



MOVE YOUR ENVIRONMENT FORWARD

# TASK 210

## SUBSURFACE SITE INVESTIGATION

**U.S. ROUTE 1 OVER YELLOW MILL CHANNEL  
BRIDGEPORT, CONNECTICUT**

Prepared For:

State of Connecticut  
Department of Transportation  
2800 Berlin Turnpike  
Newington, CT 06131

Prepared By:

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CT DOT Assignment No. 416 - 5442  
CT DOT Project No. 0015 - 0248  
HRP #: CTD4042.21

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## General Information

### Project/Site Information:

U.S. Route 1 Over Yellow Mill Channel  
Bridgeport, Connecticut

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CT DOT Project No. 0015-0248

### Client Information:

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## 1.0 INTRODUCTION

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On behalf of the Connecticut Department of Transportation (CT DOT), HRP Associates, Inc. (HRP) has completed a Task 210 (Subsurface Site Investigation) in association with the U.S. Route 1 over Yellow Mill Channel bridge renovation project. The attached Figure 1 depicts the site location topographically.

The soil and groundwater assessment was performed to characterize environmental conditions on two (2) segments of land that CT DOT intends to either establish a permanent easement on, or permanently acquire. The northern parcel (north side of bridge) that will be associated with a permanent easement is currently owned by the General Electric Corporation (GE). The broader GE parcel, to which the northern permanent-easement parcel is currently connected, is identified as a Resource Conservation and Recovery Act (RCRA) corrective action site. As a result, the northern permanent-easement parcel will be required to meet the CT DEEP Remediation Standard Regulations (RSRs), considered accepted practice for addressing Federal RCRA corrective actions in Connecticut. Investigation on the Permanent Impact-Take area (south side of bridge) was performed to verify the presence or absence of contamination in subsurface soils that will be disrupted during the course of construction activities, as well as the location and magnitude of any contaminated soil found. This investigation also assessed whether impacted groundwater would be encountered within the proposed construction zone. The investigation results were used to assess what subsurface media, if any, would require special handling and/or disposal practices.

Field investigation efforts were conducted as specified in the Task 210 Subsurface Site Investigation Work Plan finalized on February 11, 2019 or otherwise noted herein.

## 2.0 SITE DESCRIPTION AND HISTORY

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CT DOT is currently planning the renovation of Bridge# 00325, located on U.S. Route 1 over Yellow Mill Channel in Bridgeport, Connecticut. Completion of the project will require multiple temporary construction easements, a permanent easement on a small segment of land that abuts the bridge on its northern side, and permanent acquisition of a small segment of land that abuts the bridge on its southern side. The permanent easement on the northern land segment will be between the property owner (currently the GE Corporation) and the State of Connecticut. Because the broader GE parcel is identified as a RCRA corrective action site, the permanent easement segment is required to meet the CT DEEP RSRs (This responsibility belongs to GE).

To assist with DOT's evaluation of the northern permanent-easement area and the broader construction limits, GE provided CT DOT with historical environmental soil sampling data and mapping for these areas collected by their environmental consultant, WSP Global Inc. (WSP). This reviewed data identifies soils containing RSR-exceeding arsenic concentrations within the permanent take area and RSR-exceeding arsenic and Semi-Volatile Organic Compounds (SVOCs) within the temporary easement areas. Additionally, low-level SVOCs, Synthetic Precipitation Leaching Procedure (SPLP) SVOCs, Extractable Total Petroleum Hydrocarbons (ETPH), total metals, SPLP metals, and Poly-chlorinated biphenyls (PCBs) were all detected in soils within the easement areas. (It is noted that boring sample analysis located in the permanent easement area was limited to arsenic, and that overall laboratory parameter selection varied from boring to boring.

### 3.0 **LOCAL ENVIRONMENT AND WATER QUALITY CLASSIFICATION**

#### 3.1 **Geology**

Surficial geology within the project limits is mapped as Sand and Gravel which is defined as:

*"Composed of mixtures of gravel and sand within individual layers and as alternating layers. Sand and gravel layers generally range from 25 to 50 percent gravel particles and from 50 to 75 percent sand particles. Layers are well to poorly sorted; bedding may be distorted and faulted due to postdepositional collapse. It is likely that some deposits within this map unit actually are gravel or sand and gravel overlying sand. It is less likely that some of these deposits are sand (fluvial deposits or delta-topset beds)" (Surficial Materials Map of Connecticut by Stone, Schafer, London and Thompson, 1992).*

Bedrock beneath the project limits has not been mapped; however, the closest mapped bedrock is: Pumpkin Ground Member of Harrison Gneiss: gray to spotted, medium- to coarse-grained, foliated gneiss (Bedrock Geological Map of Connecticut by John Rodgers, 1985).

#### 3.2 **Hydrogeology**

The groundwater classification for the subject parcel is mapped as "GB." A "GB" groundwater classification is defined as follows:

*"Groundwater within a historically highly urbanized area or an area of intense industrial activity and where public water supply service is typically available. Such groundwater may not be suitable for human consumption without treatment due to waste discharges, spills or leaks of chemicals or land use impacts."*

The site is located adjacent to Stillman Pond. The surface water classification for Stillman Pond is "B." Class "B" surface water bodies are described as follows:

*"Surface water is known or presumed to meet Water Quality Criteria which support designated uses, which may include industrial process water and cooling waters and baseflow for hydraulically-connected water bodies and is presumed not suitable for human consumption without treatment. Class "B" surface water body designated uses include:*

- *Recreational use;*
- *Fish and wildlife habitat;*
- *Agricultural and industrial supply; and*
- *Other legitimate uses including navigation.*

*Discharges are restricted to:*

- *Discharges from public or private drinking water treatment systems;*
- *Dredging and dewatering;*
- *Emergency and clean water discharges;*
- *Cooling waters;*

- *Discharges from industrial and municipal wastewater treatment facilities (providing Best Available Treatment and Best Management Practices are applied); and*
- *Other discharges subject to the provisions of the Statute."*

## **4.0 PRELIMINARY ACTIVITIES**

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### **4.1 Health and Safety Plan (HASP) Preparation**

HRP developed a project-specific health and Safety Plan (HASP) for the Task 210 activities. The HASP addressed the health and safety practices employed by HRP staff and subcontractors participating in the installation of soil borings and monitoring wells at the site. The HASP was developed in accordance with HRP's Corporate Safety and Health Program as required under OSHA's Hazardous Waste Operations Standard (29 CFR 1910.120). The HASP was developed to establish minimum standards for project oversight and environmental sampling activities to protect the health and safety of HRP personnel and HRP's subcontractors. HRP site personnel have received the required level of training and field experience as required under subpart (e) of the Standard, and have received medical examinations in accordance with HRP's medical surveillance program as required under subpart (f) of the Standard. On-site HRP personnel and subcontractors were required to review and sign the HASP prior to field work commencement.

### **4.2 Sample Location Marking and Utility Clearance**

Prior to the commencement of each drilling event, HRP located and marked proposed soil boring locations in the field. Upon completion, Connecticut Call Before You Dig Services (CBYD) was contacted to arrange for a mark-out of public utility lines (CBYD Ticket #20190901340). As an additional precaution, CorBuilt, LLC of Mystic, Connecticut was contracted to survey proposed soil boring locations for potential subsurface utility conflicts using ground penetrating radar (GPR) and electromagnetic induction (EMI) technologies. Each boring location was approved prior to its installation.

## 5.0 **SOIL INVESTIGATION METHODS**

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### 5.1 **Field Screening**

#### *Visual Screening*

Soil samples collected as part of this investigation were visually inspected for evidence of contamination (i.e., color, sheen, etc.). Any staining or unusual odors observed from the samples were recorded on the appropriate boring log. Copies of boring logs are included as Appendix A.

#### *Photo-ionization Detector (PID)*

Soil samples were also field-screened for Volatile Organic Compounds (VOCs) using a PID in accordance with HRP Standard Operating Procedures (SOPs). A small portion of each sample was placed into a sealable plastic bag and allowed to equilibrate with the surrounding temperature. The bag's headspace was then screened and the results were recorded on the associated boring log.

### 5.2 **Geoprobe® Sample Collection**

A total of four (4) Geoprobe® soil borings (SB-1 through SB-4) were installed within the project limits. SB-1 through SB-3 were installed along the northern side of the bridge and SB-4 was installed along the southern side (see Figures 2A and 2B). Drilling work was performed by Complete Environmental Services, LLC of Bethany, Connecticut (CES) under HRP supervision using a Geoprobe® 3230DT direct-push drill rig. Soil borings were completed by advancing a 5-foot long stainless steel Macro-Core® sampling tube equipped with disposable acetate liners. Final depths ranged from approximately 11.5 to 15 fbg. It is noted that one proposed soil boring (SB-5) could not be completed due to equipment inaccessibility.

Soil intervals were collected in a continuous fashion from each boring and were inspected for evidence of contamination. Soil descriptions, lab sample intervals, and any other relevant observations were recorded on the soil boring logs. The following was noted during Task 210 field work activities:

- Soils were observed to be generally fine to coarse sand with minor components of silt and gravel.
- Weathered/decomposed bedrock (gneiss) was noted between approximately 9 and 13 fbg across the study area with some fractured rock noted above this layer. Refusal was encountered at SB-4 at approximately 11.5 fbg.
- Minor PID readings (up to 16 parts per million (ppm)) were noted in soil boring SB-3. Otherwise, elevated PID readings were not observed during field screening activities.

Laboratory submittal samples were chosen based on field observations and anticipated construction project disturbance depths. Samples were collected from each Geoprobe® boring

representing various depths from that boring location. A total of sixteen (16) soil samples were collected and submitted to the laboratory for analysis.

Samples were placed in laboratory-provided and preserved glassware, and stored on ice in coolers prior to receipt by the laboratory. The samples were submitted under proper chain-of-custody to Phoenix Environmental Laboratories, of Manchester, Connecticut (Phoenix), a CT-certified laboratory, for analysis of the following:

- VOCs via US Environmental Protection Agency (EPA) Method 8260;
- Semi-Volatile Organic Compounds (SVOCs) via EPA Method 8270;
- Extractable Total Petroleum Hydrocarbons (ETPH) via CT ETPH Methodology;
- Resource Conservation Recovery Act (RCRA)-8 metals via mass and Synthetic Precipitation Leaching Procedure (SPLP) (methodology varies by metal);
- Poly-chlorinated biphenyls (PCBs) via EPA Method 8082;
- Total and SPLP Pesticides via EPA Method 8081B; and
- Total Herbicides via EPA Method 8151A.

Field sampling protocols were performed in accordance with HRPs Standard Operating Procedures (SOPs) and "*Connecticut Department of Environmental Protection (CTDEP) Guidance for Collecting and Preserving Soil and Sediment Samples for Laboratory Determination of Volatile Organic Compounds*" dated March 1, 2006.

All soil borings were backfilled upon completion with residual cuttings and supplemented with bagged silica sand as needed.

## **6.0 GROUNDWATER INVESTIGATION METHODS**

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### **6.1 Temporary Monitoring Well Installation**

Two (2) temporary groundwater monitoring wells (MW-1 and MW-2) were installed at soil boring locations SB-2 and SB-1, respectively, to assess groundwater conditions within the construction project limits. The temporary wells were constructed using 1-inch poly-vinyl chloride well screen/riser pipe placed into the open borehole following advancement into the water table (final depths were approximately 13 - 14 fbg). The locations of MW-1 and MW-2 are illustrated on Figure 2. It is noted that proposed monitoring well MW-2 was relocated to soil boring SB-1 due to the non-completion of soil boring SB-5.

### **6.2 Temporary Monitoring Well Sampling**

Groundwater sampling was performed using grab-sample techniques employing a peristaltic pump and dedicated plastic tubing. The wells were purged of standing water to reduce turbidity prior to the collection of samples. Groundwater was encountered between approximately 3.5 and 6.7 fbg.

The groundwater sample was placed in laboratory-provided and preserved glassware, stored on ice in coolers, and submitted under proper chain-of-custody to Phoenix for analysis of the following:

- VOCs via EPA Method 8260;
- SVOCs via EPA Method 8270;
- ETPH via CT ETPH Methodology;
- RCRA-8 metals (total and dissolved analysis, methodology varies by metal);
- PCBs via EPA Method 8082;
- Pesticides EPA Method 8081B; and
- Herbicides EPA Method 8151A.

For dissolved metals analysis, a groundwater sample was collected in an unpreserved plastic container and submitted to Phoenix for laboratory filtering (0.45-micron filter used).

## 7.0 LABORATORY DATA RESULTS

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### 7.1 Regulatory Criteria

Soil sample analytical results were compared to the Connecticut Department of Energy and Environmental Protection (CT DEEP) Remediation Standard Regulations (RSRs). The RSRs (Regulations of Connecticut State Agencies, Section 22a-133k-1 to 3 and 22a-133q-1) were developed (adopted January 1996, amended 2013) with the purpose to define minimum remediation performance standards, specific numeric cleanup criteria, and a process for establishing alternative site-specific numerical standards for certain sites, upon approval by the CT DEEP. The RSRs apply to any site undergoing voluntary remediation under Public Acts 95-183 or 95-190, a transfer of an "establishment" under Public Act 95-183, or any site as ordered by the CT DEEP Commissioner.

The broader GE parcel, to which the northern permanent-easement parcel is currently connected, is identified as a Resource Conservation and Recovery Act (RCRA) corrective action site. As a result, the northern permanent-easement parcel will be required to meet the CT DEEP Remediation Standard Regulations (RSRs) (considered accepted practice for addressing Federal RCRA corrective actions in Connecticut).

The southern portion of the project limits is not part of the RCRA corrective action site, it is not an "establishment", nor is it associated with the CT DEEP Voluntary Remediation program. However, CT DEEP RSR numeric criteria were used in evaluation of environmental data for comparative purposes in order to determine proper handling and disposal management procedures. Certain compounds do not have established numeric criteria in the RSRs. In this case, the results were compared to numeric criteria referenced in the CT DEEP Technical Support Document: Recommended Numeric Criteria for Additional Polluting Substances (APS) and Certain Alternative Criteria (12/10/2015, Rev. 1/27/2017).

The applicable RSR standards based on general site location are as follows:

#### Soil

- Residential Direct Exposure Criteria (RDEC)
- Industrial Commercial Direct Exposure Criteria (I/C DEC)
- GB Pollutant Mobility Criteria (GB PMC)
- Groundwater Protection Criteria (GWPC) (for leachable pesticides)

#### Groundwater

- Surface water Protection Criteria (SWPC)
- Residential Groundwater Volatilization Criteria (R GWVC)
- Industrial Commercial Volatilization Criteria (I/C GWC)

## 7.2 Data Evaluation

### 7.2.1 Soil Sample Analytical Results

Data from soil samples collected during the Task 210 investigation are presented in Table 1 and the laboratory analytical report is provided in Appendix B. A summary of laboratory results is provided as follows:

#### VOCs

Trichloroethylene was detected in sample SB-2 (13-15') in exceedance of the GB PMC numeric standard; however, based on the sample depth interval being below the water table, the concentration is not considered an RSR exceedance. Additionally, low-level concentrations of VOCs were detected below applicable RSR numeric criteria in samples SB-1 (0-2'), SB-1 (10-12'), SB-2 (6-8'), SB-2 (10-12'), SB-2 (13-15'), SB-3 (0-2'), and SB-3 (3-5'). VOCs were not detected above laboratory detection limits in any of the remaining soil boring samples submitted for laboratory analysis.

#### SVOCs

Multiple SVOCs were detected in exceedance of the applicable RSR standards in SB-1 (0-2'), SB-1 (3-5') and SB-4 (3-5'). Additionally, low-level concentrations of several SVOCs were detected below applicable RSR standards in SB-1 (0-2'), SB-1 (3-5'), SB-2 (0-2'), SB-3 (0-2'), SB-3 (3-5') and SB-4 (3-5'). SVOCs were not reported above the laboratory detection limits in any of the remaining soil boring samples submitted for laboratory analysis.

#### ETPH

ETPH was detected in exceedance of the RDEC in SB-4 (0-2'). ETPH was not reported above laboratory reporting limits in any of the remaining soil boring samples submitted for laboratory analysis.

#### RCRA-8 Metals

Arsenic was detected via mass analysis in exceedance of the applicable RSR standards in SB-1 (0-2'), SB-1 (6-8'), SB-1 (10-12'), SB-2 (13-15'), SB-4 (0-2'), SB-4 (3-5'), SB-4 (6-8'), and SB-4 (10-11.5'). Additionally, low-level concentrations of select RCRA-8 metals were detected below the applicable RSR standards via mass and SPLP analysis in each of the analyzed soil samples.

#### PCBs

Low-level PCBs were detected below the applicable RSR standards in SB-3 (3-5'). PCBs were not detected above laboratory reporting limits in any other sample submitted for laboratory analysis.

#### Pesticides

Low-level concentrations of select pesticides were detected below applicable RSR standards via mass analysis in SB-1 (0-2'), SB-2 (0-2'), and SB-3 (0-2'). SPLP pesticides were not detected above laboratory reporting limits in any of the samples submitted for laboratory analysis.

#### Herbicides

Herbicides were not detected above laboratory reporting limits in any of the samples submitted for laboratory analysis.

## 7.2.2 Groundwater Sample Analytical Results

Data from groundwater samples collected from temporary monitoring wells MW-1 and MW-2 are presented in Table 2 and the laboratory analytical report is provided in Appendix B. A summary of laboratory detections results is provided as follows:

### VOCs

Vinyl chloride was detected in exceedance of the GWVC in MW-1. Additionally, low-level concentrations of select VOCs were detected below the applicable RSR standards in both MW-1 and MW-2.

### SVOCs

Select SVOCs were detected in both MW-1 and MW-2, with some concentrations in exceedance of the applicable RSR standards.

### ETPH

ETPH was not detected above laboratory reporting limit in either groundwater sample.

### RCRA-8 Metals

Total lead was detected in exceedance of the applicable RSR standards in both MW-1 and MW-2. Total arsenic was also detected in exceedance of the applicable RSR standards in MW-1. Additional low-level concentrations of select RCRA-8 metals were detected via mass analysis below the applicable RSR standards in both groundwater samples.

Low-level concentrations of select dissolved RCRA-8 metals were reported below applicable RSR standards in both groundwater samples.

### PCBs

PCBs were not detected above laboratory reporting limits in either groundwater sample.

### Pesticides

Dieldrin was detected well below the applicable RSR standards in MW-2. No additional pesticides were detected above laboratory reporting limits in either groundwater sample.

### Herbicides

Herbicides were not detected above laboratory reporting limits in either groundwater sample.

It is noted that during data review, select compounds and their related RSR concentrations were found to be potentially in exceedance of certain Significant Environmental Hazard Notification (SEHN) thresholds. This information was provided to GE as the property owner and they concluded that SEH threshold conditions were not breached based on their site knowledge and prior investigative conclusions.

### 7.2.3 Quality Assurance/Quality Control (QA/QC)

Quality assurance and quality control (QA/QC) samples were used during sampling activities to assess potential data interference from storage techniques. Trip blank samples were used for QA/QC purposes. The trip blanks included a low and high level sample for VOCs in soil. The trip blanks were used to assess proper handling/storage techniques and were analyzed for VOCs. All sampling equipment was either dedicated to a specific sample or decontaminated between each use.

The trip blanks were laboratory prepared prior to job commencement and were stored with the daily samples until subsequent delivery to the laboratory.

All samples collected in the field were handled in a manner that preserved the integrity of their chemistry and placed in an ice-filled cooler immediately following collection until delivery to the laboratory. Chain-of-Custody (COC) forms were completed and accompanied the sample group as a legal record of possession. HRP requested all analyses to be performed under the Connecticut Reasonable Confidence Protocols (RCP). The RCP are established protocols that analytical laboratories must follow to assure acceptable data quality.

#### QA/QC Results

No contaminants of concern were detected in the trip blanks, thus indicating proper sampling handling techniques were employed.

Phoenix reported that for the Sample/Duplicate RPD for Soil QC Batch 470727 (associated with all soil samples), the method criteria exceeds for one or more analytes; therefore, some variability could be present in the reported result (arsenic, lead). Because of the documented historical presence of RCRA-8 metals in site soils, the results will be considered accurate for the purposes of this assessment.

HRP reviewed the data results and QA/QC documentation. The comments noted in the lab report case narratives do not appear to significantly affect data quality; therefore HRP determined that the data results are suitable for their intended purpose. According to the *Laboratory Analysis QA/QC Certification Form*, Question #1 (For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed?) was answered "Yes" on all of the reports. The affirmative response indicates that the laboratory's QA Director certifies the report's conformance with RCP requirements.

