5
Tetrachloroethene	ND	ug/L	5.0	1		09/29/18 04:04	127-18-4	M5
Toluene	ND	ug/L	5.0	1		09/29/18 04:04	108-88-3	M5
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1		09/29/18 04:04	120-82-1	M5
1,1,1-Trichloroethane	ND	ug/L	5.0	1		09/29/18 04:04	71-55-6	M5
1,1,2-Trichloroethane	ND	ug/L	5.0	1		09/29/18 04:04	79-00-5	M5
Trichloroethene	ND	ug/L	5.0	1		09/29/18 04:04	79-01-6	M5
Trichlorofluoromethane	ND	ug/L	5.0	1		09/29/18 04:04	75-69-4	M5
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		09/29/18 04:04	95-63-6	M5
Vinyl acetate	ND	ug/L	50.0	1		09/29/18 04:04	108-05-4	M5
Vinyl chloride	ND	ug/L	2.0	1		09/29/18 04:04	75-01-4	M5
Xylene (Total)	ND	ug/L	10.0	1		09/29/18 04:04	1330-20-7	M5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206212

Sample: ICP003:TB-2:W092118	Lab ID: 50206212002	Collected: 09/21/18 16:45	Received: 09/22/18 08:40	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV		Analytical Method: EPA 8260						
Surrogates								
Dibromofluoromethane (S)	107	%.	89-116	1		09/29/18 04:04	1868-53-7	M5
4-Bromofluorobenzene (S)	97	%.	85-111	1		09/29/18 04:04	460-00-4	M5
Toluene-d8 (S)	96	%.	87-110	1		09/29/18 04:04	2037-26-5	M5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206212

Sample: ICP003:HSB-6:S080100 Lab ID: 50206212004 Collected: 09/21/18 15:40 Received: 09/22/18 08:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave								
			Analytical Method: EPA 8015 Mod Ext			Preparation Method: EPA 3546		
Total Petroleum Hydrocarbons	33.0	mg/kg	23.3	1	09/27/18 10:10	09/27/18 20:12		R1
TPH (C10-C20)	15.9	mg/kg	11.7	1	09/27/18 10:10	09/27/18 20:12		
TPH (C20-C34)	17.1	mg/kg	11.7	1	09/27/18 10:10	09/27/18 20:12		
Surrogates								
n-Pentacosane (S)	85	%.	10-155	1	09/27/18 10:10	09/27/18 20:12	629-99-2	
8015D Gasoline Range Organics								
			Analytical Method: EPA 8015D					
TPH (C06-C12)	ND	mg/kg	1.2	1		09/26/18 19:42		
Surrogates								
4-Bromofluorobenzene (S)	89	%.	30-151	1		09/26/18 19:42	460-00-4	
8270 PAH Soil								
			Analytical Method: EPA 8270 by SIM			Preparation Method: EPA 3546		
Acenaphthene	ND	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	83-32-9	
Acenaphthylene	ND	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	208-96-8	
Anthracene	0.0065	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	120-12-7	
Benzo(a)anthracene	0.0063	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	50-32-8	
Benzo(b)fluoranthene	0.0058	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	205-99-2	
Benzo(g,h,i)perylene	0.0069	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	207-08-9	
Chrysene	0.020	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	53-70-3	
Fluoranthene	0.0090	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	206-44-0	
Fluorene	0.0080	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	193-39-5	
2-Methylnaphthalene	0.026	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	91-57-6	
Naphthalene	0.016	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	91-20-3	
Phenanthrene	0.037	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	85-01-8	
Pyrene	0.012	mg/kg	0.0058	1	09/28/18 09:20	09/28/18 16:57	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	69	%.	40-107	1	09/28/18 09:20	09/28/18 16:57	321-60-8	
p-Terphenyl-d14 (S)	73	%.	35-115	1	09/28/18 09:20	09/28/18 16:57	1718-51-0	
8260 MSV 5035A VOA								
			Analytical Method: EPA 8260					
Acetone	ND	mg/kg	0.10	1		09/29/18 05:26	67-64-1	CL,M5
Benzene	ND	mg/kg	0.0050	1		09/29/18 05:26	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0050	1		09/29/18 05:26	75-27-4	M5
Bromoform	ND	mg/kg	0.0050	1		09/29/18 05:26	75-25-2	M5
Bromomethane	ND	mg/kg	0.0050	1		09/29/18 05:26	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.025	1		09/29/18 05:26	78-93-3	M5
Carbon disulfide	ND	mg/kg	0.010	1		09/29/18 05:26	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0050	1		09/29/18 05:26	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0050	1		09/29/18 05:26	108-90-7	M5
Chloroethane	ND	mg/kg	0.0050	1		09/29/18 05:26	75-00-3	M5
Chloroform	ND	mg/kg	0.0050	1		09/29/18 05:26	67-66-3	M5
Chloromethane	ND	mg/kg	0.0050	1		09/29/18 05:26	74-87-3	M5

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206212

Sample: ICP003:HSB-6:S080100 Lab ID: 50206212004 Collected: 09/21/18 15:40 Received: 09/22/18 08:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Dibromochloromethane	ND	mg/kg	0.0050	1		09/29/18 05:26	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0050	1		09/29/18 05:26	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0050	1		09/29/18 05:26	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0050	1		09/29/18 05:26	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0050	1		09/29/18 05:26	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0050	1		09/29/18 05:26	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0050	1		09/29/18 05:26	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0050	1		09/29/18 05:26	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0050	1		09/29/18 05:26	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0050	1		09/29/18 05:26	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0050	1		09/29/18 05:26	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0050	1		09/29/18 05:26	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0050	1		09/29/18 05:26	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0050	1		09/29/18 05:26	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0050	1		09/29/18 05:26	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.10	1		09/29/18 05:26	97-63-2	M5
n-Hexane	ND	mg/kg	0.0050	1		09/29/18 05:26	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0050	1		09/29/18 05:26	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.020	1		09/29/18 05:26	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.025	1		09/29/18 05:26	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0050	1		09/29/18 05:26	1634-04-4	M5
Styrene	ND	mg/kg	0.0050	1		09/29/18 05:26	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0050	1		09/29/18 05:26	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0050	1		09/29/18 05:26	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0050	1		09/29/18 05:26	127-18-4	M5
Toluene	ND	mg/kg	0.0050	1		09/29/18 05:26	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0050	1		09/29/18 05:26	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0050	1		09/29/18 05:26	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0050	1		09/29/18 05:26	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0050	1		09/29/18 05:26	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0050	1		09/29/18 05:26	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0050	1		09/29/18 05:26	95-63-6	M5
1,3,5-Trimethylbenzene	ND	mg/kg	0.0050	1		09/29/18 05:26	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.10	1		09/29/18 05:26	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0050	1		09/29/18 05:26	75-01-4	M5
Xylene (Total)	ND	mg/kg	0.010	1		09/29/18 05:26	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	112	%.	80-127	1		09/29/18 05:26	1868-53-7	1d,H7, M5
Toluene-d8 (S)	107	%.	72-136	1		09/29/18 05:26	2037-26-5	M5
4-Bromofluorobenzene (S)	81	%.	57-130	1		09/29/18 05:26	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	14.2	%	0.10	1		09/26/18 14:58		

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206212

Sample: ICP003:HTW-1:S120140 Lab ID: 50206212005 Collected: 09/21/18 15:15 Received: 09/22/18 08:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	35.2	mg/kg	22.8	1	09/27/18 10:10	09/27/18 20:34		
TPH (C10-C20)	18.5	mg/kg	11.4	1	09/27/18 10:10	09/27/18 20:34		
TPH (C20-C34)	16.7	mg/kg	11.4	1	09/27/18 10:10	09/27/18 20:34		
Surrogates								
n-Pentacosane (S)	83	%.	10-155	1	09/27/18 10:10	09/27/18 20:34	629-99-2	
8082 GCS PCB Solids	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.11	1	09/27/18 11:55	09/28/18 01:06	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.11	1	09/27/18 11:55	09/28/18 01:06	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.11	1	09/27/18 11:55	09/28/18 01:06	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.11	1	09/27/18 11:55	09/28/18 01:06	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.11	1	09/27/18 11:55	09/28/18 01:06	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	0.11	1	09/27/18 11:55	09/28/18 01:06	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.11	1	09/27/18 11:55	09/28/18 01:06	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	86	%.	18-136	1	09/27/18 11:55	09/28/18 01:06	877-09-8	
8015D Gasoline Range Organics	Analytical Method: EPA 8015D							
TPH (C06-C12)	ND	mg/kg	1.1	1		09/26/18 20:06		
Surrogates								
4-Bromofluorobenzene (S)	64	%.	30-151	1		09/26/18 20:06	460-00-4	
8270 PAH Soil	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	83-32-9	
Acenaphthylene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	208-96-8	
Anthracene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	207-08-9	
Chrysene	0.013	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	53-70-3	
Fluoranthene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	206-44-0	
Fluorene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	193-39-5	
2-Methylnaphthalene	0.049	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	91-57-6	
Naphthalene	0.018	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	91-20-3	
Phenanthrene	0.037	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	85-01-8	
Pyrene	ND	mg/kg	0.0056	1	09/28/18 09:20	09/28/18 17:13	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	71	%.	40-107	1	09/28/18 09:20	09/28/18 17:13	321-60-8	
p-Terphenyl-d14 (S)	68	%.	35-115	1	09/28/18 09:20	09/28/18 17:13	1718-51-0	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg	0.092	1		09/29/18 06:00	67-64-1	CL,M5

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206212

Sample: ICP003:HTW-1:S120140 Lab ID: 50206212005 Collected: 09/21/18 15:15 Received: 09/22/18 08:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Benzene	ND	mg/kg	0.0046	1		09/29/18 06:00	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0046	1		09/29/18 06:00	75-27-4	M5
Bromoform	ND	mg/kg	0.0046	1		09/29/18 06:00	75-25-2	M5
Bromomethane	ND	mg/kg	0.0046	1		09/29/18 06:00	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.023	1		09/29/18 06:00	78-93-3	M5
Carbon disulfide	ND	mg/kg	0.0092	1		09/29/18 06:00	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0046	1		09/29/18 06:00	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0046	1		09/29/18 06:00	108-90-7	M5
Chloroethane	ND	mg/kg	0.0046	1		09/29/18 06:00	75-00-3	M5
Chloroform	ND	mg/kg	0.0046	1		09/29/18 06:00	67-66-3	M5
Chloromethane	ND	mg/kg	0.0046	1		09/29/18 06:00	74-87-3	M5
Dibromochloromethane	ND	mg/kg	0.0046	1		09/29/18 06:00	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0046	1		09/29/18 06:00	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0046	1		09/29/18 06:00	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0046	1		09/29/18 06:00	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0046	1		09/29/18 06:00	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0046	1		09/29/18 06:00	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0046	1		09/29/18 06:00	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0046	1		09/29/18 06:00	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0046	1		09/29/18 06:00	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0046	1		09/29/18 06:00	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0046	1		09/29/18 06:00	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0046	1		09/29/18 06:00	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0046	1		09/29/18 06:00	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0046	1		09/29/18 06:00	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0046	1		09/29/18 06:00	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.092	1		09/29/18 06:00	97-63-2	M5
n-Hexane	ND	mg/kg	0.0046	1		09/29/18 06:00	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0046	1		09/29/18 06:00	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.018	1		09/29/18 06:00	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.023	1		09/29/18 06:00	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0046	1		09/29/18 06:00	1634-04-4	M5
Styrene	ND	mg/kg	0.0046	1		09/29/18 06:00	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0046	1		09/29/18 06:00	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0046	1		09/29/18 06:00	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0046	1		09/29/18 06:00	127-18-4	M5
Toluene	ND	mg/kg	0.0046	1		09/29/18 06:00	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0046	1		09/29/18 06:00	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0046	1		09/29/18 06:00	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0046	1		09/29/18 06:00	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0046	1		09/29/18 06:00	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0046	1		09/29/18 06:00	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0046	1		09/29/18 06:00	95-63-6	M5
1,3,5-Trimethylbenzene	ND	mg/kg	0.0046	1		09/29/18 06:00	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.092	1		09/29/18 06:00	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0046	1		09/29/18 06:00	75-01-4	M5

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ANALYTICAL RESULTS

Project: ICP003
 Pace Project No.: 50206212

Sample: ICP003:HTW-1:S120140 Lab ID: 50206212005 Collected: 09/21/18 15:15 Received: 09/22/18 08:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Xylene (Total)	ND	mg/kg	0.0092	1		09/29/18 06:00	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	111	%.	80-127	1		09/29/18 06:00	1868-53-7	1d,H7, M5
Toluene-d8 (S)	117	%.	72-136	1		09/29/18 06:00	2037-26-5	M5
4-Bromofluorobenzene (S)	77	%.	57-130	1		09/29/18 06:00	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	12.3	%	0.10	1		09/26/18 14:58		

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

QC Batch:	463684	Analysis Method:	EPA 8015D
QC Batch Method:	EPA 8015D	Analysis Description:	8015 Solid GCV
Associated Lab Samples:	50206212004, 50206212005		

METHOD BLANK: 2139972 Matrix: Solid

Associated Lab Samples: 50206212004, 50206212005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C06-C12)	mg/kg	ND	1.0	09/26/18 11:27	
4-Bromofluorobenzene (S)	%.	84	30-151	09/26/18 11:27	

LABORATORY CONTROL SAMPLE: 2139973

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C06-C12)	mg/kg	10	9.6	96	67-126	
4-Bromofluorobenzene (S)	%.			113	30-151	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2139974 2139975

Parameter	Units	50206316001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C06-C12)	mg/kg	ND	11.2	11.2	11.9	12.4	106	110	36-162	4	20	
4-Bromofluorobenzene (S)	%.						107	125	30-151			

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

QC Batch:	463088	Analysis Method:	EPA 5030B/8015D	
QC Batch Method:	EPA 5030B/8015D		Analysis Description:	Gasoline Range Organics
Associated Lab Samples:	50206212001			

METHOD BLANK: 2137639 Matrix: Water

Associated Lab Samples: 50206212001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C06-C12)	mg/L	ND	0.20	09/24/18 15:48	
4-Bromofluorobenzene (S)	%.	107	60-133	09/24/18 15:48	

LABORATORY CONTROL SAMPLE: 2137640

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C06-C12)	mg/L	10	9.8	98	65-131	
4-Bromofluorobenzene (S)	%.			127	60-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2137641 2137642

Parameter	Units	50206244001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C06-C12)	mg/L	ND	10	10	11.2	12.2	111	122	67-138	9	20	S0
4-Bromofluorobenzene (S)	%.						123	140	60-133			

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206212

QC Batch: 464066	Analysis Method: EPA 8260
QC Batch Method: EPA 8260	Analysis Description: 8260 MSV
Associated Lab Samples: 50206212001, 50206212002	

METHOD BLANK: 2142210 Matrix: Water

Associated Lab Samples: 50206212001, 50206212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	09/29/18 01:57	M5
1,1,1-Trichloroethane	ug/L	ND	5.0	09/29/18 01:57	M5
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	09/29/18 01:57	M5
1,1,2-Trichloroethane	ug/L	ND	5.0	09/29/18 01:57	M5
1,1-Dichloroethane	ug/L	ND	5.0	09/29/18 01:57	M5
1,1-Dichloroethene	ug/L	ND	5.0	09/29/18 01:57	M5
1,2,4-Trichlorobenzene	ug/L	ND	5.0	09/29/18 01:57	M5
1,2,4-Trimethylbenzene	ug/L	ND	5.0	09/29/18 01:57	M5
1,2-Dichlorobenzene	ug/L	ND	5.0	09/29/18 01:57	M5
1,2-Dichloroethane	ug/L	ND	5.0	09/29/18 01:57	M5
1,2-Dichloropropane	ug/L	ND	5.0	09/29/18 01:57	M5
1,3-Dichloropropane	ug/L	ND	5.0	09/29/18 01:57	M5
1,4-Dichlorobenzene	ug/L	ND	5.0	09/29/18 01:57	M5
2-Butanone (MEK)	ug/L	ND	25.0	09/29/18 01:57	M5
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	09/29/18 01:57	M5
Acetone	ug/L	ND	100	09/29/18 01:57	M5
Benzene	ug/L	ND	5.0	09/29/18 01:57	M5
Bromodichloromethane	ug/L	ND	5.0	09/29/18 01:57	M5
Bromoform	ug/L	ND	5.0	09/29/18 01:57	M5
Bromomethane	ug/L	ND	5.0	09/29/18 01:57	M5
Carbon disulfide	ug/L	ND	10.0	09/29/18 01:57	M5
Carbon tetrachloride	ug/L	ND	5.0	09/29/18 01:57	M5
Chlorobenzene	ug/L	ND	5.0	09/29/18 01:57	M5
Chloroethane	ug/L	ND	5.0	09/29/18 01:57	M5
Chloroform	ug/L	ND	5.0	09/29/18 01:57	M5
Chloromethane	ug/L	ND	5.0	09/29/18 01:57	M5
cis-1,2-Dichloroethene	ug/L	ND	5.0	09/29/18 01:57	M5
cis-1,3-Dichloropropene	ug/L	ND	4.1	09/29/18 01:57	M5
Dibromochloromethane	ug/L	ND	5.0	09/29/18 01:57	M5
Dibromomethane	ug/L	ND	5.0	09/29/18 01:57	M5
Dichlorodifluoromethane	ug/L	ND	5.0	09/29/18 01:57	M5
Ethyl methacrylate	ug/L	ND	100	09/29/18 01:57	M5
Ethylbenzene	ug/L	ND	5.0	09/29/18 01:57	M5
Isopropylbenzene (Cumene)	ug/L	ND	5.0	09/29/18 01:57	M5
Methyl-tert-butyl ether	ug/L	ND	4.0	09/29/18 01:57	M5
Methylene Chloride	ug/L	ND	5.0	09/29/18 01:57	M5
n-Hexane	ug/L	ND	5.0	09/29/18 01:57	M5
Styrene	ug/L	ND	5.0	09/29/18 01:57	M5
Tetrachloroethene	ug/L	ND	5.0	09/29/18 01:57	M5
Toluene	ug/L	ND	5.0	09/29/18 01:57	M5
trans-1,2-Dichloroethene	ug/L	ND	5.0	09/29/18 01:57	M5

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206212

METHOD BLANK: 2142210 Matrix: Water

Associated Lab Samples: 50206212001, 50206212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,3-Dichloropropene	ug/L	ND	4.1	09/29/18 01:57	M5
Trichloroethene	ug/L	ND	5.0	09/29/18 01:57	M5
Trichlorofluoromethane	ug/L	ND	5.0	09/29/18 01:57	M5
Vinyl acetate	ug/L	ND	50.0	09/29/18 01:57	M5
Vinyl chloride	ug/L	ND	2.0	09/29/18 01:57	M5
Xylene (Total)	ug/L	ND	10.0	09/29/18 01:57	M5
4-Bromofluorobenzene (S)	%.	95	85-111	09/29/18 01:57	M5
Dibromofluoromethane (S)	%.	103	89-116	09/29/18 01:57	M5
Toluene-d8 (S)	%.	98	87-110	09/29/18 01:57	M5

LABORATORY CONTROL SAMPLE: 2142211

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	54.7	109	80-120 M5	
1,1,1-Trichloroethane	ug/L	50	53.2	106	74-126 M5	
1,1,2,2-Tetrachloroethane	ug/L	50	50.3	101	73-117 M5	
1,1,2-Trichloroethane	ug/L	50	56.7	113	74-119 M5	
1,1-Dichloroethane	ug/L	50	51.9	104	72-119 M5	
1,1-Dichloroethene	ug/L	50	55.0	110	72-123 M5	
1,2,4-Trichlorobenzene	ug/L	50	51.9	104	70-125 M5	
1,2,4-Trimethylbenzene	ug/L	50	54.8	110	76-118 M5	
1,2-Dichlorobenzene	ug/L	50	52.5	105	77-117 M5	
1,2-Dichloroethane	ug/L	50	51.5	103	69-122 M5	
1,2-Dichloropropane	ug/L	50	55.9	112	75-124 M5	
1,3-Dichloropropane	ug/L	50	54.9	110	82-118 M5	
1,4-Dichlorobenzene	ug/L	50	51.5	103	74-115 M5	
2-Butanone (MEK)	ug/L	250	271	108	72-147 M5	
4-Methyl-2-pentanone (MIBK)	ug/L	250	279	112	89-128 M5	
Acetone	ug/L	250	236	94	46-170 M5	
Benzene	ug/L	50	53.3	107	78-117 M5	
Bromodichloromethane	ug/L	50	52.8	106	76-120 M5	
Bromoform	ug/L	50	49.5	99	70-124 M5	
Bromomethane	ug/L	50	52.6	105	29-181 M5	
Carbon disulfide	ug/L	50	48.8	98	66-123 M5	
Carbon tetrachloride	ug/L	50	55.9	112	73-132 M5	
Chlorobenzene	ug/L	50	52.3	105	79-112 M5	
Chloroethane	ug/L	50	52.6	105	59-156 M5	
Chloroform	ug/L	50	52.6	105	76-118 M5	
Chloromethane	ug/L	50	42.7	85	45-142 M5	
cis-1,2-Dichloroethene	ug/L	50	52.5	105	75-117 M5	
cis-1,3-Dichloropropene	ug/L	50	56.6	113	77-120 M5	
Dibromochloromethane	ug/L	50	52.4	105	78-123 M5	
Dibromomethane	ug/L	50	51.1	102	78-122 M5	
Dichlorodifluoromethane	ug/L	50	57.0	114	41-168 M5	

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

LABORATORY CONTROL SAMPLE: 2142211

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethyl methacrylate	ug/L	200	245	122	75-128	M5
Ethylbenzene	ug/L	50	54.1	108	80-118	M5
Isopropylbenzene (Cumene)	ug/L	50	57.2	114	81-117	M5
Methyl-tert-butyl ether	ug/L	50	55.6	111	71-124	M5
Methylene Chloride	ug/L	50	49.7	99	59-136	M5
n-Hexane	ug/L	50	60.2	120	60-128	M5
Styrene	ug/L	50	56.1	112	74-121	M5
Tetrachloroethene	ug/L	50	51.8	104	76-116	M5
Toluene	ug/L	50	54.6	109	77-115	M5
trans-1,2-Dichloroethene	ug/L	50	51.1	102	75-121	M5
trans-1,3-Dichloropropene	ug/L	50	54.2	108	77-121	M5
Trichloroethene	ug/L	50	53.3	107	76-120	M5
Trichlorofluoromethane	ug/L	50	51.4	103	81-141	M5
Vinyl acetate	ug/L	200	226	113	67-131	M5
Vinyl chloride	ug/L	50	52.4	105	64-155	M5
Xylene (Total)	ug/L	150	164	110	78-118	M5
4-Bromofluorobenzene (S)	%.			101	85-111	M5
Dibromofluoromethane (S)	%.			101	89-116	M5
Toluene-d8 (S)	%.			100	87-110	M5

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206212

QC Batch: 464038 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 50206212004, 50206212005

METHOD BLANK: 2141966 Matrix: Solid

Associated Lab Samples: 50206212004, 50206212005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,1,1-Trichloroethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,1,2-Trichloroethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,1-Dichloroethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,1-Dichloroethene	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,2,4-Trichlorobenzene	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,2-Dichlorobenzene	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,2-Dichloroethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,2-Dichloropropane	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,3-Dichloropropane	mg/kg	ND	0.0050	09/29/18 03:08	M5
1,4-Dichlorobenzene	mg/kg	ND	0.0050	09/29/18 03:08	M5
2-Butanone (MEK)	mg/kg	ND	0.025	09/29/18 03:08	M5
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.025	09/29/18 03:08	M5
Acetone	mg/kg	ND	0.10	09/29/18 03:08	M5
Benzene	mg/kg	ND	0.0050	09/29/18 03:08	M5
Bromodichloromethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
Bromoform	mg/kg	ND	0.0050	09/29/18 03:08	M5
Bromomethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
Carbon disulfide	mg/kg	ND	0.010	09/29/18 03:08	M5
Carbon tetrachloride	mg/kg	ND	0.0050	09/29/18 03:08	M5
Chlorobenzene	mg/kg	ND	0.0050	09/29/18 03:08	M5
Chloroethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
Chloroform	mg/kg	ND	0.0050	09/29/18 03:08	M5
Chloromethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
cis-1,2-Dichloroethene	mg/kg	ND	0.0050	09/29/18 03:08	M5
cis-1,3-Dichloropropene	mg/kg	ND	0.0050	09/29/18 03:08	M5
Dibromochloromethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
Dibromomethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
Dichlorodifluoromethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
Ethyl methacrylate	mg/kg	ND	0.10	09/29/18 03:08	M5
Ethylbenzene	mg/kg	ND	0.0050	09/29/18 03:08	M5
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	09/29/18 03:08	M5
Methyl-tert-butyl ether	mg/kg	ND	0.0050	09/29/18 03:08	M5
Methylene Chloride	mg/kg	ND	0.020	09/29/18 03:08	M5
n-Hexane	mg/kg	ND	0.0050	09/29/18 03:08	M5
Styrene	mg/kg	ND	0.0050	09/29/18 03:08	M5
Tetrachloroethene	mg/kg	ND	0.0050	09/29/18 03:08	M5
Toluene	mg/kg	ND	0.0050	09/29/18 03:08	M5

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

METHOD BLANK: 2141966

Matrix: Solid

Associated Lab Samples: 50206212004, 50206212005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
trans-1,2-Dichloroethene	mg/kg	ND	0.0050	09/29/18 03:08	M5
trans-1,3-Dichloropropene	mg/kg	ND	0.0050	09/29/18 03:08	M5
Trichloroethene	mg/kg	ND	0.0050	09/29/18 03:08	M5
Trichlorofluoromethane	mg/kg	ND	0.0050	09/29/18 03:08	M5
Vinyl acetate	mg/kg	ND	0.10	09/29/18 03:08	M5
Vinyl chloride	mg/kg	ND	0.0050	09/29/18 03:08	M5
Xylene (Total)	mg/kg	ND	0.010	09/29/18 03:08	M5
4-Bromofluorobenzene (S)	%.	101	57-130	09/29/18 03:08	M5
Dibromofluoromethane (S)	%.	105	80-127	09/29/18 03:08	M5
Toluene-d8 (S)	%.	96	72-136	09/29/18 03:08	M5

LABORATORY CONTROL SAMPLE: 2141967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	.05	0.048	96	80-119	M5
1,1,1-Trichloroethane	mg/kg	.05	0.047	94	71-123	M5
1,1,2,2-Tetrachloroethane	mg/kg	.05	0.045	90	74-121	M5
1,1,2-Trichloroethane	mg/kg	.05	0.051	103	76-115	M5
1,1-Dichloroethane	mg/kg	.05	0.042	84	70-117	M5
1,1-Dichloroethene	mg/kg	.05	0.045	90	71-125	M5
1,2,4-Trichlorobenzene	mg/kg	.05	0.037	73	63-119	M5
1,2,4-Trimethylbenzene	mg/kg	.05	0.041	82	73-111	M5
1,2-Dichlorobenzene	mg/kg	.05	0.041	81	79-110	M5
1,2-Dichloroethane	mg/kg	.05	0.044	89	69-119	M5
1,2-Dichloropropane	mg/kg	.05	0.046	92	76-120	M5
1,3,5-Trimethylbenzene	mg/kg	.05	0.041	82	74-108	M5
1,3-Dichloropropane	mg/kg	.05	0.050	100	84-119	M5
1,4-Dichlorobenzene	mg/kg	.05	0.038	76	74-109	M5
2-Butanone (MEK)	mg/kg	.25	0.22	87	57-183	M5
4-Methyl-2-pentanone (MIBK)	mg/kg	.25	0.22	87	67-128	M5
Acetone	mg/kg	.25	0.19	75	39-199	M5
Benzene	mg/kg	.05	0.048	96	77-117	M5
Bromodichloromethane	mg/kg	.05	0.045	90	76-115	M5
Bromoform	mg/kg	.05	0.047	94	69-125	M5
Bromomethane	mg/kg	.05	0.051	101	30-174	M5
Carbon disulfide	mg/kg	.05	0.044	88	64-122	M5
Carbon tetrachloride	mg/kg	.05	0.046	91	70-126	M5
Chlorobenzene	mg/kg	.05	0.043	86	77-111	M5
Chloroethane	mg/kg	.05	0.046	92	50-149	M5
Chloroform	mg/kg	.05	0.043	86	74-114	M5
Chloromethane	mg/kg	.05	0.038	76	51-127	M5
cis-1,2-Dichloroethene	mg/kg	.05	0.045	90	74-118	M5
cis-1,3-Dichloropropene	mg/kg	.05	0.048	96	77-119	M5
Dibromochloromethane	mg/kg	.05	0.048	95	82-120	M5

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

LABORATORY CONTROL SAMPLE: 2141967

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromomethane	mg/kg	.05	0.045	91	79-118	M5
Dichlorodifluoromethane	mg/kg	.05	0.041	81	39-160	M5
Ethyl methacrylate	mg/kg	.2	0.20	101	75-125	M5
Ethylbenzene	mg/kg	.05	0.042	85	73-114	M5
Isopropylbenzene (Cumene)	mg/kg	.05	0.047	93	78-113	M5
Methyl-tert-butyl ether	mg/kg	.05	0.048	95	75-119	M5
Methylene Chloride	mg/kg	.05	0.041	82	45-153	M5
n-Hexane	mg/kg	.05	0.040	81	57-117	M5
Styrene	mg/kg	.05	0.045	90	73-109	M5
Tetrachloroethene	mg/kg	.05	0.043	87	72-117	M5
Toluene	mg/kg	.05	0.043	86	77-111	M5
trans-1,2-Dichloroethene	mg/kg	.05	0.042	85	73-121	M5
trans-1,3-Dichloropropene	mg/kg	.05	0.045	91	76-121	M5
Trichloroethene	mg/kg	.05	0.045	89	73-119	M5
Trichlorofluoromethane	mg/kg	.05	0.044	87	72-147	M5
Vinyl acetate	mg/kg	.2	0.20	98	59-139	M5
Vinyl chloride	mg/kg	.05	0.043	86	57-160	M5
Xylene (Total)	mg/kg	.15	0.13	86	74-111	M5
4-Bromofluorobenzene (S)	%.			102	57-130	M5
Dibromofluoromethane (S)	%.			97	80-127	M5
Toluene-d8 (S)	%.			98	72-136	M5

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

QC Batch: 463665	Analysis Method: EPA 8015 Mod Ext
QC Batch Method: EPA 3546	Analysis Description: EPA 8015 TPH Ohio
Associated Lab Samples: 50206212004, 50206212005	

METHOD BLANK: 2139919 Matrix: Solid

Associated Lab Samples: 50206212004, 50206212005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Petroleum Hydrocarbons	mg/kg	ND	19.8	09/27/18 18:23	
TPH (C10-C20)	mg/kg	ND	9.9	09/27/18 18:23	
TPH (C20-C34)	mg/kg	ND	9.9	09/27/18 18:23	
n-Pentacosane (S)	%.	79	10-155	09/27/18 18:23	

LABORATORY CONTROL SAMPLE: 2139920

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Petroleum Hydrocarbons	mg/kg	82.2	47.8	58	42-92	
n-Pentacosane (S)	%.			79	10-155	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2139921 2139922

Parameter	Units	50206212004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Max Qual
Total Petroleum Hydrocarbons	mg/kg	33.0	96.2	96.5	98.0	74.6	68	43	10-147	27	20	R1
n-Pentacosane (S)	%.						104	79	10-155			

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

QC Batch: 463613	Analysis Method: EPA 8015 Mod Ext
QC Batch Method: EPA 3510	Analysis Description: EPA 8015 TPH Ohio
Associated Lab Samples: 50206212001	

METHOD BLANK: 2139701 Matrix: Water

Associated Lab Samples: 50206212001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Petroleum Hydrocarbons	mg/L	ND	0.80	09/27/18 04:17	
TPH (C10-C20)	mg/L	ND	0.40	09/27/18 04:17	
TPH (C20-C34)	mg/L	ND	0.40	09/27/18 04:17	
n-Pentacosane (S)	%.	58	10-127	09/27/18 04:17	

LABORATORY CONTROL SAMPLE: 2139702

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Petroleum Hydrocarbons	mg/L	2.5	2.1	84	33-101	
n-Pentacosane (S)	%.			74	10-127	

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206212

QC Batch: 463678	Analysis Method: EPA 8082
QC Batch Method: EPA 3546	Analysis Description: 8082 GCS PCB
Associated Lab Samples: 50206212005	

METHOD BLANK: 2139951 Matrix: Solid

Associated Lab Samples: 50206212005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	ND	0.099	09/27/18 22:16	
PCB-1221 (Aroclor 1221)	mg/kg	ND	0.099	09/27/18 22:16	
PCB-1232 (Aroclor 1232)	mg/kg	ND	0.099	09/27/18 22:16	
PCB-1242 (Aroclor 1242)	mg/kg	ND	0.099	09/27/18 22:16	
PCB-1248 (Aroclor 1248)	mg/kg	ND	0.099	09/27/18 22:16	
PCB-1254 (Aroclor 1254)	mg/kg	ND	0.099	09/27/18 22:16	
PCB-1260 (Aroclor 1260)	mg/kg	ND	0.099	09/27/18 22:16	
Tetrachloro-m-xylene (S)	%.	111	18-136	09/27/18 22:16	

LABORATORY CONTROL SAMPLE: 2139952

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	.17	0.16	99	21-129	
PCB-1260 (Aroclor 1260)	mg/kg	.17	0.16	98	36-126	
Tetrachloro-m-xylene (S)	%.			115	18-136	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2139953 2139954

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD RPD	Max Qual
		50206101001	Result	Spike Conc.	MSD Result					
PCB-1016 (Aroclor 1016)	mg/kg	ND	.2	.2	0.20	0.14	102	72	10-141	35 20 R1
PCB-1260 (Aroclor 1260)	mg/kg	ND	.2	.2	0.13	0.13	65	68	10-146	5 20
Tetrachloro-m-xylene (S)	%.						79	75	18-136	

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

QC Batch: 463916	Analysis Method: EPA 8082
QC Batch Method: EPA 3510	Analysis Description: 8082 GCS PCB Mod
Associated Lab Samples: 50206212001	

METHOD BLANK: 2141086 Matrix: Water

Associated Lab Samples: 50206212001

Parameter	Units	Blank Result	Reporting		Qualifiers
			Limit	Analyzed	
PCB-1016 (Aroclor 1016)	ug/L	ND	0.10	09/28/18 19:20	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.20	09/28/18 19:20	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.10	09/28/18 19:20	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.10	09/28/18 19:20	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.10	09/28/18 19:20	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.10	09/28/18 19:20	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.10	09/28/18 19:20	
Tetrachloro-m-xylene (S)	%.	39	14-132	09/28/18 19:20	

LABORATORY CONTROL SAMPLE: 2141087

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec		Qualifiers
					Limits	Qualifiers	
PCB-1016 (Aroclor 1016)	ug/L	5	5.0	100	60-154		
PCB-1260 (Aroclor 1260)	ug/L	5	5.6	112	54-153		
Tetrachloro-m-xylene (S)	%.			42	14-132		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2141088 2141089

Parameter	Units	50206010004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec		Max RPD	RPD	Qual
									Limits	RPD			
PCB-1016 (Aroclor 1016)	ug/L	ND	5	5	4.9	5.3	97	106	41-156	9	20		
PCB-1260 (Aroclor 1260)	ug/L	ND	5	5	5.5	5.6	111	111	18-137	1	20		
Tetrachloro-m-xylene (S)	%.						42	55	14-132				

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206212

QC Batch: 463904 Analysis Method: EPA 8270 by SIM LVE
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAH LV by SIM MSSV
Associated Lab Samples: 50206212001

METHOD BLANK: 2141061 Matrix: Water

Associated Lab Samples: 50206212001

Parameter	Units	Blank	Reporting	Analyzed	Qualifiers
		Result	Limit		
2-Methylnaphthalene	ug/L	ND	1.0	10/01/18 15:41	
Acenaphthene	ug/L	ND	1.0	10/01/18 15:41	
Acenaphthylene	ug/L	ND	1.0	10/01/18 15:41	
Anthracene	ug/L	ND	0.10	10/01/18 15:41	
Benzo(a)anthracene	ug/L	ND	0.10	10/01/18 15:41	
Benzo(a)pyrene	ug/L	ND	0.10	10/01/18 15:41	
Benzo(b)fluoranthene	ug/L	ND	0.10	10/01/18 15:41	
Benzo(g,h,i)perylene	ug/L	ND	0.10	10/01/18 15:41	
Benzo(k)fluoranthene	ug/L	ND	0.10	10/01/18 15:41	
Chrysene	ug/L	ND	0.50	10/01/18 15:41	
Dibenz(a,h)anthracene	ug/L	ND	0.092	10/01/18 15:41	
Fluoranthene	ug/L	ND	1.0	10/01/18 15:41	
Fluorene	ug/L	ND	1.0	10/01/18 15:41	
Indeno(1,2,3-cd)pyrene	ug/L	ND	0.10	10/01/18 15:41	
Naphthalene	ug/L	ND	1.0	10/01/18 15:41	IO
Phenanthrene	ug/L	ND	1.0	10/01/18 15:41	
Pyrene	ug/L	ND	1.0	10/01/18 15:41	
2-Fluorobiphenyl (S)	%.	54	10-108	10/01/18 15:41	
p-Terphenyl-d14 (S)	%.	122	10-167	10/01/18 15:41	

LABORATORY CONTROL SAMPLE: 2141062

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methylnaphthalene	ug/L	10	4.8	48	23-102	
Acenaphthene	ug/L	10	5.8	58	33-106	
Acenaphthylene	ug/L	10	6.1	61	35-119	
Anthracene	ug/L	10	5.5	55	28-124	
Benzo(a)anthracene	ug/L	10	6.7	67	58-140	
Benzo(a)pyrene	ug/L	10	8.8	88	53-118	
Benzo(b)fluoranthene	ug/L	10	11.4	114	55-133	
Benzo(g,h,i)perylene	ug/L	10	9.2	92	46-105	
Benzo(k)fluoranthene	ug/L	10	10.1	101	49-115	
Chrysene	ug/L	10	7.7	77	50-125	
Dibenz(a,h)anthracene	ug/L	10	9.6	96	48-112	
Fluoranthene	ug/L	10	7.5	75	53-128	
Fluorene	ug/L	10	6.7	67	39-123	
Indeno(1,2,3-cd)pyrene	ug/L	10	9.0	90	49-109	
Naphthalene	ug/L	10	5.4	54	26-95	IO
Phenanthrene	ug/L	10	7.6	76	48-124	
Pyrene	ug/L	10	8.3	83	54-131	

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206212

LABORATORY CONTROL SAMPLE: 2141062

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%.			59	10-108	
p-Terphenyl-d14 (S)	%.			109	10-167	

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

QC Batch: 463901	Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546	Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 50206212004, 50206212005	

METHOD BLANK: 2141049 Matrix: Solid

Associated Lab Samples: 50206212004, 50206212005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2-Methylnaphthalene	mg/kg	ND	0.0050	09/28/18 15:51	
Acenaphthene	mg/kg	ND	0.0050	09/28/18 15:51	
Acenaphthylene	mg/kg	ND	0.0050	09/28/18 15:51	
Anthracene	mg/kg	ND	0.0050	09/28/18 15:51	
Benzo(a)anthracene	mg/kg	ND	0.0050	09/28/18 15:51	
Benzo(a)pyrene	mg/kg	ND	0.0050	09/28/18 15:51	
Benzo(b)fluoranthene	mg/kg	ND	0.0050	09/28/18 15:51	
Benzo(g,h,i)perylene	mg/kg	ND	0.0050	09/28/18 15:51	
Benzo(k)fluoranthene	mg/kg	ND	0.0050	09/28/18 15:51	
Chrysene	mg/kg	ND	0.0050	09/28/18 15:51	
Dibenz(a,h)anthracene	mg/kg	ND	0.0050	09/28/18 15:51	
Fluoranthene	mg/kg	ND	0.0050	09/28/18 15:51	
Fluorene	mg/kg	ND	0.0050	09/28/18 15:51	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0050	09/28/18 15:51	
Naphthalene	mg/kg	ND	0.0050	09/28/18 15:51	
Phenanthrene	mg/kg	ND	0.0050	09/28/18 15:51	
Pyrene	mg/kg	ND	0.0050	09/28/18 15:51	
2-Fluorobiphenyl (S)	%.	81	40-107	09/28/18 15:51	
p-Terphenyl-d14 (S)	%.	96	35-115	09/28/18 15:51	

LABORATORY CONTROL SAMPLE: 2141050

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methylnaphthalene	mg/kg	.33	0.28	86	50-104	
Acenaphthene	mg/kg	.33	0.30	91	59-119	
Acenaphthylene	mg/kg	.33	0.30	90	61-122	
Anthracene	mg/kg	.33	0.20	61	57-111	
Benzo(a)anthracene	mg/kg	.33	0.31	96	57-121	
Benzo(a)pyrene	mg/kg	.33	0.40	122	55-130	
Benzo(b)fluoranthene	mg/kg	.33	0.35	106	53-125	
Benzo(g,h,i)perylene	mg/kg	.33	0.37	113	56-124	
Benzo(k)fluoranthene	mg/kg	.33	0.43	131	55-137	
Chrysene	mg/kg	.33	0.34	102	60-134	
Dibenz(a,h)anthracene	mg/kg	.33	0.40	122	60-122	
Fluoranthene	mg/kg	.33	0.33	102	60-117	
Fluorene	mg/kg	.33	0.30	93	55-114	
Indeno(1,2,3-cd)pyrene	mg/kg	.33	0.40	120	57-124	
Naphthalene	mg/kg	.33	0.28	85	54-107	
Phenanthrene	mg/kg	.33	0.27	83	60-115	
Pyrene	mg/kg	.33	0.31	93	61-135	

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206212

LABORATORY CONTROL SAMPLE: 2141050

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%. %			85 97	40-107 35-115	
p-Terphenyl-d14 (S)						

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2141051 2141052

Parameter	Units	50206340001		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max		Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result				RPD	RPD	
2-Methylnaphthalene	mg/kg	0.020	.37	.37	0.32	0.34	82	85	25-114	5	20
Acenaphthene	mg/kg	ND	.37	.37	0.33	0.33	87	88	34-124	1	20
Acenaphthylene	mg/kg	ND	.37	.37	0.34	0.35	91	92	37-128	1	20
Anthracene	mg/kg	ND	.37	.37	0.23	0.23	60	60	25-118	0	20
Benzo(a)anthracene	mg/kg	0.016	.37	.37	0.35	0.34	89	86	16-129	3	20
Benzo(a)pyrene	mg/kg	0.017	.37	.37	0.40	0.38	102	98	19-131	3	20
Benzo(b)fluoranthene	mg/kg	0.022	.37	.37	0.36	0.36	90	92	15-127	2	20
Benzo(g,h,i)perylene	mg/kg	0.016	.37	.37	0.34	0.36	88	91	15-128	4	20
Benzo(k)fluoranthene	mg/kg	0.019	.37	.37	0.42	0.40	108	103	14-142	4	20
Chrysene	mg/kg	0.021	.37	.37	0.36	0.35	90	88	19-141	2	20
Dibenz(a,h)anthracene	mg/kg	ND	.37	.37	0.37	0.41	98	108	18-133	10	20
Fluoranthene	mg/kg	0.038	.37	.37	0.39	0.36	95	86	25-125	9	20
Fluorene	mg/kg	ND	.37	.37	0.36	0.35	96	93	32-118	3	20
Indeno(1,2,3-cd)pyrene	mg/kg	0.014	.37	.37	0.39	0.38	102	99	11-134	2	20
Naphthalene	mg/kg	0.0068	.37	.37	0.31	0.33	81	87	13-137	7	20
Phenanthrene	mg/kg	0.021	.37	.37	0.32	0.32	81	80	21-130	1	20
Pyrene	mg/kg	0.035	.37	.37	0.36	0.34	86	80	20-143	6	20
2-Fluorobiphenyl (S)	%. %						82 84	83 88	40-107 35-115		
p-Terphenyl-d14 (S)											

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206212

QC Batch: 463461 Analysis Method: SM 2540G
 QC Batch Method: SM 2540G Analysis Description: Dry Weight/Percent Moisture
 Associated Lab Samples: 50206212004, 50206212005

SAMPLE DUPLICATE: 2138861

Parameter	Units	50206316006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.8	15.4	18	5	R1

SAMPLE DUPLICATE: 2139374

Parameter	Units	50206269001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.4	19.3	16	5	R1

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QUALIFIERS

Project: ICP003
Pace Project No.: 50206212

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
 ND - Not Detected at or above adjusted reporting limit.
 TNTC - Too Numerous To Count
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
 MDL - Adjusted Method Detection Limit.
 PQL - Practical Quantitation Limit.
 RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
 S - Surrogate
 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
 Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
 LCS(D) - Laboratory Control Sample (Duplicate)
 MS(D) - Matrix Spike (Duplicate)
 DUP - Sample Duplicate
 RPD - Relative Percent Difference
 NC - Not Calculable.
 SG - Silica Gel - Clean-Up
 U - Indicates the compound was analyzed for, but not detected.
 N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
 Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
 TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 464038
 [M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
 Batch: 464066
 [M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1d The internal standard response was below the laboratory acceptance limits. The results reported are from the most QC compliant analysis and may be biased high. grm 10-1-18
 CL The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
 H7 Re-extraction or re-analysis could not be performed within method holding time.
 IO The internal standard response was outside the laboratory acceptance limits confirmed by reanalysis. The results reported are from the most QC compliant analysis.
 M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
 R1 RPD value was outside control limits.
 S0 Surrogate recovery outside laboratory control limits.

REPORT OF LABORATORY ANALYSIS

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METHOD CROSS REFERENCE TABLE

Project: ICP003
Pace Project No.: 50206212

Parameter	Matrix	Analytical Method	Preparation Method
8015 TPH Ohio	Water	SW-846 8015D	SW-846 3510C
8015 TPH Ohio Microwave	Solid	SW-846 8015D	SW-846 3546
8015D Gasoline Range Organics	Solid	SW-846 8015A	SW-846 5030A
8082 GCS PCB RV Waters	Water	SW-846 8082A	SW-846 3510C
8082 GCS PCB Solids	Solid	SW-846 8082A	SW-846 3546
8260 MSV 5035A VOA	Solid	SW-846 8260C	SW-846 5035A
8260/5030 MSV	Water	SW-846 8260C	SW-846 5030B
8270 MSSV PAHLV	Water	SW-846 8270C	SW-846 3510C
8270 PAH Soil	Solid	SW-846 8270C	SW-846 3546
Gasoline Range Organics	Water	SW-846 8015D	SW-846 5030B

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

 Project: ICP003
 Pace Project No.: 50206212

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50206212004	ICP003:HSB-6:S080100	EPA 3546	463665	EPA 8015 Mod Ext	463778
50206212005	ICP003:HTW-1:S120140	EPA 3546	463665	EPA 8015 Mod Ext	463778
50206212001	ICP003:EB-1:W092118	EPA 3510	463613	EPA 8015 Mod Ext	463641
50206212005	ICP003:HTW-1:S120140	EPA 3546	463678	EPA 8082	463808
50206212001	ICP003:EB-1:W092118	EPA 3510	463916	EPA 8082	464034
50206212004	ICP003:HSB-6:S080100	EPA 8015D	463684		
50206212005	ICP003:HTW-1:S120140	EPA 8015D	463684		
50206212001	ICP003:EB-1:W092118	EPA 5030B/8015D	463088		
50206212001	ICP003:EB-1:W092118	EPA 3510	463904	EPA 8270 by SIM LVE	464219
50206212004	ICP003:HSB-6:S080100	EPA 3546	463901	EPA 8270 by SIM	464011
50206212005	ICP003:HTW-1:S120140	EPA 3546	463901	EPA 8270 by SIM	464011
50206212001	ICP003:EB-1:W092118	EPA 8260	464066		
50206212002	ICP003:TB-2:W092118	EPA 8260	464066		
50206212004	ICP003:HSB-6:S080100	EPA 8260	464038		
50206212005	ICP003:HTW-1:S120140	EPA 8260	464038		
50206212004	ICP003:HSB-6:S080100	SM 2540G	463461		
50206212005	ICP003:HTW-1:S120140	SM 2540G	463461		

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SAMPLE CONDITION UPON RECEIPT FORM

PaceAnalytical

Project #: 50206212

Date/Time and Initials of

person examining contents: JH 9/22 0924

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7823 8717 7187/798

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer: 1 2 3 4 5 6 A B C D E F Ice Type: Wet Blue None | Samples collected today and on ice: Yes No N/A

Cooler Temperature: 1.0/1.0 ; 1.6/1.6 Ice Visible in Sample Containers?: Yes No N/A

(Initial/Corrected) Temp should be above freezing to 6°C If temp. is Over 6°C or under 0°C, was the PM Notified?: Yes No N/A

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
Are samples from West Virginia?		✓	All containers needing acid/base pres. Have been checked?: exceptions: VOA, coliform, LLHg, O&G, and any container with a septum cap or preserved with HCl.			✓
Document any containers out of temp.		✓	All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted.			
USDA Regulated Soils? (ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	Circle: HNO3 H ₂ SO ₄ NaOH NaOH/ZnAc			
Chain of Custody Present:	✓		Dissolved Metals field filtered?:			✓
Chain of Custody Filled Out:	✓		Headspace Wisconsin Sulfide			✓
Short Hold Time Analysis (<72hr)?: <u>TC</u>	✓		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Analysis:			Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Time 5035A TC placed in Freezer or Short Holds To Lab: <u>1000</u>			Headspace in VOA Vials (>6mm):			✓
Rush TAT Requested:		✓	Trip Blank Present?:	✓		
Containers Intact?:	✓		Trip Blank Custody Seals?:	✓		
Sample Labels Match COC?: Except TCs, which only require sample ID		✓				

Comments:

rec'd 1 VOC Trip + 1 soil trip - Pace BO error?