## 8.0 **CONCLUSIONS AND RECOMMENDATIONS**

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HRP completed a Task 210 (Subsurface Site Investigation) on behalf of the CT DOT in association with the planned renovation of Bridge# 00325, located on U.S. Route 1 over Yellow Mill Channel in Bridgeport, Connecticut. The investigation focused on evaluating soils and groundwater on two (2) segments of land that CT DOT intends to either establish a permanent easement on (GE parcel segment on northern bridge side), or permanently acquire (segment along southern bridge side). Based on the data presented in this report, HRP has made the following conclusions and recommendations:

### 8.1 **Conclusions**

- Overburden soils were observed to be generally fine to coarse sand with minor components of silt and gravel. Weathered/decomposed bedrock (gneiss) was observed between approximately 9 and 13 fbg.
- Arsenic was found in exceedance of applicable RSR numeric criteria at soil boring SB-1 through multiple depth intervals as well as in soil boring SB-4 at the deepest sample interval. It is noted that neither of the borings located within the permanent easement footprint of the GE parcel (SB-2, SB-3) reported elevated arsenic in exceedance of applicable RSR standards.
- An elevated concentration of trichloroethylene was observed in a deep-interval soil sample collected from the GE parcel (SB-2 10-12'). The concentration is not considered RSR-exceeding due to the sample depth being located below the groundwater table. Only trace concentrations of other select VOCs were detected in other soil samples collected from the borings along the northern bridge side.
- SVOC concentrations were found in exceedance of applicable RSR standards at shallow and moderate depths along both sides of the bridge.
- ETPH in exceedance of the applicable RSR standards was identified in shallow soil located south of the bridge (SB-4 0-2'). ETPH was not detected in samples collected from the north side of the bridge.
- Low-level PCBs were detected in one moderate depth soil sample (SB-3 3-5'). Based on other results from samples collected in the vicinity, the detection appears to be random/isolated and that PCBs are not prevalent in construction limit soils.
- Pesticides do not appear to be a significant concern in construction limit soils.
- The groundwater table was observed between approximately 3.5 and 5 fbg for the lowest elevation grade borings (SB-1, SB-2).
- The grab groundwater sample collected at MW-1 exhibited vinyl chloride in exceedance of the GWVC. Additionally, select RCRA-8 metals, SVOCs, and/or pesticides were in exceedance of the SWPC in both MW-1 and MW-2. Based on grab sample techniques

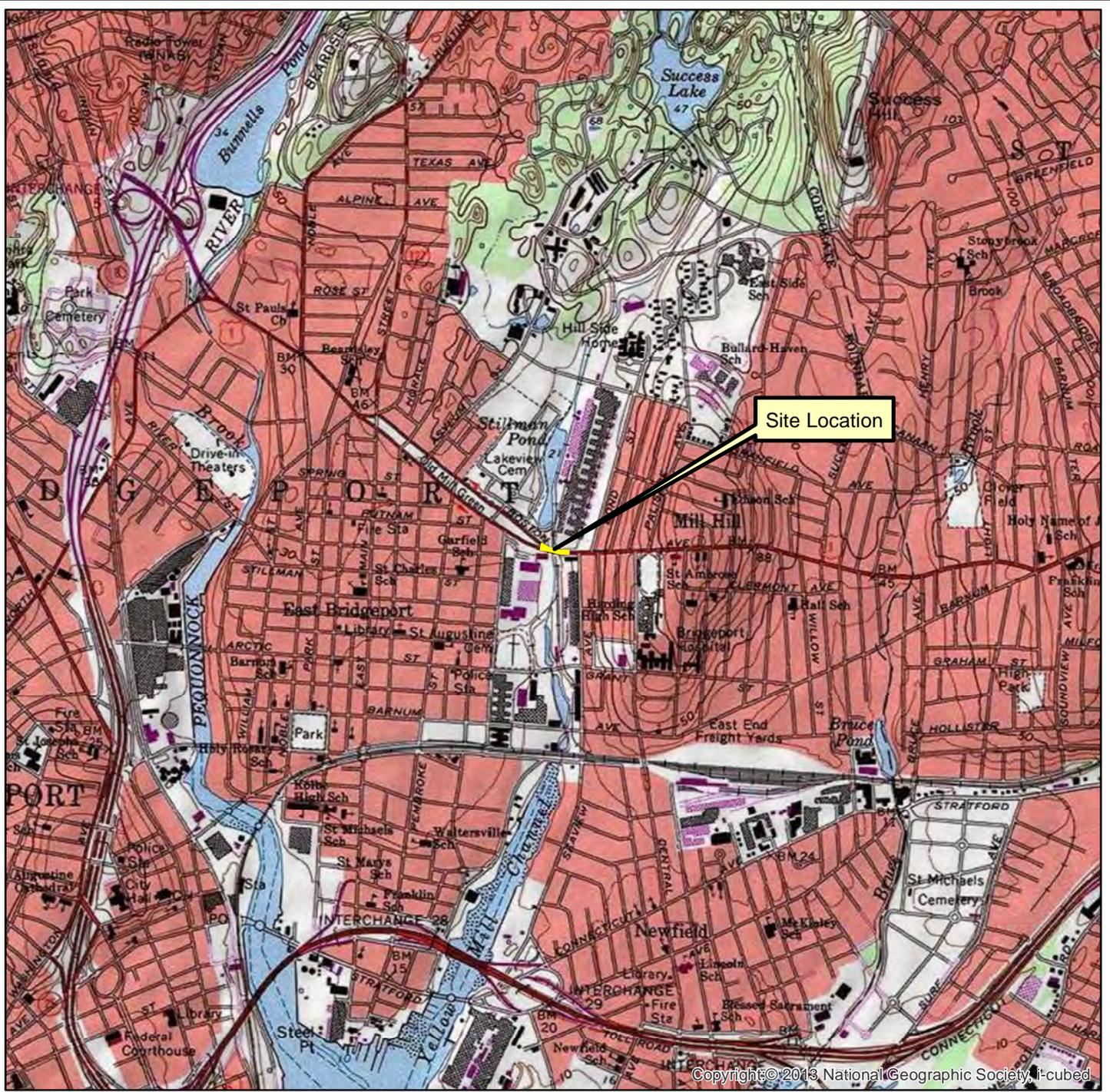
employed, it is acknowledged that entrained sediment may have influenced groundwater contaminant concentrations to a minor degree;

- Groundwater results were compared to the General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Sanitary Sewer and General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Surface Water to assess potential groundwater management options. Laboratory results indicated that groundwater from the project corridor can be discharged to the sanitary sewer but cannot be discharged to surface water without prior treatment (not including sediment filtration). Select metals, total VOCs, and dieldrin were noted as exceeding the surface water discharge General Permit limits. Note that this comparison should be considered cursory and not directly representative of discharge sample results.

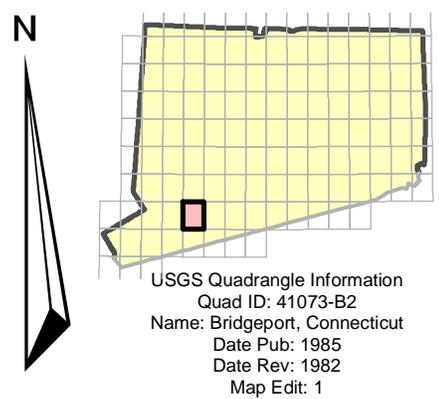
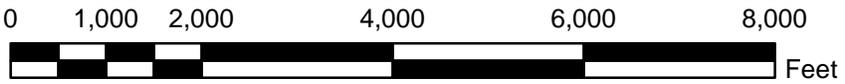
## 8.2 Recommendations

- Soil excavation, handling/disposal, and any associated backfilling activities related to DOT construction along the northern side of the bridge, in particular within the segment of land that will become a permanent easement, should be performed in such a manner that does not interfere with GE completing RCRA corrective action on their parcel (inclusive of the permanent easement segment). This would include coordination with GE to complete any confirmatory sampling of excavation limits (if required) and backfill material testing requirements. These protocols should be clearly defined by GE prior to construction commencement.
- A Task 310 – Plans, Specifications, and Estimates should be completed in order to properly manage contaminated materials during construction activities. Management activities would include removal, handling, transportation, reuse, and/or proper disposal of the contaminated materials. Additionally, the Task 310 establishes appropriate Health and Safety protocols for construction workers performing activities related to addressing the contaminated materials.

# FIGURES



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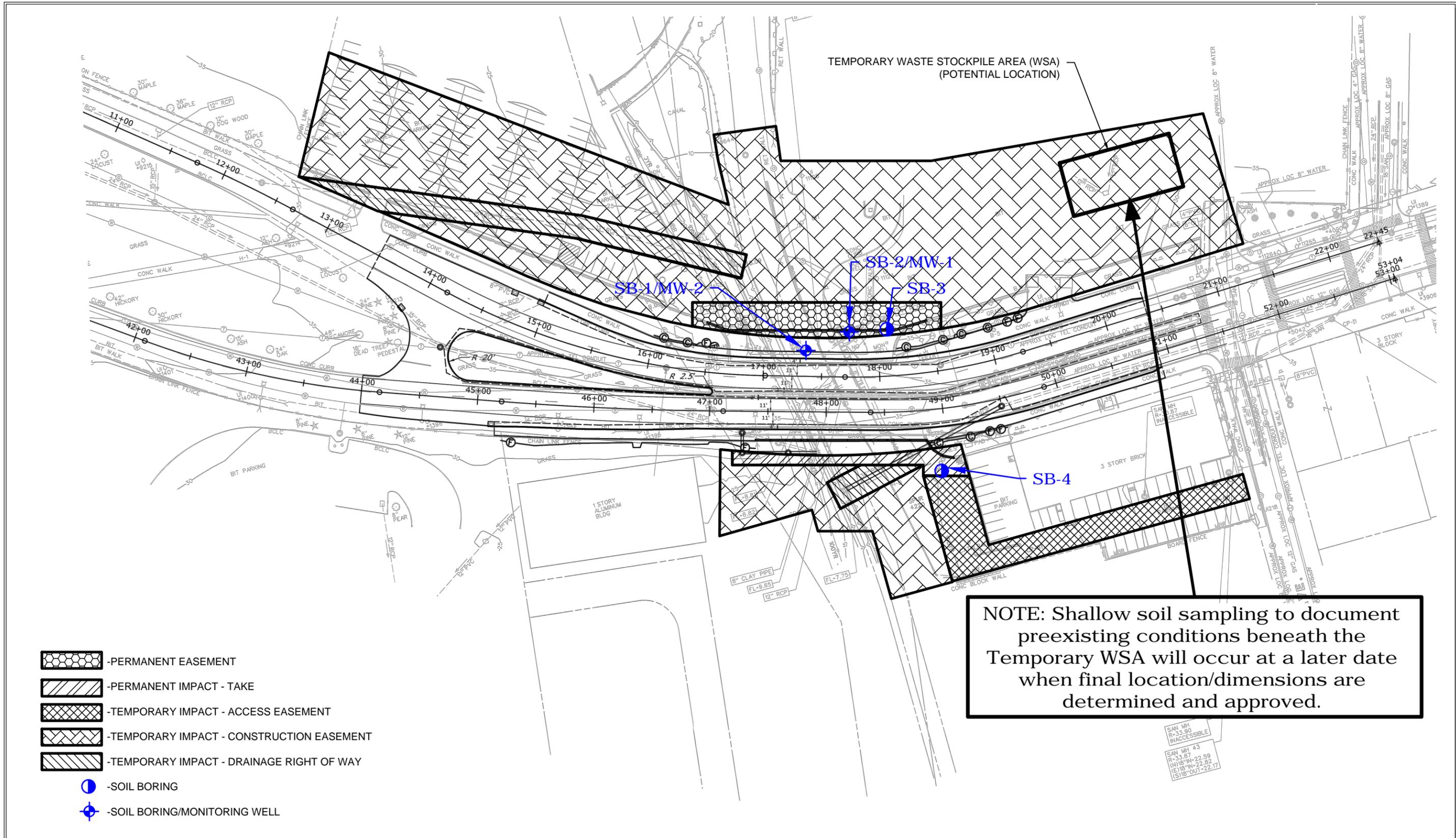


USGS Quadrangle Information  
 Quad ID: 41073-B2  
 Name: Bridgeport, Connecticut  
 Date Pub: 1985  
 Date Rev: 1982  
 Map Edit: 1

**Figure 1**  
**Site Location**  
**ConnDOT**  
**US Route 1 Over**  
**Yellow Mill Channel**  
**Bridgeport, Connecticut**  
**HRP # CTD4042.21**  
**Scale 1" = 2,000'**

**HRP**  
 MOVE YOUR ENVIRONMENT FORWARD

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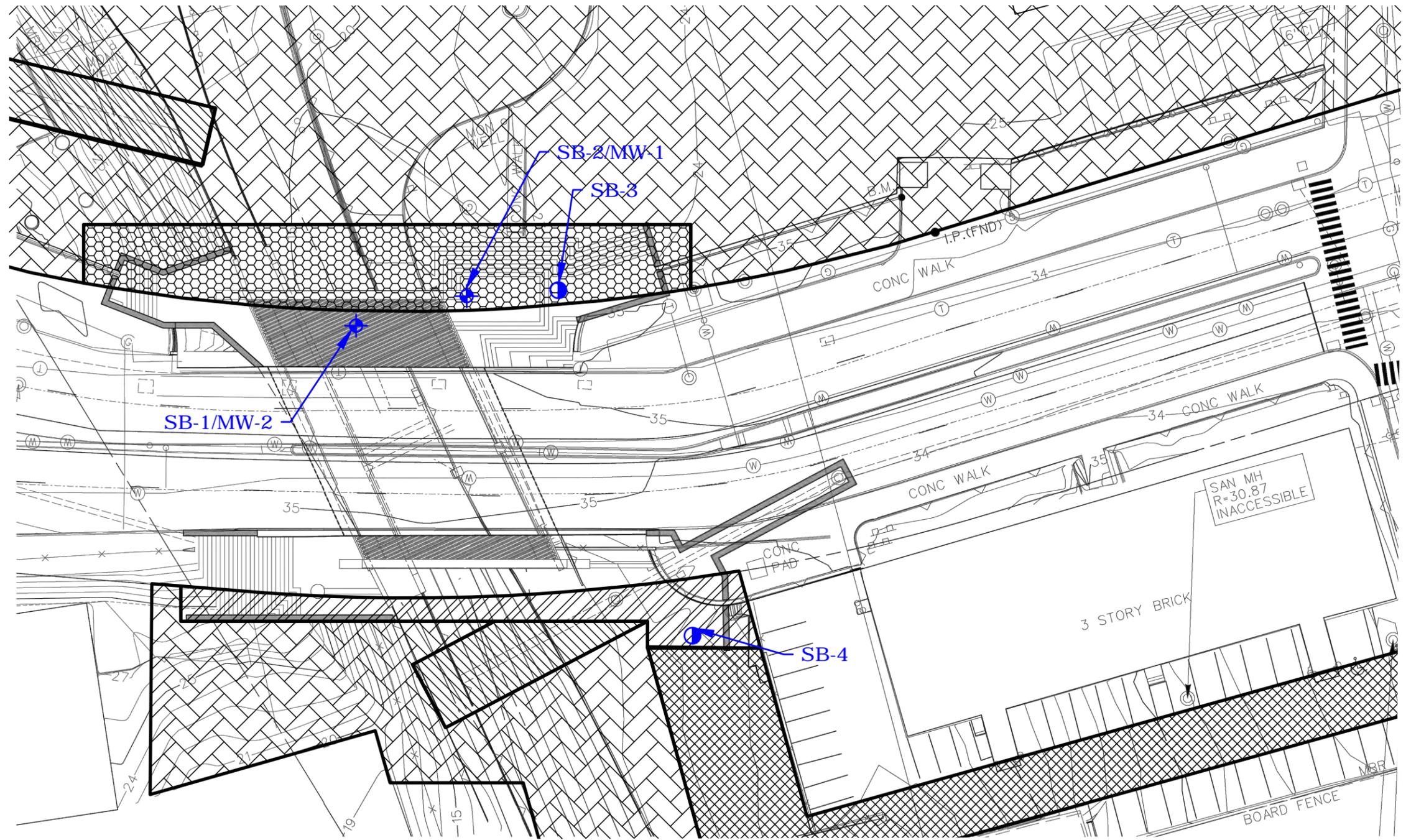
- PERMANENT EASEMENT
- PERMANENT IMPACT - TAKE
- TEMPORARY IMPACT - ACCESS EASEMENT
- TEMPORARY IMPACT - CONSTRUCTION EASEMENT
- TEMPORARY IMPACT - DRAINAGE RIGHT OF WAY
- SOIL BORING
- SOIL BORING/MONITORING WELL

**NOTE: Shallow soil sampling to document preexisting conditions beneath the Temporary WSA will occur at a later date when final location/dimensions are determined and approved.**

SAN MH  
R=35.90  
INACCESSIBLE

SAN MH 43  
R=33.57  
IN/18"IN-22.59  
(E)18"IN-22.82  
(S)18"OUT-22.17

<p><b>HRP</b> MOVE YOUR ENVIRONMENT FORWARD</p> <p>197 SCOTT SWAMP ROAD FARMINGTON, CT 06032 (860) 674-9570 HRPASSOCIATES.COM</p>	NORTH 0 40' 80'	<b>REVISIONS</b>		DESIGNED BY: <b>JAB2</b>	REVIEWED BY: <b>WAS</b>	ISSUE DATE: <b>03/27/2019</b>	SITE PLAN WITH SOIL BORING LOCATIONS  CONNECTICUT DOT US ROUTE 1 OVER YELLOW MILL CHANNEL BRIDGEPORT, CONNECTICUT	FIGURE NO.  <b>2A</b>
		NO.    DATE	DRAWN BY: <b>BOB</b>	PROJECT NUMBER: <b>CTD4042.21</b>	SHEET SIZE: <b>11"x17"</b>			



- PERMANENT EASEMENT
- PERMANENT IMPACT - TAKE
- TEMPORARY IMPACT - ACCESS EASEMENT
- TEMPORARY IMPACT - CONSTRUCTION EASEMENT
- TEMPORARY IMPACT - DRAINAGE RIGHT OF WAY
- SOIL BORING
- SOIL BORING/MONITORING WELL

**HRP**  
 MOVE YOUR ENVIRONMENT FORWARD  
 197 SCOTT SWAMP ROAD  
 FARMINGTON, CT 06032  
 (860) 674-9570  
 HRPASSOCIATES.COM

NORTH

0    20'    40'

REVISIONS	
NO.	DATE

DESIGNED BY:  
**JAB2**

DRAWN BY:  
**BOB**

REVIEWED BY:  
**WAS**

PROJECT NUMBER:  
**CTD4042.21**

ISSUE DATE:  
**03/27/2019**

SHEET SIZE:  
**11"x17"**

**SITE PLAN WITH  
SOIL BORING LOCATIONS**

CONNECTICUT DOT  
US ROUTE 1 OVER YELLOW MILL CHANNEL  
BRIDGEPORT, CONNECTICUT

FIGURE NO.  
**2B**

# TABLES

Table 1  
SUMMARY OF SOIL ANALYTICAL RESULTS  
DOT - U.S. Route 1 Over Yellow Mill Channel, Bridgeport, CT  
HRP# CTD4042.21

			Lab Report No.: GCC69317							
			GCC69317		GCC69317		GCC69317		GCC69317	
			CC69317SITE		CC69318SITE		CC69319SITE		CC69320SITE	
			SB-1 0-2		SB-1 3-5		SB-1 6-8		SB-1 10-12	
			03/15/19		03/15/19		03/15/19		03/15/19	
			SB-2 0-2		SB-2 3-5		SB-2 6-8		SB-2 10-12	
			03/15/19		03/15/19		03/15/19		03/15/19	
			Date Collected:							
			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
<b>SOIL-Metals</b>			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
Arsenic	7440-38-2	mg/kg	10	10	10	10	10	10	10	10
Barium	7440-39-3	mg/kg	4,700	140,000	4,700	140,000	4,700	140,000	4,700	140,000
Cadmium	7440-43-9	mg/kg	34	1,000	34	1,000	34	1,000	34	1,000
Chromium, Total	7440-47-3	mg/kg	100	100	100	100	100	100	100	100
Lead	7439-92-1	mg/kg	400	1,000	400	1,000	400	1,000	400	1,000
Mercury	7439-97-6	mg/kg	20	610	20	610	20	610	20	610
Selenium	7782-49-2	mg/kg	340	10,000	340	10,000	340	10,000	340	10,000
Silver	7440-22-4	mg/kg	340	10,000	340	10,000	340	10,000	340	10,000
<b>SOIL-Metals-SPLP</b>			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
Arsenic	7440-38-2	mg/l	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Barium	7440-39-3	mg/l	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Cadmium	7440-43-9	mg/l	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Chromium, Total	7440-47-3	mg/l	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead	7439-92-1	mg/l	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Mercury	7439-97-6	mg/l	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Selenium	7782-49-2	mg/l	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Silver	7440-22-4	mg/l	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
<b>SOIL-8270C</b>			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
2-Methylnaphthalene	91-57-6	µg/kg	270,000	1,000,000	5,600	5,600	300	<280	<280	<270
Acenaphthene	83-32-9	µg/kg	1,000,000	2,500,000	84,000	84,000	830	<280	<280	<270
Acenaphthylene	208-96-8	µg/kg	1,000,000	2,500,000	84,000	84,000	290	<280	<280	<270
Anthracene	120-12-7	µg/kg	1,000,000	2,500,000	400,000	400,000	2000	<280	<280	<270
Benzo(a)anthracene	56-55-3	µg/kg	1,000	7,800	1,000	1,000	3800	<280	<280	<270
Benzo(a)pyrene	50-32-8	µg/kg	1,000	1,000	1,000	1,000	3200	<280	<280	<270
Benzo(b)fluoranthene	205-99-2	µg/kg	1,000	7,800	1,000	1,000	3500	<280	<280	<270
Benzo(ghi)perylene	191-24-2	µg/kg	8,400	78,000	1,000	1,000	1600	<280	<280	<270
Benzo(k)fluoranthene	207-08-9	µg/kg	8,400	78,000	1,000	1,000	2700	<280	<280	<270
Carbazole	86-74-8	µg/kg	31,000	290,000	1,000	1,000	1100	<280	<280	<270
Chrysene	218-01-9	µg/kg	84,000	780,000	1,000	1,000	3900	<280	<280	<270
Dibenzo(a,h)anthracene	53-70-3	µg/kg	1,000	1,000	1,000	1,000	460	<280	<280	<270
Dibenzofuran	132-64-9	µg/kg	68,000	1,000,000	1,400	1,400	700	<280	<280	<270
Fluoranthene	206-44-0	µg/kg	1,000,000	2,500,000	56,000	56,000	12000	<280	<280	<270
Fluorene	86-73-7	µg/kg	1,000,000	2,500,000	56,000	56,000	870	<280	<280	<270
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg	1,000	7,800	1,000	1,000	2000	<280	<280	<270
Naphthalene	91-20-3	µg/kg	1,000,000	2,500,000	56,000	56,000	550	<280	<280	<270
Phenanthrene	85-01-8	µg/kg	1,000,000	2,500,000	40,000	40,000	7900	<280	<280	<270
Pyrene	129-00-0	µg/kg	1,000,000	2,500,000	40,000	40,000	7600	<280	<280	<270
<b>SOIL-8260B</b>			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
cis-1,2-Dichloroethylene	156-59-2	µg/kg	500,000	1,000,000	14,000	14,000	<9.4	<7.2	<6.8	8400
Ethylbenzene	100-41-4	µg/kg	500,000	1,000,000	10,100	10,100	<9.4	<7.2	<6.8	<5.1
m-,p-,o-Xylene	1330-20-7	µg/kg	500,000	1,000,000	19,500	19,500	<9.4	<7.2	<6.8	<5.1
m/p-Xylenes	179601-23-1	µg/kg					<9.4	<7.2	<6.8	<5.1
Naphthalene	91-20-3	µg/kg	1,000,000	2,500,000	56,000	56,000	1800	<7.2	<6.8	<5.1
o-Xylene	95-47-6	µg/kg					<9.4	<7.2	<6.8	<5.1
Trichloroethylene	79-01-6	µg/kg	56,000	520,000	1,000	1,000	<9.4	<7.2	<6.8	1500**
Vinyl chloride	75-01-4	µg/kg	320	3,000	400	400	<9.4	<7.2	<6.8	210
Xylene-Total		µg/kg	500,000	1,000,000	19,500	19,500	<BRL	<BRL	<BRL	<BRL
Dichloroethene, 1,2 (Total)	540-59-0	µg/kg					<BRL	<BRL	<BRL	190
<b>SOIL-Pest-8081A</b>			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
4,4'-DDT	50-29-3	µg/kg	1,800	17,000	20	20	7.6	<1.7	<1.6	<1.5
Endrin ketone	53494-70-5	µg/kg	20,000	610,000	400	400	<7.9	<8.3	<8.0	<7.7
<b>SOIL-Pest-8081A-SPLP</b>			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
4,4'-DDT	50-29-3	µg/l			0.1	0.1	<0.005	<0.005	<0.005	<0.005
Endrin ketone	53494-70-5	µg/l			2	2	<0.005	<0.005	<0.005	<0.005
<b>SOIL-Herb-8151A</b>			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
CT ETPH	CT ETPH	mg/kg	500	2,500	2,500	2,500	<290	<61	<59	<58
<b>SOIL-PCBs-8082</b>			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
PCB-1016	12674-11-2	µg/kg					<79	<83	<80	<77
PCB-1221	11104-28-2	µg/kg					<79	<83	<80	<77
PCB-1232	11141-16-5	µg/kg					<79	<83	<80	<77
PCB-1242	53469-21-9	µg/kg					<79	<83	<80	<77
PCB-1248	12672-29-6	µg/kg					<79	<83	<80	<77
PCB-1254	11097-69-1	µg/kg					<79	<83	<80	<77
PCB-1260	11096-82-5	µg/kg					<79	<83	<80	<77
PCB-1262	37324-23-5	µg/kg					<79	<83	<80	<77
PCB-1268	11100-14-4	µg/kg					<79	<83	<80	<77
PCBs(8082)-Total		µg/kg	1,000	10,000			<BRL	<BRL	<BRL	<BRL
<b>SOIL-Misc</b>			2015/2013 - Res DEC		2015/2013 - I/C DEC		2015/2013 - GB PMC			
solids (percent)	solids	%					83	80	82	85