9/24/18

Sample Container Count

CLIENT: HU 11

COC PAGE 1 of 1
COC ID# 4176

WO# : 50206212



50206212

Project # 50206212

Sample Line Item	DG9H (DG9P)	AG0U	AG1H	AG1U	AG2U	AG3S	WGFU	SP5T	BP1U	BP2N	BP2S	BP2U	BP3B	BP3N	BP3S	BP3U	R	VG9H	Matrix (Soil/W Aqueo)	pH <2 pH >9 pH>12
1	6	2	4															WT		
2	3																	3		
3																				
4																	4		SC	
5																	4		SL	
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Container Codes

Glass				Plastic / Misc.										
DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpreserved amber glass	BP1A	1 liter NaOH, Asc Acid plastic	BP3U	250mL unpreserved plastic							
DG9H	40mL HCL amber voa vial	AG1H	1 liter HCL amber glass	BP1N	1 liter HNO3 plastic	BP3Z	250mL NaOH, Zn Ac plastic							
DG9M	40mL MeOH clear vial	AG1S	1 liter H2SO4 amber glass	BP1S	1 liter H2SO4 plastic									
DG9P	40mL TSP amber vial	AG1T	1 liter Na Thiosulfate amber glass	BP1U	1 liter unpreserved plastic	AF	Air Filter							
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpreserved amber glass	BP1Z	1 liter NaOH, Zn, Ac	C	Air Cassettes							
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	R	Terra core kit							
DG9U	40mL unpreserved amber vial	AG2S	500mL H2SO4 amber glass	BP2N	500mL HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate							
VG9H	40mL HCL clear vial	AG2U	500mL unpreserved amber glass	BP2O	500mL NaOH plastic	U	Summa Can							
VG9T	40mL Na Thio. clear vial	AG3S	250mL H2SO4 glass amber	BP2S	500mL H2SO4 plastic	ZPLC	Ziploc Bag							
VG9U	40mL unpreserved clear vial	AG3U	250mL unpreserved amber glass	BP2U	500mL unpreserved plastic									
VGFX	40mL w/hexane wipe vial	BG1H	1 liter HCL clear glass	BP2Z	500mL NaOH, Zn Ac									
VSG	Headspace septa vial & HCL	BG1S	1 liter H2SO4 clear glass	BP3B	250mL NaOH plastic									
WGKU	8oz unpreserved clear jar	BG1T	1 liter Na Thiosulfate clear glass	BP3N	250mL HNO3 plastic									
WGFU	4oz clear soil jar	BG1U	1 liter unpreserved glass	BP3S	250mL H2SO4 plastic									
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass											
		BG3U	250mL Unpreserved Clear Glass											

September 25, 2018

Ms. Lindsay Crow
Hull & Associates, Inc.
4 Hemisphere Way
Bedford, OH 44146

RE: Project: ICP003
Pace Project No.: 50206213

Dear Ms. Crow:

Enclosed are the analytical results for sample(s) received by the laboratory on September 22, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Tina Sayer
tina.sayer@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Hull Data/EDD Admin
Ms. Sarah Ewing, Hull & Associates



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ICP003
Pace Project No.: 50206213

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #: E-10177
Kentucky UST Certification #: 80226
Kentucky WW Certification #: 98019

Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2017-124
Texas Certification #: T104704355-18-12
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-16-00257

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ICP003
Pace Project No.: 50206213

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50206213001	ICP003:WS-1:Z092118	Wipe	09/21/18 13:30	09/22/18 08:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ICP003
Pace Project No.: 50206213

Lab ID	Sample ID	Method	Analysts	Analytics Reported
50206213001	ICP003:WS-1:Z092118	EPA 8082	BJW	8

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: ICP003
Pace Project No.: 50206213

Lab Sample ID	Client Sample ID	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50206213001	ICP003:WS-1:Z092118	PCB-1242 (Aroclor 1242)	3.6	Total ug-	1.0	09/25/18 03:48	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206213

Method: **EPA 8082**
Description: 8082 GCS PCB Wipes
Client: Hull & Associates, Inc. (Bedford)
Date: September 25, 2018

General Information:

1 sample was analyzed for EPA 8082. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3580 (Wipe) with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206213

Sample: ICP003:WS-1:Z092118	Lab ID: 50206213001	Collected: 09/21/18 13:30	Received: 09/22/18 08:40	Matrix: Wipe				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB Wipes	Analytical Method: EPA 8082 Preparation Method: EPA 3580 (Wipe)							
PCB-1016 (Aroclor 1016)	ND	Total ug-	1.0	1	09/24/18 13:00	09/25/18 03:48	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	Total ug-	1.0	1	09/24/18 13:00	09/25/18 03:48	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	Total ug-	1.0	1	09/24/18 13:00	09/25/18 03:48	11141-16-5	
PCB-1242 (Aroclor 1242)	3.6	Total ug-	1.0	1	09/24/18 13:00	09/25/18 03:48	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	Total ug-	1.0	1	09/24/18 13:00	09/25/18 03:48	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	Total ug-	1.0	1	09/24/18 13:00	09/25/18 03:48	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	Total ug-	1.0	1	09/24/18 13:00	09/25/18 03:48	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	90	%. 40-142		1	09/24/18 13:00	09/25/18 03:48	877-09-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206213

QC Batch: 463035	Analysis Method: EPA 8082
QC Batch Method: EPA 3580 (Wipe)	Analysis Description: 8082 GCS PCB Wipe
Associated Lab Samples: 50206213001	

METHOD BLANK: 2137446 Matrix: Wipe

Associated Lab Samples: 50206213001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	Total ug-	ND	1.0	09/25/18 01:29	
PCB-1221 (Aroclor 1221)	Total ug-	ND	1.0	09/25/18 01:29	
PCB-1232 (Aroclor 1232)	Total ug-	ND	1.0	09/25/18 01:29	
PCB-1242 (Aroclor 1242)	Total ug-	ND	1.0	09/25/18 01:29	
PCB-1248 (Aroclor 1248)	Total ug-	ND	1.0	09/25/18 01:29	
PCB-1254 (Aroclor 1254)	Total ug-	ND	1.0	09/25/18 01:29	
PCB-1260 (Aroclor 1260)	Total ug-	ND	1.0	09/25/18 01:29	
Tetrachloro-m-xylene (S)	%.	118	40-142	09/25/18 01:29	

LABORATORY CONTROL SAMPLE: 2137447

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	Total ug-	25	23.9	96	38-150	
PCB-1260 (Aroclor 1260)	Total ug-	25	24.4	98	35-149	
Tetrachloro-m-xylene (S)	%.			104	40-142	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: ICP003
Pace Project No.: 50206213

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ICP003
Pace Project No.: 50206213

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50206213001	ICP003:WS-1:Z092118	EPA 3580 (Wipe)	463035	EPA 8082	463158

REPORT OF LABORATORY ANALYSIS

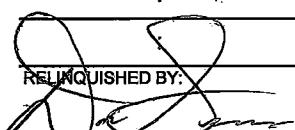
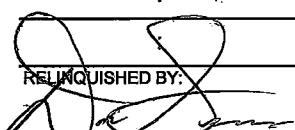
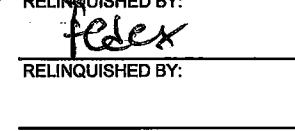
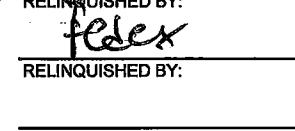
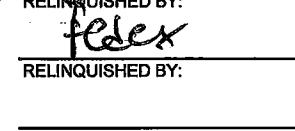
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CHAIN OF CUSTODY RECORD

Dublin, OH	<input type="checkbox"/>	Newark, OH	<input type="checkbox"/>	Mason, OH	<input type="checkbox"/>	Bedford, OH	<input type="checkbox"/>	Toledo, OH	<input type="checkbox"/>	St. Clairsville, OH	<input type="checkbox"/>	Pittsburgh, PA	<input type="checkbox"/>
6397 Emerald Pkwy		59 Grant St.		4770 Duke Dr.		4 Hemisphere Way		219 S. Erie St.		166 Woodrow Avenue		300 Merchant Ln.,	
Suite 200		Newark, OH 43055		Suite 300		Bedford, OH 44146		Toledo, OH 43604		Suite 3		Suite 307	
Dublin, OH 43016		P: (740) 344-5451		Mason, OH 45040		P: (440) 232-9945		P: (419) 385-2018		St. Clairsville, OH 43950		Pittsburgh, PA 15205	
P: (614) 793-8777								P: (740) 217-2460				P: (412) 448-0315	

REPORT TO:

LINDSAY CROW / DATA ADMIN

Client: <u>INDUSTRIAL COMMERCE PROPERTIES</u>	Site: <u>SEARS AUTO CENTER</u>	Project #: <u>ICP003</u>	Samplers: <u>D. SANSONE</u>	Purchase Order # <u>ICP003.01 FLD LRC03</u>	ANALYSES											
					PRESERVATIVES			PCBs								
SAMPLE MATRIX	PRESERVATIVES			METALS			PCBs									
AA-AMBIENT AIR C-ASBESTOS D-SEDIMENT G-GROUNDWATER IA-INDOOR AIR L-LEACHATE P-PRODUCT S-SOIL SG-SOIL GAS SS-SUBSLAB VAPOR W-WATER X-CONCRETE	A-Cool only, <4 deg. C B-HNO ₃ pH<2 C-H ₂ SO ₄ pH<2 D-NaOH pH>12 E-ZnAcetate + NaOH, pH>9 F-Na ₂ S ₂ O ₈ (0.008%) G-HCL pH <2			H-EDTA I-5ml 1:1 HCL J-none K-Stored in dark L-NH4Cl M-Methanol S-Sodium												
PROJECT NO. : SAMPLE LOCATION : SAMPLE MATRIX & ID	NO. OF CONT.	SAMPLE TYPE (discrete, composite)	COLLECTION DATE/TIME	METALS										50206213 COMMENTS		
<u>ICP003 : ELV RMA</u> + <u>9/21</u>			/													
<u>ICP003 : WS-1</u> : <u>Z092118</u>	<u>1</u>	<u>el</u>	<u>9-21-18 / 13:30</u>	<u>N</u>	<u>X</u>									<u>WIPE-SAMPLE 001</u>		
:	:		/													
:	:		/													
:	:		/													
:	:		/													
:	:		/													
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RELINQUISHED BY: 	DATE: <u>9-21-18</u>	RECEIVED BY: <u>FEDEX</u>	DATE: <u>9-21-18</u>	Deliver To: <u>PACE INDY</u>												
RELINQUISHED BY: 	TIME: <u>1700</u>	RECEIVED BY: <u>John Aut</u>	TIME: <u>1700</u>	Method of Delivery: <u>FEDEX</u>												
RELINQUISHED BY: 	DATE: <u>9-22</u>	RECEIVED BY: <u>John Aut</u>	DATE: <u>9-22</u>	Airbill Number: <u>8122 2527 6185</u>												
RELINQUISHED BY: 	TIME: <u>840</u>	RECEIVED BY: <u>John Aut</u>	TIME: <u>840</u>	Regulatory Program:												
COOLER TEMPERATURE AS RECEIVED	<u>3.4</u> °C	DISTRIBUTION: <u>WHITE</u>	-LAB USE (MUST BE RETURNED WITH REPORT)			NOTES: _____										
		<u>YELLOW</u>	-LAB USE													
		<u>PINK</u>	-RETAINED BY HULL													
			TURN AROUND TIME: <u>STD</u> DAYS													

SAMPLE CONDITION UPON RECEIPT FORM

Pace Analytical

Date/Time and Initials of

person examining contents: JUL 9-22 653

Project #: 50206213

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 8122 2527 6185

Custody Seal on Cooler/Box Present: Yes No

Seals Intact: Yes No

Packing Material: Bubble Wrap

Bubble Bags None Other _____

Thermometer: 1 2 3 4 5 6 A B C D E F

Ice Type: Wet

Blue None | Samples collected today and on ice: Yes No N/A

Cooler Temperature: 3.4/31.4

Ice Visible in Sample Containers?: Yes No N/A

(Initial/Corrected) Temp should be above freezing to 6°C

If temp. is Over 6°C or under 0°C, was the PM Notified?: Yes No N/A

All discrepancies will be written out in the comments section below.

Question	Yes	No	Comments	Yes	No	N/A
Are samples from West Virginia?						
Document any containers out of temp.		<input checked="" type="checkbox"/>				
USDA Regulated Soils? (ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Chain of Custody Present:	<input checked="" type="checkbox"/>					
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>		Dissolved Metals field filtered?:			<input checked="" type="checkbox"/>
Short Hold Time Analysis (<72hr)?:		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Analysis:			Headspace Wisconsin Sulfide			
Time 5035A TC placed in Freezer or Short Holds To Lab:			Residual Chlorine Check (SVOC 625 Pest/PCB 608) Residual Chlorine Check (Total/Amenable/Free Cyanide)	Present	Absent	N/A
Rush TAT Requested:		<input checked="" type="checkbox"/>	Headspace in VOA Vials (>6mm):			<input checked="" type="checkbox"/>
Containers Intact?:	<input checked="" type="checkbox"/>		Trip Blank Present?:			<input checked="" type="checkbox"/>
Sample Labels Match COC?:	<input checked="" type="checkbox"/>		Trip Blank Custody Seals?:			<input checked="" type="checkbox"/>
Except TCs, which only require sample ID						

Comments:

Sample Container Count

WO# : 50206213

CLIENT: Hull

COC PAGE 1 of 1
COC ID# 4124

Project # 50206213



50206213

BU Kit

V690

Matrix S
(Soil/Water)
Aqueous

pH <2 pH >9 pH>1

Sample Line	Item	DG9B	DG9H	AG0U	AG1H	AG1U	AG2U	AG3S	WGFU	SP5T	BP1U	BP2N	BP2S	BP2U	BP3B	BP3N	BP3S	BP3U	R	BU Kit	Matrix S (Soil/Water) Aqueous	pH <2 pH >9 pH>1	
1																							
2																				1			Wipe
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Container Codes

Glass				Plastic / Misc.											
DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpreserved amber glass	BP1A	1 liter NaOH, Asc Acid plastic	BP3U	250mL unpreserved plastic								
DG9H	40mL HCL amber voa vial	AG1H	1 liter HCL amber glass	BP1N	1 liter HNO3 plastic	BP3Z	250mL NaOH, Zn Ac plastic								
DG9M	40mL MeOH clear vial	AG1S	1 liter H2SO4 amber glass	BP1S	1 liter H2SO4 plastic										
DG9P	40mL TSP amber vial	AG1T	1 liter Na Thiosulfate amber glass	BP1U	1 liter unpreserved plastic	AF	Air Filter								
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpreserved amber glass	BP1Z	1 liter NaOH, Zn, Ac	C	Air Cassettes								
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	R	Terra core kit								
DG9U	40mL unpreserved amber vial	AG2S	500mL H2SO4 amber glass	BP2N	500mL HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate								
VG9H	40mL HCL clear vial	AG2U	500mL unpreserved amber glass	BP2O	500mL NaOH plastic	U	Summa Can								
VG9T	40mL Na Thio, clear vial	AG3S	250mL H2SO4 glass amber	BP2S	500mL H2SO4 plastic	ZPLC	Ziploc Bag								
VG9U	40mL unpreserved clear vial	AG3U	250mL unpreserved amber glass	BP2U	500mL unpreserved plastic										
VGFX	40mL w/hexane wipe vial	BG1H	1 liter HCL clear glass	BP2Z	500mL NaOH, Zn Ac										
VSG	Headspace septa vial & HCL	BG1S	1 liter H2SO4 clear glass	BP3B	250mL NaOH plastic										
WGAU	8oz unpreserved clear jar	BG1T	1 liter Na Thiosulfate clear glass	BP3N	250mL HNO3 plastic										
WGFU	4oz clear soil jar	BG1U	1 liter unpreserved glass	BP3S	250mL H2SO4 plastic										
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass												
		BG3U	250mL Unpreserved Clear Glass												

September 28, 2018

Ms. Lindsay Crow
Hull & Associates, Inc.
4 Hemisphere Way
Bedford, OH 44146

RE: Project: ICP003
Pace Project No.: 50206113

Dear Ms. Crow:

Enclosed are the analytical results for sample(s) received by the laboratory on September 21, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Tina Sayer
tina.sayer@pacelabs.com
(317)228-3100
Project Manager

Enclosures

cc: Hull Data/EDD Admin
Ms. Sarah Ewing, Hull & Associates



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ICP003
Pace Project No.: 50206113

Indiana Certification IDs

7726 Moller Road, Indianapolis, IN 46268
Illinois Certification #: 200074
Indiana Certification #: C-49-06
Kansas/NELAP Certification #: E-10177
Kentucky UST Certification #: 80226
Kentucky WW Certification #: 98019

Ohio VAP Certification #: CL-0065
Oklahoma Certification #: 2017-124
Texas Certification #: T104704355-18-12
West Virginia Certification #: 330
Wisconsin Certification #: 999788130
USDA Soil Permit #: P330-16-00257

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ICP003
 Pace Project No.: 50206113

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50206113001	ICP003:HSB-1:S040060	Solid	09/20/18 13:30	09/21/18 08:15
50206113002	ICP003:HSB-2:S000020	Solid	09/20/18 15:10	09/21/18 08:15
50206113003	ICP003:HSB-3:S080100	Solid	09/20/18 14:30	09/21/18 08:15
50206113004	ICP003:HSB-4:S040060	Solid	09/20/18 12:45	09/21/18 08:15
50206113005	ICP003:HTW-2:S100120	Solid	09/20/18 11:55	09/21/18 08:15
50206113006	ICP003:HSB-5:S060080	Solid	09/20/18 16:20	09/21/18 08:15
50206113007	ICP003:HSB-7:S000020	Solid	09/20/18 17:20	09/21/18 08:15
50206113008	ICP003:HTW-3:S000020	Solid	09/20/18 17:40	09/21/18 08:15
50206113009	ICP003:HTW-3:S140160	Solid	09/20/18 18:00	09/21/18 08:15
50206113010	ICP003:TB-1:W092018	Water	09/20/18 19:00	09/21/18 08:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ICP003
 Pace Project No.: 50206113

Lab ID	Sample ID	Method	Analysts	Analytics Reported
50206113001	ICP003:HSB-1:S040060	EPA 8015 Mod Ext	KAV	4
		EPA 8082	BJW	8
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	TMW	51
		SM 2540G	CDR	1
50206113002	ICP003:HSB-2:S000020	EPA 8015 Mod Ext	KAV	4
		EPA 8082	BJW	8
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	TMW	51
		SM 2540G	CDR	1
50206113003	ICP003:HSB-3:S080100	EPA 8015 Mod Ext	KAV	4
		EPA 8082	BJW	8
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	TMW	51
		SM 2540G	CDR	1
50206113004	ICP003:HSB-4:S040060	EPA 8015 Mod Ext	KAV	4
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	TMW	51
		SM 2540G	CDR	1
		EPA 8015 Mod Ext	KAV	4
50206113005	ICP003:HTW-2:S100120	EPA 8015 Mod Ext	KAV	4
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	TMW	51
		SM 2540G	CDR	1
		EPA 8015 Mod Ext	KAV	4
50206113006	ICP003:HSB-5:S060080	EPA 8015 Mod Ext	KAV	4
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	TMW	51
		SM 2540G	CDR	1
		EPA 8015 Mod Ext	KAV	4
50206113007	ICP003:HSB-7:S000020	EPA 8015 Mod Ext	KAV	4
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	TMW	51
		EPA 8015 Mod Ext	KAV	4
		EPA 8015D	RSW	2

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ICP003
 Pace Project No.: 50206113

Lab ID	Sample ID	Method	Analysts	Analytics Reported
50206113008	ICP003:HTW-3:S000020	SM 2540G	CDR	1
		EPA 8015 Mod Ext	KAV	4
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	TMW	51
50206113009	ICP003:HTW-3:S140160	SM 2540G	CDR	1
		EPA 8015 Mod Ext	KAV	4
		EPA 8015D	RSW	2
		EPA 8270 by SIM	JCM	19
		EPA 8260	TMW	51
50206113010	ICP003:TB-1:W092018	SM 2540G	CDR	1
		EPA 8260	MKM	50

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: ICP003
Pace Project No.: 50206113

Lab Sample ID	Client Sample ID	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50206113001	ICP003:HSB-1:S040060						
EPA 8270 by SIM	Chrysene	0.0066	mg/kg	0.0059	09/25/18 20:00		
EPA 8270 by SIM	Phenanthrene	0.0066	mg/kg	0.0059	09/25/18 20:00		
SM 2540G	Percent Moisture	16.5	%	0.10	09/24/18 15:08		
50206113002	ICP003:HSB-2:S000020						
SM 2540G	Percent Moisture	11.5	%	0.10	09/24/18 15:50		
50206113003	ICP003:HSB-3:S080100						
EPA 8270 by SIM	2-Methylnaphthalene	0.0067	mg/kg	0.0056	09/25/18 17:54		
SM 2540G	Percent Moisture	12.1	%	0.10	09/24/18 15:50		
50206113004	ICP003:HSB-4:S040060						
SM 2540G	Percent Moisture	14.1	%	0.10	09/24/18 15:50		
50206113005	ICP003:HTW-2:S100120						
SM 2540G	Percent Moisture	11.7	%	0.10	09/24/18 15:51		
50206113006	ICP003:HSB-5:S060080						
SM 2540G	Percent Moisture	13.8	%	0.10	09/24/18 15:51		
50206113007	ICP003:HSB-7:S000020						
EPA 8015 Mod Ext	Total Petroleum Hydrocarbons	35.7	mg/kg	24.0	09/27/18 15:36		
EPA 8015 Mod Ext	TPH (C20-C34)	31.2	mg/kg	12.0	09/27/18 15:36		
EPA 8270 by SIM	Benzo(a)anthracene	0.018	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Benzo(a)pyrene	0.017	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Benzo(b)fluoranthene	0.014	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Benzo(g,h,i)perylene	0.012	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Benzo(k)fluoranthene	0.021	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Chrysene	0.019	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Fluoranthene	0.036	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	0.011	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	2-Methylnaphthalene	0.0097	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Naphthalene	0.011	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Phenanthrene	0.016	mg/kg	0.0060	09/25/18 19:00		
EPA 8270 by SIM	Pyrene	0.031	mg/kg	0.0060	09/25/18 19:00		
EPA 8260	Ethylbenzene	0.076	mg/kg	0.0048	09/26/18 16:11	M5	
EPA 8260	n-Hexane	0.0078	mg/kg	0.0048	09/26/18 16:11	M5	
EPA 8260	Isopropylbenzene (Cumene)	0.011	mg/kg	0.0048	09/26/18 16:11	M5	
EPA 8260	Toluene	0.034	mg/kg	0.0048	09/26/18 16:11	M5	
EPA 8260	1,2,4-Trimethylbenzene	0.58	mg/kg	0.27	09/27/18 15:12	M5	
EPA 8260	1,3,5-Trimethylbenzene	0.14	mg/kg	0.0048	09/26/18 16:11	M5	
EPA 8260	Xylene (Total)	0.32	mg/kg	0.0097	09/26/18 16:11	M5	
SM 2540G	Percent Moisture	17.4	%	0.10	09/24/18 15:51		
50206113008	ICP003:HTW-3:S000020						
EPA 8015 Mod Ext	Total Petroleum Hydrocarbons	42.6	mg/kg	23.4	09/27/18 15:43		
EPA 8015 Mod Ext	TPH (C10-C20)	20.9	mg/kg	11.7	09/27/18 15:43		
EPA 8015 Mod Ext	TPH (C20-C34)	21.6	mg/kg	11.7	09/27/18 15:43		
EPA 8270 by SIM	2-Methylnaphthalene	0.0099	mg/kg	0.0059	09/25/18 19:16		
EPA 8270 by SIM	Phenanthrene	0.010	mg/kg	0.0059	09/25/18 19:16		

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: ICP003
 Pace Project No.: 50206113

Lab Sample ID	Client Sample ID	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50206113008	ICP003:HTW-3:S000020						
SM 2540G	Percent Moisture		15.4	%	0.10	09/24/18 15:51	
50206113009	ICP003:HTW-3:S140160						
EPA 8270 by SIM	Naphthalene		0.013	mg/kg	0.0055	09/25/18 19:33	
EPA 8270 by SIM	Phenanthrene		0.010	mg/kg	0.0055	09/25/18 19:33	
SM 2540G	Percent Moisture		10.6	%	0.10	09/24/18 15:51	

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206113

Method: **EPA 8015 Mod Ext**

Description: 8015 TPH Ohio Microwave

Client: Hull & Associates, Inc. (Bedford)

Date: September 28, 2018

General Information:

9 samples were analyzed for EPA 8015 Mod Ext. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206113

Method: **EPA 8082**

Description: 8082 GCS PCB Solids

Client: Hull & Associates, Inc. (Bedford)

Date: September 28, 2018

General Information:

3 samples were analyzed for EPA 8082. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206113

Method: **EPA 8015D**
Description: 8015D Gasoline Range Organics
Client: Hull & Associates, Inc. (Bedford)
Date: September 28, 2018

General Information:

9 samples were analyzed for EPA 8015D. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206113

Method: **EPA 8270 by SIM**

Description: 8270 PAH Soil

Client: Hull & Associates, Inc. (Bedford)

Date: September 28, 2018

General Information:

9 samples were analyzed for EPA 8270 by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3546 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 463200

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50205980016

R1: RPD value was outside control limits.

- MSD (Lab ID: 2137977)
 - 2-Methylnaphthalene
 - Acenaphthene
 - Acenaphthylene
 - Anthracene
 - Benzo(a)anthracene
 - Benzo(a)pyrene
 - Benzo(b)fluoranthene
 - Benzo(g,h,i)perylene
 - Benzo(k)fluoranthene

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206113

Method: **EPA 8270 by SIM**

Description: 8270 PAH Soil

Client: Hull & Associates, Inc. (Bedford)

Date: September 28, 2018

QC Batch: 463200

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 50205980016

R1: RPD value was outside control limits.

- Chrysene
- Dibenz(a,h)anthracene
- Fluoranthene
- Fluorene
- Indeno(1,2,3-cd)pyrene
- Naphthalene
- Phenanthrene
- Pyrene

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206113

Method: **EPA 8260**
Description: 8260/5030 MSV
Client: Hull & Associates, Inc. (Bedford)
Date: September 28, 2018

General Information:

1 sample was analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 463622

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206113

Method: **EPA 8260**
Description: 8260 MSV 5035A VOA
Client: Hull & Associates, Inc. (Bedford)
Date: September 28, 2018

General Information:

9 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

QC Batch: 463544

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- ICP003:HSB-1:S040060 (Lab ID: 50206113001)
 - Chloroethane
 - Chloromethane

QC Batch: 463547

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- ICP003:HSB-4:S040060 (Lab ID: 50206113004)
 - 2-Butanone (MEK)
 - Acetone
- ICP003:HSB-5:S060080 (Lab ID: 50206113006)
 - 2-Butanone (MEK)
 - Acetone
- ICP003:HSB-7:S000020 (Lab ID: 50206113007)
 - 2-Butanone (MEK)
 - Acetone
- ICP003:HTW-2:S100120 (Lab ID: 50206113005)
 - 2-Butanone (MEK)
 - Acetone
- ICP003:HTW-3:S000020 (Lab ID: 50206113008)
 - 2-Butanone (MEK)
 - Acetone
- ICP003:HTW-3:S140160 (Lab ID: 50206113009)
 - 2-Butanone (MEK)
 - Acetone

QC Batch: 463559

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- ICP003:HSB-2:S000020 (Lab ID: 50206113002)
 - 2-Butanone (MEK)
 - Acetone
 - Chloromethane

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206113

Method: **EPA 8260**

Description: 8260 MSV 5035A VOA

Client: Hull & Associates, Inc. (Bedford)

Date: September 28, 2018

QC Batch: 463559

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- ICP003:HSB-3:S080100 (Lab ID: 50206113003)
 - 2-Butanone (MEK)
 - Acetone
 - Chloromethane

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 463544

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 463547

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

QC Batch: 463559

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: 463547

1d: IS recovery outside of control limits not confirmed. Results may be bias high. TMW 09-27-18

- ICP003:HSB-5:S060080 (Lab ID: 50206113006)
 - Dibromofluoromethane (S)
- ICP003:HSB-7:S000020 (Lab ID: 50206113007)
 - Dibromofluoromethane (S)

QC Batch: 463559

1d: IS recovery outside of control limits not confirmed. Results may be bias high. TMW 09-27-18

- ICP003:HSB-3:S080100 (Lab ID: 50206113003)
 - Dibromofluoromethane (S)

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PROJECT NARRATIVE

Project: ICP003
Pace Project No.: 50206113

Method: **EPA 8260**
Description: 8260 MSV 5035A VOA
Client: Hull & Associates, Inc. (Bedford)
Date: September 28, 2018

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

 Project: ICP003
 Pace Project No.: 50206113

Sample: ICP003:HSB-1:S040060 Lab ID: 50206113001 Collected: 09/20/18 13:30 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	ND	mg/kg	23.9	1	09/25/18 12:15	09/25/18 17:03		
TPH (C10-C20)	ND	mg/kg	11.9	1	09/25/18 12:15	09/25/18 17:03		
TPH (C20-C34)	ND	mg/kg	11.9	1	09/25/18 12:15	09/25/18 17:03		
Surrogates								
n-Pentacosane (S)	70	%.	10-155	1	09/25/18 12:15	09/25/18 17:03	629-99-2	
8082 GCS PCB Solids Analytical Method: EPA 8082 Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.12	1	09/27/18 10:45	09/27/18 20:38	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.12	1	09/27/18 10:45	09/27/18 20:38	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.12	1	09/27/18 10:45	09/27/18 20:38	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.12	1	09/27/18 10:45	09/27/18 20:38	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.12	1	09/27/18 10:45	09/27/18 20:38	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	0.12	1	09/27/18 10:45	09/27/18 20:38	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.12	1	09/27/18 10:45	09/27/18 20:38	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	92	%.	18-136	1	09/27/18 10:45	09/27/18 20:38	877-09-8	
8015D Gasoline Range Organics Analytical Method: EPA 8015D								
TPH (C06-C12)	ND	mg/kg	1.2	1		09/26/18 20:29		
Surrogates								
4-Bromofluorobenzene (S)	94	%.	30-151	1		09/26/18 20:29	460-00-4	
8270 PAH Soil Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	83-32-9	
Acenaphthylene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	208-96-8	
Anthracene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	207-08-9	
Chrysene	0.0066	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	53-70-3	
Fluoranthene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	206-44-0	
Fluorene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	193-39-5	
2-Methylnaphthalene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	91-57-6	
Naphthalene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	91-20-3	
Phenanthrene	0.0066	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	85-01-8	
Pyrene	ND	mg/kg	0.0059	1	09/25/18 10:00	09/25/18 20:00	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	63	%.	40-107	1	09/25/18 10:00	09/25/18 20:00	321-60-8	
p-Terphenyl-d14 (S)	64	%.	35-115	1	09/25/18 10:00	09/25/18 20:00	1718-51-0	
8260 MSV 5035A VOA Analytical Method: EPA 8260								
Acetone	ND	mg/kg	0.10	1		09/26/18 22:13	67-64-1	M5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-1:S040060 Lab ID: 50206113001 Collected: 09/20/18 13:30 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA		Analytical Method: EPA 8260						
Benzene	ND	mg/kg	0.0052	1		09/26/18 22:13	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0052	1		09/26/18 22:13	75-27-4	M5
Bromoform	ND	mg/kg	0.0052	1		09/26/18 22:13	75-25-2	M5
Bromomethane	ND	mg/kg	0.0052	1		09/26/18 22:13	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.026	1		09/26/18 22:13	78-93-3	M5
Carbon disulfide	ND	mg/kg	0.010	1		09/26/18 22:13	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0052	1		09/26/18 22:13	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0052	1		09/26/18 22:13	108-90-7	M5
Chloroethane	ND	mg/kg	0.0052	1		09/26/18 22:13	75-00-3	CL,H7, M5
Chloroform	ND	mg/kg	0.0052	1		09/26/18 22:13	67-66-3	M5
Chloromethane	ND	mg/kg	0.0052	1		09/26/18 22:13	74-87-3	CL,H7, M5
Dibromochloromethane	ND	mg/kg	0.0052	1		09/26/18 22:13	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0052	1		09/26/18 22:13	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0052	1		09/26/18 22:13	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0052	1		09/26/18 22:13	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0052	1		09/26/18 22:13	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0052	1		09/26/18 22:13	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0052	1		09/26/18 22:13	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0052	1		09/26/18 22:13	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0052	1		09/26/18 22:13	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0052	1		09/26/18 22:13	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0052	1		09/26/18 22:13	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0052	1		09/26/18 22:13	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0052	1		09/26/18 22:13	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0052	1		09/26/18 22:13	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0052	1		09/26/18 22:13	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.10	1		09/26/18 22:13	97-63-2	M5
n-Hexane	ND	mg/kg	0.0052	1		09/26/18 22:13	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0052	1		09/26/18 22:13	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.021	1		09/26/18 22:13	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.026	1		09/26/18 22:13	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0052	1		09/26/18 22:13	1634-04-4	M5
Styrene	ND	mg/kg	0.0052	1		09/26/18 22:13	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0052	1		09/26/18 22:13	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0052	1		09/26/18 22:13	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0052	1		09/26/18 22:13	127-18-4	M5
Toluene	ND	mg/kg	0.0052	1		09/26/18 22:13	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0052	1		09/26/18 22:13	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0052	1		09/26/18 22:13	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0052	1		09/26/18 22:13	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0052	1		09/26/18 22:13	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0052	1		09/26/18 22:13	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0052	1		09/26/18 22:13	95-63-6	M5
1,3,5-Trimethylbenzene	ND	mg/kg	0.0052	1		09/26/18 22:13	108-67-8	M5

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ANALYTICAL RESULTS

Project: ICP003
 Pace Project No.: 50206113

Sample: ICP003:HSB-1:S040060 Lab ID: 50206113001 Collected: 09/20/18 13:30 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Vinyl acetate	ND	mg/kg	0.10	1		09/26/18 22:13	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0052	1		09/26/18 22:13	75-01-4	M5
Xylene (Total)	ND	mg/kg	0.010	1		09/26/18 22:13	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	102	%.	80-127	1		09/26/18 22:13	1868-53-7	M5
Toluene-d8 (S)	103	%.	72-136	1		09/26/18 22:13	2037-26-5	M5
4-Bromofluorobenzene (S)	88	%.	57-130	1		09/26/18 22:13	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	16.5	%	0.10	1		09/24/18 15:08		

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-2:S000020 Lab ID: 50206113002 Collected: 09/20/18 15:10 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	ND	mg/kg	22.1	1	09/25/18 12:15	09/25/18 17:11		
TPH (C10-C20)	ND	mg/kg	11.0	1	09/25/18 12:15	09/25/18 17:11		
TPH (C20-C34)	ND	mg/kg	11.0	1	09/25/18 12:15	09/25/18 17:11		
Surrogates								
n-Pentacosane (S)	76	%.	10-155	1	09/25/18 12:15	09/25/18 17:11	629-99-2	
8082 GCS PCB Solids	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:46	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:46	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:46	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:46	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:46	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:46	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:46	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	86	%.	18-136	1	09/27/18 10:45	09/27/18 20:46	877-09-8	
8015D Gasoline Range Organics	Analytical Method: EPA 8015D							
TPH (C06-C12)	ND	mg/kg	1.1	1			09/26/18 12:38	
Surrogates								
4-Bromofluorobenzene (S)	79	%.	30-151	1			09/26/18 12:38	460-00-4
8270 PAH Soil	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	83-32-9	
Acenaphthylene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	208-96-8	
Anthracene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	207-08-9	
Chrysene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	53-70-3	
Fluoranthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	206-44-0	
Fluorene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	193-39-5	
2-Methylnaphthalene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	91-57-6	
Naphthalene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	91-20-3	
Phenanthrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	85-01-8	
Pyrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:05	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	75	%.	40-107	1	09/25/18 12:42	09/25/18 17:05	321-60-8	
p-Terphenyl-d14 (S)	69	%.	35-115	1	09/25/18 12:42	09/25/18 17:05	1718-51-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-2:S000020 Lab ID: 50206113002 Collected: 09/20/18 15:10 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg	0.079	1		09/27/18 01:23	67-64-1	CL,H7, M5
Benzene	ND	mg/kg	0.0040	1		09/27/18 01:23	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0040	1		09/27/18 01:23	75-27-4	M5
Bromoform	ND	mg/kg	0.0040	1		09/27/18 01:23	75-25-2	M5
Bromomethane	ND	mg/kg	0.0040	1		09/27/18 01:23	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.020	1		09/27/18 01:23	78-93-3	CL,H7, M5
Carbon disulfide	ND	mg/kg	0.0079	1		09/27/18 01:23	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0040	1		09/27/18 01:23	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0040	1		09/27/18 01:23	108-90-7	M5
Chloroethane	ND	mg/kg	0.0040	1		09/27/18 01:23	75-00-3	M5
Chloroform	ND	mg/kg	0.0040	1		09/27/18 01:23	67-66-3	M5
Chloromethane	ND	mg/kg	0.0040	1		09/27/18 01:23	74-87-3	CL,H7, M5
Dibromochloromethane	ND	mg/kg	0.0040	1		09/27/18 01:23	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0040	1		09/27/18 01:23	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0040	1		09/27/18 01:23	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0040	1		09/27/18 01:23	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0040	1		09/27/18 01:23	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0040	1		09/27/18 01:23	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0040	1		09/27/18 01:23	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0040	1		09/27/18 01:23	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0040	1		09/27/18 01:23	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0040	1		09/27/18 01:23	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0040	1		09/27/18 01:23	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0040	1		09/27/18 01:23	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0040	1		09/27/18 01:23	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0040	1		09/27/18 01:23	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0040	1		09/27/18 01:23	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.079	1		09/27/18 01:23	97-63-2	M5
n-Hexane	ND	mg/kg	0.0040	1		09/27/18 01:23	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0040	1		09/27/18 01:23	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.016	1		09/27/18 01:23	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.020	1		09/27/18 01:23	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0040	1		09/27/18 01:23	1634-04-4	M5
Styrene	ND	mg/kg	0.0040	1		09/27/18 01:23	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0040	1		09/27/18 01:23	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0040	1		09/27/18 01:23	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0040	1		09/27/18 01:23	127-18-4	M5
Toluene	ND	mg/kg	0.0040	1		09/27/18 01:23	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0040	1		09/27/18 01:23	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0040	1		09/27/18 01:23	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0040	1		09/27/18 01:23	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0040	1		09/27/18 01:23	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0040	1		09/27/18 01:23	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0040	1		09/27/18 01:23	95-63-6	M5

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ANALYTICAL RESULTS

 Project: ICP003
 Pace Project No.: 50206113

Sample: ICP003:HSB-2:S000020 Lab ID: 50206113002 Collected: 09/20/18 15:10 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
1,3,5-Trimethylbenzene	ND	mg/kg	0.0040	1		09/27/18 01:23	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.079	1		09/27/18 01:23	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0040	1		09/27/18 01:23	75-01-4	M5
Xylene (Total)	ND	mg/kg	0.0079	1		09/27/18 01:23	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	108	%.	80-127	1		09/27/18 01:23	1868-53-7	M5
Toluene-d8 (S)	96	%.	72-136	1		09/27/18 01:23	2037-26-5	M5
4-Bromofluorobenzene (S)	95	%.	57-130	1		09/27/18 01:23	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	11.5	%	0.10	1		09/24/18 15:50		

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-3:S080100 Lab ID: 50206113003 Collected: 09/20/18 14:30 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	ND	mg/kg	22.6	1	09/25/18 12:15	09/25/18 17:18		
TPH (C10-C20)	ND	mg/kg	11.3	1	09/25/18 12:15	09/25/18 17:18		
TPH (C20-C34)	ND	mg/kg	11.3	1	09/25/18 12:15	09/25/18 17:18		
Surrogates								
n-Pentacosane (S)	69	%.	10-155	1	09/25/18 12:15	09/25/18 17:18	629-99-2	
8082 GCS PCB Solids	Analytical Method: EPA 8082 Preparation Method: EPA 3546							
PCB-1016 (Aroclor 1016)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:55	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:55	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:55	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:55	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:55	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:55	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	mg/kg	0.11	1	09/27/18 10:45	09/27/18 20:55	11096-82-5	
Surrogates								
Tetrachloro-m-xylene (S)	55	%.	18-136	1	09/27/18 10:45	09/27/18 20:55	877-09-8	
8015D Gasoline Range Organics	Analytical Method: EPA 8015D							
TPH (C06-C12)	ND	mg/kg	1.1	1			09/26/18 13:02	
Surrogates								
4-Bromofluorobenzene (S)	65	%.	30-151	1			09/26/18 13:02	460-00-4
8270 PAH Soil	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	83-32-9	
Acenaphthylene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	208-96-8	
Anthracene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	207-08-9	
Chrysene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	53-70-3	
Fluoranthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	206-44-0	
Fluorene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	193-39-5	
2-Methylnaphthalene	0.0067	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	91-57-6	
Naphthalene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	91-20-3	
Phenanthrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	85-01-8	
Pyrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 17:54	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	75	%.	40-107	1	09/25/18 12:42	09/25/18 17:54	321-60-8	
p-Terphenyl-d14 (S)	74	%.	35-115	1	09/25/18 12:42	09/25/18 17:54	1718-51-0	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-3:S080100 Lab ID: 50206113003 Collected: 09/20/18 14:30 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg	0.097	1		09/27/18 01:58	67-64-1	CL,H7, M5
Benzene	ND	mg/kg	0.0049	1		09/27/18 01:58	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0049	1		09/27/18 01:58	75-27-4	M5
Bromoform	ND	mg/kg	0.0049	1		09/27/18 01:58	75-25-2	M5
Bromomethane	ND	mg/kg	0.0049	1		09/27/18 01:58	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.024	1		09/27/18 01:58	78-93-3	CL,H7, M5
Carbon disulfide	ND	mg/kg	0.0097	1		09/27/18 01:58	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0049	1		09/27/18 01:58	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0049	1		09/27/18 01:58	108-90-7	M5
Chloroethane	ND	mg/kg	0.0049	1		09/27/18 01:58	75-00-3	M5
Chloroform	ND	mg/kg	0.0049	1		09/27/18 01:58	67-66-3	M5
Chloromethane	ND	mg/kg	0.0049	1		09/27/18 01:58	74-87-3	CL,H7, M5
Dibromochloromethane	ND	mg/kg	0.0049	1		09/27/18 01:58	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0049	1		09/27/18 01:58	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0049	1		09/27/18 01:58	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0049	1		09/27/18 01:58	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0049	1		09/27/18 01:58	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0049	1		09/27/18 01:58	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0049	1		09/27/18 01:58	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0049	1		09/27/18 01:58	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0049	1		09/27/18 01:58	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0049	1		09/27/18 01:58	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0049	1		09/27/18 01:58	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0049	1		09/27/18 01:58	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0049	1		09/27/18 01:58	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0049	1		09/27/18 01:58	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0049	1		09/27/18 01:58	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.097	1		09/27/18 01:58	97-63-2	M5
n-Hexane	ND	mg/kg	0.0049	1		09/27/18 01:58	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0049	1		09/27/18 01:58	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.019	1		09/27/18 01:58	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.024	1		09/27/18 01:58	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0049	1		09/27/18 01:58	1634-04-4	M5
Styrene	ND	mg/kg	0.0049	1		09/27/18 01:58	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0049	1		09/27/18 01:58	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0049	1		09/27/18 01:58	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0049	1		09/27/18 01:58	127-18-4	M5
Toluene	ND	mg/kg	0.0049	1		09/27/18 01:58	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0049	1		09/27/18 01:58	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0049	1		09/27/18 01:58	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0049	1		09/27/18 01:58	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0049	1		09/27/18 01:58	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0049	1		09/27/18 01:58	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0049	1		09/27/18 01:58	95-63-6	M5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
 Pace Project No.: 50206113

Sample: ICP003:HSB-3:S080100 Lab ID: 50206113003 Collected: 09/20/18 14:30 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
1,3,5-Trimethylbenzene	ND	mg/kg	0.0049	1		09/27/18 01:58	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.097	1		09/27/18 01:58	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0049	1		09/27/18 01:58	75-01-4	M5
Xylene (Total)	ND	mg/kg	0.0097	1		09/27/18 01:58	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	113	%.	80-127	1		09/27/18 01:58	1868-53-7	1d,H7, M5
Toluene-d8 (S)	111	%.	72-136	1		09/27/18 01:58	2037-26-5	M5
4-Bromofluorobenzene (S)	79	%.	57-130	1		09/27/18 01:58	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	12.1	%	0.10	1		09/24/18 15:50		

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-4:S040060 Lab ID: 50206113004 Collected: 09/20/18 12:45 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	ND	mg/kg	23.1	1	09/27/18 09:45	09/27/18 15:14		
TPH (C10-C20)	ND	mg/kg	11.6	1	09/27/18 09:45	09/27/18 15:14		
TPH (C20-C34)	ND	mg/kg	11.6	1	09/27/18 09:45	09/27/18 15:14		
Surrogates								
n-Pentacosane (S)	62	%.	10-155	1	09/27/18 09:45	09/27/18 15:14	629-99-2	
8015D Gasoline Range Organics	Analytical Method: EPA 8015D							
TPH (C06-C12)	ND	mg/kg	1.2	1		09/26/18 13:26		
Surrogates								
4-Bromofluorobenzene (S)	91	%.	30-151	1		09/26/18 13:26	460-00-4	
8270 PAH Soil	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	83-32-9	
Acenaphthylene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	208-96-8	
Anthracene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	207-08-9	
Chrysene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	53-70-3	
Fluoranthene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	206-44-0	
Fluorene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	193-39-5	
2-Methylnaphthalene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	91-57-6	
Naphthalene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	91-20-3	
Phenanthrene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	85-01-8	
Pyrene	ND	mg/kg	0.0058	1	09/25/18 12:42	09/25/18 18:10	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	82	%.	40-107	1	09/25/18 12:42	09/25/18 18:10	321-60-8	
p-Terphenyl-d14 (S)	94	%.	35-115	1	09/25/18 12:42	09/25/18 18:10	1718-51-0	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg	0.11	1		09/26/18 14:27	67-64-1	CL,H7, M5
Benzene	ND	mg/kg	0.0055	1		09/26/18 14:27	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0055	1		09/26/18 14:27	75-27-4	M5
Bromoform	ND	mg/kg	0.0055	1		09/26/18 14:27	75-25-2	M5
Bromomethane	ND	mg/kg	0.0055	1		09/26/18 14:27	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.027	1		09/26/18 14:27	78-93-3	CL,H7, M5
Carbon disulfide	ND	mg/kg	0.011	1		09/26/18 14:27	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0055	1		09/26/18 14:27	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0055	1		09/26/18 14:27	108-90-7	M5
Chloroethane	ND	mg/kg	0.0055	1		09/26/18 14:27	75-00-3	M5

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-4:S040060 Lab ID: 50206113004 Collected: 09/20/18 12:45 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Chloroform	ND	mg/kg	0.0055	1		09/26/18 14:27	67-66-3	M5
Chloromethane	ND	mg/kg	0.0055	1		09/26/18 14:27	74-87-3	M5
Dibromochloromethane	ND	mg/kg	0.0055	1		09/26/18 14:27	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0055	1		09/26/18 14:27	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0055	1		09/26/18 14:27	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0055	1		09/26/18 14:27	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0055	1		09/26/18 14:27	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0055	1		09/26/18 14:27	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0055	1		09/26/18 14:27	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0055	1		09/26/18 14:27	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0055	1		09/26/18 14:27	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0055	1		09/26/18 14:27	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0055	1		09/26/18 14:27	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0055	1		09/26/18 14:27	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0055	1		09/26/18 14:27	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0055	1		09/26/18 14:27	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0055	1		09/26/18 14:27	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.11	1		09/26/18 14:27	97-63-2	M5
n-Hexane	ND	mg/kg	0.0055	1		09/26/18 14:27	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0055	1		09/26/18 14:27	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.022	1		09/26/18 14:27	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.027	1		09/26/18 14:27	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0055	1		09/26/18 14:27	1634-04-4	M5
Styrene	ND	mg/kg	0.0055	1		09/26/18 14:27	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0055	1		09/26/18 14:27	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0055	1		09/26/18 14:27	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0055	1		09/26/18 14:27	127-18-4	M5
Toluene	ND	mg/kg	0.0055	1		09/26/18 14:27	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0055	1		09/26/18 14:27	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0055	1		09/26/18 14:27	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0055	1		09/26/18 14:27	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0055	1		09/26/18 14:27	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0055	1		09/26/18 14:27	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0055	1		09/26/18 14:27	95-63-6	M5
1,3,5-Trimethylbenzene	ND	mg/kg	0.0055	1		09/26/18 14:27	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.11	1		09/26/18 14:27	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0055	1		09/26/18 14:27	75-01-4	M5
Xylene (Total)	ND	mg/kg	0.011	1		09/26/18 14:27	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	103	%.	80-127	1		09/26/18 14:27	1868-53-7	M5
Toluene-d8 (S)	100	%.	72-136	1		09/26/18 14:27	2037-26-5	M5
4-Bromofluorobenzene (S)	91	%.	57-130	1		09/26/18 14:27	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	14.1	%	0.10	1		09/24/18 15:50		