Legend  
1 Parameter reported at a concentration greater than applicable regulatory standard/criterion  
( ) Indicates the laboratory reporting limit is greater than one or more applicable comparison criteria

Notes:  
mg/l = milligrams per liter (ft.) = feet I/C DEC = Industrial/Commercial Direct Exposure Criteria  
µg/l = micrograms per liter GWPC = Groundwater Protection Criteria Res DEC = Residential Direct Exposure Criteria  
mg/kg = milligrams per kilogram GB PMC = Groundwater Class 'GB' Pollutant Mobility Criteria ETPH = Extractable Total Petroleum Hydrocarbons  
µg/kg = micrograms per kilogram SPLP = Synthetic Precipitation Leaching Procedure PCBs = Polychlorinated Biphenyls  
\*\* Result not considered an RSR exceedance based on sample depth located below groundwater table



Table 2  
**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS**  
 DOT - U.S. Route 1 Over Yellow Mill Channel, Bridgeport, CT  
 HRP# CTD4042.21

Lab Report No.: GCC69338    GCC69338  
 Lab Sample No.: CC69338SITE    CC69339SITE  
 HRP Sample No.: MW-1    MW-2  
 Date Collected: 03/15/19    03/15/19

WATER-Metals			2015/2013 - Res GWVC	2015/2013 - I/C GWVC	2015/2013 - SWPC		
Arsenic	7440-38-2	mg/l			0.004	0.005	0.004
Barium	7440-39-3	mg/l			2.2	0.050	0.057
Cadmium	7440-43-9	mg/l			0.006	<0.001	<0.001
Chromium, Total	7440-47-3	mg/l			0.11	0.005	0.007
Lead	7439-92-1	mg/l			0.013	0.041	0.043
Mercury	7439-97-6	mg/l			0.0004	<0.0002	<0.0002
Selenium	7782-49-2	mg/l			0.05	<0.010	<0.010
Silver	7440-22-4	mg/l			0.012	<0.001	<0.001
WATER-DissolvedMetals			2015/2013 - Res GWVC	2015/2013 - I/C GWVC	2015/2013 - SWPC		
Arsenic	7440-38-2	mg/l			0.004	<0.004	<0.004
Barium	7440-39-3	mg/l			2.2	0.029	0.033
Cadmium	7440-43-9	mg/l			0.006	<0.001	<0.001
Chromium, Total	7440-47-3	mg/l			0.11	<0.001	<0.001
Lead	7439-92-1	mg/l			0.013	<0.002	<0.002
Mercury	7439-97-6	mg/l			0.0004	<0.0002	<0.0002
Selenium	7782-49-2	mg/l			0.05	<0.011	<0.011
Silver	7440-22-4	mg/l			0.012	<0.001	<0.001
WATER-8270C			2015/2013 - Res GWVC	2015/2013 - I/C GWVC	2015/2013 - SWPC		
Benzo(a)anthracene	56-55-3	µg/l			0.3	0.11	0.37
Benzo(a)pyrene	50-32-8	µg/l			0.3	<0.19	0.38
Benzo(b)fluoranthene	205-99-2	µg/l			0.3	0.13	0.39
Benzo(k)fluoranthene	207-08-9	µg/l			0.3	<0.28	0.32
Fluoranthene	206-44-0	µg/l			3,700	<0.47	0.84
Indeno(1,2,3-cd)pyrene	193-39-5	µg/l			0.54	0.12	0.35
Phenanthrene	85-01-8	µg/l			0.077	0.10	0.58
Pyrene	129-00-0	µg/l			110,000	<0.47	0.71
WATER-8260B			2015/2013 - Res GWVC	2015/2013 - I/C GWVC	2015/2013 - SWPC		
cis-1,2-Dichloroethylene	156-59-2	µg/l			6,200	140	4.7
trans-1,2-Dichloroethylene	156-60-5	µg/l			10,000	1.4	<1.0
Trichloroethylene	79-01-6	µg/l	219	540	2,340	16	2.1
Vinyl chloride	75-01-4	µg/l	2	2	15,750	54	<1.0
Dichloroethene, 1,2 (Total)	540-59-0	µg/l			9700	141.4	4.7
WATER-Pest-8081A			2015/2013 - Res GWVC	2015/2013 - I/C GWVC	2015/2013 - SWPC		
Dieldrin	60-57-1	µg/l			0.1	<0.001	0.010
WATER-Herb-8151A			2015/2013 - Res GWVC	2015/2013 - I/C GWVC	2015/2013 - SWPC	ND	ND
WATER-CTETPH			2015/2013 - Res GWVC	2015/2013 - I/C GWVC	2015/2013 - SWPC		
CT ETPH	CT ETPH	mg/l			0.25	<0.066	<0.066
WATER-PCBs-8082			2015/2013 - Res GWVC	2015/2013 - I/C GWVC	2015/2013 - SWPC		
PCB-1016	12674-11-2	µg/l				<0.094	<0.094
PCB-1221	11104-28-2	µg/l				<0.094	<0.094
PCB-1232	11141-16-5	µg/l				<0.094	<0.094
PCB-1242	53469-21-9	µg/l				<0.094	<0.094
PCB-1248	12672-29-6	µg/l				<0.094	<0.094
PCB-1254	11097-69-1	µg/l				<0.094	<0.094
PCB-1260	11096-82-5	µg/l				<0.094	<0.094
PCB-1262	37324-23-5	µg/l				<0.094	<0.094
PCB-1268	11100-14-4	µg/l				<0.094	<0.094
PCBs(8082)-Total		µg/l			0.5	<BRL	<BRL

**Legend**

1	Parameter reported at a concentration greater than applicable regulatory standard/criterion
BRL	Parameter consists of multiple isomers and were not detected above the laboratory reporting limit

**Notes:**

- mg/l = milligrams per liter
- µg/l = micrograms per liter
- (ft.) = feet
- SWPC = Surface Water Protection Criteria
- I/C GWVC = Industrial/Commercial Volatilization Criteria for Groundwater
- Res GWVC = Residential Volatilization Criteria for Groundwater
- ETPH = Extractable Total Petroleum Hydrocarbons
- PCBs = Polychlorinated Biphenyls



# APPENDIX A

## Soil Boring Logs

Project: CT DOT			HRP Associates, Inc.			Test Boring/Monitor Well ID: SB-1 (MW-2)					
Location: US Rte. 1 over Yellow Mill Channel, Bridgeport, CT			DRILLING / SOIL LOG			Sheet No. 1 of 1					
HRP# : CTD4042.FW											
Date: 3/15/2019			Rig Type: Geoprobe 3230DT			Driller: CES					
HRP Rep. DJA			Hammer (weight [lb] / fall [inches])			Casing					
Ground Elevation:			PROPORTIONS			Type					
Total Boring Depth:			trace: 0 to 10% some: 20 to 35%			5' MC					
Depth to Bedrock:			little: 10 to 20% and: 35 to 50%			O.D. (inch)					
						I.D. (inch)					
Sampler Depth interval (ft)	Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)		PID (ppm)	Soil Sample Details		
from	to					Depth (ft.)	Reading	Interval (ft.)	ID		
0	5	3.8	dry		0.0-4.5	0.0-2.0	0.4	0.0-2.0	SB-1 (0-2)		
						3.0-5.0	0.0	3.0-5.0	SB-1 (3-5)		
5	10	3.5	wet		4.5-9.0	5.0-8.0	0.0	5.0-8.0	SB-1 (5-8)		
10	15	3.8	wet		9.0-12.0	10.0-12.0	0.0	10.0-12.0	SB-1 (10-12)		
					12.0-15.0	13.0-15.0	0.0	13.0-15.0	SB-1 (13-15)		
						Bottom of boring 15.0'		Set 1.0" pvc well point at 13.0', 10' screen, water level 3.45 fbg, sample well purging 4.5 gallons prior to sampling to drum; pull well after sampling			
Monitoring Well Details											
from	to	Borehole Diam. (in.)		Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size	
SOIL TYPE					ANNULAR FILL MATERIALS			Penetration Resistance-140 lb./30" on 2" O.D. sampler			
CH (Fat Clay)					OH (Organic Clay / Silt of High Plasticity)			Cohesionless Density		Cohesive Consistence	
CL (Lean Clay)					OL (Organic Clay / Silt of Low Plasticity)			# Blows/ft		# Blows/ft	
GC (Clayey Gravel)					PT (Highly Organic Soil / Peat)			0-4	very loose	0-2	very soft
GM (Silty Gravel)					SC (Clayey Sand)			5-9	loose	3-4	soft
GP (Poorly Graded Gravel)					SM (Silty Sand)			10-29	medium dens	5-8	medium stiff
GW (Well-Graded Gravel)					SP (Poorly Graded Sand)			30-49	dense	15-Sep	stiff
MH (Elastic Silt)					SW (Well-Graded Sand)			50+	very dense	16-30	very stiff
ML (Silt)										31+	hard



Project: CT DOT			HRP Associates, Inc.			Test Boring/Monitor Well ID: SB-3					
Location: US Rte. 1 over Yellow Mill Channel, Bridgeport, CT			DRILLING / SOIL LOG			Sheet No. 1 of 1					
HRP# : CTD4042.FW						Rig Type: Geoprobe 3230DT					
Date: 3/15/2019			Hammer (weight [lb] / fall [inches])			Driller: CES					
HRP Rep. DJA						Casing			Sampler	Core Barrel	
Ground Elevation:			PROPORTIONS			Type	5' MC				
Total Boring Depth:			trace: 0 to 10%	some: 20 to 35%	O.D. (inch)						
Depth to Bedrock:			little: 10 to 20%	and: 35 to 50%	I.D. (inch)						
Sampler Depth interval (ft)	Sampler Blows per 6"	Recov. (ft)	Moisture	Soil Type	Contact Interval (ft)	Soil Description (proportions, grain size, etc.)		PID (ppm)	Soil Sample Details		
from	to					Depth (ft.)	Reading	Interval (ft.)	ID		
0	5	4.0	dry		0.0-5.5	tan/brown, fine to medium SAND; some coarse sand; little brick, glass; trace silt	0.0-2.0	16.0	0.0-2.0	SB-3 (0-2)	
5	10	3.2	moist		5.5-9.0	tan/brown, fine to coarse SAND; little silt; trace fine to coarse gravel	3.0-5.0	0.3	3.0-5.0	SB-3 (3-5)	
10	15	3.0	wet		9.0-13.0	tan/brown, fine to coarse SAND; some decomposed rock (gneiss); little silt	6.0-8.0	0.0	6.0-8.0	SB-3 (6-8)	
					13.0-15.0	Decomposed rock (gneiss)	10.0-12.0	0.1	10.0-12.0	SB-3 (10-12)	
						Bottom of boring 15.0'	13.0-15.0	0.0	13.0-15.0	SB-3 (13-15)	
<b>Monitoring Well Details</b>											
from	to	Borehole Diam. (in.)	Casing Diam. (in.)	Casing Material	Riser Diam. (in.)	Riser Material	Screen Diam. (in.)	Screen Material	Screen Slot Size		
<b>SOIL TYPE</b>					<b>ANNULAR FILL MATERIALS</b>			Penetration Resistance-140 lb./30" on 2" O.D. sampler			
CH (Fat Clay)					OH (Organic Clay / Silt of High Plasticity)			Cohesionless Density	Cohesive Consistence		
CL (Lean Clay)					OL (Organic Clay / Silt of Low Plasticity)			# Blows/ft	# Blows/ft		
GC (Clayey Gravel)					PT (Highly Organic Soil / Peat)			0-4	very loose	0-2	very soft
GM (Silty Gravel)					SC (Clayey Sand)			5-9	loose	3-4	soft
GP (Poorly Graded Gravel)					SM (Silty Sand)			10-29	medium dens	5-8	medium stiff
GW (Well-Graded Gravel)					SP (Poorly Graded Sand)			30-49	dense	15-Sep	stiff
MH (Elastic Silt)					SW (Well-Graded Sand)			50+	very dense	16-30	very stiff
ML (Silt)										31+	hard



# APPENDIX B

## Laboratory Analytical Report(s)



Wednesday, March 27, 2019

Attn: Mr. Walt Sepelak  
HRP Associates Inc.  
999 Oronoque Lane  
Stratford, CT 06614

Project ID: CTD4042FW  
SDG ID: GCC69317  
Sample ID#s: CC69317 - CC69334

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

Enclosed are revised Analysis Report pages. Please replace and discard the original pages. If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller  
Laboratory Director

**NELAC - #NY11301**  
**CT Lab Registration #PH-0618**  
**MA Lab Registration #M-CT007**  
**ME Lab Registration #CT-007**  
**NH Lab Registration #213693-A,B**

**NJ Lab Registration #CT-003**  
**NY Lab Registration #11301**  
**PA Lab Registration #68-03530**  
**RI Lab Registration #63**  
**UT Lab Registration #CT00007**  
**VT Lab Registration #VT11301**



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

## Sample Id Cross Reference

March 27, 2019

SDG I.D.: GCC69317

Project ID: CTD4042FW

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Client Id	Lab Id	Matrix
SB-1 0-2`	CC69317	SOIL
SB-1 3-5`	CC69318	SOIL
SB-1 6-8`	CC69319	SOIL
SB-1 10-12`	CC69320	SOIL
SB-2 0-2`	CC69321	SOIL
SB-2 3-5`	CC69322	SOIL
SB-2 6-8`	CC69323	SOIL
SB-2 10-12`	CC69324	SOIL
SB-2 13-15`	CC69325	SOIL
SB-3 0-2`	CC69326	SOIL
SB-3 3-5`	CC69327	SOIL
SB-3 6-8`	CC69328	SOIL
SB-4 0-2`	CC69329	SOIL
SB-4 3-.5`	CC69330	SOIL
SB-4 6-8`	CC69331	SOIL
SB-4 10-11.5`	CC69332	SOIL
TRIP BLANK LOW	CC69333	SOIL
TRIP BLANK HIGH	CC69334	SOIL



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

11:39  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69317

Project ID: CTD4042FW  
 Client ID: SB-1 0-2`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Arsenic	13.3	0.83	mg/Kg	1	03/19/19	TH	SW6010D
Barium	72.3	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Cadmium	0.66	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Chromium	10.9	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Mercury	0.13	0.07	mg/Kg	1	03/19/19	RS	SW7471B
Lead	68.2	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Selenium	< 1.7	1.7	mg/Kg	1	03/19/19	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	0.010	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.030	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	83		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	99	ug/Kg	10	03/19/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	99	ug/Kg	10	03/19/19	CW	SW8151A
2,4-D	ND	200	ug/Kg	10	03/19/19	CW	SW8151A
2,4-DB	ND	2000	ug/Kg	10	03/19/19	CW	SW8151A
Dalapon	ND	99	ug/Kg	10	03/19/19	CW	SW8151A
Dicamba	ND	99	ug/Kg	10	03/19/19	CW	SW8151A
Dichloroprop	ND	200	ug/Kg	10	03/19/19	CW	SW8151A
Dinoseb	ND	200	ug/Kg	10	03/19/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	50		%	10	03/19/19	CW	30 - 150 %
% DCAA (Confirmation)	43		%	10	03/19/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	290	mg/Kg	5	03/20/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	03/20/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	71		%	5	03/20/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	70		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	66		%	2	03/19/19	SC	30 - 150 %
% TCMX	79		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	71		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	3.0	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDE	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDT	7.6	1.6	ug/Kg	2	03/19/19	CW	SW8081B
a-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Alachlor	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Aldrin	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
b-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Chlordane	ND	39	ug/Kg	2	03/19/19	CW	SW8081B
d-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan I	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan II	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Endrin	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Endrin aldehyde	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Endrin ketone	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor epoxide	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Methoxychlor	ND	39	ug/Kg	2	03/19/19	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/19/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	70		%	2	03/19/19	CW	30 - 150 %
% DCBP (Confirmation)	67		%	2	03/19/19	CW	30 - 150 %
% TCMX	63		%	2	03/19/19	CW	30 - 150 %
% TCMX (Confirmation)	70		%	2	03/19/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	CW	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	CW	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Chlordane	ND	0.051	ug/L	1	03/20/19	CW	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	CW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endrin aldehyde	ND	0.010	ug/L	1	03/20/19	CW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Heptachlor	ND	0.050	ug/L	1	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	63		%	1	03/20/19	CW	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	95		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec)	72		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	104		%	1	03/20/19	CW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	5.6	ug/Kg	1	03/18/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,1-Dichloroethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,1-Dichloroethene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dichloroethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dichloropropane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,3-Dichloropropane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
2,2-Dichloropropane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
2-Chlorotoluene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
2-Hexanone	ND	47	ug/Kg	1	03/18/19	JLI	SW8260C
2-Isopropyltoluene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
4-Chlorotoluene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	47	ug/Kg	1	03/18/19	JLI	SW8260C
Acetone	ND	470	ug/Kg	1	03/18/19	JLI	SW8260C
Acrylonitrile	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Benzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Bromobenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Bromochloromethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Bromodichloromethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Bromoform	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Bromomethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Carbon Disulfide	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Carbon tetrachloride	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Chlorobenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Chloroethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Chloroform	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Chloromethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Dibromochloromethane	ND	5.6	ug/Kg	1	03/18/19	JLI	SW8260C
Dibromomethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Dichlorodifluoromethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Ethylbenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Hexachlorobutadiene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Isopropylbenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
m&p-Xylene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	56	ug/Kg	1	03/18/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	19	ug/Kg	1	03/18/19	JLI	SW8260C
Methylene chloride	ND	19	ug/Kg	1	03/18/19	JLI	SW8260C
Naphthalene	1800	480	ug/Kg	50	03/20/19	JLI	SW8260C
n-Butylbenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
n-Propylbenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
p-Isopropyltoluene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
sec-Butylbenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Styrene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
tert-Butylbenzene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Tetrachloroethene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	19	ug/Kg	1	03/18/19	JLI	SW8260C
Toluene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Total Xylenes	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	19	ug/Kg	1	03/18/19	JLI	SW8260C
Trichloroethene	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Trichlorofluoromethane	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	19	ug/Kg	1	03/18/19	JLI	SW8260C
Vinyl chloride	ND	9.4	ug/Kg	1	03/18/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	119		%	1	03/18/19	JLI	70 - 130 %
% Bromofluorobenzene	83		%	1	03/18/19	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	03/18/19	JLI	70 - 130 %
% Toluene-d8	92		%	1	03/18/19	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	96		%	50	03/20/19	JLI	70 - 130 %
% Bromofluorobenzene (50x)	96		%	50	03/20/19	JLI	70 - 130 %
% Dibromofluoromethane (50x)	96		%	50	03/20/19	JLI	70 - 130 %
% Toluene-d8 (50x)	94		%	50	03/20/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	300	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	830	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	290	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	2000	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	3800	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	3200	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	3500	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	1600	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	2700	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	800	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	1100	400	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	3900	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	460	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	700	280	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	12000	2800	ug/Kg	10	03/20/19	WB	SW8270D
Fluorene	870	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	2000	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	550	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	7900	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	7600	280	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	73		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorophenol	53		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	59		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	58		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	71		%	1	03/19/19	WB	30 - 130 %
% 2,4,6-Tribromophenol (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% 2-Fluorobiphenyl (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% 2-Fluorophenol (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% Nitrobenzene-d5 (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% Phenol-d5 (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% Terphenyl-d14 (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