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HTW-2:S100120 Lab ID: 50206113005 Collected: 09/20/18 11:55 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave	Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546							
Total Petroleum Hydrocarbons	ND	mg/kg	22.7	1	09/27/18 09:45	09/27/18 15:21		
TPH (C10-C20)	ND	mg/kg	11.3	1	09/27/18 09:45	09/27/18 15:21		
TPH (C20-C34)	ND	mg/kg	11.3	1	09/27/18 09:45	09/27/18 15:21		
Surrogates								
n-Pentacosane (S)	51	%.	10-155	1	09/27/18 09:45	09/27/18 15:21	629-99-2	
8015D Gasoline Range Organics	Analytical Method: EPA 8015D							
TPH (C06-C12)	ND	mg/kg	1.1	1		09/26/18 13:50		
Surrogates								
4-Bromofluorobenzene (S)	81	%.	30-151	1		09/26/18 13:50	460-00-4	
8270 PAH Soil	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546							
Acenaphthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	83-32-9	
Acenaphthylene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	208-96-8	
Anthracene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	207-08-9	
Chrysene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	53-70-3	
Fluoranthene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	206-44-0	
Fluorene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	193-39-5	
2-Methylnaphthalene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	91-57-6	
Naphthalene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	91-20-3	
Phenanthrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	85-01-8	
Pyrene	ND	mg/kg	0.0056	1	09/25/18 12:42	09/25/18 18:27	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	76	%.	40-107	1	09/25/18 12:42	09/25/18 18:27	321-60-8	
p-Terphenyl-d14 (S)	79	%.	35-115	1	09/25/18 12:42	09/25/18 18:27	1718-51-0	
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Acetone	ND	mg/kg	0.092	1		09/26/18 15:02	67-64-1	CL,H7, M5
Benzene	ND	mg/kg	0.0046	1		09/26/18 15:02	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0046	1		09/26/18 15:02	75-27-4	M5
Bromoform	ND	mg/kg	0.0046	1		09/26/18 15:02	75-25-2	M5
Bromomethane	ND	mg/kg	0.0046	1		09/26/18 15:02	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.023	1		09/26/18 15:02	78-93-3	CL,H7, M5
Carbon disulfide	ND	mg/kg	0.0092	1		09/26/18 15:02	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0046	1		09/26/18 15:02	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0046	1		09/26/18 15:02	108-90-7	M5
Chloroethane	ND	mg/kg	0.0046	1		09/26/18 15:02	75-00-3	M5

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HTW-2:S100120 Lab ID: 50206113005 Collected: 09/20/18 11:55 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Chloroform	ND	mg/kg	0.0046	1		09/26/18 15:02	67-66-3	M5
Chloromethane	ND	mg/kg	0.0046	1		09/26/18 15:02	74-87-3	M5
Dibromochloromethane	ND	mg/kg	0.0046	1		09/26/18 15:02	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0046	1		09/26/18 15:02	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0046	1		09/26/18 15:02	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0046	1		09/26/18 15:02	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0046	1		09/26/18 15:02	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0046	1		09/26/18 15:02	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0046	1		09/26/18 15:02	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0046	1		09/26/18 15:02	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0046	1		09/26/18 15:02	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0046	1		09/26/18 15:02	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0046	1		09/26/18 15:02	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0046	1		09/26/18 15:02	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0046	1		09/26/18 15:02	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0046	1		09/26/18 15:02	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0046	1		09/26/18 15:02	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.092	1		09/26/18 15:02	97-63-2	M5
n-Hexane	ND	mg/kg	0.0046	1		09/26/18 15:02	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0046	1		09/26/18 15:02	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.018	1		09/26/18 15:02	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.023	1		09/26/18 15:02	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0046	1		09/26/18 15:02	1634-04-4	M5
Styrene	ND	mg/kg	0.0046	1		09/26/18 15:02	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0046	1		09/26/18 15:02	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0046	1		09/26/18 15:02	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0046	1		09/26/18 15:02	127-18-4	M5
Toluene	ND	mg/kg	0.0046	1		09/26/18 15:02	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0046	1		09/26/18 15:02	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0046	1		09/26/18 15:02	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0046	1		09/26/18 15:02	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0046	1		09/26/18 15:02	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0046	1		09/26/18 15:02	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0046	1		09/26/18 15:02	95-63-6	M5
1,3,5-Trimethylbenzene	ND	mg/kg	0.0046	1		09/26/18 15:02	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.092	1		09/26/18 15:02	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0046	1		09/26/18 15:02	75-01-4	M5
Xylene (Total)	ND	mg/kg	0.0092	1		09/26/18 15:02	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	108	%.	80-127	1		09/26/18 15:02	1868-53-7	M5
Toluene-d8 (S)	106	%.	72-136	1		09/26/18 15:02	2037-26-5	M5
4-Bromofluorobenzene (S)	85	%.	57-130	1		09/26/18 15:02	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	11.7	%	0.10	1		09/24/18 15:51		

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-5:S060080 Lab ID: 50206113006 Collected: 09/20/18 16:20 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave			Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546					
Total Petroleum Hydrocarbons	ND	mg/kg	23.1	1	09/27/18 09:45	09/27/18 15:28		
TPH (C10-C20)	ND	mg/kg	11.5	1	09/27/18 09:45	09/27/18 15:28		
TPH (C20-C34)	ND	mg/kg	11.5	1	09/27/18 09:45	09/27/18 15:28		
Surrogates								
n-Pentacosane (S)	68	%.	10-155	1	09/27/18 09:45	09/27/18 15:28	629-99-2	
8015D Gasoline Range Organics			Analytical Method: EPA 8015D					
TPH (C06-C12)	ND	mg/kg	1.2	1		09/26/18 14:13		
Surrogates								
4-Bromofluorobenzene (S)	80	%.	30-151	1		09/26/18 14:13	460-00-4	
8270 PAH Soil			Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546					
Acenaphthene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	83-32-9	
Acenaphthylene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	208-96-8	
Anthracene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	207-08-9	
Chrysene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	53-70-3	
Fluoranthene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	206-44-0	
Fluorene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	193-39-5	
2-Methylnaphthalene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	91-57-6	
Naphthalene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	91-20-3	
Phenanthrene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	85-01-8	
Pyrene	ND	mg/kg	0.0057	1	09/25/18 12:42	09/25/18 18:43	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	72	%.	40-107	1	09/25/18 12:42	09/25/18 18:43	321-60-8	
p-Terphenyl-d14 (S)	78	%.	35-115	1	09/25/18 12:42	09/25/18 18:43	1718-51-0	
8260 MSV 5035A VOA			Analytical Method: EPA 8260					
Acetone	ND	mg/kg	0.096	1		09/26/18 15:36	67-64-1	CL,H7, M5
Benzene	ND	mg/kg	0.0048	1		09/26/18 15:36	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0048	1		09/26/18 15:36	75-27-4	M5
Bromoform	ND	mg/kg	0.0048	1		09/26/18 15:36	75-25-2	M5
Bromomethane	ND	mg/kg	0.0048	1		09/26/18 15:36	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.024	1		09/26/18 15:36	78-93-3	CL,H7, M5
Carbon disulfide	ND	mg/kg	0.0096	1		09/26/18 15:36	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0048	1		09/26/18 15:36	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0048	1		09/26/18 15:36	108-90-7	M5
Chloroethane	ND	mg/kg	0.0048	1		09/26/18 15:36	75-00-3	M5

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-5:S060080 Lab ID: 50206113006 Collected: 09/20/18 16:20 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Chloroform	ND	mg/kg	0.0048	1		09/26/18 15:36	67-66-3	M5
Chloromethane	ND	mg/kg	0.0048	1		09/26/18 15:36	74-87-3	M5
Dibromochloromethane	ND	mg/kg	0.0048	1		09/26/18 15:36	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0048	1		09/26/18 15:36	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0048	1		09/26/18 15:36	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0048	1		09/26/18 15:36	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0048	1		09/26/18 15:36	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0048	1		09/26/18 15:36	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0048	1		09/26/18 15:36	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0048	1		09/26/18 15:36	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0048	1		09/26/18 15:36	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0048	1		09/26/18 15:36	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0048	1		09/26/18 15:36	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0048	1		09/26/18 15:36	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0048	1		09/26/18 15:36	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0048	1		09/26/18 15:36	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0048	1		09/26/18 15:36	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.096	1		09/26/18 15:36	97-63-2	M5
n-Hexane	ND	mg/kg	0.0048	1		09/26/18 15:36	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0048	1		09/26/18 15:36	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.019	1		09/26/18 15:36	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.024	1		09/26/18 15:36	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0048	1		09/26/18 15:36	1634-04-4	M5
Styrene	ND	mg/kg	0.0048	1		09/26/18 15:36	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0048	1		09/26/18 15:36	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0048	1		09/26/18 15:36	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0048	1		09/26/18 15:36	127-18-4	M5
Toluene	ND	mg/kg	0.0048	1		09/26/18 15:36	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0048	1		09/26/18 15:36	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0048	1		09/26/18 15:36	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0048	1		09/26/18 15:36	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0048	1		09/26/18 15:36	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0048	1		09/26/18 15:36	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0048	1		09/26/18 15:36	95-63-6	M5
1,3,5-Trimethylbenzene	ND	mg/kg	0.0048	1		09/26/18 15:36	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.096	1		09/26/18 15:36	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0048	1		09/26/18 15:36	75-01-4	M5
Xylene (Total)	ND	mg/kg	0.0096	1		09/26/18 15:36	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	112	%.	80-127	1		09/26/18 15:36	1868-53-7	1d,H7, M5
Toluene-d8 (S)	107	%.	72-136	1		09/26/18 15:36	2037-26-5	M5
4-Bromofluorobenzene (S)	79	%.	57-130	1		09/26/18 15:36	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	13.8	%	0.10	1		09/24/18 15:51		

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-7:S000020 Lab ID: 50206113007 Collected: 09/20/18 17:20 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	35.7	mg/kg	24.0	1	09/27/18 09:45	09/27/18 15:36		
TPH (C10-C20)	ND	mg/kg	12.0	1	09/27/18 09:45	09/27/18 15:36		
TPH (C20-C34)	31.2	mg/kg	12.0	1	09/27/18 09:45	09/27/18 15:36		
Surrogates								
n-Pentacosane (S)	91	%.	10-155	1	09/27/18 09:45	09/27/18 15:36	629-99-2	
8015D Gasoline Range Organics Analytical Method: EPA 8015D								
TPH (C06-C12)	ND	mg/kg	1.2	1		09/26/18 14:37		
Surrogates								
4-Bromofluorobenzene (S)	80	%.	30-151	1		09/26/18 14:37	460-00-4	
8270 PAH Soil Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	83-32-9	
Acenaphthylene	ND	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	208-96-8	
Anthracene	ND	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	120-12-7	
Benzo(a)anthracene	0.018	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	56-55-3	
Benzo(a)pyrene	0.017	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	50-32-8	
Benzo(b)fluoranthene	0.014	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	205-99-2	
Benzo(g,h,i)perylene	0.012	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	191-24-2	
Benzo(k)fluoranthene	0.021	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	207-08-9	
Chrysene	0.019	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	53-70-3	
Fluoranthene	0.036	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	206-44-0	
Fluorene	ND	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	86-73-7	
Indeno(1,2,3-cd)pyrene	0.011	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	193-39-5	
2-Methylnaphthalene	0.0097	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	91-57-6	
Naphthalene	0.011	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	91-20-3	
Phenanthrene	0.016	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	85-01-8	
Pyrene	0.031	mg/kg	0.0060	1	09/25/18 12:42	09/25/18 19:00	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	69	%.	40-107	1	09/25/18 12:42	09/25/18 19:00	321-60-8	
p-Terphenyl-d14 (S)	64	%.	35-115	1	09/25/18 12:42	09/25/18 19:00	1718-51-0	
8260 MSV 5035A VOA Analytical Method: EPA 8260								
Acetone	ND	mg/kg	0.097	1		09/26/18 16:11	67-64-1	CL,H7, M5
Benzene	ND	mg/kg	0.0048	1		09/26/18 16:11	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0048	1		09/26/18 16:11	75-27-4	M5
Bromoform	ND	mg/kg	0.0048	1		09/26/18 16:11	75-25-2	M5
Bromomethane	ND	mg/kg	0.0048	1		09/26/18 16:11	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.024	1		09/26/18 16:11	78-93-3	CL,H7, M5
Carbon disulfide	ND	mg/kg	0.0097	1		09/26/18 16:11	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0048	1		09/26/18 16:11	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0048	1		09/26/18 16:11	108-90-7	M5
Chloroethane	ND	mg/kg	0.0048	1		09/26/18 16:11	75-00-3	M5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HSB-7:S000020 Lab ID: 50206113007 Collected: 09/20/18 17:20 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Chloroform	ND	mg/kg	0.0048	1		09/26/18 16:11	67-66-3	M5
Chloromethane	ND	mg/kg	0.0048	1		09/26/18 16:11	74-87-3	M5
Dibromochloromethane	ND	mg/kg	0.0048	1		09/26/18 16:11	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0048	1		09/26/18 16:11	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0048	1		09/26/18 16:11	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0048	1		09/26/18 16:11	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0048	1		09/26/18 16:11	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0048	1		09/26/18 16:11	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0048	1		09/26/18 16:11	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0048	1		09/26/18 16:11	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0048	1		09/26/18 16:11	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0048	1		09/26/18 16:11	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0048	1		09/26/18 16:11	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0048	1		09/26/18 16:11	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0048	1		09/26/18 16:11	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0048	1		09/26/18 16:11	10061-02-6	M5
Ethylbenzene	0.076	mg/kg	0.0048	1		09/26/18 16:11	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.097	1		09/26/18 16:11	97-63-2	M5
n-Hexane	0.0078	mg/kg	0.0048	1		09/26/18 16:11	110-54-3	M5
Isopropylbenzene (Cumene)	0.011	mg/kg	0.0048	1		09/26/18 16:11	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.019	1		09/26/18 16:11	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.024	1		09/26/18 16:11	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0048	1		09/26/18 16:11	1634-04-4	M5
Styrene	ND	mg/kg	0.0048	1		09/26/18 16:11	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0048	1		09/26/18 16:11	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0048	1		09/26/18 16:11	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0048	1		09/26/18 16:11	127-18-4	M5
Toluene	0.034	mg/kg	0.0048	1		09/26/18 16:11	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0048	1		09/26/18 16:11	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0048	1		09/26/18 16:11	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0048	1		09/26/18 16:11	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0048	1		09/26/18 16:11	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0048	1		09/26/18 16:11	75-69-4	M5
1,2,4-Trimethylbenzene	0.58	mg/kg	0.27	50		09/27/18 15:12	95-63-6	M5
1,3,5-Trimethylbenzene	0.14	mg/kg	0.0048	1		09/26/18 16:11	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.097	1		09/26/18 16:11	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0048	1		09/26/18 16:11	75-01-4	M5
Xylene (Total)	0.32	mg/kg	0.0097	1		09/26/18 16:11	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	96	%.	80-127	1		09/26/18 16:11	1868-53-7	1d,H7, M5
Toluene-d8 (S)	105	%.	72-136	1		09/26/18 16:11	2037-26-5	M5
4-Bromofluorobenzene (S)	90	%.	57-130	1		09/26/18 16:11	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	17.4	%	0.10	1		09/24/18 15:51		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

 Project: ICP003
 Pace Project No.: 50206113

Sample: ICP003:HTW-3:S000020 Lab ID: 50206113008 Collected: 09/20/18 17:40 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	42.6	mg/kg	23.4	1	09/27/18 09:45	09/27/18 15:43		
TPH (C10-C20)	20.9	mg/kg	11.7	1	09/27/18 09:45	09/27/18 15:43		
TPH (C20-C34)	21.6	mg/kg	11.7	1	09/27/18 09:45	09/27/18 15:43		
Surrogates								
n-Pentacosane (S)	79	%.	10-155	1	09/27/18 09:45	09/27/18 15:43	629-99-2	
8015D Gasoline Range Organics Analytical Method: EPA 8015D								
TPH (C06-C12)	ND	mg/kg	1.2	1		09/26/18 15:24		
Surrogates								
4-Bromofluorobenzene (S)	103	%.	30-151	1		09/26/18 15:24	460-00-4	
8270 PAH Soil Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	83-32-9	
Acenaphthylene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	208-96-8	
Anthracene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	207-08-9	
Chrysene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	53-70-3	
Fluoranthene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	206-44-0	
Fluorene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	193-39-5	
2-Methylnaphthalene	0.0099	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	91-57-6	
Naphthalene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	91-20-3	
Phenanthrene	0.010	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	85-01-8	
Pyrene	ND	mg/kg	0.0059	1	09/25/18 12:42	09/25/18 19:16	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	72	%.	40-107	1	09/25/18 12:42	09/25/18 19:16	321-60-8	
p-Terphenyl-d14 (S)	72	%.	35-115	1	09/25/18 12:42	09/25/18 19:16	1718-51-0	
8260 MSV 5035A VOA Analytical Method: EPA 8260								
Acetone	ND	mg/kg	0.093	1		09/26/18 16:45	67-64-1	CL,H7, M5
Benzene	ND	mg/kg	0.0046	1		09/26/18 16:45	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0046	1		09/26/18 16:45	75-27-4	M5
Bromoform	ND	mg/kg	0.0046	1		09/26/18 16:45	75-25-2	M5
Bromomethane	ND	mg/kg	0.0046	1		09/26/18 16:45	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.023	1		09/26/18 16:45	78-93-3	CL,H7, M5
Carbon disulfide	ND	mg/kg	0.0093	1		09/26/18 16:45	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0046	1		09/26/18 16:45	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0046	1		09/26/18 16:45	108-90-7	M5
Chloroethane	ND	mg/kg	0.0046	1		09/26/18 16:45	75-00-3	M5

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HTW-3:S000020 Lab ID: 50206113008 Collected: 09/20/18 17:40 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Chloroform	ND	mg/kg	0.0046	1		09/26/18 16:45	67-66-3	M5
Chloromethane	ND	mg/kg	0.0046	1		09/26/18 16:45	74-87-3	M5
Dibromochloromethane	ND	mg/kg	0.0046	1		09/26/18 16:45	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0046	1		09/26/18 16:45	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0046	1		09/26/18 16:45	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0046	1		09/26/18 16:45	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0046	1		09/26/18 16:45	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0046	1		09/26/18 16:45	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0046	1		09/26/18 16:45	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0046	1		09/26/18 16:45	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0046	1		09/26/18 16:45	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0046	1		09/26/18 16:45	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0046	1		09/26/18 16:45	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0046	1		09/26/18 16:45	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0046	1		09/26/18 16:45	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0046	1		09/26/18 16:45	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0046	1		09/26/18 16:45	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.093	1		09/26/18 16:45	97-63-2	M5
n-Hexane	ND	mg/kg	0.0046	1		09/26/18 16:45	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0046	1		09/26/18 16:45	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.019	1		09/26/18 16:45	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.023	1		09/26/18 16:45	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0046	1		09/26/18 16:45	1634-04-4	M5
Styrene	ND	mg/kg	0.0046	1		09/26/18 16:45	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0046	1		09/26/18 16:45	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0046	1		09/26/18 16:45	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0046	1		09/26/18 16:45	127-18-4	M5
Toluene	ND	mg/kg	0.0046	1		09/26/18 16:45	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0046	1		09/26/18 16:45	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0046	1		09/26/18 16:45	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0046	1		09/26/18 16:45	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0046	1		09/26/18 16:45	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0046	1		09/26/18 16:45	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0046	1		09/26/18 16:45	95-63-6	M5
1,3,5-Trimethylbenzene	ND	mg/kg	0.0046	1		09/26/18 16:45	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.093	1		09/26/18 16:45	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0046	1		09/26/18 16:45	75-01-4	M5
Xylene (Total)	ND	mg/kg	0.0093	1		09/26/18 16:45	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	108	%.	80-127	1		09/26/18 16:45	1868-53-7	M5
Toluene-d8 (S)	98	%.	72-136	1		09/26/18 16:45	2037-26-5	M5
4-Bromofluorobenzene (S)	91	%.	57-130	1		09/26/18 16:45	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	15.4	%	0.10	1		09/24/18 15:51		

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ANALYTICAL RESULTS

 Project: ICP003
 Pace Project No.: 50206113

Sample: ICP003:HTW-3:S140160 Lab ID: 50206113009 Collected: 09/20/18 18:00 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015 TPH Ohio Microwave Analytical Method: EPA 8015 Mod Ext Preparation Method: EPA 3546								
Total Petroleum Hydrocarbons	ND	mg/kg	22.2	1	09/27/18 09:45	09/27/18 15:50		
TPH (C10-C20)	ND	mg/kg	11.1	1	09/27/18 09:45	09/27/18 15:50		
TPH (C20-C34)	ND	mg/kg	11.1	1	09/27/18 09:45	09/27/18 15:50		
Surrogates								
n-Pentacosane (S)	33	%.	10-155	1	09/27/18 09:45	09/27/18 15:50	629-99-2	
8015D Gasoline Range Organics Analytical Method: EPA 8015D								
TPH (C06-C12)	ND	mg/kg	1.1	1		09/26/18 20:53		
Surrogates								
4-Bromofluorobenzene (S)	52	%.	30-151	1		09/26/18 20:53	460-00-4	
8270 PAH Soil Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	83-32-9	
Acenaphthylene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	208-96-8	
Anthracene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	120-12-7	
Benzo(a)anthracene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	56-55-3	
Benzo(a)pyrene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	50-32-8	
Benzo(b)fluoranthene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	205-99-2	
Benzo(g,h,i)perylene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	191-24-2	
Benzo(k)fluoranthene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	207-08-9	
Chrysene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	218-01-9	
Dibenz(a,h)anthracene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	53-70-3	
Fluoranthene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	206-44-0	
Fluorene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	193-39-5	
2-Methylnaphthalene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	91-57-6	
Naphthalene	0.013	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	91-20-3	
Phenanthrene	0.010	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	85-01-8	
Pyrene	ND	mg/kg	0.0055	1	09/25/18 12:42	09/25/18 19:33	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	76	%.	40-107	1	09/25/18 12:42	09/25/18 19:33	321-60-8	
p-Terphenyl-d14 (S)	63	%.	35-115	1	09/25/18 12:42	09/25/18 19:33	1718-51-0	
8260 MSV 5035A VOA Analytical Method: EPA 8260								
Acetone	ND	mg/kg	0.087	1		09/26/18 17:20	67-64-1	CL,H7, M5
Benzene	ND	mg/kg	0.0043	1		09/26/18 17:20	71-43-2	M5
Bromodichloromethane	ND	mg/kg	0.0043	1		09/26/18 17:20	75-27-4	M5
Bromoform	ND	mg/kg	0.0043	1		09/26/18 17:20	75-25-2	M5
Bromomethane	ND	mg/kg	0.0043	1		09/26/18 17:20	74-83-9	M5
2-Butanone (MEK)	ND	mg/kg	0.022	1		09/26/18 17:20	78-93-3	CL,H7, M5
Carbon disulfide	ND	mg/kg	0.0087	1		09/26/18 17:20	75-15-0	M5
Carbon tetrachloride	ND	mg/kg	0.0043	1		09/26/18 17:20	56-23-5	M5
Chlorobenzene	ND	mg/kg	0.0043	1		09/26/18 17:20	108-90-7	M5
Chloroethane	ND	mg/kg	0.0043	1		09/26/18 17:20	75-00-3	M5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:HTW-3:S140160 Lab ID: 50206113009 Collected: 09/20/18 18:00 Received: 09/21/18 08:15 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV 5035A VOA	Analytical Method: EPA 8260							
Chloroform	ND	mg/kg	0.0043	1		09/26/18 17:20	67-66-3	M5
Chloromethane	ND	mg/kg	0.0043	1		09/26/18 17:20	74-87-3	M5
Dibromochloromethane	ND	mg/kg	0.0043	1		09/26/18 17:20	124-48-1	M5
Dibromomethane	ND	mg/kg	0.0043	1		09/26/18 17:20	74-95-3	M5
1,2-Dichlorobenzene	ND	mg/kg	0.0043	1		09/26/18 17:20	95-50-1	M5
1,4-Dichlorobenzene	ND	mg/kg	0.0043	1		09/26/18 17:20	106-46-7	M5
Dichlorodifluoromethane	ND	mg/kg	0.0043	1		09/26/18 17:20	75-71-8	M5
1,1-Dichloroethane	ND	mg/kg	0.0043	1		09/26/18 17:20	75-34-3	M5
1,2-Dichloroethane	ND	mg/kg	0.0043	1		09/26/18 17:20	107-06-2	M5
1,1-Dichloroethene	ND	mg/kg	0.0043	1		09/26/18 17:20	75-35-4	M5
cis-1,2-Dichloroethene	ND	mg/kg	0.0043	1		09/26/18 17:20	156-59-2	M5
trans-1,2-Dichloroethene	ND	mg/kg	0.0043	1		09/26/18 17:20	156-60-5	M5
1,2-Dichloropropane	ND	mg/kg	0.0043	1		09/26/18 17:20	78-87-5	M5
1,3-Dichloropropane	ND	mg/kg	0.0043	1		09/26/18 17:20	142-28-9	M5
cis-1,3-Dichloropropene	ND	mg/kg	0.0043	1		09/26/18 17:20	10061-01-5	M5
trans-1,3-Dichloropropene	ND	mg/kg	0.0043	1		09/26/18 17:20	10061-02-6	M5
Ethylbenzene	ND	mg/kg	0.0043	1		09/26/18 17:20	100-41-4	M5
Ethyl methacrylate	ND	mg/kg	0.087	1		09/26/18 17:20	97-63-2	M5
n-Hexane	ND	mg/kg	0.0043	1		09/26/18 17:20	110-54-3	M5
Isopropylbenzene (Cumene)	ND	mg/kg	0.0043	1		09/26/18 17:20	98-82-8	M5
Methylene Chloride	ND	mg/kg	0.017	1		09/26/18 17:20	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	mg/kg	0.022	1		09/26/18 17:20	108-10-1	M5
Methyl-tert-butyl ether	ND	mg/kg	0.0043	1		09/26/18 17:20	1634-04-4	M5
Styrene	ND	mg/kg	0.0043	1		09/26/18 17:20	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	mg/kg	0.0043	1		09/26/18 17:20	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	mg/kg	0.0043	1		09/26/18 17:20	79-34-5	M5
Tetrachloroethene	ND	mg/kg	0.0043	1		09/26/18 17:20	127-18-4	M5
Toluene	ND	mg/kg	0.0043	1		09/26/18 17:20	108-88-3	M5
1,2,4-Trichlorobenzene	ND	mg/kg	0.0043	1		09/26/18 17:20	120-82-1	M5
1,1,1-Trichloroethane	ND	mg/kg	0.0043	1		09/26/18 17:20	71-55-6	M5
1,1,2-Trichloroethane	ND	mg/kg	0.0043	1		09/26/18 17:20	79-00-5	M5
Trichloroethene	ND	mg/kg	0.0043	1		09/26/18 17:20	79-01-6	M5
Trichlorofluoromethane	ND	mg/kg	0.0043	1		09/26/18 17:20	75-69-4	M5
1,2,4-Trimethylbenzene	ND	mg/kg	0.0043	1		09/26/18 17:20	95-63-6	M5
1,3,5-Trimethylbenzene	ND	mg/kg	0.0043	1		09/26/18 17:20	108-67-8	M5
Vinyl acetate	ND	mg/kg	0.087	1		09/26/18 17:20	108-05-4	M5
Vinyl chloride	ND	mg/kg	0.0043	1		09/26/18 17:20	75-01-4	M5
Xylene (Total)	ND	mg/kg	0.0087	1		09/26/18 17:20	1330-20-7	M5
Surrogates								
Dibromofluoromethane (S)	109	%.	80-127	1		09/26/18 17:20	1868-53-7	M5
Toluene-d8 (S)	98	%.	72-136	1		09/26/18 17:20	2037-26-5	M5
4-Bromofluorobenzene (S)	91	%.	57-130	1		09/26/18 17:20	460-00-4	M5
Percent Moisture	Analytical Method: SM 2540G							
Percent Moisture	10.6	%	0.10	1		09/24/18 15:51		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
Pace Project No.: 50206113