11:43  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69318

Project ID: CTD4042FW  
 Client ID: SB-1 3-5`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	1	03/19/19	TH	SW6010D
Arsenic	8.75	0.74	mg/Kg	1	03/19/19	TH	SW6010D
Barium	58.3	0.37	mg/Kg	1	03/19/19	TH	SW6010D
Cadmium	0.68	0.37	mg/Kg	1	03/19/19	TH	SW6010D
Chromium	13.6	0.37	mg/Kg	1	03/19/19	TH	SW6010D
Mercury	2.81	0.08	mg/Kg	1	03/19/19	RS	SW7471B
Lead	53.5	0.37	mg/Kg	1	03/19/19	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	03/19/19	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.014	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	0.028	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	80		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/20/19	I	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/21/19	AK/SB/AK	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
2,4-D	ND	210	ug/Kg	10	03/19/19	CW	SW8151A
2,4-DB	ND	2100	ug/Kg	10	03/19/19	CW	SW8151A
Dalapon	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
Dicamba	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
Dichloroprop	ND	210	ug/Kg	10	03/19/19	CW	SW8151A
Dinoseb	ND	210	ug/Kg	10	03/19/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	50		%	10	03/19/19	CW	30 - 150 %
% DCAA (Confirmation)	44		%	10	03/19/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	61	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	72		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	83	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	59		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	56		%	2	03/19/19	SC	30 - 150 %
% TCMX	67		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	59		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.7	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDE	ND	1.7	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDT	ND	1.7	ug/Kg	2	03/19/19	CW	SW8081B
a-BHC	ND	1.7	ug/Kg	2	03/19/19	CW	SW8081B
Alachlor	ND	8.3	ug/Kg	2	03/19/19	CW	SW8081B
Aldrin	ND	1.7	ug/Kg	2	03/19/19	CW	SW8081B
b-BHC	ND	1.7	ug/Kg	2	03/19/19	CW	SW8081B
Chlordane	ND	41	ug/Kg	2	03/19/19	CW	SW8081B
d-BHC	ND	1.7	ug/Kg	2	03/19/19	CW	SW8081B
Dieldrin	ND	4.1	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan I	ND	8.3	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan II	ND	8.3	ug/Kg	2	03/19/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	8.3	ug/Kg	2	03/19/19	CW	SW8081B
Endrin	ND	8.3	ug/Kg	2	03/19/19	CW	SW8081B
Endrin aldehyde	ND	8.3	ug/Kg	2	03/19/19	CW	SW8081B
Endrin ketone	ND	8.3	ug/Kg	2	03/19/19	CW	SW8081B
g-BHC	ND	1.7	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor	ND	8.3	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor epoxide	ND	8.3	ug/Kg	2	03/19/19	CW	SW8081B
Methoxychlor	ND	41	ug/Kg	2	03/19/19	CW	SW8081B
Toxaphene	ND	170	ug/Kg	2	03/19/19	CW	SW8081B

**QA/QC Surrogates**

% DCBP	72		%	2	03/19/19	CW	30 - 150 %
% DCBP (Confirmation)	67		%	2	03/19/19	CW	30 - 150 %
% TCMX	62		%	2	03/19/19	CW	30 - 150 %
% TCMX (Confirmation)	69		%	2	03/19/19	CW	30 - 150 %

**SPLP Pesticides (GA Criteria)**

4,4' -DDD	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Alachlor	ND	0.010	ug/L	1	03/21/19	CW	SW8081B
Aldrin	ND	0.003	ug/L	1	03/21/19	CW	SW8081B
b-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Chlordane	ND	0.050	ug/L	1	03/21/19	CW	SW8081B
d-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/21/19	CW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endrin	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
g-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Heptachlor	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/21/19	CW	SW8081B

**QA/QC Surrogates**

%DCBP (Surrogae Rec)	68		%	1	03/21/19	CW	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	78		%	1	03/21/19	CW	30 - 150 %
%TCMX (Surrogate Rec)	86		%	1	03/21/19	CW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	94		%	1	03/21/19	CW	30 - 150 %

**Volatiles**

1,1,1,2-Tetrachloroethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.3	ug/Kg	1	03/18/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,1-Dichloroethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,1-Dichloroethene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dichloroethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dichloropropane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,3-Dichloropropane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
2,2-Dichloropropane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
2-Chlorotoluene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
2-Hexanone	ND	36	ug/Kg	1	03/18/19	JLI	SW8260C
2-Isopropyltoluene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
4-Chlorotoluene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	36	ug/Kg	1	03/18/19	JLI	SW8260C
Acetone	ND	360	ug/Kg	1	03/18/19	JLI	SW8260C
Acrylonitrile	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Benzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Bromobenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Bromochloromethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Bromodichloromethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Bromoform	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Bromomethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Carbon Disulfide	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Carbon tetrachloride	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Chlorobenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Chloroethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Chloroform	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Chloromethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
cis-1,3-Dichloropropane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Dibromochloromethane	ND	4.3	ug/Kg	1	03/18/19	JLI	SW8260C
Dibromomethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Dichlorodifluoromethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Ethylbenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Hexachlorobutadiene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Isopropylbenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
m&p-Xylene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	43	ug/Kg	1	03/18/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	03/18/19	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	03/18/19	JLI	SW8260C
Naphthalene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
n-Butylbenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
n-Propylbenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
p-Isopropyltoluene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
sec-Butylbenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Styrene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
tert-Butylbenzene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Tetrachloroethene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	03/18/19	JLI	SW8260C
Toluene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Total Xylenes	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	03/18/19	JLI	SW8260C
Trichloroethene	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Trichlorofluoromethane	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	14	ug/Kg	1	03/18/19	JLI	SW8260C
Vinyl chloride	ND	7.2	ug/Kg	1	03/18/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	100		%	1	03/18/19	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	03/18/19	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	03/18/19	JLI	70 - 130 %
% Toluene-d8	93		%	1	03/18/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	470	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	1300	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	3300	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	3000	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	2800	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	1400	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	2600	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	810	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	720	410	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	3600	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	410	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	400	280	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	9600	2800	ug/Kg	10	03/20/19	WB	SW8270D
Fluorene	520	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	1900	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	6500	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	7000	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b>QA/QC Surrogates</b>							
% 2,4,6-Tribromophenol	60		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	65		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	46		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	57		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	53		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	67		%	1	03/19/19	WB	30 - 130 %
% 2,4,6-Tribromophenol (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% 2-Fluorobiphenyl (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% 2-Fluorophenol (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% Nitrobenzene-d5 (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% Phenol-d5 (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
% Terphenyl-d14 (10x)	Diluted Out		%	10	03/20/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

11:52  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69319

Project ID: CTD4042FW  
 Client ID: SB-1 6-8`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.42	0.42	mg/Kg	1	03/19/19	TH	SW6010D
Arsenic	10.9	0.85	mg/Kg	1	03/19/19	TH	SW6010D
Barium	61.8	0.42	mg/Kg	1	03/19/19	TH	SW6010D
Cadmium	0.98	0.42	mg/Kg	1	03/19/19	TH	SW6010D
Chromium	30.6	0.42	mg/Kg	1	03/19/19	TH	SW6010D
Mercury	0.24	0.07	mg/Kg	1	03/19/19	RS	SW7471B
Lead	62.2	0.42	mg/Kg	1	03/19/19	TH	SW6010D
Selenium	< 1.7	1.7	mg/Kg	1	03/19/19	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	0.011	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.037	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	82		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
2,4-D	ND	200	ug/Kg	10	03/19/19	CW	SW8151A
2,4-DB	ND	2000	ug/Kg	10	03/19/19	CW	SW8151A
Dalapon	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
Dicamba	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
Dichloroprop	ND	200	ug/Kg	10	03/19/19	CW	SW8151A
Dinoseb	ND	200	ug/Kg	10	03/19/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	56		%	10	03/19/19	CW	30 - 150 %
% DCAA (Confirmation)	49		%	10	03/19/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	59	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	74		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	80	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	62		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	57		%	2	03/19/19	SC	30 - 150 %
% TCMX	68		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	61		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDE	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDT	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
a-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Alachlor	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Aldrin	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
b-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Chlordane	ND	40	ug/Kg	2	03/19/19	CW	SW8081B
d-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Dieldrin	ND	4.0	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan I	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan II	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Endrin	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Endrin aldehyde	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Endrin ketone	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor epoxide	ND	8.0	ug/Kg	2	03/19/19	CW	SW8081B
Methoxychlor	ND	40	ug/Kg	2	03/19/19	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/19/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	66		%	2	03/19/19	CW	30 - 150 %
% DCBP (Confirmation)	63		%	2	03/19/19	CW	30 - 150 %
% TCMX	61		%	2	03/19/19	CW	30 - 150 %
% TCMX (Confirmation)	66		%	2	03/19/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.050	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.070	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/20/19	PS	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	46		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	36		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	77		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	101		%	1	03/20/19	PS	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	34	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	34	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	340	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	4.1	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	41	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	97		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	94		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	800	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b>QA/QC Surrogates</b>							
% 2,4,6-Tribromophenol	79		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	69		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	51		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	54		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	58		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	79		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

11:58  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69320

Project ID: CTD4042FW  
 Client ID: SB-1 10-12`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Arsenic	19.0	0.72	mg/Kg	1	03/19/19	TH	SW6010D
Barium	54.2	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Cadmium	0.83	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Chromium	26.0	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Mercury	0.03	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	12.6	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	0.018	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.027	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	88		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	95	ug/Kg	10	03/19/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	95	ug/Kg	10	03/19/19	CW	SW8151A
2,4-D	ND	190	ug/Kg	10	03/19/19	CW	SW8151A
2,4-DB	ND	1900	ug/Kg	10	03/19/19	CW	SW8151A
Dalapon	ND	95	ug/Kg	10	03/19/19	CW	SW8151A
Dicamba	ND	95	ug/Kg	10	03/19/19	CW	SW8151A
Dichloroprop	ND	190	ug/Kg	10	03/19/19	CW	SW8151A
Dinoseb	ND	190	ug/Kg	10	03/19/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	48		%	10	03/19/19	CW	30 - 150 %
% DCAA (Confirmation)	44		%	10	03/19/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	56	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	75		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	50		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	46		%	2	03/19/19	SC	30 - 150 %
% TCMX	54		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	51		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
Alachlor	ND	7.5	ug/Kg	2	03/19/19	CW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
Chlordane	ND	37	ug/Kg	2	03/19/19	CW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan I	ND	7.5	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan II	ND	7.5	ug/Kg	2	03/19/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.5	ug/Kg	2	03/19/19	CW	SW8081B
Endrin	ND	7.5	ug/Kg	2	03/19/19	CW	SW8081B
Endrin aldehyde	ND	7.5	ug/Kg	2	03/19/19	CW	SW8081B
Endrin ketone	ND	7.5	ug/Kg	2	03/19/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor	ND	7.5	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor epoxide	ND	7.5	ug/Kg	2	03/19/19	CW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	03/19/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/19/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	55		%	2	03/19/19	CW	30 - 150 %
% DCBP (Confirmation)	52		%	2	03/19/19	CW	30 - 150 %
% TCMX	51		%	2	03/19/19	CW	30 - 150 %
% TCMX (Confirmation)	54		%	2	03/19/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.049	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.070	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/20/19	PS	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	78		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	98		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	88		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	101		%	1	03/20/19	PS	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	24	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	240	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	5.8	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	2.9	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	97		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	95		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	94		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	750	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b>QA/QC Surrogates</b>							
% 2,4,6-Tribromophenol	70		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	64		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	53		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	53		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	56		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	71		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

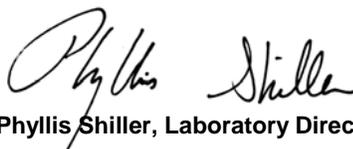
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

10:50  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69321

Project ID: CTD4042FW  
 Client ID: SB-2 0-2`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Arsenic	6.44	0.72	mg/Kg	1	03/19/19	TH	SW6010D
Barium	39.0	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Cadmium	0.66	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Chromium	15.6	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Mercury	0.29	0.08	mg/Kg	1	03/19/19	RS	SW7471B
Lead	85.6	0.36	mg/Kg	1	03/19/19	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.051	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	82		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
2,4-D	ND	200	ug/Kg	10	03/19/19	CW	SW8151A
2,4-DB	ND	2000	ug/Kg	10	03/19/19	CW	SW8151A
Dalapon	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
Dicamba	ND	100	ug/Kg	10	03/19/19	CW	SW8151A
Dichloroprop	ND	200	ug/Kg	10	03/19/19	CW	SW8151A
Dinoseb	ND	200	ug/Kg	10	03/19/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	50		%	10	03/19/19	CW	30 - 150 %
% DCAA (Confirmation)	46		%	10	03/19/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	61	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	71		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	59		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	56		%	2	03/19/19	SC	30 - 150 %
% TCMX	67		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	59		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDE	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
4,4' -DDT	7.5	1.6	ug/Kg	2	03/19/19	CW	SW8081B
a-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Alachlor	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Aldrin	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
b-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Chlordane	ND	40	ug/Kg	2	03/19/19	CW	SW8081B
d-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Dieldrin	ND	4.0	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan I	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Endosulfan II	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Endrin	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Endrin aldehyde	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Endrin ketone	8.0	7.9	ug/Kg	2	03/19/19	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Heptachlor epoxide	ND	7.9	ug/Kg	2	03/19/19	CW	SW8081B
Methoxychlor	ND	40	ug/Kg	2	03/19/19	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/19/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	65		%	2	03/19/19	CW	30 - 150 %
% DCBP (Confirmation)	66		%	2	03/19/19	CW	30 - 150 %
% TCMX	57		%	2	03/19/19	CW	30 - 150 %
% TCMX (Confirmation)	68		%	2	03/19/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	CW	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	CW	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Chlordane	ND	0.050	ug/L	1	03/20/19	CW	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	CW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Heptachlor	ND	0.050	ug/L	1	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	75		%	1	03/20/19	CW	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	90		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec)	83		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	98		%	1	03/20/19	CW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	290	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	3.4	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	34	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	5.7	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	101		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	94		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	380	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	720	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	640	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	560	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	480	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	530	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	790	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	740	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	1800	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	590	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	1600	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	1500	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b>QA/QC Surrogates</b>							
% 2,4,6-Tribromophenol	71		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	69		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	58		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	62		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	62		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	72		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

10:55  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69322

Project ID: CTD4042FW  
 Client ID: SB-2 3-5`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	03/19/19	TH	SW6010D
Arsenic	4.92	0.70	mg/Kg	1	03/19/19	TH	SW6010D
Barium	35.9	0.35	mg/Kg	1	03/19/19	TH	SW6010D
Cadmium	0.39	0.35	mg/Kg	1	03/19/19	TH	SW6010D
Chromium	14.6	0.35	mg/Kg	1	03/19/19	TH	SW6010D
Mercury	0.17	0.08	mg/Kg	1	03/19/19	RS	SW7471B
Lead	8.11	0.35	mg/Kg	1	03/19/19	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	0.007	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.033	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	86		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	96	ug/Kg	10	03/19/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	96	ug/Kg	10	03/19/19	CW	SW8151A
2,4-D	ND	190	ug/Kg	10	03/19/19	CW	SW8151A
2,4-DB	ND	1900	ug/Kg	10	03/19/19	CW	SW8151A
Dalapon	ND	96	ug/Kg	10	03/19/19	CW	SW8151A
Dicamba	ND	96	ug/Kg	10	03/19/19	CW	SW8151A
Dichloroprop	ND	190	ug/Kg	10	03/19/19	CW	SW8151A
Dinoseb	ND	190	ug/Kg	10	03/19/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	47		%	10	03/19/19	CW	30 - 150 %
% DCAA (Confirmation)	42		%	10	03/19/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	58	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	67		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	79		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	72		%	2	03/20/19	SC	30 - 150 %
% TCMX	73		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	72		%	2	03/20/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	39	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	3.9	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	39	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	72		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	68		%	2	03/20/19	CW	30 - 150 %
% TCMX	65		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	71		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	CW	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	CW	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Chlordane	ND	0.050	ug/L	1	03/20/19	CW	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	CW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Heptachlor	ND	0.050	ug/L	1	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	62		%	1	03/20/19	CW	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	91		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec)	69		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	97		%	1	03/20/19	CW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	24	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	24	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	240	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	2.9	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	29	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	9.8	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	4.9	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	97		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	89		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	91		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	760	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	67		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	64		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	55		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	56		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	59		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	72		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

11:03  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69323

Project ID: CTD4042FW  
 Client ID: SB-2 6-8`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Arsenic	4.18	0.81	mg/Kg	1	03/19/19	TH	SW6010D
Barium	26.2	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Cadmium	< 0.41	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Chromium	10.2	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Mercury	0.06	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	8.01	0.41	mg/Kg	1	03/19/19	TH	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	03/19/19	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.048	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	78		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	110	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	110	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	210	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	2100	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	110	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	110	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	210	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	210	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	43		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	34		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	63	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	81		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	85	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	85	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	85	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	85	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	85	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	85	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	85	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	85	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	85	ug/Kg	2	03/20/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	76		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	71		%	2	03/20/19	SC	30 - 150 %
% TCMX	70		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	68		%	2	03/20/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.7	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.7	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	1.7	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.7	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	8.5	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.7	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.7	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	42	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.7	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	4.2	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	8.5	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	8.5	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	8.5	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	8.5	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	8.5	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	8.5	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.7	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	8.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	8.5	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	42	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	170	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	78		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	72		%	2	03/20/19	CW	30 - 150 %
% TCMX	69		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	74		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.020	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.050	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.050	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/20/19	PS	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	31		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	38		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	75		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	94		%	1	03/20/19	PS	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	190	140	ug/Kg	50	03/20/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	2.8	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	28	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.2	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	9.2	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.2	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.2	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	9.2	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	5.8	4.6	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	93		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	94		%	1	03/19/19	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	96		%	50	03/20/19	JLI	70 - 130 %
% Bromofluorobenzene (50x)	96		%	50	03/20/19	JLI	70 - 130 %
% Dibromofluoromethane (50x)	94		%	50	03/20/19	JLI	70 - 130 %
% Toluene-d8 (50x)	93		%	50	03/20/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	830	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	420	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	290	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	290	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	69		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	61		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorophenol	59		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	57		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	62		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	73		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

11:10  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69324

Project ID: CTD4042FW  
 Client ID: SB-2 10-12`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	03/19/19	TH	SW6010D
Arsenic	2.62	0.76	mg/Kg	1	03/19/19	TH	SW6010D
Barium	31.9	0.38	mg/Kg	1	03/19/19	TH	SW6010D
Cadmium	0.40	0.38	mg/Kg	1	03/19/19	TH	SW6010D
Chromium	16.5	0.38	mg/Kg	1	03/19/19	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	25.9	0.38	mg/Kg	1	03/19/19	TH	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	03/19/19	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.037	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	0.011	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	85		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	96	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	96	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	1900	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	96	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	96	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	47		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	48		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	58	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	72		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	77	ug/Kg	2	03/20/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	65		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	59		%	2	03/20/19	SC	30 - 150 %
% TCMX	57		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	57		%	2	03/20/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	38	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.7	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	57		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	51		%	2	03/20/19	CW	30 - 150 %
% TCMX	51		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	53		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.049	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.060	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/20/19	PS	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	31		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	39		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	74		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	101		%	1	03/20/19	PS	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	250	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	8400	320	ug/Kg	50	03/20/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	1500	320	ug/Kg	50	03/20/19	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	210	130	ug/Kg	50	03/20/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	98		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	92		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	102		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	95		%	1	03/19/19	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	96		%	50	03/20/19	JLI	70 - 130 %
% Bromofluorobenzene (50x)	96		%	50	03/20/19	JLI	70 - 130 %
% Dibromofluoromethane (50x)	96		%	50	03/20/19	JLI	70 - 130 %
% Toluene-d8 (50x)	94		%	50	03/20/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	760	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	270	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	270	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	69		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	67		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorophenol	61		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	61		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	62		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	68		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

11:15  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69325

Project ID: CTD4042FW  
 Client ID: SB-2 13-15`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	03/19/19	TH	SW6010D
Arsenic	14.6	0.69	mg/Kg	1	03/19/19	TH	SW6010D
Barium	67.4	0.34	mg/Kg	1	03/19/19	TH	SW6010D
Cadmium	0.65	0.34	mg/Kg	1	03/19/19	TH	SW6010D
Chromium	22.8	0.34	mg/Kg	1	03/19/19	TH	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	15.9	0.34	mg/Kg	1	03/19/19	TH	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	TH	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	0.007	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.035	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	90		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	92	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	92	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	180	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	1800	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	92	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	92	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	180	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	180	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	45		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	39		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	54	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	68		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	73	ug/Kg	2	03/20/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	74		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	69		%	2	03/20/19	SC	30 - 150 %
% TCMX	69		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	68		%	2	03/20/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	37	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.3	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	67		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	66		%	2	03/20/19	CW	30 - 150 %
% TCMX	58		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	66		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.050	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.060	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/20/19	PS	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	38		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	46		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	76		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	106		%	1	03/20/19	PS	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	8.5	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	99		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	93		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	720	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	360	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b>QA/QC Surrogates</b>							
% 2,4,6-Tribromophenol	74		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	67		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	56		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	57		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	60		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	72		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

03/15/19  
 03/18/19

Time

10:05  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69326

Project ID: CTD4042FW  
 Client ID: SB-3 0-2`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Arsenic	5.92	0.76	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	65.8	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Cadmium	0.76	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	18.0	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	0.14	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	117	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	03/19/19	CPP	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.031	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/19/19	RS	SW7470A
SPLP Lead	0.015	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	82		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	100	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	100	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	200	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	2000	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	100	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	100	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	200	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	200	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	45		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	48		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	60	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	70		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	80	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	80	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	80	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	80	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	80	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	ND	80	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	80	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	80	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	80	ug/Kg	2	03/20/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	69		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	66		%	2	03/20/19	SC	30 - 150 %
% TCMX	66		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	67		%	2	03/20/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	6.1	1.6	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	8.0	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	40	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	4.0	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	8.0	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	8.0	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	8.0	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	8.0	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	8.0	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	8.0	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	8.0	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	8.0	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	40	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	61		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	59		%	2	03/20/19	CW	30 - 150 %
% TCMX	55		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	61		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.009	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.047	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.050	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.19	ug/L	1	03/20/19	PS	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	39		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	54		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	75		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	102		%	1	03/20/19	PS	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.9	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	32	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	32	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	320	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	3.9	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	14	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	490	380	ug/Kg	50	03/20/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	39	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	18	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	508.0	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	13	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	6.5	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	93		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	94		%	1	03/19/19	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	97		%	50	03/20/19	JLI	70 - 130 %
% Bromofluorobenzene (50x)	97		%	50	03/20/19	JLI	70 - 130 %
% Dibromofluoromethane (50x)	94		%	50	03/20/19	JLI	70 - 130 %
% Toluene-d8 (50x)	92		%	50	03/20/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	430	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	390	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	360	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	320	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	810	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	480	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	1200	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	570	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	960	280	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	58		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	60		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorophenol	51		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	55		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	54		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	62		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

03/15/19  
 03/18/19

Time

10:07  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69327

Project ID: CTD4042FW  
 Client ID: SB-3 3-5`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Arsenic	6.44	0.68	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	40.3	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Cadmium	0.42	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	15.8	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	0.03	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	23.6	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	CPP	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.030	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/20/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	88		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	93	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	93	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	1900	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	93	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	93	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	50		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	51		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	56	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	68		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	75	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1221	ND	75	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1232	ND	75	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1242	ND	75	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1248	ND	75	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1254	96	75	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1260	ND	75	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1262	ND	75	ug/Kg	2	03/20/19	SC	SW8082A
PCB-1268	ND	75	ug/Kg	2	03/20/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	70		%	2	03/20/19	SC	30 - 150 %
% DCBP (Confirmation)	56		%	2	03/20/19	SC	30 - 150 %
% TCMX	58		%	2	03/20/19	SC	30 - 150 %
% TCMX (Confirmation)	54		%	2	03/20/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	37	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	59		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	55		%	2	03/20/19	CW	30 - 150 %
% TCMX	51		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	55		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.049	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.048	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.19	ug/L	1	03/20/19	PS	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	48		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	47		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	83		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	70		%	1	03/20/19	PS	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	34	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	34	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	340	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	4.1	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	7.8	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	41	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	7.8	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	6.8	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	97		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	100		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	93		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	570	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	610	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	520	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	330	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	500	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	750	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	590	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	1300	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	420	260	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	570	260	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	1200	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	71		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	69		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	55		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	61		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	62		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	74		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

**Pesticide Comment:**

Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, an elevated RL was reported for the affected compounds.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

03/15/19  
 03/18/19

Time

10:20  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69328

Project ID: CTD4042FW  
 Client ID: SB-3 6-8`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Arsenic	2.70	0.68	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	27.6	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Cadmium	0.40	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	12.0	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	0.28	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	29.4	0.34	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	CPP	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.021	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/20/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	87		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	95	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	95	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	1900	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	95	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	95	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	54		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	48		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	56	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	90		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	75	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	71		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	67		%	2	03/19/19	SC	30 - 150 %
% TCMX	63		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	63		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	38	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	3.8	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.5	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	38	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	67		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	64		%	2	03/20/19	CW	30 - 150 %
% TCMX	59		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	65		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.051	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.045	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/20/19	PS	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	47		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	44		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	89		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	72		%	1	03/20/19	PS	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.7	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	310	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	3.7	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	37	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	12	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	6.1	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	96		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	94		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	97		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	93		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	750	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	380	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	74		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	70		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	60		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	62		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	64		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	76		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

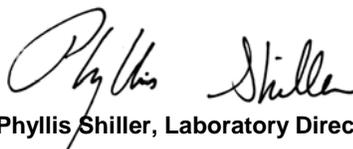
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

03/15/19  
 03/18/19

Time

12:36  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69329

Project ID: CTD4042FW  
 Client ID: SB-4 0-2`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Arsenic	11.1	0.77	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	59.4	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Cadmium	0.48	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	4.67	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	0.20	0.07	mg/Kg	1	03/19/19	RS	SW7471B
Lead	11.0	0.38	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.5	1.5	mg/Kg	1	03/19/19	CPP	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	0.007	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.025	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/20/19	RS	SW7470A
SPLP Lead	0.012	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	89		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	92	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	92	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	180	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	1800	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	92	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	92	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	180	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	180	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	47		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	43		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	520	280	mg/Kg	5	03/20/19	JRB	CTETPH 8015D
Identification	**		mg/Kg	5	03/20/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	58		%	5	03/20/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	56		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	53		%	2	03/19/19	SC	30 - 150 %
% TCMX	63		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	58		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	3.0	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	37	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	49		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	55		%	2	03/20/19	CW	30 - 150 %
% TCMX	55		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	62		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.009	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.003	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.047	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.050	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.047	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.19	ug/L	1	03/20/19	PS	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	34		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	29		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	81		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	71		%	1	03/20/19	PS	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.0	ug/Kg	1	03/20/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
1,1-Dichloroethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
1,1-Dichloroethene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/20/19	JLI	SW8260C
1,2-Dibromoethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
1,2-Dichloroethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
1,2-Dichloropropane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
1,3-Dichloropropane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
2,2-Dichloropropane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
2-Chlorotoluene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
2-Hexanone	ND	33	ug/Kg	1	03/20/19	JLI	SW8260C
2-Isopropyltoluene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
4-Chlorotoluene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	33	ug/Kg	1	03/20/19	JLI	SW8260C
Acetone	ND	330	ug/Kg	1	03/20/19	JLI	SW8260C
Acrylonitrile	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Benzene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Bromobenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
Bromochloromethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Bromodichloromethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Bromoform	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Bromomethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Carbon Disulfide	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Carbon tetrachloride	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Chlorobenzene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Chloroethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Chloroform	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Chloromethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Dibromochloromethane	ND	4.0	ug/Kg	1	03/20/19	JLI	SW8260C
Dibromomethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Dichlorodifluoromethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Ethylbenzene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Hexachlorobutadiene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Isopropylbenzene	ND	500	ug/Kg	50	03/20/19	JLI	SW8260C
m&p-Xylene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	40	ug/Kg	1	03/20/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	1	03/20/19	JLI	SW8260C
Methylene chloride	ND	13	ug/Kg	1	03/20/19	JLI	SW8260C
Naphthalene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
n-Butylbenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
n-Propylbenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
p-Isopropyltoluene	ND	500	ug/Kg	50	03/20/19	JLI	SW8260C
sec-Butylbenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
Styrene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
tert-Butylbenzene	ND	550	ug/Kg	50	03/20/19	JLI	SW8260C
Tetrachloroethene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	13	ug/Kg	1	03/20/19	JLI	SW8260C
Toluene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Total Xylenes	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	1100	ug/Kg	50	03/20/19	JLI	SW8260C
Trichloroethene	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Trichlorofluoromethane	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	13	ug/Kg	1	03/20/19	JLI	SW8260C
Vinyl chloride	ND	6.7	ug/Kg	1	03/20/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	121		%	1	03/20/19	JLI	70 - 130 %
% Bromofluorobenzene	61		%	1	03/20/19	JLI	70 - 130 %
% Dibromofluoromethane	119		%	1	03/20/19	JLI	70 - 130 %
% Toluene-d8	82		%	1	03/20/19	JLI	70 - 130 %
% 1,2-dichlorobenzene-d4 (50x)	95		%	50	03/20/19	JLI	70 - 130 %
% Bromofluorobenzene (50x)	95		%	50	03/20/19	JLI	70 - 130 %
% Dibromofluoromethane (50x)	95		%	50	03/20/19	JLI	70 - 130 %
% Toluene-d8 (50x)	93		%	50	03/20/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	740	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	54		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	55		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorophenol	52		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	59		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	56		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	62		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

#### **Volatile Comment:**

There was a suppression of the last internal standard in the low level analysis, all affected compounds are reported from the methanol preserved high level analysis which did not exhibit this interference.

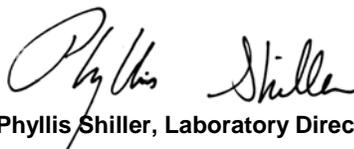
\*\*Poor internal standard recovery was observed for volatiles. Sample was analyzed twice with similar results indicating matrix interference.

#### **TPH Comment:**

\*\*Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C18 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

12:40  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69330

Project ID: CTD4042FW  
 Client ID: SB-4 3.-5`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Arsenic	11.9	0.71	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	152	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Cadmium	1.26	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	31.7	0.35	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	263	3.5	mg/Kg	10	03/20/19	EK	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	CPP	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	< 0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.026	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/20/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	93		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/20/19	I	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/21/19	AK/SB/AK	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	89	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	89	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	180	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	1800	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	89	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	89	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	180	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	180	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	55		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	39		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	53	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	70		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	70	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	70	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	70	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	70	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	70	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	70	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	70	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	70	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	70	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	72		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	64		%	2	03/19/19	SC	30 - 150 %
% TCMX	66		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	63		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.4	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.4	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	2.0	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.4	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	7.0	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.4	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.4	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	35	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.4	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	3.5	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.0	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.0	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.0	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.0	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.0	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.0	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.4	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.0	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.0	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	35	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	140	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	64		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	64		%	2	03/20/19	CW	30 - 150 %
% TCMX	58		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	64		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Alachlor	ND	0.010	ug/L	1	03/21/19	CW	SW8081B
Aldrin	ND	0.003	ug/L	1	03/21/19	CW	SW8081B
b-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Chlordane	ND	0.050	ug/L	1	03/21/19	CW	SW8081B
d-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/21/19	CW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endrin	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
g-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Heptachlor	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/21/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	96		%	1	03/21/19	CW	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	65		%	1	03/21/19	CW	30 - 150 %
%TCMX (Surrogate Rec)	115		%	1	03/21/19	CW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	80		%	1	03/21/19	CW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	4.2	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	35	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	35	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	350	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	4.2	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	42	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	14	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	7.0	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	100		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	88		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	102		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	94		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	1500	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	1500	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	1500	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	760	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	1400	250	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	700	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	1600	250	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	250	250	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	2100	250	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	970	250	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	350	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	710	250	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	250	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	2300	250	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b>QA/QC Surrogates</b>							
% 2,4,6-Tribromophenol	68		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	66		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	56		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	58		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	61		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	74		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

Date

03/15/19  
 03/18/19

Time

12:45  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69331

Project ID: CTD4042FW  
 Client ID: SB-4 6-8`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Arsenic	5.36	0.79	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	43.4	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Cadmium	0.42	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	18.3	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	12.0	0.40	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.6	1.6	mg/Kg	1	03/19/19	CPP	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	0.006	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.028	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/20/19	RS	SW7470A
SPLP Lead	0.012	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	82		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/18/19	W	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/19/19	E/N	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	100	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	100	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	200	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	2000	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	100	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	100	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	200	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	200	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	59		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	52		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	60	mg/Kg	1	03/20/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/20/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	68		%	1	03/20/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	79	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	70		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	69		%	2	03/19/19	SC	30 - 150 %
% TCMX	66		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	65		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	7.9	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	40	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	4.0	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.9	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.9	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.9	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.9	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.9	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.9	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.6	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.9	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.9	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	40	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	160	ug/Kg	2	03/20/19	CW	SW8081B

**QA/QC Surrogates**

% DCBP	72		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	68		%	2	03/20/19	CW	30 - 150 %
% TCMX	61		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	63		%	2	03/20/19	CW	30 - 150 %

**SPLP Pesticides (GA Criteria)**

4,4' -DDD	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
4,4' -DDT	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
a-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Alachlor	ND	0.009	ug/L	1	03/20/19	PS	SW8081B
Aldrin	ND	0.010	ug/L	1	03/20/19	PS	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Chlordane	ND	0.047	ug/L	1	03/20/19	PS	SW8081B
d-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/20/19	PS	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endosulfan II	ND	0.020	ug/L	1	03/20/19	PS	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
g-BHC	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Heptachlor	ND	0.020	ug/L	1	03/20/19	PS	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/20/19	PS	SW8081B
Toxaphene	ND	0.19	ug/L	1	03/20/19	PS	SW8081B

**QA/QC Surrogates**

%DCBP (Surrogae Rec)	37		%	1	03/20/19	PS	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	28		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec)	81		%	1	03/20/19	PS	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	62		%	1	03/20/19	PS	30 - 150 %

**Volatiles**

1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	27	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	270	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	3.2	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	32	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	11	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	5.3	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	104		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	93		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	810	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	410	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	280	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	72		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	59		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	55		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	56		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	58		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	75		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

3 = This parameter exceeds laboratory specified limits.

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

#### **Pesticide Comment:**

Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, an elevated RL was reported for the affected compounds.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

12:50  
 15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69332

Project ID: CTD4042FW  
 Client ID: SB-4 10-11.5`

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	1	03/19/19	CPP	SW6010D
Arsenic	28.1	0.72	mg/Kg	1	03/19/19	CPP	SW6010D
Barium	57.0	0.36	mg/Kg	1	03/19/19	CPP	SW6010D
Cadmium	0.55	0.36	mg/Kg	1	03/19/19	CPP	SW6010D
Chromium	26.5	0.36	mg/Kg	1	03/19/19	CPP	SW6010D
Mercury	< 0.03	0.03	mg/Kg	1	03/19/19	RS	SW7471B
Lead	9.35	0.36	mg/Kg	1	03/19/19	CPP	SW6010D
Selenium	< 1.4	1.4	mg/Kg	1	03/19/19	CPP	SW6010D
SPLP Silver	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Arsenic	0.012	0.004	mg/L	1	03/19/19	CPP	SW6010D
SPLP Barium	0.018	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Cadmium	< 0.005	0.005	mg/L	1	03/19/19	CPP	SW6010D
SPLP Chromium	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Mercury	< 0.0005	0.0005	mg/L	1	03/20/19	RS	SW7470A
SPLP Lead	< 0.010	0.010	mg/L	1	03/19/19	CPP	SW6010D
SPLP Selenium	< 0.020	0.020	mg/L	1	03/19/19	CPP	SW6010D
SPLP Metals Digestion	Completed				03/19/19	W/W	SW3010A
Percent Solid	88		%		03/18/19	ML	SW846-%Solid
Soil Extraction for PCB	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for Pesticide	Completed				03/18/19	MM/V	SW3545A
Soil Extraction for SVOA	Completed				03/18/19	JJ/LV	SW3545A
Extraction of CT ETPH	Completed				03/18/19	MG/VL	SW3545A
Mercury Digestion	Completed				03/18/19	Q/W/W	SW7471B
Soil Extraction for Herbicide	Completed				03/18/19	C/D	SW8151A
SPLP Digestion Mercury	Completed				03/19/19	W/W	SW1312/SW7470A
SPLP Extraction for Metals	Completed				03/18/19	W	SW1312
SPLP Extraction for Organics	Completed				03/20/19	I	SW1312
SPLP Pesticides Ext. (2 L to 1ml)	Completed				03/21/19	AK/SB/AK	SW3510C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Total Metals Digest	Completed				03/18/19	B/AG	SW3050B
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	94	ug/Kg	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	94	ug/Kg	10	03/20/19	CW	SW8151A
2,4-D	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
2,4-DB	ND	1900	ug/Kg	10	03/20/19	CW	SW8151A
Dalapon	ND	94	ug/Kg	10	03/20/19	CW	SW8151A
Dicamba	ND	94	ug/Kg	10	03/20/19	CW	SW8151A
Dichloroprop	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
Dinoseb	ND	190	ug/Kg	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	57		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	52		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	56	mg/Kg	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/Kg	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	69		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1221	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1232	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1242	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1248	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1254	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1260	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1262	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
PCB-1268	ND	74	ug/Kg	2	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	77		%	2	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	71		%	2	03/19/19	SC	30 - 150 %
% TCMX	68		%	2	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	67		%	2	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDE	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
4,4' -DDT	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
a-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Alachlor	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Aldrin	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
b-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Chlordane	ND	37	ug/Kg	2	03/20/19	CW	SW8081B
d-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Dieldrin	ND	3.7	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan I	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Endosulfan II	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endosulfan sulfate	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Endrin	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Endrin aldehyde	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Endrin ketone	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
g-BHC	ND	1.5	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	7.4	ug/Kg	2	03/20/19	CW	SW8081B
Methoxychlor	ND	37	ug/Kg	2	03/20/19	CW	SW8081B
Toxaphene	ND	150	ug/Kg	2	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
% DCBP	69		%	2	03/20/19	CW	30 - 150 %
% DCBP (Confirmation)	66		%	2	03/20/19	CW	30 - 150 %
% TCMX	60		%	2	03/20/19	CW	30 - 150 %
% TCMX (Confirmation)	64		%	2	03/20/19	CW	30 - 150 %
<b><u>SPLP Pesticides (GA Criteria)</u></b>							
4,4' -DDD	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDE	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
4,4' -DDT	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
a-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Alachlor	ND	0.010	ug/L	1	03/21/19	CW	SW8081B
Aldrin	ND	0.003	ug/L	1	03/21/19	CW	SW8081B
b-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Chlordane	ND	0.050	ug/L	1	03/21/19	CW	SW8081B
d-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Dieldrin	ND	0.002	ug/L	1	03/21/19	CW	SW8081B
Endosulfan I	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endosulfan II	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endosulfan sulfate	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endrin	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endrin aldehyde	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Endrin Ketone	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
g-BHC	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Heptachlor	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Heptachlor epoxide	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Methoxychlor	ND	0.005	ug/L	1	03/21/19	CW	SW8081B
Toxaphene	ND	0.20	ug/L	1	03/21/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogae Rec)	70		%	1	03/21/19	CW	30 - 150 %
%DCBP (Surrogae Rec) (Confirmation)	85		%	1	03/21/19	CW	30 - 150 %
%TCMX (Surrogate Rec)	88		%	1	03/21/19	CW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	112		%	1	03/21/19	CW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,1-Dichloroethene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,1-Dichloropropene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dibromoethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,2-Dichloropropane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,3-Dichloropropane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
2,2-Dichloropropane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
2-Chlorotoluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
2-Hexanone	ND	26	ug/Kg	1	03/19/19	JLI	SW8260C
2-Isopropyltoluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
4-Chlorotoluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	26	ug/Kg	1	03/19/19	JLI	SW8260C
Acetone	ND	260	ug/Kg	1	03/19/19	JLI	SW8260C
Acrylonitrile	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Benzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromochloromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromodichloromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromoform	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Bromomethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon Disulfide	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Carbon tetrachloride	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chlorobenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chloroform	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Chloromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromochloromethane	ND	3.1	ug/Kg	1	03/19/19	JLI	SW8260C
Dibromomethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Dichlorodifluoromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Ethylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Hexachlorobutadiene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Isopropylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
m&p-Xylene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	31	ug/Kg	1	03/19/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Naphthalene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
n-Butylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
n-Propylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
o-Xylene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
p-Isopropyltoluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
sec-Butylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Styrene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
tert-Butylbenzene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrachloroethene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Toluene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Total Xylenes	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Trichloroethene	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorofluoromethane	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	10	ug/Kg	1	03/19/19	JLI	SW8260C
Vinyl chloride	ND	5.1	ug/Kg	1	03/19/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	99		%	1	03/19/19	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	03/19/19	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	03/19/19	JLI	70 - 130 %
% Toluene-d8	93		%	1	03/19/19	JLI	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	100	ug/Kg	1	03/19/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
1,3-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
1,4-Dichlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dichlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dimethylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrophenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2,4-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2,6-Dinitrotoluene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
2-Chloronaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Chlorophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylnaphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
2-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
3-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
4-Chloroaniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
4-Nitroaniline	ND	300	ug/Kg	1	03/19/19	WB	SW8270D
4-Nitrophenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acenaphthylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Acetophenone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Aniline	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benz(a)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzidine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(a)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(b)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(ghi)perylene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzo(k)fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Benzoic acid	ND	740	ug/Kg	1	03/19/19	WB	SW8270D
Benzyl butyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Carbazole	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Chrysene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenz(a,h)anthracene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dibenzofuran	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Diethyl phthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Dimethylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-butylphthalate	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Di-n-octylphthalate	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluoranthene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Fluorene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobenzene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorobutadiene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Hexachlorocyclopentadiene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Hexachloroethane	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Isophorone	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Naphthalene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Nitrobenzene	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodimethylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
Pentachloronitrobenzene	ND	140	ug/Kg	1	03/19/19	WB	SW8270D
Pentachlorophenol	ND	370	ug/Kg	1	03/19/19	WB	SW8270D
Phenanthrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Phenol	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyrene	ND	260	ug/Kg	1	03/19/19	WB	SW8270D
Pyridine	ND	200	ug/Kg	1	03/19/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	76		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorobiphenyl	69		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorophenol	61		%	1	03/19/19	WB	30 - 130 %
% Nitrobenzene-d5	61		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	65		%	1	03/19/19	WB	30 - 130 %
% Terphenyl-d14	76		%	1	03/19/19	WB	30 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
HRP Associates Inc.  
999 Oronoque Lane  
Stratford, CT 06614

## Sample Information

Matrix: SOIL  
Location Code: HRPSTRAT  
Rush Request: 48 Hour  
P.O.#:

## Custody Information

Collected by:  
Received by: LB  
Analyzed by: see "By" below

## Date

03/15/19

## Time

15:56

## Laboratory Data

SDG ID: GCC69317  
Phoenix ID: CC69333

Project ID: CTD4042FW  
Client ID: TRIP BLANK LOW

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,1-Dichloroethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,1-Dichloroethene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,1-Dichloropropene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dibromoethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dichloroethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,2-Dichloropropane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,3-Dichloropropane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
2,2-Dichloropropane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
2-Chlorotoluene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
2-Hexanone	ND	25	ug/Kg	1	03/18/19	JLI	SW8260C
2-Isopropyltoluene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
4-Chlorotoluene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	25	ug/Kg	1	03/18/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	250	ug/Kg	1	03/18/19	JLI	SW8260C
Acrylonitrile	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Benzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Bromobenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Bromochloromethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Bromodichloromethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Bromoform	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Bromomethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Carbon Disulfide	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Carbon tetrachloride	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Chlorobenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Chloroethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Chloroform	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Chloromethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Dibromochloromethane	ND	3.0	ug/Kg	1	03/18/19	JLI	SW8260C
Dibromomethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Dichlorodifluoromethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Ethylbenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Hexachlorobutadiene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Isopropylbenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
m&p-Xylene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	30	ug/Kg	1	03/18/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	1	03/18/19	JLI	SW8260C
Methylene chloride	ND	10	ug/Kg	1	03/18/19	JLI	SW8260C
Naphthalene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
n-Butylbenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
n-Propylbenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
o-Xylene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
p-Isopropyltoluene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
sec-Butylbenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Styrene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
tert-Butylbenzene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Tetrachloroethene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	10	ug/Kg	1	03/18/19	JLI	SW8260C
Toluene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Total Xylenes	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	1	03/18/19	JLI	SW8260C
Trichloroethene	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Trichlorofluoromethane	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	10	ug/Kg	1	03/18/19	JLI	SW8260C
Vinyl chloride	ND	5.0	ug/Kg	1	03/18/19	JLI	SW8260C
<b>QA/QC Surrogates</b>							
% 1,2-dichlorobenzene-d4	96		%	1	03/18/19	JLI	70 - 130 %
% Bromofluorobenzene	96		%	1	03/18/19	JLI	70 - 130 %
% Dibromofluoromethane	98		%	1	03/18/19	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8	92		%	1	03/18/19	JLI	70 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

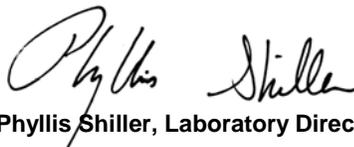
**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 27, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: SOIL  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

15:56

## Laboratory Data

SDG ID: GCC69317  
 Phoenix ID: CC69334

Project ID: CTD4042FW  
 Client ID: TRIP BLANK HIGH

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
1,1,1-Trichloroethane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
1,1,2-Trichloroethane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
1,1-Dichloroethane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,1-Dichloroethene	ND	140	ug/Kg	50	03/18/19	JLI	SW8260C
1,1-Dichloropropene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,2,3-Trichloropropane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
1,2-Dibromoethane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
1,2-Dichlorobenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,2-Dichloroethane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
1,2-Dichloropropane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,3-Dichlorobenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,3-Dichloropropane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
1,4-Dichlorobenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
2,2-Dichloropropane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
2-Chlorotoluene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
2-Hexanone	ND	700	ug/Kg	50	03/18/19	JLI	SW8260C
2-Isopropyltoluene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
4-Chlorotoluene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
4-Methyl-2-pentanone	ND	1300	ug/Kg	50	03/18/19	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Acetone	ND	5000	ug/Kg	50	03/18/19	JLI	SW8260C
Acrylonitrile	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Benzene	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Bromobenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Bromochloromethane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Bromodichloromethane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Bromoform	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Bromomethane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Carbon Disulfide	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Carbon tetrachloride	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Chlorobenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Chloroethane	ND	150	ug/Kg	50	03/18/19	JLI	SW8260C
Chloroform	ND	120	ug/Kg	50	03/18/19	JLI	SW8260C
Chloromethane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
cis-1,2-Dichloroethene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
cis-1,3-Dichloropropene	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Dibromochloromethane	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Dibromomethane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Dichlorodifluoromethane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Ethylbenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Hexachlorobutadiene	ND	200	ug/Kg	50	03/18/19	JLI	SW8260C
Isopropylbenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
m&p-Xylene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Methyl Ethyl Ketone	ND	3000	ug/Kg	50	03/18/19	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Methylene chloride	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Naphthalene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
n-Butylbenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
n-Propylbenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
o-Xylene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
p-Isopropyltoluene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
sec-Butylbenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Styrene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
tert-Butylbenzene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Tetrachloroethene	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Tetrahydrofuran (THF)	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Toluene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Total Xylenes	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
trans-1,2-Dichloroethene	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
trans-1,3-Dichloropropene	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	50	03/18/19	JLI	SW8260C
Trichloroethene	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
Trichlorofluoromethane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Trichlorotrifluoroethane	ND	250	ug/Kg	50	03/18/19	JLI	SW8260C
Vinyl chloride	ND	100	ug/Kg	50	03/18/19	JLI	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4 (50x)	96		%	50	03/18/19	JLI	70 - 130 %
% Bromofluorobenzene (50x)	96		%	50	03/18/19	JLI	70 - 130 %
% Dibromofluoromethane (50x)	96		%	50	03/18/19	JLI	70 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Toluene-d8 (50x)	92		%	50	03/18/19	JLI	70 - 130 %
Field Extraction	Completed				03/15/19		SW5035A

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

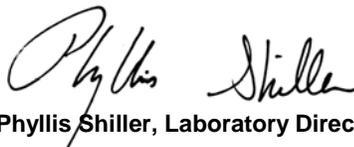
**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

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**Phyllis Shiller, Laboratory Director**

**March 27, 2019**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**



**Environmental Laboratories, Inc.**  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# QA/QC Report

March 27, 2019

## QA/QC Data

SDG I.D.: GCC69317

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 470785 (mg/L), QC Sample No: CC69081 (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	110			101			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 470763 (mg/kg), QC Sample No: CC69171 (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329)													
Mercury - Soil	BRL	0.03	0.18	0.21	15.4	125	106	16.5	93.7			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 470764 (mg/kg), QC Sample No: CC69274 (CC69330, CC69331, CC69332)													
Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	125	117	6.6	118			70 - 130	30
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 470786 (mg/L), QC Sample No: CC69586 (CC69327, CC69328, CC69329, CC69330, CC69331, CC69332)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	90.7			85.1			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 470727 (mg/kg), QC Sample No: CC69317 (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332)													
<b>ICP Metals - Soil</b>													
Arsenic	BRL	0.65	13.3	8.43	44.8	97.7			90.3			75 - 125	30 r
Barium	BRL	0.32	72.3	61.4	16.3	97.1			76.3			75 - 125	30
Cadmium	BRL	0.32	0.66	0.53	NC	103			96.9			75 - 125	30
Chromium	BRL	0.32	10.9	14.5	28.3	102			94.4			75 - 125	30
Lead	BRL	0.32	68.2	186	92.7	101			89.5			75 - 125	30 r
Selenium	BRL	1.3	<1.7	<1.5	NC	88.8			77.8			75 - 125	30
Silver	BRL	0.32	<0.41	<0.38	NC	90.6			90.7			75 - 125	30
QA/QC Batch 470790 (mg/L), QC Sample No: CC69317 (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332)													
<b>ICP Metals - SPLP Extraction</b>													
Arsenic	BRL	0.004	0.010	0.011	NC	101			99.6			75 - 125	20
Barium	BRL	0.010	0.030	0.030	NC	103			102			75 - 125	20
Cadmium	BRL	0.005	<0.005	<0.005	NC	97.8			96.3			75 - 125	20
Chromium	BRL	0.010	<0.010	<0.010	NC	97.6			96.2			75 - 125	20
Lead	BRL	0.010	<0.010	<0.010	NC	99.8			97.7			75 - 125	20
Selenium	BRL	0.020	<0.020	<0.020	NC	102			101			75 - 125	20
Silver	BRL	0.010	<0.010	<0.010	NC	107			106			75 - 125	20

r = This parameter is outside laboratory RPD specified recovery limits.



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# QA/QC Report

March 27, 2019

## QA/QC Data

SDG I.D.: GCC69317

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								

QA/QC Batch 470723 (mg/Kg), QC Sample No: CC69314 (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332)

### TPH by GC (Extractable Products) - Soil

Ext. Petroleum H.C. (C9-C36)	ND	50	70	79	12.1	78	95	19.7	60 - 120	30
% n-Pentacosane	81	%	78	82	5.0	83	95	13.5	50 - 150	30

Comment:

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

QA/QC Batch 470703 (ug/Kg), QC Sample No: CC68742 10X (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322)

### Chlorinated Herbicides - Soil

2,4,5-T	ND	83	59	53	10.7	56	60	6.9	40 - 140	30
2,4,5-TP (Silvex)	ND	83	64	58	9.8	62	66	6.3	40 - 140	30
2,4-D	ND	170	64	60	6.5	63	68	7.6	40 - 140	30
2,4-DB	ND	1700	62	53	15.7	63	69	9.1	40 - 140	30
Dalapon	ND	83	56	43	26.3	91	97	6.4	40 - 140	30
Dicamba	ND	83	65	61	6.3	62	69	10.7	40 - 140	30
Dichloroprop	ND	83	61	56	8.5	58	64	9.8	40 - 140	30
Dinoseb	ND	83	56	38	38.3	61	62	1.6	40 - 140	30
% DCAA (Surrogate Rec)	49	%	54	50	7.7	55	60	8.7	30 - 150	30
% DCAA (Surrogate Rec) (Confirm)	43	%	45	42	6.9	46	47	2.2	30 - 150	30

QA/QC Batch 470745 (ug/Kg), QC Sample No: CC69564 10X (CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332)

### Chlorinated Herbicides - Soil

2,4,5-T	ND	83	56	70	22.2	72	80	10.5	40 - 140	30
2,4,5-TP (Silvex)	ND	83	56	71	23.6	72	84	15.4	40 - 140	30
2,4-D	ND	170	48	64	28.6	64	69	7.5	40 - 140	30
2,4-DB	ND	1700	50	65	26.1	93	99	6.3	40 - 140	30
Dalapon	ND	83	30	51	51.9	56	58	3.5	40 - 140	30
Dicamba	ND	83	56	66	16.4	68	64	6.1	40 - 140	30
Dichloroprop	ND	83	53	65	20.3	69	74	7.0	40 - 140	30
Dinoseb	ND	83	47	70	39.3	83	89	7.0	40 - 140	30
% DCAA (Surrogate Rec)	38	%	35	43	20.5	43	46	6.7	30 - 150	30
% DCAA (Surrogate Rec) (Confirm)	28	%	55	66	18.2	65	85	26.7	30 - 150	30

QA/QC Batch 470721 (ug/Kg), QC Sample No: CC69313 2X (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332)

### Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	81	72	11.8	61	46	28.0	40 - 140	30
PCB-1221	ND	33							40 - 140	30
PCB-1232	ND	33							40 - 140	30
PCB-1242	ND	33							40 - 140	30
PCB-1248	ND	33							40 - 140	30
PCB-1254	ND	33							40 - 140	30

## QA/QC Data

SDG I.D.: GCC69317

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
PCB-1260	ND	33	93	91	2.2	73	55	28.1	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	99	%	115	112	2.6	88	65	30.1	30 - 150	30
% DCBP (Surrogate Rec) (Confirm	91	%	108	105	2.8	82	61	29.4	30 - 150	30
% TCMX (Surrogate Rec)	93	%	105	98	6.9	81	61	28.2	30 - 150	30
% TCMX (Surrogate Rec) (Confirm	92	%	106	100	5.8	82	62	27.8	30 - 150	30

QA/QC Batch 470867 (ug/L), QC Sample No: CC55789 (CC69317, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69331)

### Pesticides

4,4' -DDD	ND	0.003	116	112	3.5				40 - 140	20
4,4' -DDE	ND	0.003	87	86	1.2				40 - 140	20
4,4' -DDT	ND	0.003	85	84	1.2				40 - 140	20
a-BHC	ND	0.002	98	99	1.0				40 - 140	20
Alachlor	ND	0.005	NA	NA	NC				40 - 140	20
Aldrin	ND	0.002	50	70	33.3				40 - 140	20
b-BHC	ND	0.002	101	95	6.1				40 - 140	20
Chlordane	ND	0.050	81	83	2.4				40 - 140	20
d-BHC	ND	0.005	104	94	10.1				40 - 140	20
Dieldrin	ND	0.002	95	94	1.1				40 - 140	20
Endosulfan I	ND	0.005	88	91	3.4				40 - 140	20
Endosulfan II	ND	0.005	110	108	1.8				40 - 140	20
Endosulfan sulfate	ND	0.005	98	97	1.0				40 - 140	20
Endrin	ND	0.005	112	115	2.6				40 - 140	20
Endrin aldehyde	ND	0.020	100	97	3.0				40 - 140	20
Endrin ketone	ND	0.005	71	69	2.9				40 - 140	20
g-BHC	ND	0.002	94	95	1.1				40 - 140	20
Heptachlor	ND	0.050	81	87	7.1				40 - 140	20
Heptachlor epoxide	ND	0.005	104	102	1.9				40 - 140	20
Methoxychlor	ND	0.005	100	98	2.0				40 - 140	20
Toxaphene	ND	0.20	NA	NA	NC				40 - 140	20
% DCBP	69	%	73	72	1.4				30 - 150	20
% DCBP (Confirmation)	100	%	76	76	0.0				30 - 150	20
% TCMX	73	%	87	88	1.1				30 - 150	20
% TCMX (Confirmation)	103	%	86	86	0.0				30 - 150	20

Comment:

A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

QA/QC Batch 470722 (ug/Kg), QC Sample No: CC69313 2X (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332)

### Pesticides - Soil

4,4' -DDD	ND	1.7	71	85	17.9	79	71	10.7	40 - 140	30
4,4' -DDE	ND	1.7	79	92	15.2	81	71	13.2	40 - 140	30
4,4' -DDT	ND	1.7	81	96	16.9	79	65	19.4	40 - 140	30
a-BHC	ND	1.0	75	91	19.3	74	63	16.1	40 - 140	30
Alachlor	ND	3.3	NA	NA	NC	NA	NA	NC	40 - 140	30
Aldrin	ND	1.0	74	87	16.1	73	63	14.7	40 - 140	30
b-BHC	ND	1.0	86	100	15.1	85	74	13.8	40 - 140	30
Chlordane	ND	33	73	85	15.2	74	63	16.1	40 - 140	30
d-BHC	ND	3.3	101	118	15.5	101	89	12.6	40 - 140	30
Dieldrin	ND	1.0	78	92	16.5	83	70	17.0	40 - 140	30
Endosulfan I	ND	3.3	78	94	18.6	78	66	16.7	40 - 140	30

QA/QC Data

SDG I.D.: GCC69317

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Endosulfan II	ND	3.3	79	102	25.4	94	81	14.9	40 - 140	30
Endosulfan sulfate	ND	3.3	79	94	17.3	75	67	11.3	40 - 140	30
Endrin	ND	3.3	92	109	16.9	94	83	12.4	40 - 140	30
Endrin aldehyde	ND	3.3	58	78	29.4	62	62	0.0	40 - 140	30
Endrin ketone	ND	3.3	67	86	24.8	71	62	13.5	40 - 140	30
g-BHC	ND	1.0	79	83	4.9	69	61	12.3	40 - 140	30
Heptachlor	ND	3.3	75	88	16.0	75	67	11.3	40 - 140	30
Heptachlor epoxide	ND	3.3	77	90	15.6	76	65	15.6	40 - 140	30
Methoxychlor	ND	3.3	72	80	10.5	66	58	12.9	40 - 140	30
Toxaphene	ND	130	NA	NA	NC	NA	NA	NC	40 - 140	30
% DCBP	80	%	83	94	12.4	78	69	12.2	30 - 150	30
% DCBP (Confirmation)	89	%	82	90	9.3	77	65	16.9	30 - 150	30
% TCMX	71	%	75	86	13.7	73	65	11.6	30 - 150	30
% TCMX (Confirmation)	102	%	86	94	8.9	81	69	16.0	30 - 150	30

QA/QC Batch 471144 (ug/L), QC Sample No: CC69318 (CC69318, CC69330, CC69332)

Pesticides

4,4' -DDD	ND	0.003	124	120	3.3				40 - 140	20
4,4' -DDE	ND	0.003	110	111	0.9				40 - 140	20
4,4' -DDT	ND	0.003	107	100	6.8				40 - 140	20
a-BHC	ND	0.002	111	105	5.6				40 - 140	20
Alachlor	ND	0.005	NA	NA	NC				40 - 140	20
Aldrin	ND	0.002	88	92	4.4				40 - 140	20
b-BHC	ND	0.002	110	107	2.8				40 - 140	20
Chlordane	ND	0.050	110	105	4.7				40 - 140	20
d-BHC	ND	0.005	103	99	4.0				40 - 140	20
Dieldrin	ND	0.002	111	108	2.7				40 - 140	20
Endosulfan I	ND	0.005	105	99	5.9				40 - 140	20
Endosulfan II	ND	0.005	118	115	2.6				40 - 140	20
Endosulfan sulfate	ND	0.005	114	111	2.7				40 - 140	20
Endrin	ND	0.005	107	110	2.8				40 - 140	20
Endrin aldehyde	ND	0.005	109	97	11.7				40 - 140	20
Endrin ketone	ND	0.005	96	85	12.2				40 - 140	20
g-BHC	ND	0.002	104	101	2.9				40 - 140	20
Heptachlor	ND	0.005	105	106	0.9				40 - 140	20
Heptachlor epoxide	ND	0.005	108	101	6.7				40 - 140	20
Methoxychlor	ND	0.005	109	105	3.7				40 - 140	20
Toxaphene	ND	0.20	NA	NA	NC				40 - 140	20
% DCBP	114	%	92	74	21.7				30 - 150	20
% DCBP (Confirmation)	126	%	102	82	21.7				30 - 150	20
% TCMX	86	%	93	93	0.0				30 - 150	20
% TCMX (Confirmation)	113	%	98	96	2.1				30 - 150	20

QA/QC Batch 470719 (ug/kg), QC Sample No: CC69313 (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332)

Semivolatiles - Soil

1,2,4,5-Tetrachlorobenzene	ND	230	63	65	3.1	71	73	2.8	30 - 130	30
1,2,4-Trichlorobenzene	ND	230	54	59	8.8	68	70	2.9	30 - 130	30
1,2-Dichlorobenzene	ND	180	45	49	8.5	59	59	0.0	30 - 130	30
1,2-Diphenylhydrazine	ND	230	61	63	3.2	62	73	16.3	30 - 130	30
1,3-Dichlorobenzene	ND	230	43	47	8.9	57	58	1.7	30 - 130	30
1,4-Dichlorobenzene	ND	230	45	49	8.5	58	59	1.7	30 - 130	30
2,4,5-Trichlorophenol	ND	230	76	77	1.3	80	84	4.9	30 - 130	30
2,4,6-Trichlorophenol	ND	130	72	74	2.7	75	80	6.5	30 - 130	30

QA/QC Data

SDG I.D.: GCC69317

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
2,4-Dichlorophenol	ND	130	70	71	1.4	75	80	6.5	30 - 130	30
2,4-Dimethylphenol	ND	230	68	69	1.5	71	71	0.0	30 - 130	30
2,4-Dinitrophenol	ND	230	38	30	23.5	79	76	3.9	30 - 130	30
2,4-Dinitrotoluene	ND	130	78	80	2.5	80	85	6.1	30 - 130	30
2,6-Dinitrotoluene	ND	130	74	76	2.7	78	83	6.2	30 - 130	30
2-Chloronaphthalene	ND	230	64	67	4.6	70	74	5.6	30 - 130	30
2-Chlorophenol	ND	230	56	60	6.9	67	69	2.9	30 - 130	30
2-Methylnaphthalene	ND	230	58	60	3.4	65	68	4.5	30 - 130	30
2-Methylphenol (o-cresol)	ND	230	58	60	3.4	74	76	2.7	30 - 130	30
2-Nitroaniline	ND	330	102	105	2.9	97	103	6.0	30 - 130	30
2-Nitrophenol	ND	230	66	69	4.4	78	81	3.8	30 - 130	30
3&4-Methylphenol (m&p-cresol)	ND	230	67	69	2.9	73	74	1.4	30 - 130	30
3,3'-Dichlorobenzidine	ND	130	61	63	3.2	66	63	4.7	30 - 130	30
3-Nitroaniline	ND	330	78	82	5.0	85	86	1.2	30 - 130	30
4,6-Dinitro-2-methylphenol	ND	230	70	58	18.8	95	97	2.1	30 - 130	30
4-Bromophenyl phenyl ether	ND	230	70	71	1.4	72	78	8.0	30 - 130	30
4-Chloro-3-methylphenol	ND	230	72	72	0.0	75	80	6.5	30 - 130	30
4-Chloroaniline	ND	230	54	58	7.1	63	63	0.0	30 - 130	30
4-Chlorophenyl phenyl ether	ND	230	70	71	1.4	72	76	5.4	30 - 130	30
4-Nitroaniline	ND	230	71	75	5.5	75	79	5.2	30 - 130	30
4-Nitrophenol	ND	230	78	79	1.3	79	86	8.5	30 - 130	30
Acenaphthene	ND	230	67	69	2.9	71	75	5.5	30 - 130	30
Acenaphthylene	ND	130	64	66	3.1	69	73	5.6	30 - 130	30
Acetophenone	ND	230	52	55	5.6	62	64	3.2	30 - 130	30
Aniline	ND	330	38	43	12.3	53	52	1.9	30 - 130	30
Anthracene	ND	230	70	71	1.4	71	77	8.1	30 - 130	30
Benz(a)anthracene	ND	230	68	70	2.9	71	79	10.7	30 - 130	30
Benzidine	ND	330	40	39	2.5	<10	<10	NC	30 - 130	30 m
Benzo(a)pyrene	ND	130	68	69	1.5	69	76	9.7	30 - 130	30
Benzo(b)fluoranthene	ND	160	70	69	1.4	71	77	8.1	30 - 130	30
Benzo(ghi)perylene	ND	230	64	64	0.0	56	50	11.3	30 - 130	30
Benzo(k)fluoranthene	ND	230	66	69	4.4	68	73	7.1	30 - 130	30
Benzoic Acid	ND	330	20	12	50.0	67	73	8.6	30 - 130	30 l,r
Benzyl butyl phthalate	ND	230	73	75	2.7	72	76	5.4	30 - 130	30
Bis(2-chloroethoxy)methane	ND	230	58	61	5.0	65	68	4.5	30 - 130	30
Bis(2-chloroethyl)ether	ND	130	43	46	6.7	54	54	0.0	30 - 130	30
Bis(2-chloroisopropyl)ether	ND	230	40	43	7.2	49	49	0.0	30 - 130	30
Bis(2-ethylhexyl)phthalate	ND	230	74	76	2.7	75	78	3.9	30 - 130	30
Carbazole	ND	230	71	73	2.8	71	76	6.8	30 - 130	30
Chrysene	ND	230	69	71	2.9	72	79	9.3	30 - 130	30
Dibenz(a,h)anthracene	ND	130	70	71	1.4	68	62	9.2	30 - 130	30
Dibenzofuran	ND	230	67	70	4.4	71	75	5.5	30 - 130	30
Diethyl phthalate	ND	230	69	71	2.9	71	75	5.5	30 - 130	30
Dimethylphthalate	ND	230	69	71	2.9	72	76	5.4	30 - 130	30
Di-n-butylphthalate	ND	670	73	74	1.4	71	76	6.8	30 - 130	30
Di-n-octylphthalate	ND	230	75	78	3.9	79	83	4.9	30 - 130	30
Fluoranthene	ND	230	73	74	1.4	73	86	16.4	30 - 130	30
Fluorene	ND	230	69	72	4.3	73	77	5.3	30 - 130	30
Hexachlorobenzene	ND	130	68	67	1.5	68	72	5.7	30 - 130	30
Hexachlorobutadiene	ND	230	56	61	8.5	70	73	4.2	30 - 130	30
Hexachlorocyclopentadiene	ND	230	79	80	1.3	43	63	37.7	30 - 130	30 r
Hexachloroethane	ND	130	43	48	11.0	57	58	1.7	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	73	71	2.8	66	58	12.9	30 - 130	30