Sample: ICP003:TB-1:W092018	Lab ID: 50206113010	Collected: 09/20/18 19:00	Received: 09/21/18 08:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV	Analytical Method: EPA 8260							
Acetone	ND	ug/L	100	1		09/27/18 10:04	67-64-1	M5
Benzene	ND	ug/L	5.0	1		09/27/18 10:04	71-43-2	M5
Bromodichloromethane	ND	ug/L	5.0	1		09/27/18 10:04	75-27-4	M5
Bromoform	ND	ug/L	5.0	1		09/27/18 10:04	75-25-2	M5
Bromomethane	ND	ug/L	5.0	1		09/27/18 10:04	74-83-9	M5
2-Butanone (MEK)	ND	ug/L	25.0	1		09/27/18 10:04	78-93-3	M5
Carbon disulfide	ND	ug/L	10.0	1		09/27/18 10:04	75-15-0	M5
Carbon tetrachloride	ND	ug/L	5.0	1		09/27/18 10:04	56-23-5	M5
Chlorobenzene	ND	ug/L	5.0	1		09/27/18 10:04	108-90-7	M5
Chloroethane	ND	ug/L	5.0	1		09/27/18 10:04	75-00-3	M5
Chloroform	ND	ug/L	5.0	1		09/27/18 10:04	67-66-3	M5
Chloromethane	ND	ug/L	5.0	1		09/27/18 10:04	74-87-3	M5
Dibromochloromethane	ND	ug/L	5.0	1		09/27/18 10:04	124-48-1	M5
Dibromomethane	ND	ug/L	5.0	1		09/27/18 10:04	74-95-3	M5
1,2-Dichlorobenzene	ND	ug/L	5.0	1		09/27/18 10:04	95-50-1	M5
1,4-Dichlorobenzene	ND	ug/L	5.0	1		09/27/18 10:04	106-46-7	M5
Dichlorodifluoromethane	ND	ug/L	5.0	1		09/27/18 10:04	75-71-8	M5
1,1-Dichloroethane	ND	ug/L	5.0	1		09/27/18 10:04	75-34-3	M5
1,2-Dichloroethane	ND	ug/L	5.0	1		09/27/18 10:04	107-06-2	M5
1,1-Dichloroethene	ND	ug/L	5.0	1		09/27/18 10:04	75-35-4	M5
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		09/27/18 10:04	156-59-2	M5
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		09/27/18 10:04	156-60-5	M5
1,2-Dichloropropane	ND	ug/L	5.0	1		09/27/18 10:04	78-87-5	M5
1,3-Dichloropropane	ND	ug/L	5.0	1		09/27/18 10:04	142-28-9	M5
cis-1,3-Dichloropropene	ND	ug/L	4.1	1		09/27/18 10:04	10061-01-5	M5
trans-1,3-Dichloropropene	ND	ug/L	4.1	1		09/27/18 10:04	10061-02-6	M5
Ethylbenzene	ND	ug/L	5.0	1		09/27/18 10:04	100-41-4	M5
Ethyl methacrylate	ND	ug/L	100	1		09/27/18 10:04	97-63-2	M5
n-Hexane	ND	ug/L	5.0	1		09/27/18 10:04	110-54-3	M5
Isopropylbenzene (Cumene)	ND	ug/L	5.0	1		09/27/18 10:04	98-82-8	M5
Methylene Chloride	ND	ug/L	5.0	1		09/27/18 10:04	75-09-2	M5
4-Methyl-2-pentanone (MIBK)	ND	ug/L	25.0	1		09/27/18 10:04	108-10-1	M5
Methyl-tert-butyl ether	ND	ug/L	4.0	1		09/27/18 10:04	1634-04-4	M5
Styrene	ND	ug/L	5.0	1		09/27/18 10:04	100-42-5	M5
1,1,1,2-Tetrachloroethane	ND	ug/L	5.0	1		09/27/18 10:04	630-20-6	M5
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		09/27/18 10:04	79-34-5	M5
Tetrachloroethene	ND	ug/L	5.0	1		09/27/18 10:04	127-18-4	M5
Toluene	ND	ug/L	5.0	1		09/27/18 10:04	108-88-3	M5
1,2,4-Trichlorobenzene	ND	ug/L	5.0	1		09/27/18 10:04	120-82-1	M5
1,1,1-Trichloroethane	ND	ug/L	5.0	1		09/27/18 10:04	71-55-6	M5
1,1,2-Trichloroethane	ND	ug/L	5.0	1		09/27/18 10:04	79-00-5	M5
Trichloroethene	ND	ug/L	5.0	1		09/27/18 10:04	79-01-6	M5
Trichlorofluoromethane	ND	ug/L	5.0	1		09/27/18 10:04	75-69-4	M5
1,2,4-Trimethylbenzene	ND	ug/L	5.0	1		09/27/18 10:04	95-63-6	M5
Vinyl acetate	ND	ug/L	50.0	1		09/27/18 10:04	108-05-4	M5
Vinyl chloride	ND	ug/L	2.0	1		09/27/18 10:04	75-01-4	M5
Xylene (Total)	ND	ug/L	10.0	1		09/27/18 10:04	1330-20-7	M5

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ICP003
 Pace Project No.: 50206113

Sample: ICP003:TB-1:W092018	Lab ID: 50206113010	Collected: 09/20/18 19:00	Received: 09/21/18 08:15	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260/5030 MSV		Analytical Method: EPA 8260						
Surrogates								
Dibromofluoromethane (S)	102	%.	89-116	1		09/27/18 10:04	1868-53-7	M5
4-Bromofluorobenzene (S)	97	%.	85-111	1		09/27/18 10:04	460-00-4	M5
Toluene-d8 (S)	97	%.	87-110	1		09/27/18 10:04	2037-26-5	M5

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206113

QC Batch:	463684	Analysis Method:	EPA 8015D
QC Batch Method:	EPA 8015D	Analysis Description:	8015 Solid GCV
Associated Lab Samples:	50206113001, 50206113002, 50206113003, 50206113004, 50206113005, 50206113006, 50206113007, 50206113008, 50206113009		

METHOD BLANK:	2139972	Matrix:	Solid
Associated Lab Samples:	50206113001, 50206113002, 50206113003, 50206113004, 50206113005, 50206113006, 50206113007, 50206113008, 50206113009		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH (C06-C12)	mg/kg	ND	1.0	09/26/18 11:27	
4-Bromofluorobenzene (S)	%	84	30-151	09/26/18 11:27	

LABORATORY CONTROL SAMPLE: 2139973

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C06-C12)	mg/kg	10	9.6	96	67-126	
4-Bromofluorobenzene (S)	%			113	30-151	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2139974 2139975

Parameter	Units	50206316001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
TPH (C06-C12)	mg/kg	ND	11.2	11.2	11.9	12.4	106	110	36-162	4	20	
4-Bromofluorobenzene (S)	%						107	125	30-151			

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QUALITY CONTROL DATA

Project: ICP003

Pace Project No.: 50206113

QC Batch: 463622

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 50206113010

METHOD BLANK: 2139801

Matrix: Water

Associated Lab Samples: 50206113010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	5.0	09/27/18 00:32	M5
1,1,1-Trichloroethane	ug/L	ND	5.0	09/27/18 00:32	M5
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	09/27/18 00:32	M5
1,1,2-Trichloroethane	ug/L	ND	5.0	09/27/18 00:32	M5
1,1-Dichloroethane	ug/L	ND	5.0	09/27/18 00:32	M5
1,1-Dichloroethene	ug/L	ND	5.0	09/27/18 00:32	M5
1,2,4-Trichlorobenzene	ug/L	ND	5.0	09/27/18 00:32	M5
1,2,4-Trimethylbenzene	ug/L	ND	5.0	09/27/18 00:32	M5
1,2-Dichlorobenzene	ug/L	ND	5.0	09/27/18 00:32	M5
1,2-Dichloroethane	ug/L	ND	5.0	09/27/18 00:32	M5
1,2-Dichloropropane	ug/L	ND	5.0	09/27/18 00:32	M5
1,3-Dichloropropane	ug/L	ND	5.0	09/27/18 00:32	M5
1,4-Dichlorobenzene	ug/L	ND	5.0	09/27/18 00:32	M5
2-Butanone (MEK)	ug/L	ND	25.0	09/27/18 00:32	M5
4-Methyl-2-pentanone (MIBK)	ug/L	ND	25.0	09/27/18 00:32	M5
Acetone	ug/L	ND	100	09/27/18 00:32	M5
Benzene	ug/L	ND	5.0	09/27/18 00:32	M5
Bromodichloromethane	ug/L	ND	5.0	09/27/18 00:32	M5
Bromoform	ug/L	ND	5.0	09/27/18 00:32	M5
Bromomethane	ug/L	ND	5.0	09/27/18 00:32	M5
Carbon disulfide	ug/L	ND	10.0	09/27/18 00:32	M5
Carbon tetrachloride	ug/L	ND	5.0	09/27/18 00:32	M5
Chlorobenzene	ug/L	ND	5.0	09/27/18 00:32	M5
Chloroethane	ug/L	ND	5.0	09/27/18 00:32	M5
Chloroform	ug/L	ND	5.0	09/27/18 00:32	M5
Chloromethane	ug/L	ND	5.0	09/27/18 00:32	M5
cis-1,2-Dichloroethene	ug/L	ND	5.0	09/27/18 00:32	M5
cis-1,3-Dichloropropene	ug/L	ND	4.1	09/27/18 00:32	M5
Dibromochloromethane	ug/L	ND	5.0	09/27/18 00:32	M5
Dibromomethane	ug/L	ND	5.0	09/27/18 00:32	M5
Dichlorodifluoromethane	ug/L	ND	5.0	09/27/18 00:32	M5
Ethyl methacrylate	ug/L	ND	100	09/27/18 00:32	M5
Ethylbenzene	ug/L	ND	5.0	09/27/18 00:32	M5
Isopropylbenzene (Cumene)	ug/L	ND	5.0	09/27/18 00:32	M5
Methyl-tert-butyl ether	ug/L	ND	4.0	09/27/18 00:32	M5
Methylene Chloride	ug/L	ND	5.0	09/27/18 00:32	M5
n-Hexane	ug/L	ND	5.0	09/27/18 00:32	M5
Styrene	ug/L	ND	5.0	09/27/18 00:32	M5
Tetrachloroethene	ug/L	ND	5.0	09/27/18 00:32	M5
Toluene	ug/L	ND	5.0	09/27/18 00:32	M5
trans-1,2-Dichloroethene	ug/L	ND	5.0	09/27/18 00:32	M5

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

METHOD BLANK: 2139801

Matrix: Water

Associated Lab Samples: 50206113010

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
trans-1,3-Dichloropropene	ug/L	ND	4.1	09/27/18 00:32	M5
Trichloroethene	ug/L	ND	5.0	09/27/18 00:32	M5
Trichlorofluoromethane	ug/L	ND	5.0	09/27/18 00:32	M5
Vinyl acetate	ug/L	ND	50.0	09/27/18 00:32	M5
Vinyl chloride	ug/L	ND	2.0	09/27/18 00:32	M5
Xylene (Total)	ug/L	ND	10.0	09/27/18 00:32	M5
4-Bromofluorobenzene (S)	%.	96	85-111	09/27/18 00:32	M5
Dibromofluoromethane (S)	%.	105	89-116	09/27/18 00:32	M5
Toluene-d8 (S)	%.	99	87-110	09/27/18 00:32	M5

LABORATORY CONTROL SAMPLE: 2139802

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	55.2	110	80-120	M5
1,1,1-Trichloroethane	ug/L	50	53.8	108	74-126	M5
1,1,2,2-Tetrachloroethane	ug/L	50	49.9	100	73-117	M5
1,1,2-Trichloroethane	ug/L	50	53.7	107	74-119	M5
1,1-Dichloroethane	ug/L	50	51.3	103	72-119	M5
1,1-Dichloroethene	ug/L	50	56.5	113	72-123	M5
1,2,4-Trichlorobenzene	ug/L	50	51.8	104	70-125	M5
1,2,4-Trimethylbenzene	ug/L	50	54.4	109	76-118	M5
1,2-Dichlorobenzene	ug/L	50	51.8	104	77-117	M5
1,2-Dichloroethane	ug/L	50	50.8	102	69-122	M5
1,2-Dichloropropane	ug/L	50	54.5	109	75-124	M5
1,3-Dichloropropane	ug/L	50	55.9	112	82-118	M5
1,4-Dichlorobenzene	ug/L	50	50.9	102	74-115	M5
2-Butanone (MEK)	ug/L	250	265	106	72-147	M5
4-Methyl-2-pentanone (MIBK)	ug/L	250	271	108	89-128	M5
Acetone	ug/L	250	252	101	46-170	M5
Benzene	ug/L	50	53.0	106	78-117	M5
Bromodichloromethane	ug/L	50	50.6	101	76-120	M5
Bromoform	ug/L	50	50.1	100	70-124	M5
Bromomethane	ug/L	50	55.7	111	29-181	M5
Carbon disulfide	ug/L	50	49.5	99	66-123	M5
Carbon tetrachloride	ug/L	50	56.8	114	73-132	M5
Chlorobenzene	ug/L	50	51.5	103	79-112	M5
Chloroethane	ug/L	50	51.1	102	59-156	M5
Chloroform	ug/L	50	53.7	107	76-118	M5
Chloromethane	ug/L	50	44.2	88	45-142	M5
cis-1,2-Dichloroethene	ug/L	50	54.0	108	75-117	M5
cis-1,3-Dichloropropene	ug/L	50	54.7	109	77-120	M5
Dibromochloromethane	ug/L	50	52.1	104	78-123	M5
Dibromomethane	ug/L	50	52.6	105	78-122	M5
Dichlorodifluoromethane	ug/L	50	61.0	122	41-168	M5

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206113

LABORATORY CONTROL SAMPLE: 2139802

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Ethyl methacrylate	ug/L	200	241	121	75-128	M5
Ethylbenzene	ug/L	50	54.2	108	80-118	M5
Isopropylbenzene (Cumene)	ug/L	50	57.9	116	81-117	M5
Methyl-tert-butyl ether	ug/L	50	56.5	113	71-124	M5
Methylene Chloride	ug/L	50	49.9	100	59-136	M5
n-Hexane	ug/L	50	59.6	119	60-128	M5
Styrene	ug/L	50	56.1	112	74-121	M5
Tetrachloroethene	ug/L	50	52.4	105	76-116	M5
Toluene	ug/L	50	54.2	108	77-115	M5
trans-1,2-Dichloroethene	ug/L	50	51.8	104	75-121	M5
trans-1,3-Dichloropropene	ug/L	50	54.3	109	77-121	M5
Trichloroethene	ug/L	50	54.8	110	76-120	M5
Trichlorofluoromethane	ug/L	50	52.5	105	81-141	M5
Vinyl acetate	ug/L	200	221	111	67-131	M5
Vinyl chloride	ug/L	50	52.9	106	64-155	M5
Xylene (Total)	ug/L	150	166	111	78-118	M5
4-Bromofluorobenzene (S)	%.			103	85-111	M5
Dibromofluoromethane (S)	%.			101	89-116	M5
Toluene-d8 (S)	%.			100	87-110	M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

QC Batch: 463544	Analysis Method: EPA 8260
QC Batch Method: EPA 8260	Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 50206113001	

METHOD BLANK: 2139283 Matrix: Solid

Associated Lab Samples: 50206113001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,1,1-Trichloroethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,1,2-Trichloroethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,1-Dichloroethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,1-Dichloroethene	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,2,4-Trichlorobenzene	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,2-Dichlorobenzene	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,2-Dichloroethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,2-Dichloropropane	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,3-Dichloropropane	mg/kg	ND	0.0050	09/26/18 13:01	M5
1,4-Dichlorobenzene	mg/kg	ND	0.0050	09/26/18 13:01	M5
2-Butanone (MEK)	mg/kg	ND	0.025	09/26/18 13:01	M5
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.025	09/26/18 13:01	M5
Acetone	mg/kg	ND	0.10	09/26/18 13:01	M5
Benzene	mg/kg	ND	0.0050	09/26/18 13:01	M5
Bromodichloromethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
Bromoform	mg/kg	ND	0.0050	09/26/18 13:01	M5
Bromomethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
Carbon disulfide	mg/kg	ND	0.010	09/26/18 13:01	M5
Carbon tetrachloride	mg/kg	ND	0.0050	09/26/18 13:01	M5
Chlorobenzene	mg/kg	ND	0.0050	09/26/18 13:01	M5
Chloroethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
Chloroform	mg/kg	ND	0.0050	09/26/18 13:01	M5
Chloromethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
cis-1,2-Dichloroethene	mg/kg	ND	0.0050	09/26/18 13:01	M5
cis-1,3-Dichloropropene	mg/kg	ND	0.0050	09/26/18 13:01	M5
Dibromochloromethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
Dibromomethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
Dichlorodifluoromethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
Ethyl methacrylate	mg/kg	ND	0.10	09/26/18 13:01	M5
Ethylbenzene	mg/kg	ND	0.0050	09/26/18 13:01	M5
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	09/26/18 13:01	M5
Methyl-tert-butyl ether	mg/kg	ND	0.0050	09/26/18 13:01	M5
Methylene Chloride	mg/kg	ND	0.020	09/26/18 13:01	M5
n-Hexane	mg/kg	ND	0.0050	09/26/18 13:01	M5
Styrene	mg/kg	ND	0.0050	09/26/18 13:01	M5
Tetrachloroethene	mg/kg	ND	0.0050	09/26/18 13:01	M5
Toluene	mg/kg	ND	0.0050	09/26/18 13:01	M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

METHOD BLANK: 2139283

Matrix: Solid

Associated Lab Samples: 50206113001

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
trans-1,2-Dichloroethene	mg/kg	ND	0.0050	09/26/18 13:01	M5
trans-1,3-Dichloropropene	mg/kg	ND	0.0050	09/26/18 13:01	M5
Trichloroethene	mg/kg	ND	0.0050	09/26/18 13:01	M5
Trichlorofluoromethane	mg/kg	ND	0.0050	09/26/18 13:01	M5
Vinyl acetate	mg/kg	ND	0.10	09/26/18 13:01	M5
Vinyl chloride	mg/kg	ND	0.0050	09/26/18 13:01	M5
Xylene (Total)	mg/kg	ND	0.010	09/26/18 13:01	M5
4-Bromofluorobenzene (S)	%.	99	57-130	09/26/18 13:01	M5
Dibromofluoromethane (S)	%.	102	80-127	09/26/18 13:01	M5
Toluene-d8 (S)	%.	94	72-136	09/26/18 13:01	M5

LABORATORY CONTROL SAMPLE: 2139284

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	.05	0.051	102	80-119	M5
1,1,1-Trichloroethane	mg/kg	.05	0.050	100	71-123	M5
1,1,2,2-Tetrachloroethane	mg/kg	.05	0.048	97	74-121	M5
1,1,2-Trichloroethane	mg/kg	.05	0.052	104	76-115	M5
1,1-Dichloroethane	mg/kg	.05	0.042	83	70-117	M5
1,1-Dichloroethene	mg/kg	.05	0.046	91	71-125	M5
1,2,4-Trichlorobenzene	mg/kg	.05	0.048	96	63-119	M5
1,2,4-Trimethylbenzene	mg/kg	.05	0.045	91	73-111	M5
1,2-Dichlorobenzene	mg/kg	.05	0.047	93	79-110	M5
1,2-Dichloroethane	mg/kg	.05	0.045	91	69-119	M5
1,2-Dichloropropane	mg/kg	.05	0.052	104	76-120	M5
1,3,5-Trimethylbenzene	mg/kg	.05	0.045	91	74-108	M5
1,3-Dichloropropane	mg/kg	.05	0.055	111	84-119	M5
1,4-Dichlorobenzene	mg/kg	.05	0.044	88	74-109	M5
2-Butanone (MEK)	mg/kg	.25	0.24	97	57-183	M5
4-Methyl-2-pentanone (MIBK)	mg/kg	.25	0.22	89	67-128	M5
Acetone	mg/kg	.25	0.26	103	39-199	M5
Benzene	mg/kg	.05	0.048	96	77-117	M5
Bromodichloromethane	mg/kg	.05	0.050	101	76-115	M5
Bromoform	mg/kg	.05	0.050	100	69-125	M5
Bromomethane	mg/kg	.05	0.045	90	30-174	M5
Carbon disulfide	mg/kg	.05	0.045	89	64-122	M5
Carbon tetrachloride	mg/kg	.05	0.049	98	70-126	M5
Chlorobenzene	mg/kg	.05	0.047	93	77-111	M5
Chloroethane	mg/kg	.05	0.043	87	50-149	M5
Chloroform	mg/kg	.05	0.045	91	74-114	M5
Chloromethane	mg/kg	.05	0.029	59	51-127	M5
cis-1,2-Dichloroethene	mg/kg	.05	0.047	95	74-118	M5
cis-1,3-Dichloropropene	mg/kg	.05	0.052	104	77-119	M5
Dibromochloromethane	mg/kg	.05	0.052	105	82-120	M5

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206113

LABORATORY CONTROL SAMPLE: 2139284

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Dibromomethane	mg/kg	.05	0.051	102	79-118	M5
Dichlorodifluoromethane	mg/kg	.05	0.042	83	39-160	M5
Ethyl methacrylate	mg/kg	.2	0.21	105	75-125	M5
Ethylbenzene	mg/kg	.05	0.047	93	73-114	M5
Isopropylbenzene (Cumene)	mg/kg	.05	0.049	99	78-113	M5
Methyl-tert-butyl ether	mg/kg	.05	0.052	104	75-119	M5
Methylene Chloride	mg/kg	.05	0.043	86	45-153	M5
n-Hexane	mg/kg	.05	0.041	81	57-117	M5
Styrene	mg/kg	.05	0.051	101	73-109	M5
Tetrachloroethene	mg/kg	.05	0.045	89	72-117	M5
Toluene	mg/kg	.05	0.045	90	77-111	M5
trans-1,2-Dichloroethene	mg/kg	.05	0.044	89	73-121	M5
trans-1,3-Dichloropropene	mg/kg	.05	0.053	105	76-121	M5
Trichloroethene	mg/kg	.05	0.047	95	73-119	M5
Trichlorofluoromethane	mg/kg	.05	0.044	88	72-147	M5
Vinyl acetate	mg/kg	.2	0.20	99	59-139	M5
Vinyl chloride	mg/kg	.05	0.040	80	57-160	M5
Xylene (Total)	mg/kg	.15	0.14	95	74-111	M5
4-Bromofluorobenzene (S)	%.			103	57-130	M5
Dibromofluoromethane (S)	%.			100	80-127	M5
Toluene-d8 (S)	%.			97	72-136	M5