QA/QC Data

SDG I.D.: GCC69317

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Isophorone	ND	130	55	57	3.6	60	65	8.0	30 - 130	30
Naphthalene	ND	230	54	57	5.4	65	68	4.5	30 - 130	30
Nitrobenzene	ND	130	53	56	5.5	64	65	1.6	30 - 130	30
N-Nitrosodimethylamine	ND	230	38	43	12.3	54	50	7.7	30 - 130	30
N-Nitrosodi-n-propylamine	ND	130	57	60	5.1	65	67	3.0	30 - 130	30
N-Nitrosodiphenylamine	ND	130	68	71	4.3	69	75	8.3	30 - 130	30
Pentachloronitrobenzene	ND	230	74	76	2.7	77	80	3.8	30 - 130	30
Pentachlorophenol	ND	230	70	68	2.9	77	86	11.0	30 - 130	30
Phenanthrene	ND	130	69	70	1.4	73	83	12.8	30 - 130	30
Phenol	ND	230	57	60	5.1	74	70	5.6	30 - 130	30
Pyrene	ND	230	74	75	1.3	74	86	15.0	30 - 130	30
Pyridine	ND	230	26	29	10.9	40	36	10.5	30 - 130	30
% 2,4,6-Tribromophenol	64	%	69	69	0.0	70	75	6.9	30 - 130	30
% 2-Fluorobiphenyl	59	%	62	66	6.3	68	73	7.1	30 - 130	30
% 2-Fluorophenol	51	%	50	55	9.5	63	63	0.0	30 - 130	30
% Nitrobenzene-d5	52	%	52	55	5.6	64	65	1.6	30 - 130	30
% Phenol-d5	53	%	55	58	5.3	63	66	4.7	30 - 130	30
% Terphenyl-d14	68	%	66	67	1.5	66	71	7.3	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 470877 (ug/kg), QC Sample No: CC69322 (CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69330, CC69331, CC69332, CC69333, CC69334 (50X) )

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	99	100	1.0	101	101	0.0	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	88	92	4.4	95	94	1.1	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	96	100	4.1	99	102	3.0	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	96	97	1.0	97	97	0.0	70 - 130	30
1,1-Dichloroethane	ND	5.0	92	95	3.2	95	98	3.1	70 - 130	30
1,1-Dichloroethene	ND	5.0	79	81	2.5	84	84	0.0	70 - 130	30
1,1-Dichloropropene	ND	5.0	93	96	3.2	102	107	4.8	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	107	109	1.9	101	107	5.8	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	84	88	4.7	92	93	1.1	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	105	108	2.8	101	107	5.8	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	95	99	4.1	106	108	1.9	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	105	107	1.9	97	104	7.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	97	100	3.0	97	100	3.0	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	97	100	3.0	104	105	1.0	70 - 130	30
1,2-Dichloroethane	ND	5.0	89	94	5.5	91	92	1.1	70 - 130	30
1,2-Dichloropropane	ND	5.0	97	100	3.0	100	100	0.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	95	97	2.1	105	108	2.8	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	98	101	3.0	106	110	3.7	70 - 130	30
1,3-Dichloropropane	ND	5.0	93	95	2.1	97	98	1.0	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	96	97	1.0	104	106	1.9	70 - 130	30
2,2-Dichloropropane	ND	5.0	92	97	5.3	93	97	4.2	70 - 130	30
2-Chlorotoluene	ND	5.0	99	102	3.0	107	111	3.7	70 - 130	30
2-Hexanone	ND	25	87	90	3.4	84	88	4.7	70 - 130	30
2-Isopropyltoluene	ND	5.0	102	106	3.8	115	118	2.6	70 - 130	30
4-Chlorotoluene	ND	5.0	95	100	5.1	106	110	3.7	70 - 130	30
4-Methyl-2-pentanone	ND	25	90	94	4.3	85	90	5.7	70 - 130	30
Acetone	ND	10	67	68	1.5	62	65	4.7	70 - 130	30
Acrylonitrile	ND	5.0	90	95	5.4	93	98	5.2	70 - 130	30

l,m

## QA/QC Data

SDG I.D.: GCC69317

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Benzene	ND	1.0	92	97	5.3	101	102	1.0	70 - 130	30
Bromobenzene	ND	5.0	100	104	3.9	107	109	1.9	70 - 130	30
Bromochloromethane	ND	5.0	96	94	2.1	99	97	2.0	70 - 130	30
Bromodichloromethane	ND	5.0	94	98	4.2	97	96	1.0	70 - 130	30
Bromoform	ND	5.0	97	100	3.0	94	96	2.1	70 - 130	30
Bromomethane	ND	5.0	82	83	1.2	81	86	6.0	70 - 130	30
Carbon Disulfide	ND	5.0	83	85	2.4	85	86	1.2	70 - 130	30
Carbon tetrachloride	ND	5.0	91	94	3.2	96	98	2.1	70 - 130	30
Chlorobenzene	ND	5.0	95	99	4.1	105	106	0.9	70 - 130	30
Chloroethane	ND	5.0	86	91	5.6	88	94	6.6	70 - 130	30
Chloroform	ND	5.0	86	89	3.4	93	92	1.1	70 - 130	30
Chloromethane	ND	5.0	90	93	3.3	91	94	3.2	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	95	99	4.1	108	102	5.7	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	95	99	4.1	95	94	1.1	70 - 130	30
Dibromochloromethane	ND	3.0	100	102	2.0	103	103	0.0	70 - 130	30
Dibromomethane	ND	5.0	94	97	3.1	96	97	1.0	70 - 130	30
Dichlorodifluoromethane	ND	5.0	89	94	5.5	86	92	6.7	70 - 130	30
Ethylbenzene	ND	1.0	96	99	3.1	109	110	0.9	70 - 130	30
Hexachlorobutadiene	ND	5.0	112	114	1.8	120	128	6.5	70 - 130	30
Isopropylbenzene	ND	1.0	97	102	5.0	111	114	2.7	70 - 130	30
m&p-Xylene	ND	2.0	94	96	2.1	106	107	0.9	70 - 130	30
Methyl ethyl ketone	ND	5.0	86	90	4.5	84	95	12.3	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	78	80	2.5	82	83	1.2	70 - 130	30
Methylene chloride	ND	5.0	73	75	2.7	79	79	0.0	70 - 130	30
Naphthalene	ND	5.0	106	110	3.7	95	105	10.0	70 - 130	30
n-Butylbenzene	ND	1.0	98	101	3.0	112	116	3.5	70 - 130	30
n-Propylbenzene	ND	1.0	97	101	4.0	110	114	3.6	70 - 130	30
o-Xylene	ND	2.0	98	101	3.0	106	109	2.8	70 - 130	30
p-Isopropyltoluene	ND	1.0	99	101	2.0	111	116	4.4	70 - 130	30
sec-Butylbenzene	ND	1.0	101	106	4.8	117	121	3.4	70 - 130	30
Styrene	ND	5.0	96	97	1.0	103	105	1.9	70 - 130	30
tert-Butylbenzene	ND	1.0	98	103	5.0	111	114	2.7	70 - 130	30
Tetrachloroethene	ND	5.0	100	104	3.9	112	117	4.4	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	82	84	2.4	83	86	3.6	70 - 130	30
Toluene	ND	1.0	94	98	4.2	102	107	4.8	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	82	84	2.4	90	88	2.2	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	88	92	4.4	87	86	1.2	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	95	99	4.1	92	95	3.2	70 - 130	30
Trichloroethene	ND	5.0	96	100	4.1	107	110	2.8	70 - 130	30
Trichlorofluoromethane	ND	5.0	76	79	3.9	78	82	5.0	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	84	85	1.2	92	94	2.2	70 - 130	30
Vinyl chloride	ND	5.0	76	78	2.6	80	84	4.9	70 - 130	30
% 1,2-dichlorobenzene-d4	97	%	101	100	1.0	99	99	0.0	70 - 130	30
% Bromofluorobenzene	96	%	96	97	1.0	96	93	3.2	70 - 130	30
% Dibromofluoromethane	103	%	97	101	4.0	94	95	1.1	70 - 130	30
% Toluene-d8	93	%	98	99	1.0	98	98	0.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 470959 (ug/kg), QC Sample No: CC69329 (CC69317 (50X) , CC69323 (50X) , CC69324 (50X) , CC69326 (50X) , CC69329 (1X, 50X) )

### Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	5.0	103	99	4.0	98	98	0.0	70 - 130	30
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## QA/QC Data

SDG I.D.: GCC69317

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
1,1,1-Trichloroethane	ND	5.0	100	93	7.3	88	91	3.4	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	107	98	8.8	96	93	3.2	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	101	97	4.0	97	92	5.3	70 - 130	30
1,1-Dichloroethane	ND	5.0	102	98	4.0	93	89	4.4	70 - 130	30
1,1-Dichloroethene	ND	5.0	94	89	5.5	82	83	1.2	70 - 130	30
1,1-Dichloropropene	ND	5.0	103	102	1.0	100	99	1.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	115	109	5.4	104	106	1.9	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	99	91	8.4	90	86	4.5	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	116	110	5.3	104	104	0.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	106	103	2.9	103	102	1.0	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	107	101	5.8	93	92	1.1	70 - 130	30
1,2-Dibromoethane	ND	5.0	104	99	4.9	95	93	2.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	108	103	4.7	103	102	1.0	70 - 130	30
1,2-Dichloroethane	ND	5.0	96	93	3.2	94	91	3.2	70 - 130	30
1,2-Dichloropropane	ND	5.0	104	100	3.9	98	94	4.2	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	106	101	4.8	101	100	1.0	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	112	105	6.5	104	103	1.0	70 - 130	30
1,3-Dichloropropane	ND	5.0	102	96	6.1	93	92	1.1	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	111	104	6.5	102	102	0.0	70 - 130	30
2,2-Dichloropropane	ND	5.0	97	98	1.0	87	86	1.2	70 - 130	30
2-Chlorotoluene	ND	5.0	108	105	2.8	102	103	1.0	70 - 130	30
2-Hexanone	ND	25	97	86	12.0	78	75	3.9	70 - 130	30
2-Isopropyltoluene	ND	5.0	114	110	3.6	109	109	0.0	70 - 130	30
4-Chlorotoluene	ND	5.0	108	104	3.8	101	100	1.0	70 - 130	30
4-Methyl-2-pentanone	ND	25	98	91	7.4	83	80	3.7	70 - 130	30
Acetone	ND	10	80	76	5.1	53	51	3.8	70 - 130	30
Acrylonitrile	ND	5.0	101	91	10.4	89	83	7.0	70 - 130	30
Benzene	ND	1.0	102	100	2.0	100	97	3.0	70 - 130	30
Bromobenzene	ND	5.0	110	106	3.7	107	105	1.9	70 - 130	30
Bromochloromethane	ND	5.0	102	101	1.0	97	94	3.1	70 - 130	30
Bromodichloromethane	ND	5.0	101	99	2.0	95	94	1.1	70 - 130	30
Bromoform	ND	5.0	103	98	5.0	93	90	3.3	70 - 130	30
Bromomethane	ND	5.0	104	101	2.9	97	100	3.0	70 - 130	30
Carbon Disulfide	ND	5.0	99	96	3.1	88	86	2.3	70 - 130	30
Carbon tetrachloride	ND	5.0	100	98	2.0	91	90	1.1	70 - 130	30
Chlorobenzene	ND	5.0	105	102	2.9	103	103	0.0	70 - 130	30
Chloroethane	ND	5.0	108	105	2.8	100	102	2.0	70 - 130	30
Chloroform	ND	5.0	96	92	4.3	90	87	3.4	70 - 130	30
Chloromethane	ND	5.0	103	100	3.0	90	90	0.0	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	109	105	3.7	99	96	3.1	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	101	98	3.0	92	90	2.2	70 - 130	30
Dibromochloromethane	ND	3.0	106	101	4.8	100	98	2.0	70 - 130	30
Dibromomethane	ND	5.0	99	97	2.0	97	91	6.4	70 - 130	30
Dichlorodifluoromethane	ND	5.0	118	117	0.9	100	103	3.0	70 - 130	30
Ethylbenzene	ND	1.0	107	103	3.8	104	104	0.0	70 - 130	30
Hexachlorobutadiene	ND	5.0	125	116	7.5	114	119	4.3	70 - 130	30
Isopropylbenzene	ND	1.0	108	105	2.8	105	102	2.9	70 - 130	30
m&p-Xylene	ND	2.0	105	101	3.9	103	101	2.0	70 - 130	30
Methyl ethyl ketone	ND	5.0	98	93	5.2	82	77	6.3	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	92	88	4.4	81	80	1.2	70 - 130	30
Methylene chloride	ND	5.0	85	82	3.6	80	77	3.8	70 - 130	30
Naphthalene	ND	5.0	115	104	10.0	100	102	2.0	70 - 130	30
n-Butylbenzene	ND	1.0	115	108	6.3	105	106	0.9	70 - 130	30

m

## QA/QC Data

SDG I.D.: GCC69317

Parameter	BIK		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
n-Propylbenzene	ND	1.0	110	105	4.7	106	102	3.8	70 - 130	30
o-Xylene	ND	2.0	107	103	3.8	103	102	1.0	70 - 130	30
p-Isopropyltoluene	ND	1.0	111	105	5.6	106	106	0.0	70 - 130	30
sec-Butylbenzene	ND	1.0	116	111	4.4	110	109	0.9	70 - 130	30
Styrene	ND	5.0	105	100	4.9	101	98	3.0	70 - 130	30
tert-Butylbenzene	ND	1.0	109	105	3.7	105	104	1.0	70 - 130	30
Tetrachloroethene	ND	5.0	113	107	5.5	110	109	0.9	70 - 130	30
Tetrahydrofuran (THF)	ND	5.0	93	85	9.0	77	74	4.0	70 - 130	30
Toluene	ND	1.0	104	100	3.9	102	100	2.0	70 - 130	30
trans-1,2-Dichloroethene	ND	5.0	95	95	0.0	88	90	2.2	70 - 130	30
trans-1,3-Dichloropropene	ND	5.0	96	92	4.3	85	83	2.4	70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	108	99	8.7	85	82	3.6	70 - 130	30
Trichloroethene	ND	5.0	105	104	1.0	104	103	1.0	70 - 130	30
Trichlorofluoromethane	ND	5.0	94	93	1.1	88	89	1.1	70 - 130	30
Trichlorotrifluoroethane	ND	5.0	103	96	7.0	94	91	3.2	70 - 130	30
Vinyl chloride	ND	5.0	96	92	4.3	86	87	1.2	70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	101	102	1.0	100	102	2.0	70 - 130	30
% Bromofluorobenzene	94	%	97	98	1.0	97	96	1.0	70 - 130	30
% Dibromofluoromethane	97	%	96	96	0.0	96	93	3.2	70 - 130	30
% Toluene-d8	95	%	98	99	1.0	99	99	0.0	70 - 130	30

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

- l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
- m = This parameter is outside laboratory MS/MSD specified recovery limits.
- r = This parameter is outside laboratory RPD specified recovery limits.
- s = This parameter is outside laboratory Blank Surrogate specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference

  
 Phyllis Shiller, Laboratory Director  
 March 27, 2019

Wednesday, March 27, 2019

Criteria: CT: GAM, GWP, RC

State: CT

# Sample Criteria Exceedances Report

GCC69317 - HRPSTRAT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	Criteria	RL	Analysis Units
CC69317	\$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	2000	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3800	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3200	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3500	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GA,GAA (mg/kg) / APS Organics	2000	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Dibenzofuran	CT / RSR GA,GAA (mg/kg) / APS Organics	700	280	200	200	200	ug/Kg
CC69317	\$8270-SMR	Chrysene	CT / RSR GA,GAA (mg/kg) / APS Organics	3900	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Carbazole	CT / RSR GA,GAA (mg/kg) / APS Organics	1100	400	200	200	200	ug/Kg
CC69317	\$8270-SMR	Benzo(ghi)perylene	CT / RSR GA,GAA (mg/kg) / APS Organics	1600	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Benzo(b)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	3500	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	12000	2800	5600	5600	5600	ug/Kg
CC69317	\$8270-SMR	Benz(a)anthracene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	3800	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Benzo(a)pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	3200	280	1000	1000	1000	ug/Kg
CC69317	\$8270-SMR	Phenanthrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	7900	280	4000	4000	4000	ug/Kg
CC69317	\$8270-SMR	Pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	7600	280	4000	4000	4000	ug/Kg
CC69317	\$8270-SMR	Benzo(k)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	2700	280	1000	1000	1000	ug/Kg
CC69317	\$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	7.6	1.6	3	3	3	ug/Kg
CC69317	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	13.3	0.83	10	10	10	mg/Kg
CC69318	\$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR DEC RES (mg/kg) / APS Organics	1900	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3000	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	2800	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Benz(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	3300	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Benzo(ghi)perylene	CT / RSR GA,GAA (mg/kg) / APS Organics	1400	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Carbazole	CT / RSR GA,GAA (mg/kg) / APS Organics	720	410	200	200	200	ug/Kg
CC69318	\$8270-SMR	Dibenzofuran	CT / RSR GA,GAA (mg/kg) / APS Organics	400	280	200	200	200	ug/Kg
CC69318	\$8270-SMR	Chrysene	CT / RSR GA,GAA (mg/kg) / APS Organics	3600	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Indeno(1,2,3-cd)pyrene	CT / RSR GA,GAA (mg/kg) / APS Organics	1900	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	9600	2800	5600	5600	5600	ug/Kg
CC69318	\$8270-SMR	Phenanthrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	6500	280	4000	4000	4000	ug/Kg
CC69318	\$8270-SMR	Pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	7000	280	4000	4000	4000	ug/Kg
CC69318	\$8270-SMR	Benzo(k)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	2600	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Benzo(b)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	2800	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Benzo(a)pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	3000	280	1000	1000	1000	ug/Kg
CC69318	\$8270-SMR	Benz(a)anthracene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	3300	280	1000	1000	1000	ug/Kg
CC69318	SPLP-PB	SPLP Lead	CT / RSR GA,GAA (mg/l) TCLP / Inorganic/PCB	0.028	0.010	0.015	0.015	0.015	mg/L
CC69318	SPLP-PB	SPLP Lead	CT / RSR GWPC (ug/l) / Inorganics	0.028	0.010	0.015	0.015	0.015	mg/L
CC69319	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	10.9	0.85	10	10	10	mg/Kg
CC69320	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	19.0	0.72	10	10	10	mg/Kg
CC69321	\$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	7.5	1.6	3	3	3	ug/Kg

Wednesday, March 27, 2019

Criteria: CT: GAM, GWP, RC

State: CT

## Sample Criteria Exceedances Report

**GCC69317 - HRPSTRAT**

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
CC69324	\$8260MAR	Trichloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	1500	320	100	100	ug/Kg
CC69324	\$8260MAR	Vinyl chloride	CT / RSR GA,GAA (mg/kg) / Volatiles	210	130	40	40	ug/Kg
CC69324	\$8260MAR	cis-1,2-Dichloroethene	CT / RSR GA,GAA (mg/kg) / Volatiles	8400	320	1400	1400	ug/Kg
CC69325	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	14.6	0.69	10	10	mg/Kg
CC69326	\$PEST_SMR	4,4' -DDT	CT / RSR GA,GAA (mg/kg) / APS Organics	6.1	1.6	3	3	ug/Kg
CC69329	\$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR DEC RES (mg/kg) / Pest/PCB/TPH	520	280	500	500	mg/Kg
CC69329	\$ETPH_SMR	Ext. Petroleum H.C. (C9-C36)	CT / RSR GA,GAA (mg/kg) / Pesticides/TPH	520	280	500	500	mg/Kg
CC69329	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	11.1	0.77	10	10	mg/Kg
CC69330	\$8270-SMR	Benzo(a)pyrene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1500	250	1000	1000	ug/Kg
CC69330	\$8270-SMR	Benzo(a)anthracene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1500	250	1000	1000	ug/Kg
CC69330	\$8270-SMR	Benzo(b)fluoranthene	CT / RSR DEC RES (mg/kg) / Semivolatiles	1500	250	1000	1000	ug/Kg
CC69330	\$8270-SMR	Chrysene	CT / RSR GA,GAA (mg/kg) / APS Organics	1600	250	1000	1000	ug/Kg
CC69330	\$8270-SMR	Benzo(k)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	1400	250	1000	1000	ug/Kg
CC69330	\$8270-SMR	Benzo(b)fluoranthene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	1500	250	1000	1000	ug/Kg
CC69330	\$8270-SMR	Benzo(a)anthracene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	1500	250	1000	1000	ug/Kg
CC69330	\$8270-SMR	Benzo(a)pyrene	CT / RSR GA,GAA (mg/kg) / Semivolatiles	1500	250	1000	1000	ug/Kg
CC69330	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	11.9	0.71	10	10	mg/Kg
CC69332	AS-SM	Arsenic	CT / RSR DEC RES (mg/kg) / Inorganics	28.1	0.72	10	10	mg/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



## REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

**Laboratory Name:** Phoenix Environmental Labs, Inc.

**Client:** HRP Associates Inc.

**Project Location:** CTD4042FW

**Project Number:**

**Laboratory Sample ID(s):** CC69317-CC69334

**Sampling Date(s):** 3/15/2019

**List RCP Methods Used (e.g., 8260, 8270, et cetera)** 1311/1312, 6010, 7470/7471, 8081, 8082, 8151, 8260, 8270, ETPH

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1A	Were the method specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1B	<u>VPH and EPH methods only:</u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Were samples received at an appropriate temperature (< 6 Degrees C)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
4	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Sections: Herbicide Narration, ICP Narration, PEST Narration, SVOA Narration, VOA Narration.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5	a) Were reporting limits specified or referenced on the chain-of-custody?  b) Were these reporting limits met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7	Are project-specific matrix spikes and laboratory duplicates included in the data set?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

**I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.**

**Authorized Signature:** Rashmi Makol **Position:** Project Manager

**Printed Name:** Rashmi Makol **Date:** Wednesday, March 27, 2019

**Name of Laboratory** Phoenix Environmental Labs, Inc.

**This certification form is to be used for RCP methods only.**



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## RCP Certification Report

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### SDG Comments

#### Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody.