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

QC Batch: 463547 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV 5035A Volatile Organics
Associated Lab Samples: 50206113004, 50206113005, 50206113006, 50206113007, 50206113008, 50206113009

METHOD BLANK: 2139287 Matrix: Solid

Associated Lab Samples: 50206113004, 50206113005, 50206113006, 50206113007, 50206113008, 50206113009

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,1,1-Trichloroethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,1,2-Trichloroethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,1-Dichloroethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,1-Dichloroethene	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,2,4-Trichlorobenzene	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,2-Dichlorobenzene	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,2-Dichloroethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,2-Dichloropropane	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,3-Dichloropropane	mg/kg	ND	0.0050	09/26/18 12:44	M5
1,4-Dichlorobenzene	mg/kg	ND	0.0050	09/26/18 12:44	M5
2-Butanone (MEK)	mg/kg	ND	0.025	09/26/18 12:44	M5
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.025	09/26/18 12:44	M5
Acetone	mg/kg	ND	0.10	09/26/18 12:44	M5
Benzene	mg/kg	ND	0.0050	09/26/18 12:44	M5
Bromodichloromethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
Bromoform	mg/kg	ND	0.0050	09/26/18 12:44	M5
Bromomethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
Carbon disulfide	mg/kg	ND	0.010	09/26/18 12:44	M5
Carbon tetrachloride	mg/kg	ND	0.0050	09/26/18 12:44	M5
Chlorobenzene	mg/kg	ND	0.0050	09/26/18 12:44	M5
Chloroethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
Chloroform	mg/kg	ND	0.0050	09/26/18 12:44	M5
Chloromethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
cis-1,2-Dichloroethene	mg/kg	ND	0.0050	09/26/18 12:44	M5
cis-1,3-Dichloropropene	mg/kg	ND	0.0050	09/26/18 12:44	M5
Dibromochloromethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
Dibromomethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
Dichlorodifluoromethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
Ethyl methacrylate	mg/kg	ND	0.10	09/26/18 12:44	M5
Ethylbenzene	mg/kg	ND	0.0050	09/26/18 12:44	M5
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	09/26/18 12:44	M5
Methyl-tert-butyl ether	mg/kg	ND	0.0050	09/26/18 12:44	M5
Methylene Chloride	mg/kg	ND	0.020	09/26/18 12:44	M5
n-Hexane	mg/kg	ND	0.0050	09/26/18 12:44	M5
Styrene	mg/kg	ND	0.0050	09/26/18 12:44	M5
Tetrachloroethene	mg/kg	ND	0.0050	09/26/18 12:44	M5
Toluene	mg/kg	ND	0.0050	09/26/18 12:44	M5

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

METHOD BLANK: 2139287

Matrix: Solid

Associated Lab Samples: 50206113004, 50206113005, 50206113006, 50206113007, 50206113008, 50206113009

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
trans-1,2-Dichloroethene	mg/kg	ND	0.0050	09/26/18 12:44	M5
trans-1,3-Dichloropropene	mg/kg	ND	0.0050	09/26/18 12:44	M5
Trichloroethene	mg/kg	ND	0.0050	09/26/18 12:44	M5
Trichlorofluoromethane	mg/kg	ND	0.0050	09/26/18 12:44	M5
Vinyl acetate	mg/kg	ND	0.10	09/26/18 12:44	M5
Vinyl chloride	mg/kg	ND	0.0050	09/26/18 12:44	M5
Xylene (Total)	mg/kg	ND	0.010	09/26/18 12:44	M5
4-Bromofluorobenzene (S)	%.	98	57-130	09/26/18 12:44	M5
Dibromofluoromethane (S)	%.	107	80-127	09/26/18 12:44	M5
Toluene-d8 (S)	%.	95	72-136	09/26/18 12:44	M5

LABORATORY CONTROL SAMPLE: 2139288

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/kg	.05	0.049	99	71-123	M5
1,1,2,2-Tetrachloroethane	mg/kg	.05	0.047	95	74-121	M5
1,1-Dichloroethene	mg/kg	.05	0.046	92	71-125	M5
1,2,4-Trimethylbenzene	mg/kg	.05	0.046	91	73-111	M5
1,2-Dichloropropane	mg/kg	.05	0.049	98	76-120	M5
Benzene	mg/kg	.05	0.049	98	77-117	M5
Chlorobenzene	mg/kg	.05	0.046	92	77-111	M5
Chloroform	mg/kg	.05	0.046	91	74-114	M5
cis-1,2-Dichloroethene	mg/kg	.05	0.048	95	74-118	M5
Ethylbenzene	mg/kg	.05	0.045	90	73-114	M5
Isopropylbenzene (Cumene)	mg/kg	.05	0.050	100	78-113	M5
Methyl-tert-butyl ether	mg/kg	.05	0.049	97	75-119	M5
Tetrachloroethene	mg/kg	.05	0.046	93	72-117	M5
Toluene	mg/kg	.05	0.044	87	77-111	M5
trans-1,2-Dichloroethene	mg/kg	.05	0.045	89	73-121	M5
Trichloroethene	mg/kg	.05	0.048	95	73-119	M5
Vinyl chloride	mg/kg	.05	0.044	87	57-160	M5
Xylene (Total)	mg/kg	.15	0.14	93	74-111	M5
4-Bromofluorobenzene (S)	%.			103	57-130	M5
Dibromofluoromethane (S)	%.			98	80-127	M5
Toluene-d8 (S)	%.			97	72-136	M5

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206113

QC Batch:	463559	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV 5035A Volatile Organics
Associated Lab Samples:	50206113002, 50206113003		

METHOD BLANK: 2139370 Matrix: Solid

Associated Lab Samples: 50206113002, 50206113003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,1,1-Trichloroethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,1,2,2-Tetrachloroethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,1,2-Trichloroethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,1-Dichloroethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,1-Dichloroethene	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,2,4-Trichlorobenzene	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,2,4-Trimethylbenzene	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,2-Dichlorobenzene	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,2-Dichloroethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,2-Dichloropropane	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,3,5-Trimethylbenzene	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,3-Dichloropropane	mg/kg	ND	0.0050	09/27/18 00:48	M5
1,4-Dichlorobenzene	mg/kg	ND	0.0050	09/27/18 00:48	M5
2-Butanone (MEK)	mg/kg	ND	0.025	09/27/18 00:48	M5
4-Methyl-2-pentanone (MIBK)	mg/kg	ND	0.025	09/27/18 00:48	M5
Acetone	mg/kg	ND	0.10	09/27/18 00:48	M5
Benzene	mg/kg	ND	0.0050	09/27/18 00:48	M5
Bromodichloromethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
Bromoform	mg/kg	ND	0.0050	09/27/18 00:48	M5
Bromomethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
Carbon disulfide	mg/kg	ND	0.010	09/27/18 00:48	M5
Carbon tetrachloride	mg/kg	ND	0.0050	09/27/18 00:48	M5
Chlorobenzene	mg/kg	ND	0.0050	09/27/18 00:48	M5
Chloroethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
Chloroform	mg/kg	ND	0.0050	09/27/18 00:48	M5
Chloromethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
cis-1,2-Dichloroethene	mg/kg	ND	0.0050	09/27/18 00:48	M5
cis-1,3-Dichloropropene	mg/kg	ND	0.0050	09/27/18 00:48	M5
Dibromochloromethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
Dibromomethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
Dichlorodifluoromethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
Ethyl methacrylate	mg/kg	ND	0.10	09/27/18 00:48	M5
Ethylbenzene	mg/kg	ND	0.0050	09/27/18 00:48	M5
Isopropylbenzene (Cumene)	mg/kg	ND	0.0050	09/27/18 00:48	M5
Methyl-tert-butyl ether	mg/kg	ND	0.0050	09/27/18 00:48	M5
Methylene Chloride	mg/kg	ND	0.020	09/27/18 00:48	M5
n-Hexane	mg/kg	ND	0.0050	09/27/18 00:48	M5
Styrene	mg/kg	ND	0.0050	09/27/18 00:48	M5
Tetrachloroethene	mg/kg	ND	0.0050	09/27/18 00:48	M5
Toluene	mg/kg	ND	0.0050	09/27/18 00:48	M5

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

METHOD BLANK: 2139370

Matrix: Solid

Associated Lab Samples: 50206113002, 50206113003

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
trans-1,2-Dichloroethene	mg/kg	ND	0.0050	09/27/18 00:48	M5
trans-1,3-Dichloropropene	mg/kg	ND	0.0050	09/27/18 00:48	M5
Trichloroethene	mg/kg	ND	0.0050	09/27/18 00:48	M5
Trichlorofluoromethane	mg/kg	ND	0.0050	09/27/18 00:48	M5
Vinyl acetate	mg/kg	ND	0.10	09/27/18 00:48	M5
Vinyl chloride	mg/kg	ND	0.0050	09/27/18 00:48	M5
Xylene (Total)	mg/kg	ND	0.010	09/27/18 00:48	M5
4-Bromofluorobenzene (S)	%.	98	57-130	09/27/18 00:48	M5
Dibromofluoromethane (S)	%.	106	80-127	09/27/18 00:48	M5
Toluene-d8 (S)	%.	94	72-136	09/27/18 00:48	M5

LABORATORY CONTROL SAMPLE: 2139371

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/kg	.05	0.049	98	71-123	M5
1,1,2,2-Tetrachloroethane	mg/kg	.05	0.050	100	74-121	M5
1,1-Dichloroethene	mg/kg	.05	0.046	92	71-125	M5
1,2,4-Trimethylbenzene	mg/kg	.05	0.043	87	73-111	M5
1,2-Dichloropropane	mg/kg	.05	0.049	97	76-120	M5
Benzene	mg/kg	.05	0.048	96	77-117	M5
Chlorobenzene	mg/kg	.05	0.045	90	77-111	M5
Chloroform	mg/kg	.05	0.045	90	74-114	M5
cis-1,2-Dichloroethene	mg/kg	.05	0.045	90	74-118	M5
Ethylbenzene	mg/kg	.05	0.044	89	73-114	M5
Isopropylbenzene (Cumene)	mg/kg	.05	0.049	98	78-113	M5
Methyl-tert-butyl ether	mg/kg	.05	0.047	94	75-119	M5
Tetrachloroethene	mg/kg	.05	0.044	87	72-117	M5
Toluene	mg/kg	.05	0.043	86	77-111	M5
trans-1,2-Dichloroethene	mg/kg	.05	0.043	86	73-121	M5
Trichloroethene	mg/kg	.05	0.045	90	73-119	M5
Vinyl chloride	mg/kg	.05	0.041	82	57-160	M5
Xylene (Total)	mg/kg	.15	0.14	91	74-111	M5
4-Bromofluorobenzene (S)	%.			103	57-130	M5
Dibromofluoromethane (S)	%.			98	80-127	M5
Toluene-d8 (S)	%.			97	72-136	M5

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

QC Batch: 463248 Analysis Method: EPA 8015 Mod Ext
QC Batch Method: EPA 3546 Analysis Description: EPA 8015 TPH Ohio
Associated Lab Samples: 50206113001, 50206113002, 50206113003

METHOD BLANK: 2138127 Matrix: Solid

Associated Lab Samples: 50206113001, 50206113002, 50206113003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Petroleum Hydrocarbons	mg/kg	ND	19.9	09/25/18 16:49	
TPH (C10-C20)	mg/kg	ND	10	09/25/18 16:49	
TPH (C20-C34)	mg/kg	ND	10	09/25/18 16:49	
n-Pentacosane (S)	%.	76	10-155	09/25/18 16:49	

LABORATORY CONTROL SAMPLE: 2138128

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Petroleum Hydrocarbons	mg/kg	82.8	64.0	77	42-92	
n-Pentacosane (S)	%.			98	10-155	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2138129 2138130

Parameter	Units	50205994001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Max Qual
Total Petroleum Hydrocarbons	mg/kg	ND	97.6	96.9	61.7	62.1	61	62	10-147	1	20	
n-Pentacosane (S)	%.						83	84	10-155			

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206113

QC Batch:	463659	Analysis Method:	EPA 8015 Mod Ext
QC Batch Method:	EPA 3546	Analysis Description:	EPA 8015 TPH Ohio
Associated Lab Samples:	50206113004, 50206113005, 50206113006, 50206113007, 50206113008, 50206113009		

METHOD BLANK: 2139902 Matrix: Solid

Associated Lab Samples: 50206113004, 50206113005, 50206113006, 50206113007, 50206113008, 50206113009

Parameter	Units	Blank	Reporting		Qualifiers
		Result	Limit	Analyzed	
Total Petroleum Hydrocarbons	mg/kg	ND	19.9	09/27/18 14:59	
TPH (C10-C20)	mg/kg	ND	10	09/27/18 14:59	
TPH (C20-C34)	mg/kg	ND	10	09/27/18 14:59	
n-Pentacosane (S)	%.	76	10-155	09/27/18 14:59	

LABORATORY CONTROL SAMPLE: 2139903

Parameter	Units	Spike	LCS	LCS	% Rec	Qualifiers
		Conc.	Result	% Rec	Limits	
Total Petroleum Hydrocarbons	mg/kg	83.3	60.4	72	42-92	
n-Pentacosane (S)	%.			86	10-155	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2139904 2139905

Parameter	Units	50206199007	MS	MSD	MS	MSD	MS	MSD	% Rec	% Rec	Max	RPD	RPD	Qual
		Result	Spike	Spike										
Total Petroleum Hydrocarbons	mg/kg	ND	94.8	94.4	67.7	63.5	60	56	10-147	6	20			
n-Pentacosane (S)	%.						64	66	10-155					

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

QC Batch: 463674 Analysis Method: EPA 8082
QC Batch Method: EPA 3546 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 50206113001, 50206113002, 50206113003

METHOD BLANK: 2139941 Matrix: Solid

Associated Lab Samples: 50206113001, 50206113002, 50206113003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	ND	0.099	09/27/18 18:45	
PCB-1221 (Aroclor 1221)	mg/kg	ND	0.099	09/27/18 18:45	
PCB-1232 (Aroclor 1232)	mg/kg	ND	0.099	09/27/18 18:45	
PCB-1242 (Aroclor 1242)	mg/kg	ND	0.099	09/27/18 18:45	
PCB-1248 (Aroclor 1248)	mg/kg	ND	0.099	09/27/18 18:45	
PCB-1254 (Aroclor 1254)	mg/kg	ND	0.099	09/27/18 18:45	
PCB-1260 (Aroclor 1260)	mg/kg	ND	0.099	09/27/18 18:45	
Tetrachloro-m-xylene (S)	%.	98	18-136	09/27/18 18:45	

LABORATORY CONTROL SAMPLE: 2139942

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	mg/kg	.16	0.16	97	21-129	
PCB-1260 (Aroclor 1260)	mg/kg	.16	0.15	92	36-126	
Tetrachloro-m-xylene (S)	%.			108	18-136	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2139943 2139944

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD RPD	Max Qual
		50206112020 Result	Spike Conc.	Spike Conc.	MS Result					
PCB-1016 (Aroclor 1016)	mg/kg	ND	.19	.2	0.15	0.14	77	73	10-141	4 20
PCB-1260 (Aroclor 1260)	mg/kg	ND	.19	.2	0.14	0.14	74	70	10-146	4 20
Tetrachloro-m-xylene (S)	%.						87	81	18-136	

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206113

QC Batch: 463200	Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546	Analysis Description: 8270 MSSV PAH by SIM
Associated Lab Samples: 50206113001	

METHOD BLANK: 2137974 Matrix: Solid

Associated Lab Samples: 50206113001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2-Methylnaphthalene	mg/kg	ND	0.0050	09/25/18 13:02	
Acenaphthene	mg/kg	ND	0.0050	09/25/18 13:02	
Acenaphthylene	mg/kg	ND	0.0050	09/25/18 13:02	
Anthracene	mg/kg	ND	0.0050	09/25/18 13:02	
Benzo(a)anthracene	mg/kg	ND	0.0050	09/25/18 13:02	
Benzo(a)pyrene	mg/kg	ND	0.0050	09/25/18 13:02	
Benzo(b)fluoranthene	mg/kg	ND	0.0050	09/25/18 13:02	
Benzo(g,h,i)perylene	mg/kg	ND	0.0050	09/25/18 13:02	
Benzo(k)fluoranthene	mg/kg	ND	0.0050	09/25/18 13:02	
Chrysene	mg/kg	ND	0.0050	09/25/18 13:02	
Dibenz(a,h)anthracene	mg/kg	ND	0.0050	09/25/18 13:02	
Fluoranthene	mg/kg	ND	0.0050	09/25/18 13:02	
Fluorene	mg/kg	ND	0.0050	09/25/18 13:02	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0050	09/25/18 13:02	
Naphthalene	mg/kg	ND	0.0050	09/25/18 13:02	
Phenanthrene	mg/kg	ND	0.0050	09/25/18 13:02	
Pyrene	mg/kg	ND	0.0050	09/25/18 13:02	
2-Fluorobiphenyl (S)	%.	71	40-107	09/25/18 13:02	
p-Terphenyl-d14 (S)	%.	74	35-115	09/25/18 13:02	

LABORATORY CONTROL SAMPLE: 2137975

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methylnaphthalene	mg/kg	.33	0.25	76	50-104	
Acenaphthene	mg/kg	.33	0.27	80	59-119	
Acenaphthylene	mg/kg	.33	0.26	78	61-122	
Anthracene	mg/kg	.33	0.19	59	57-111	
Benzo(a)anthracene	mg/kg	.33	0.28	84	57-121	
Benzo(a)pyrene	mg/kg	.33	0.32	96	55-130	
Benzo(b)fluoranthene	mg/kg	.33	0.35	107	53-125	
Benzo(g,h,i)perylene	mg/kg	.33	0.31	94	56-124	
Benzo(k)fluoranthene	mg/kg	.33	0.28	86	55-137	
Chrysene	mg/kg	.33	0.28	84	60-134	
Dibenz(a,h)anthracene	mg/kg	.33	0.32	95	60-122	
Fluoranthene	mg/kg	.33	0.28	86	60-117	
Fluorene	mg/kg	.33	0.28	83	55-114	
Indeno(1,2,3-cd)pyrene	mg/kg	.33	0.31	93	57-124	
Naphthalene	mg/kg	.33	0.24	73	54-107	
Phenanthrene	mg/kg	.33	0.28	83	60-115	
Pyrene	mg/kg	.33	0.28	84	61-135	

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

LABORATORY CONTROL SAMPLE: 2137975

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Fluorobiphenyl (S)	%. %			79 86	40-107 35-115	
p-Terphenyl-d14 (S)						

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2137976 2137977

Parameter	Units	50205980016		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max		
		Result	Spike Conc.	MS Result	MSD Result				RPD	RPD	Qual
2-Methylnaphthalene	mg/kg	0.0023J	.38	.38	0.18	0.29	46	76	25-114	48	20 R1
Acenaphthene	mg/kg	<0.0056	.38	.38	0.19	0.29	50	77	34-124	43	20 R1
Acenaphthylene	mg/kg	<0.0056	.38	.38	0.16	0.28	44	74	37-128	52	20 R1
Anthracene	mg/kg	<0.0056	.38	.38	0.13	0.21	35	56	25-118	48	20 R1
Benzo(a)anthracene	mg/kg	<0.0056	.38	.38	0.17	0.31	46	81	16-129	57	20 R1
Benzo(a)pyrene	mg/kg	0.0035J	.38	.38	0.18	0.34	46	90	19-131	64	20 R1
Benzo(b)fluoranthene	mg/kg	0.0042J	.38	.38	0.21	0.40	55	104	15-127	61	20 R1
Benzo(g,h,i)perylene	mg/kg	0.0042J	.38	.38	0.18	0.34	46	88	15-128	63	20 R1
Benzo(k)fluoranthene	mg/kg	<0.0056	.38	.38	0.19	0.31	51	83	14-142	49	20 R1
Chrysene	mg/kg	0.0019J	.38	.38	0.18	0.31	49	82	19-141	51	20 R1
Dibenz(a,h)anthracene	mg/kg	0.0032J	.38	.38	0.18	0.34	48	89	18-133	60	20 R1
Fluoranthene	mg/kg	<0.0056	.38	.38	0.21	0.31	54	81	25-125	41	20 R1
Fluorene	mg/kg	<0.0056	.38	.38	0.20	0.31	52	81	32-118	44	20 R1
Indeno(1,2,3-cd)pyrene	mg/kg	0.0031J	.38	.38	0.17	0.33	46	86	11-134	61	20 R1
Naphthalene	mg/kg	0.0021J	.38	.38	0.19	0.26	50	69	13-137	34	20 R1
Phenanthrene	mg/kg	0.0025J	.38	.38	0.20	0.30	53	79	21-130	40	20 R1
Pyrene	mg/kg	<0.0056	.38	.38	0.19	0.31	51	83	20-143	48	20 R1
2-Fluorobiphenyl (S)	%. %						44 49	74 82	40-107 35-115		
p-Terphenyl-d14 (S)											

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206113

QC Batch:	463268	Analysis Method:	EPA 8270 by SIM
QC Batch Method:	EPA 3546	Analysis Description:	8270 MSSV PAH by SIM
Associated Lab Samples:	50206113002, 50206113003, 50206113004, 50206113005, 50206113006, 50206113007, 50206113008, 50206113009		

METHOD BLANK: 2138197 Matrix: Solid
 Associated Lab Samples: 50206113002, 50206113003, 50206113004, 50206113005, 50206113006, 50206113007, 50206113008,
 50206113009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
2-Methylnaphthalene	mg/kg	ND	0.0050	09/25/18 15:42	
Acenaphthene	mg/kg	ND	0.0050	09/25/18 15:42	
Acenaphthylene	mg/kg	ND	0.0050	09/25/18 15:42	
Anthracene	mg/kg	ND	0.0050	09/25/18 15:42	
Benzo(a)anthracene	mg/kg	ND	0.0050	09/25/18 15:42	
Benzo(a)pyrene	mg/kg	ND	0.0050	09/25/18 15:42	
Benzo(b)fluoranthene	mg/kg	ND	0.0050	09/25/18 15:42	
Benzo(g,h,i)perylene	mg/kg	ND	0.0050	09/25/18 15:42	
Benzo(k)fluoranthene	mg/kg	ND	0.0050	09/25/18 15:42	
Chrysene	mg/kg	ND	0.0050	09/25/18 15:42	
Dibenz(a,h)anthracene	mg/kg	ND	0.0050	09/25/18 15:42	
Fluoranthene	mg/kg	ND	0.0050	09/25/18 15:42	
Fluorene	mg/kg	ND	0.0050	09/25/18 15:42	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	0.0050	09/25/18 15:42	
Naphthalene	mg/kg	ND	0.0050	09/25/18 15:42	
Phenanthrene	mg/kg	ND	0.0050	09/25/18 15:42	
Pyrene	mg/kg	ND	0.0050	09/25/18 15:42	
2-Fluorobiphenyl (S)	%.	87	40-107	09/25/18 15:42	
p-Terphenyl-d14 (S)	%.	94	35-115	09/25/18 15:42	

LABORATORY CONTROL SAMPLE: 2138198

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2-Methylnaphthalene	mg/kg	.33	0.27	83	50-104	
Acenaphthene	mg/kg	.33	0.28	87	59-119	
Acenaphthylene	mg/kg	.33	0.29	88	61-122	
Anthracene	mg/kg	.33	0.19	58	57-111	
Benzo(a)anthracene	mg/kg	.33	0.29	90	57-121	
Benzo(a)pyrene	mg/kg	.33	0.36	110	55-130	
Benzo(b)fluoranthene	mg/kg	.33	0.29	89	53-125	
Benzo(g,h,i)perylene	mg/kg	.33	0.32	100	56-124	
Benzo(k)fluoranthene	mg/kg	.33	0.38	118	55-137	
Chrysene	mg/kg	.33	0.31	95	60-134	
Dibenz(a,h)anthracene	mg/kg	.33	0.37	112	60-122	
Fluoranthene	mg/kg	.33	0.30	93	60-117	
Fluorene	mg/kg	.33	0.29	89	55-114	
Indeno(1,2,3-cd)pyrene	mg/kg	.33	0.36	109	57-124	
Naphthalene	mg/kg	.33	0.27	82	54-107	

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QUALITY CONTROL DATA

Project: ICP003
Pace Project No.: 50206113

LABORATORY CONTROL SAMPLE: 2138198

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	mg/kg	.33	0.25	78	60-115	
Pyrene	mg/kg	.33	0.28	86	61-135	
2-Fluorobiphenyl (S)	%.			83	40-107	
p-Terphenyl-d14 (S)	%.			88	35-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2138199 2138200

Parameter	Units	MS		MSD		MS Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	RPD	Max Qual
		50206113002	Result	Spike Conc.	MS Result							
2-Methylnaphthalene	mg/kg	ND	.37	.37	0.28	0.30	74	78	25-114	6	20	
Acenaphthene	mg/kg	ND	.37	.37	0.29	0.31	78	83	34-124	6	20	
Acenaphthylene	mg/kg	ND	.37	.37	0.30	0.31	81	84	37-128	3	20	
Anthracene	mg/kg	ND	.37	.37	0.17	0.19	46	52	25-118	12	20	
Benzo(a)anthracene	mg/kg	ND	.37	.37	0.24	0.28	65	74	16-129	13	20	
Benzo(a)pyrene	mg/kg	ND	.37	.37	0.28	0.34	75	89	19-131	17	20	
Benzo(b)fluoranthene	mg/kg	ND	.37	.37	0.23	0.28	61	73	15-127	17	20	
Benzo(g,h,i)perylene	mg/kg	ND	.37	.37	0.23	0.29	62	77	15-128	20	20	
Benzo(k)fluoranthene	mg/kg	ND	.37	.37	0.31	0.35	82	94	14-142	13	20	
Chrysene	mg/kg	ND	.37	.37	0.27	0.30	73	81	19-141	11	20	
Dibenz(a,h)anthracene	mg/kg	ND	.37	.37	0.30	0.34	81	90	18-133	10	20	
Fluoranthene	mg/kg	ND	.37	.37	0.27	0.30	72	81	25-125	11	20	
Fluorene	mg/kg	ND	.37	.37	0.29	0.32	78	86	32-118	9	20	
Indeno(1,2,3-cd)pyrene	mg/kg	ND	.37	.37	0.26	0.31	70	84	11-134	17	20	
Naphthalene	mg/kg	ND	.37	.37	0.29	0.31	77	81	13-137	4	20	
Phenanthrene	mg/kg	ND	.37	.37	0.24	0.27	65	72	21-130	10	20	
Pyrene	mg/kg	ND	.37	.37	0.25	0.28	67	74	20-143	10	20	
2-Fluorobiphenyl (S)	%.						70	73	40-107			
p-Terphenyl-d14 (S)	%.						66	71	35-115			

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206113

QC Batch:	463048	Analysis Method:	SM 2540G
QC Batch Method:	SM 2540G	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples: 50206113001			

SAMPLE DUPLICATE: 2137483

Parameter	Units	50206062001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.5	11.8	6	5	R1

SAMPLE DUPLICATE: 2137484

Parameter	Units	50206113001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.5	16.8	2	5	

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QUALITY CONTROL DATA

Project: ICP003
 Pace Project No.: 50206113

QC Batch:	463049	Analysis Method:	SM 2540G
QC Batch Method:	SM 2540G	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	50206113002, 50206113003, 50206113004, 50206113005, 50206113006, 50206113007, 50206113008, 50206113009		

SAMPLE DUPLICATE: 2137486

Parameter	Units	50206142005 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	15.2	16.1	6	5	R1

SAMPLE DUPLICATE: 2137740

Parameter	Units	50206142004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.2	17.2	0	5	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: ICP003
 Pace Project No.: 50206113

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
 ND - Not Detected at or above adjusted reporting limit.
 TNTC - Too Numerous To Count
 J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
 MDL - Adjusted Method Detection Limit.
 PQL - Practical Quantitation Limit.
 RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
 S - Surrogate
 1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
 Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
 LCS(D) - Laboratory Control Sample (Duplicate)
 MS(D) - Matrix Spike (Duplicate)
 DUP - Sample Duplicate
 RPD - Relative Percent Difference
 NC - Not Calculable.
 SG - Silica Gel - Clean-Up
 U - Indicates the compound was analyzed for, but not detected.
 N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
 Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
 TNI - The NELAC Institute.

BATCH QUALIFIERS

Batch: 463544
 [M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
 Batch: 463547
 [M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
 Batch: 463559
 [M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
 Batch: 463622
 [M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1d IS recovery outside of control limits not confirmed. Results may be bias high. TMW 09-27-18
 CL The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.
 H7 Re-extraction or re-analysis could not be performed within method holding time.
 M5 A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
 R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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METHOD CROSS REFERENCE TABLE

Project: ICP003
 Pace Project No.: 50206113

Parameter	Matrix	Analytical Method	Preparation Method
8015 TPH Ohio Microwave	Solid	SW-846 8015D	SW-846 3546
8015D Gasoline Range Organics	Solid	SW-846 8015A	SW-846 5030A
8082 GCS PCB Solids	Solid	SW-846 8082A	SW-846 3546
8260 MSV 5035A VOA	Solid	SW-846 8260C	SW-846 5035A
8260/5030 MSV	Water	SW-846 8260C	SW-846 5030B
8270 PAH Soil	Solid	SW-846 8270C	SW-846 3546

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ICP003
Pace Project No.: 50206113

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50206113001	ICP003:HSB-1:S040060	EPA 3546	463248	EPA 8015 Mod Ext	463353
50206113002	ICP003:HSB-2:S000020	EPA 3546	463248	EPA 8015 Mod Ext	463353
50206113003	ICP003:HSB-3:S080100	EPA 3546	463248	EPA 8015 Mod Ext	463353
50206113004	ICP003:HSB-4:S040060	EPA 3546	463659	EPA 8015 Mod Ext	463776
50206113005	ICP003:HTW-2:S100120	EPA 3546	463659	EPA 8015 Mod Ext	463776
50206113006	ICP003:HSB-5:S060080	EPA 3546	463659	EPA 8015 Mod Ext	463776
50206113007	ICP003:HSB-7:S000020	EPA 3546	463659	EPA 8015 Mod Ext	463776
50206113008	ICP003:HTW-3:S000020	EPA 3546	463659	EPA 8015 Mod Ext	463776
50206113009	ICP003:HTW-3:S140160	EPA 3546	463659	EPA 8015 Mod Ext	463776
50206113001	ICP003:HSB-1:S040060	EPA 3546	463674	EPA 8082	463807
50206113002	ICP003:HSB-2:S000020	EPA 3546	463674	EPA 8082	463807
50206113003	ICP003:HSB-3:S080100	EPA 3546	463674	EPA 8082	463807
50206113001	ICP003:HSB-1:S040060	EPA 8015D	463684		
50206113002	ICP003:HSB-2:S000020	EPA 8015D	463684		
50206113003	ICP003:HSB-3:S080100	EPA 8015D	463684		
50206113004	ICP003:HSB-4:S040060	EPA 8015D	463684		
50206113005	ICP003:HTW-2:S100120	EPA 8015D	463684		
50206113006	ICP003:HSB-5:S060080	EPA 8015D	463684		
50206113007	ICP003:HSB-7:S000020	EPA 8015D	463684		
50206113008	ICP003:HTW-3:S000020	EPA 8015D	463684		
50206113009	ICP003:HTW-3:S140160	EPA 8015D	463684		
50206113001	ICP003:HSB-1:S040060	EPA 3546	463200	EPA 8270 by SIM	463294
50206113002	ICP003:HSB-2:S000020	EPA 3546	463268	EPA 8270 by SIM	463331
50206113003	ICP003:HSB-3:S080100	EPA 3546	463268	EPA 8270 by SIM	463331
50206113004	ICP003:HSB-4:S040060	EPA 3546	463268	EPA 8270 by SIM	463331
50206113005	ICP003:HTW-2:S100120	EPA 3546	463268	EPA 8270 by SIM	463331
50206113006	ICP003:HSB-5:S060080	EPA 3546	463268	EPA 8270 by SIM	463331
50206113007	ICP003:HSB-7:S000020	EPA 3546	463268	EPA 8270 by SIM	463331
50206113008	ICP003:HTW-3:S000020	EPA 3546	463268	EPA 8270 by SIM	463331
50206113009	ICP003:HTW-3:S140160	EPA 3546	463268	EPA 8270 by SIM	463331
50206113010	ICP003:TB-1:W092018	EPA 8260	463622		
50206113001	ICP003:HSB-1:S040060	EPA 8260	463544		
50206113002	ICP003:HSB-2:S000020	EPA 8260	463559		
50206113003	ICP003:HSB-3:S080100	EPA 8260	463559		
50206113004	ICP003:HSB-4:S040060	EPA 8260	463547		
50206113005	ICP003:HTW-2:S100120	EPA 8260	463547		
50206113006	ICP003:HSB-5:S060080	EPA 8260	463547		
50206113007	ICP003:HSB-7:S000020	EPA 8260	463547		
50206113008	ICP003:HTW-3:S000020	EPA 8260	463547		
50206113009	ICP003:HTW-3:S140160	EPA 8260	463547		
50206113001	ICP003:HSB-1:S040060	SM 2540G	463048		
50206113002	ICP003:HSB-2:S000020	SM 2540G	463049		
50206113003	ICP003:HSB-3:S080100	SM 2540G	463049		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ICP003
 Pace Project No.: 50206113

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50206113004	ICP003:HSB-4:S040060	SM 2540G	463049		
50206113005	ICP003:HTW-2:S100120	SM 2540G	463049		
50206113006	ICP003:HSB-5:S060080	SM 2540G	463049		
50206113007	ICP003:HSB-7:S000020	SM 2540G	463049		
50206113008	ICP003:HTW-3:S000020	SM 2540G	463049		
50206113009	ICP003:HTW-3:S140160	SM 2540G	463049		

REPORT OF LABORATORY ANALYSIS

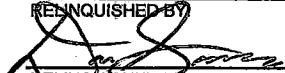
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CHAIN OF CUSTODY RECORD

Dublin, OH	<input type="checkbox"/>	Newark, OH	<input type="checkbox"/>	Mason, OH	<input type="checkbox"/>	Bedford, OH	<input checked="" type="checkbox"/>
6397 Emerald Pkwy	59 Grant St.	4770 Duke Dr.	4 Hemisphere Way	219 S. Erie St.	148 W. Main St.	Pittsburgh, PA	<input type="checkbox"/>
Suite 200	Newark, OH 43055	Suite 300	Bedford, OH 44146	Toledo, OH 43604	2nd Floor	Suite 307	
Dublin, OH 43016	P: (740) 344-5451	Mason, OH 45040	P: (419) 385-2018	St. Clairsville, OH 43950	Pittsburgh, PA 15205		
P: (614) 783-8777		P: (513) 459-8677		P: (800) 241-7173	P: (412) 448-0315		

REPORT TO:

LINDSAY CROW / DATA ADMIN

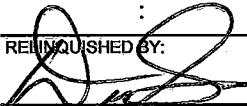
ANALYSES								
		PRESERVATIVES						
Client:	INDUSTRIAL COMMERCE PROPERTIES	SAMPLE MATRIX	PRESERVATIVES	METALS	VOCs	PAHs	PCBs	
Site:	SEARS AUTO CENTER	AA-AMBIENT AIR C-ASBESTOS D-SEDIMENT G-GROUNDWATER IA-INDOOR AIR L-LEACHATE P-PRODUCT S-SOIL SS-SOIL GAS SS-SUBSLAB VAPOR W-WATER X-CONCRETE	A-Cool only, <4 deg. C B-HNO ₃ pH<2 C-H ₂ SO ₄ pH<2 D-NaOH pH>12 E-ZnAcetate + NaOH, pH>9 F-Na ₂ S ₂ O ₃ (0.008%) G-HCl pH <2	H-EDTA I-6ml 1:1 HCl J-none K-Stored in dark L-NH4Cl M-Methanol S-Sodium	N - Not filtered F48u- filtered with 0.45 micron F6u- filtered with 5 micron			
Project #:	ICP003	Phase:						
Samplers:	D. SANSONE							
Purchase Order #	ICP003.01FLD.LRC03							
PROJECT NO.:	SAMPLE LOCATION :	SAMPLE MATRIX & ID	NO. OF CONT.	SAMPLE TYPE (discrete composite)	COLLECTION DATE/TIME	METALS	TPH (C ₁₂ -C ₂₀ -C ₂₄)	
ICP003 : HSB-1	:	S040060	6	d	9-20-18 / 13:30	N	X X X X X X	001
ICP003 : HSB-2	:	S000020	6	d	9-20-18 / 15:10	N	X X X X X X	002
ICP003 : HSB-3	:	S080100	6	d	9-20-18 / 14:30	N	X X X X X X	003
ICP003 : HTW-1	:	8		d	9-20-18 / 14:30		X X X X X X	DS 9/20
ICP003 : HSB-4	:	S040060	6	d	9-20-18 / 12:45	N	X X X X X X	004
ICP003 : HTW-2	:	S100120	6	d	9-20-18 / 11:55	N	X X X X X X	005
ICP003 : HSB-5	:	S060080	6	d	9-20-18 / 16:20	N	X X X X X X	006
ICP003 : HSB-6	:	8		d	9-20-18 /		X X X X X X	DS 9/20
ICP003 : HSB-7	:	S000020	6	d	9-20-18 / 17:00	N	X X X X X X	007
ICP003 : HSB-7	:	8		d	9-20-18 /		X X X X X X	DS 9/20
ICP003 : HTW-3	:	S000020	6	d	9-20-18 / 17:4	N	X X X X X X	008
ICP003 : HTW-3	:	S140160	6	d	9-20-18 / 18:00	N	X X X X X X	009
RELINQUISHED BY:	DATE:	9-20-18	RECEIVED BY:		DATE:	9-20-18		
	TIME:	8:00:00	FEDEX		TIME:	20:00		
RELINQUISHED BY:	DATE:	9-21	RECEIVED BY:		DATE:	9-21		
	TIME:	8:15	JASON HULL		TIME:	8:15		
RELINQUISHED BY:	DATE:		RECEIVED BY:		DATE:			
	TIME:				TIME:			
COOLER TEMPERATURE		DISTRIBUTION:	WHITE	-LAB USE (MUST BE RETURNED WITH REPORT)		NOTES:		
AS RECEIVED		YELLOW		-LAB USE				
		PINK		-RETAINED BY HULL		TURN AROUND TIME:	STD	

CHAIN OF CUSTODY RECORD

Dublin, OH	<input type="checkbox"/>	Newark, OH	<input type="checkbox"/>	Mason, OH	<input type="checkbox"/>	Bedford, OH	<input checked="" type="checkbox"/>	Toledo, OH	<input type="checkbox"/>	St. Clairsville, OH	<input type="checkbox"/>	Pittsburgh, PA	<input type="checkbox"/>
6397 Emerald Pkwy		59 Grant St.		4770 Duke Dr.		4 Hemispheres Way		219 S. Erie St.		168 Woodrow Avenue		300 Merchant Ln.,	
Suite 200		Newark, OH 43055		Suite 300		Bedford, OH 44146		Toledo, OH 43604		Suite 3		Suite 307	
Dublin, OH 43016		P: (740) 344-5451		Mason, OH 45040		P: (440) 232-9945		P: (419) 385-2018		St. Clairsville, OH 43950		Pittsburgh, PA 15205	
P: (614) 783-8777		P: (613) 459-9877						P: (740) 217-2460		P: (412) 448-0315			

REPORT TO:

LINDSAY CROW/DATA ADMIN

Client: <u>ICP</u>	SAMPLE MATRIX	PRESERVATIVES	ANALYSES													
			PRESERVATIVES													
Site: <u>SEARS AUTO CENTER</u>	AA-AMBIENT AIR C-ASBESTOS D-SEDIMENT G-GROUNDWATER IA-INDOOR AIR L-LEACHATE P-PRODUCT S-SOIL SG-SOIL GAS SS-SUBLAB VAPOR W-WATER X-CONCRETE	A-Cool only, <4 deg. C B-HNO ₃ pH<2 C-H ₂ SO ₄ pH<2 D-NaOH pH>12 E-ZnAcetate + NaOH, pH>8 F-Ne ₂ S ₂ O ₃ (0.008%) G-HCL pH <2	H-EDTA I-5ml 1:1 HCL J-none K-Stored in dark L-NH4Cl M-Methanol S-Sodium	METALS												
Project #: <u>ICP003</u> Phase: <u></u>			N - Not filtered F45u- filtered with 0.45 micron F5u- filtered with 5 micron													
Samplers: <u>D. SANSONE</u>			VOC													
Purchase Order #																
PROJECT NO.:	SAMPLE LOCATION :	SAMPLE MATRIX & ID	NO. OF CONT.	SAMPLE TYPE (discrete, composite)	COLLECTION DATE/TIME	METALS	COMMENTS									
ICP003	TB-1	W092018	3	d	9-20-18 / 1900	N	X 010									
:	:				/											
:	:				/											
:	:				/											
:	:				/											
:	:				/											
:	:				/											
:	:				/											
:	:				/											
:	:				/											
:	:				/											
:	:				/											
:	:				/											
:	:				/											
RELINQUISHED BY: 	DATE: 9-20-18	RECEIVED BY: FEDEX	DATE: 9-20-18	Deliver To: <u>PACE INDY</u>												
RELINQUISHED BY: 	TIME: 20:00		TIME: 20:00	Method of Delivery: <u>FEDEX</u>												
RELINQUISHED BY: 	DATE: 9-21	RECEIVED BY: Jason Hult	DATE: 9-21	Airbill Number:												
RELINQUISHED BY: 	TIME: 815		TIME: 815	Regulatory Program:												
COOLER TEMPERATURE AS RECEIVED	11 °C	DISTRIBUTION:	WHITE	-LAB USE (MUST BE RETURNED WITH REPORT)	NOTES:											
			YELLOW	-LAB USE												
			PINK	-RETAINED BY HULL												
					TURN AROUND TIME:	511 DAYS										

PaceAnalytical

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of

person examining contents:

JRA-21 950

Project #: 5020617

Courier: FedEx UPS USPS Client Commercial Pace Other

Tracking #: 455870443801

Custody Seal on Cooler/Box Present: Yes No

Seals Intact: Yes No

Packing Material: Bubble Wrap

Bubble Bags None Other

Thermometer: 1 2 3 4 5 6 A C D E F

Ice Type: Wet Blue None | Samples collected today and on ice: Yes No N/A

Cooler Temperature: 11 / 11

Ice Visible in Sample Containers?: Yes No N/A

(Initial/Corrected) Temp should be above freezing to 6°C

If temp. is Over 6°C or under 0°C, was the PM Notified?: Yes No N/A

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
Are samples from West Virginia?		X	All containers needing acid/base pres. Have been checked?: exceptions: VOA, coliform, LLHg, O&G, and any container with a septum cap or preserved with HCl.			
Document any containers out of temp.			All containers needing preservation are found to be in compliance with EPA recommendation (<2, >9, >12) unless otherwise noted.			X
USDA Regulated Soils? (ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	Circle: HNO3 H ₂ SO ₄ NaOH NaOH/ZnAc			
Chain of Custody Present:	X		Dissolved Metals field filtered?:			X
Chain of Custody Filled Out:	X		Headspace Wisconsin Sulfide			X
Short Hold Time Analysis (<72hr)?: TC	X		Residual Chlorine Check (SVOC 625 Pest/PCB 608)	Present	Absent	N/A
Analysis:			Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Time 5035A TC placed in Freezer or Short Holds To Lab: j00Z			Headspace in VOA Vials (>6mm):			X
Rush TAT Requested:		X	Trip Blank Present?:	X		
Containers Intact?:	X		Trip Blank Custody Seals?:	X		
Sample Labels Match COC?:	X					
Except TCs, which only require sample ID						

Comments:

Sample Container Count

CLIENT: Hull

COC PAGE 6 of 6
COC ID# 3440

Project # 5020613

SBS
Bul^k
Fit

Matrix S/W/W/NAL
(Soil/Water/Non-Aqueous Liquid)

pH <2 pH >9 pH>12

Sample Line Item	DG9H	VG9H	AG0U	AG1H	AG1U	AG2U	AG3S	WGFU	SP5T	BP1U	BP2N	BP2S	BP2U	BP3B	BP3N	BP3S	BP3U	R				
1								2										4				SC
2										2								4				SC
3										2								4				SC
4																						
5										2								4				SC
6										2								4				SC
7										2								4				SC
8																						
9										2								4				SC
10																						
11										2								4				SC
12										2								4				SC

Container Codes

Glass				Plastic / Misc.										
DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpreserved amber glass	BP1A	1 liter NaOH, Asc Acid plastic	BP3U	250mL unpreserved plastic							
DG9H	40mL HCL amber voa vial	AG1H	1 liter HCL amber glass	BP1N	1 liter HNO3 plastic	BP3Z	250mL NaOH, Zn Ac plastic							
DG9M	40mL MeOH clear vial	AG1S	1 liter H2SO4 amber glass	BP1S	1 liter H2SO4 plastic									
DG9P	40mL TSP amber vial	AG1T	1 liter Na Thiosulfate amber glass	BP1U	1 liter unpreserved plastic	AF	Air Filter							
DG9S	40mL H2SO4 amber vial	AG1U	1liter unpreserved amber glass	BP1Z	1 liter NaOH, Zn, Ac	C	Air Cassettes							
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	R	Terra core kit							
DG9U	40mL unpreserved amber vial	AG2S	500mL H2SO4 amber glass	BP2N	500mL HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate							
VG9H	40mL HCL clear vial	AG2U	500mL unpreserved amber glass	BP2O	500mL NaOH plastic	U	Summa Can							
VG9T	40mL Na Thio. clear vial	AG3S	250mL H2SO4 glass amber	BP2S	500mL H2SO4 plastic	ZPLC	Ziploc Bag							
VG9U	40mL unpreserved clear vial	AG3U	250mL unpreserved amber glass	BP2U	500mL unpreserved plastic									
VGFX	40mL w/hexane wipe vial	BG1H	1 liter HCL clear glass	BP2Z	500mL NaOH, Zn Ac									
VSG	Headspace septa vial & HCL	BG1S	1 liter H2SO4 clear glass	BP3B	250mL NaOH plastic									
WGAU	8oz unpreserved clear jar	BG1T	1 liter Na Thiosulfate clear glass	BP3N	250mL HNO3 plastic									
WG FU	4oz clear soil jar	BG1U	1 liter unpreserved glass	BP3S	250mL H2SO4 plastic									
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass	BG3U	250mL Unpreserved Clear Glass									

Sample Container Count

WO# : 50206113

CLIENT: HULLCOC PAGE 2 of 2COC ID# 4123Project # 50206113

SBS

50206113

Bulk
KitMatrix S
(Soil/Wa
Aqueous

pH <2 pH >9 pH>12

Sample Line Item	DG9H	AG0U	AG1H	AG1U	AG2U	AG3S	WGFU	SP5T	BP1U	BP2N	BP2S	BP2U	BP3B	BP3N	BP3S	BP3U	R				
1	3																				WT
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Container Codes

Glass

Plastic / Misc.

DG9B	40mL Na Bisulfate amber vial	AG0U	100mL unpreserved amber glass	BP1A	1 liter NaOH, Asc Acid plastic	BP3U	250mL unpreserved plastic
DG9H	40mL HCL amber voa vial	AG1H	1 liter HCL amber glass	BP1N	1 liter HNO3 plastic	BP3Z	250mL NaOH, Zn Ac plastic
DG9M	40mL MeOH clear vial	AG1S	1 liter H ₂ SO ₄ amber glass	BP1S	1 liter H ₂ SO ₄ plastic		
DG9P	40mL TSP amber vial	AG1T	1 liter Na Thiosulfate amber glass	BP1U	1 liter unpreserved plastic	AF	Air Filter
DG9S	40mL H ₂ SO ₄ amber vial	AG1U	1liter unpreserved amber glass	BP1Z	1 liter NaOH, Zn, Ac	C	Air Cassettes
DG9T	40mL Na Thio amber vial	AG2N	500mL HNO3 amber glass	BP2A	500mL NaOH, Asc Acid plastic	R	Terra core kit
DG9U	40mL unpreserved amber vial	AG2S	500mL H ₂ SO ₄ amber glass	BP2N	500mL HNO3 plastic	SP5T	120mL Coliform Na Thiosulfate
VG9H	40mL HCL clear vial	AG2U	500mL unpreserved amber glass	BP2O	500mL NaOH plastic	U	Summa Can
VG9T	40mL Na Thio. clear vial	AG3S	250mL H ₂ SO ₄ glass amber	BP2S	500mL H ₂ SO ₄ plastic	ZPLC	Ziploc Bag
VG9U	40mL unpreserved clear vial	AG3U	250mL unpreserved amber glass	BP2U	500mL unpreserved plastic		
VGFX	40mL w/hexane wipe vial	BG1H	1 liter HCL clear glass	BP2Z	500mL NaOH, Zn Ac		
VSG	Headspace septa vial & HCL	BG1S	1 liter H ₂ SO ₄ clear glass	BP3B	250mL NaOH plastic		
WGAU	8oz unpreserved clear jar	BG1T	1 liter Na Thiosulfate clear glass	BP3N	250mL HNO3 plastic		
WGFU	4oz clear soil jar	BG1U	1 liter unpreserved glass	BP3S	250mL H ₂ SO ₄ plastic		
JGFU	4oz unpreserved amber wide	BG3H	250mL HCl Clear Glass				
		BG3U	250mL Unpreserved Clear Glass				