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### ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### Instrument:

##### AU-FID1 03/18/19-1

Jeff Bucko, Chemist 03/18/19

CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69329, CC69330

The initial calibration (ETPH314I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (318A003A\_1) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

##### AU-FID21 03/19/19-1

Jeff Bucko, Chemist 03/19/19

CC69328, CC69332

The initial calibration (ETPH131I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (319A003) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

##### AU-FID21 03/20/19-1

Jeff Bucko, Chemist 03/20/19

CC69317

The initial calibration (ETPH131I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (320A003) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

##### AU-XL1 03/20/19-1

Jeff Bucko, Chemist 03/20/19

CC69331

The initial calibration (ETPH219I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (320A003\_1) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

#### QC (Batch Specific):

##### Batch 470723 (CC69314)

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

All LCS recoveries were within 60 - 120 with the following exceptions: None.

All LCSD recoveries were within 60 - 120 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

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### Herbicide Narration



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### ***Herbicide Narration***

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

**QC Batch 470703 (Samples: CC69317, CC69318, CC69319, CC69320, CC69321, CC69322): -----**

**The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Dinoseb)**

**The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Dinoseb)**

**QC Batch 470745 (Samples: CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332): -----**

**The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Dalapon)**

**The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Dalapon, Dinoseb)**

### **Instrument:**

**AU-ECD12 03/19/19-1** Carol Wohlmuth, Chemist 03/19/19

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322

The initial calibration (HRB318AI) RSD for the compound list was less than 20% except for the following compounds: None.  
The initial calibration (HRB318BI) RSD for the compound list was less than 20% except for the following compounds: None.  
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

**AU-ECD12 03/20/19-1** Carol Wohlmuth, Chemist 03/20/19

CC69328, CC69329, CC69330, CC69331, CC69332

The initial calibration (HRB318AI) RSD for the compound list was less than 20% except for the following compounds: None.  
The initial calibration (HRB318BI) RSD for the compound list was less than 20% except for the following compounds: None.  
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

**AU-ECD2 03/20/19-1** Carol Wohlmuth, Chemist 03/20/19

CC69323, CC69324, CC69325, CC69326, CC69327

The initial calibration (HRB312AI) RSD for the compound list was less than 20% except for the following compounds: None.  
The initial calibration (HRB312BI) RSD for the compound list was less than 20% except for the following compounds: None.  
The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

### **QC (Batch Specific):**

#### **Batch 470703 (CC68742)**

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322

All LCS recoveries were within 40 - 140 with the following exceptions: None.  
All LCSD recoveries were within 40 - 140 with the following exceptions: Dinoseb(38%)  
All LCS/LCSD RPDs were less than 30% with the following exceptions: Dinoseb(38.3%)

#### **Batch 470745 (CC69564)**

CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332



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### **Herbicide Narration**

All LCS recoveries were within 40 - 140 with the following exceptions: Dalapon(30%)  
All LCSD recoveries were within 40 - 140 with the following exceptions: None.  
All LCS/LCSD RPDs were less than 30% with the following exceptions: Dalapon(51.9%), Dinoseb(39.3%)

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### **Mercury Narration**

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

#### **Instrument:**

**MERLIN 03/19/19 09:03** Rick Schweitzer, Chemist 03/19/19

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

**MERLIN 03/20/19 07:54** Rick Schweitzer, Chemist 03/20/19

CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

#### **QC (Batch Specific):**

##### **Batch 470763 (CC69171)**

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

##### **Batch 470764 (CC69274)**

CC69330, CC69331, CC69332

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.



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### Mercury Narration

#### **Batch 470785 (CC69081)**

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326

All LCS recoveries were within 80 - 120 with the following exceptions: None.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

#### **Batch 470786 (CC69586)**

CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

All LCS recoveries were within 80 - 120 with the following exceptions: None.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

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### ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

**QC Batch 470727 (Samples: CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332): -----**

**The Sample/Duplicate RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Arsenic, Lead)**

#### **Instrument:**

##### **ARCOS 03/19/19 07:41**

Cindy Pearce, Emily Kolominskaya, Tina Hall, Chemist 03/19/

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

Additional criteria for CCV and ICSAB:

Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB). The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

##### **ARCOS 03/20/19 08:00**

Cindy Pearce, Emily Kolominskaya, Chemist 03/20/19

CC69330

Additional criteria for CCV and ICSAB:

Sodium and Potassium are poor performing elements, the laboratory's in-house limits are 85-115% (CCV) and 70-130% (ICSAB). The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

##### **BLUE 03/19/19 08:17**

Cindy Pearce, Chemist 03/19/19

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

The initial calibration met criteria.

The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.



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### **ICP Metals Narration**

The continuing calibration blanks were less than the reporting level for the elements reported.  
The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria. The linear range is defined daily by the calibration range.  
The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.  
The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.  
The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

#### **QC (Site Specific):**

##### **Batch 470727 (CC69317)**

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

All LCS recoveries were within 75 - 125 with the following exceptions: None.  
All MS recoveries were within 75 - 125 with the following exceptions: None.

##### **Batch 470790 (CC69317)**

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

All LCS recoveries were within 75 - 125 with the following exceptions: None.  
All MS recoveries were within 75 - 125 with the following exceptions: None.

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### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### **Instrument:**

##### **AU-ECD24 03/19/19-1**

Saadia Chudary, Chemist 03/19/19

CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69330, CC69331, CC69332

The initial calibration (PC305AI) RSD for the compound list was less than 20% except for the following compounds: None.  
The initial calibration (PC305BI) RSD for the compound list was less than 20% except for the following compounds: None.  
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

##### **AU-ECD29 03/19/19-1**

Saadia Chudary, Chemist 03/19/19

CC69317, CC69318, CC69319, CC69320, CC69321, CC69329

The initial calibration (PC301AI) RSD for the compound list was less than 20% except for the following compounds: None.  
The initial calibration (PC301BI) RSD for the compound list was less than 20% except for the following compounds: None.  
The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

#### **QC (Batch Specific):**

##### **Batch 470721 (CC69313)**

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

All LCS recoveries were within 40 - 140 with the following exceptions: None.  
All LCSD recoveries were within 40 - 140 with the following exceptions: None.  
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

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### **PEST Narration**



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### **PEST Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

**QC Batch 470867 (Samples: CC69317, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69331): ----**

**The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Aldrin)**

**QC Batch 471144 (Samples: CC69318, CC69330, CC69332): ----**

**The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% DCBP, % DCBP (Confirmation))**

### **Instrument:**

#### **AU-ECD35 03/19/19-2**

Carol Wohlmuth, Chemist 03/19/19

CC69317, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326

The initial calibration (PS312AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PS312BI) RSD for the compound list was less than 20% except for the following compounds: None.

The Endrin and DDT breakdown does not exceed 15% except for the following compounds:

319B076 (CC69317, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326) - Endrin Breakdown (16%)

The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.

The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

#### **AU-ECD35 03/20/19-1**

Carol Wohlmuth, Chemist 03/20/19

CC69318, CC69330, CC69332

The initial calibration (PS312AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PS312BI) RSD for the compound list was less than 20% except for the following compounds: None.

The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.

The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.

The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

#### **AU-ECD4 03/19/19-1**

Carol Wohlmuth, Chemist 03/19/19

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

The initial calibration (PS314AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PS314BI) RSD for the compound list was less than 20% except for the following compounds: None.

The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.

The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.

The continuing calibration %D for the compound list was less than 20% except for the following compounds:

Samples: CC69317, CC69318, CC69319

Preceding CC 319B009 - d-BHC 22%H (20%)

Succeeding CC 319B022 - d-BHC 25%H (20%)

Samples: CC69320, CC69321

Preceding CC 319B022 - d-BHC 25%H (20%)

Succeeding CC 319B035 - d-BHC 29%H (20%)

Samples: CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69330, CC69331

Preceding CC 319B035 - d-BHC 29%H (20%)



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### **PEST Narration**

Succeeding CC 319B049 - d-BHC 26%H (20%)

Samples: CC69329, CC69332

Preceding CC 319B049 - d-BHC 26%H (20%)

Succeeding CC 319B060 - d-BHC 31%H (20%)

#### **AU-ECD7 03/20/19-1**

Carol Wohlmuth, Chemist 03/20/19

CC69327, CC69328, CC69329, CC69331

The initial calibration (PS318AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PS318BI) RSD for the compound list was less than 20% except for the following compounds: None.

The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.

The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.

The continuing calibration %D for the compound list was less than 20% except for the following compounds:

Samples: CC69327, CC69328, CC69329, CC69331

Preceding CC 320B005 - Methoxychlor 35%H (20%)

Succeeding CC 320B020 - 4,4'-DDD -31%L (20%)

A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

### **QC (Batch Specific):**

#### **Batch 470722 (CC69313)**

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

#### **Batch 470867 (CC55789)**

CC69317, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69331

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: Aldrin(33.3%)

A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

#### **Batch 471144 (CC69318)**

CC69318, CC69330, CC69332

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: % DCBP(21.7%), % DCBP (Confirmation)(21.7%)

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### **SVOA Narration**



**Environmental Laboratories, Inc.**  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823



## RCP Certification Report

March 27, 2019

SDG I.D.: GCC69317

### SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

**QC Batch 470719 (Samples: CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332): ----**

**One or more analytes is below the method criteria. A low bias for these analytes is possible. (Benzoic Acid, Pyridine)**

**The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Benzoic Acid)**

#### Instrument:

##### CHEM06 03/19/19-1

Wes Bryon, Chemist 03/19/19

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Evaluation (CHEM06/6\_SPLIT\_0313):

99% of target compounds met criteria.

The following compounds had %RSDs >20%: 4,6-Dinitro-2-methylphenol 27% (20%)

The following compounds did not meet recommended response factors: 2,4-Dinitrophenol 0 (0.01), 2-Nitrophenol 0.057 (0.1), Hexachlorobenzene 0.087 (0.1)

The following compounds did not meet a minimum response factors: 2,4-Dinitrophenol 0 (0.01)

Continuing Calibration Verification (CHEM06/0319\_03-6\_SPLIT\_0313):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

99% of target compounds met criteria.

The following compounds did not meet % deviation criteria: Hexachlorocyclopentadiene 53%H (30%)

The following compounds did not meet maximum % deviations: Hexachlorocyclopentadiene 53%H (40%)

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.063 (0.1), Hexachlorobenzene 0.083 (0.1)

The following compounds did not meet minimum response factors: None.

##### CHEM29 03/20/19-1

Wes Bryon, Chemist 03/20/19

CC69317, CC69318

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Evaluation (CHEM29/29\_SPLIT\_0313):

100% of target compounds met criteria.

The following compounds had %RSDs >20%: None.

The following compounds did not meet recommended response factors: None.

The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM29/0320\_03-29\_SPLIT\_0313):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.



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## RCP Certification Report

March 27, 2019

SDG I.D.: GCC69317

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### SVOA Narration

The following compounds did not meet maximum % deviations: None.  
The following compounds did not meet recommended response factors: None.  
The following compounds did not meet minimum response factors: None.

### QC (Batch Specific):

#### **Batch 470719 (CC69313)**

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69329, CC69330, CC69331, CC69332

All LCS recoveries were within 30 - 130 with the following exceptions: Benzoic Acid(20%), Pyridine(26%)

All LCSD recoveries were within 30 - 130 with the following exceptions: Benzoic Acid(12%), Pyridine(29%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: Benzoic Acid(50.0%)

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

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### VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

**QC Batch 470877 (Samples: CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69330, CC69331, CC69332, CC69333, CC69334): -----**

**The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (Acetone)**

**QC Batch 470959 (Samples: CC69317, CC69323, CC69324, CC69326, CC69329): -----**

**The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (Acetone)**

### Instrument:

#### **CHEM14 03/18/19-2**

Jane Li, Chemist 03/18/19

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69330, CC69331, CC69332, CC69333, CC69334

Initial Calibration Evaluation (CHEM14/VT030919):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: Chloroethane 27% (20%)

The following compounds did not meet recommended response factors: Tetrachloroethene 0.176 (0.2)

The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0318\_32-VT030919):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

98% of target compounds met criteria.

The following compounds did not meet % deviation criteria: Acetone 31%L (30%)

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: None.

The following compounds did not meet minimum response factors: None.

#### **CHEM14 03/19/19-2**

Jane Li, Chemist 03/19/19

CC69317, CC69323, CC69324, CC69326, CC69329



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## RCP Certification Report

March 27, 2019

SDG I.D.: GCC69317

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### VOA Narration

Initial Calibration Evaluation (CHEM14/VT030919):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: Chloroethane 27% (20%)

The following compounds did not meet recommended response factors: Tetrachloroethene 0.176 (0.2)

The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM14/0319\_32-VT030919):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: None.

The following compounds did not meet minimum response factors: None.

### QC (Site Specific):

#### **Batch 470877 (CC69322)**

CC69317, CC69318, CC69319, CC69320, CC69321, CC69322, CC69323, CC69324, CC69325, CC69326, CC69327, CC69328, CC69330, CC69331, CC69332, CC69333, CC69334

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(67%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(68%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

All MS recoveries were within 70 - 130 with the following exceptions: Acetone(62%)

All MSD recoveries were within 70 - 130 with the following exceptions: Acetone(65%)

All MS/MSD RPDs were less than 30% with the following exceptions: None.

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

#### **Batch 470959 (CC69329)**

CC69317, CC69323, CC69324, CC69326, CC69329

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

All MS recoveries were within 70 - 130 with the following exceptions: Acetone(53%)

All MSD recoveries were within 70 - 130 with the following exceptions: Acetone(51%)

All MS/MSD RPDs were less than 30% with the following exceptions: None.

A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

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### Temperature Narration

The samples were received at 1.6C with cooling initiated.

(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes  No   
 Coolant: IPK  ICE

Temp 100 C Pg 01 of

Data Delivery:  Fax # \_\_\_\_\_  
 Email \_\_\_\_\_

**CHAIN OF CUSTODY RECORD**

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040  
 Email: info@phoenixlabs.com Fax (860) 645-0823  
**Client Services (860) 645-8726**



Customer: HRP Associates Project P.O.: CTD4042 FW  
 Address: 999 Orange Lane Report to: W.H. Sepelick, Jessica Blysd  
Stratford, CT 06614 Invoice to: CTDAS Preeng, Attn: ISP Form, Bill to HRP  
 Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

This section MUST be completed with Bottle Quantities.

Sampler's Signature: [Signature] Date: 3-15-19  
 Client Sample - Information - Identification

Matrix Code: DW=Drinking Water GW=Ground Water SW=Surface Water WM=Waste Water  
RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe  
OIL=Oil B=Bulk L=Liquid

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	Analysis Request
69317	SB-1 0-2'	S	3-15-19	11:39A	X
69318	SB-1 3-5'			11:47A	X
69319	SB-1 6-8'			11:52A	X
69320	SB-1 10-12'			11:58A	X
69321	SB-2 0-2'			10:50A	X
69322	SB-2 3-5'			10:55A	X
69323	SB-2 6-8'			11:03A	X
69324	SB-2 10-12'			11:10A	X
69325	SB-2 13-15'			11:15A	X
69326	SB-3 0-2'			10:57A	X
69327	SB-3 3-5'			10:07A	X
69328	SB-3 6-8'			10:20A	X

Relinquished by: [Signature] Accepted by: [Signature]

Date: 3-18-19 14:48  
 3/18/19 15:56

Turnaround:  
 1 Day\*  
 2 Days\*  
 3 Days\*  
 Standard  
 Other

Comments, Special Requirements or Regulations:  
Individual PCB Archive RLS < 0.1 ppm

State where samples were collected: CT

\* SURCHARGE APPLIES

MA  
 MCP Certification  
 GW-1  
 GW-2  
 GW-3  
 S-1  
 S-2  
 S-3  
 MWRA eSMART  
 Other

GI  
 RCP Cert  
 GW Protection  
 SW Protection  
 GA Mobility  
 GB Mobility  
 Residential DEC  
 I/C DEC  
 Other

RI  
 Direct Exposure (Residential)  
 GW  
 Other

Data Format  
 Excel  
 PDF  
 GIS/Key  
 EQUIS  
 Other **EOD**  
 Tier II Checklist  
 Full Data Package\*  
 Phoenix Std Report  
 Other





Monday, March 25, 2019

Attn: Mr. Walt Sepelak  
HRP Associates Inc.  
999 Oronoque Lane  
Stratford, CT 06614

Project ID: CTD4042FW  
SDG ID: GCC69338  
Sample ID#s: CC69338 - CC69339

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller  
Laboratory Director

NELAC - #NY11301  
CT Lab Registration #PH-0618  
MA Lab Registration #M-CT007  
ME Lab Registration #CT-007  
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003  
NY Lab Registration #11301  
PA Lab Registration #68-03530  
RI Lab Registration #63  
UT Lab Registration #CT00007  
VT Lab Registration #VT11301



Environmental Laboratories, Inc.  
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
Tel. (860) 645-1102 Fax (860) 645-0823

## Sample Id Cross Reference

March 25, 2019

SDG I.D.: GCC69338

Project ID: CTD4042FW

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Client Id	Lab Id	Matrix
MW-1	CC69338	GROUND WATER
MW-2	CC69339	GROUND WATER



Environmental Laboratories, Inc.  
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## SDG Comments

March 25, 2019

SDG I.D.: GCC69338

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Volatile 8260 analysis:

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet GWP criteria, this compound is analyzed by GC/ECD to achieve this criteria.



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 25, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: GROUND WATER  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

12:22  
 15:56

## Laboratory Data

SDG ID: GCC69338  
 Phoenix ID: CC69338

Project ID: CTD4042FW  
 Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/19/19	TH	SW6010D
Arsenic	0.005	0.004	mg/L	1	03/19/19	TH	SW6010D
Barium	0.050	0.002	mg/L	1	03/19/19	TH	SW6010D
Cadmium	< 0.001	0.001	mg/L	1	03/19/19	TH	SW6010D
Chromium	0.005	0.001	mg/L	1	03/19/19	TH	SW6010D
Silver (Dissolved)	< 0.001	0.001	mg/L	1	03/19/19	CPP	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
Barium (Dissolved)	0.029	0.002	mg/L	1	03/19/19	CPP	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	03/19/19	CPP	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	03/19/19	CPP	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	03/19/19	CPP	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	03/19/19	CPP	SW6010D
Mercury	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A
Lead	0.041	0.002	mg/L	1	03/19/19	TH	SW6010D
Selenium	< 0.010	0.010	mg/L	1	03/19/19	TH	SW6010D
Extraction of CT ETPH	Completed				03/18/19	P/AK	SW3510C/SW3520C
Filtration	Completed				03/18/19	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				03/19/19	W/W	SW7470A
Mercury Digestion	Completed				03/19/19	Q/W/W	SW7470A
Extraction for Herbicide	Completed				03/19/19	SB/ML/D	SW8151A
PCB Extraction	Completed				03/18/19	E/N	SW3510C
Extraction for Pest (2 Liter)	Completed				03/18/19	E/N	SW3510C
Semi-Volatile Extraction	Completed				03/18/19		SW3520C
Dissolved Metals Preparation	Completed				03/18/19	AG	SW3005A
Total Metals Digestion	Completed				03/18/19	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	2.3	ug/L	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	2.3	ug/L	10	03/20/19	CW	SW8151A
2,4-D	ND	4.7	ug/L	10	03/20/19	CW	SW8151A
2,4-DB	ND	47	ug/L	10	03/20/19	CW	SW8151A
Dalapon	ND	2.3	ug/L	10	03/20/19	CW	SW8151A
Dicamba	ND	2.3	ug/L	10	03/20/19	CW	SW8151A
Dichloroprop	ND	4.7	ug/L	10	03/20/19	CW	SW8151A
Dinoseb	ND	4.7	ug/L	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	70		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	65		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/L	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	78		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1221	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1232	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1242	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1248	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1254	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1260	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1262	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1268	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	54		%	1	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	54		%	1	03/19/19	SC	30 - 150 %
% TCMX	60		%	1	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	59		%	1	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDE	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDT	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
a-BHC	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Alachlor	ND	0.071	ug/L	1	03/20/19	CW	SW8081B
Aldrin	ND	0.001	ug/L	1	03/20/19	CW	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Chlordane	ND	0.28	ug/L	1	03/20/19	CW	SW8081B
d-BHC	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Dieldrin	ND	0.001	ug/L	1	03/20/19	CW	SW8081B
Endosulfan I	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
Endosulfan II	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
Endosulfan Sulfate	ND	0.047	ug/L	1	03/20/19	CW	SW8081B

Client ID: MW-1

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endrin	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
Endrin Aldehyde	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
Endrin ketone	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
g-BHC (Lindane)	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Heptachlor	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Methoxychlor	ND	0.094	ug/L	1	03/20/19	CW	SW8081B
Toxaphene	ND	0.94	ug/L	1	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogate Rec)	46		%	1	03/20/19	CW	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	41		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec)	53		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	55		%	1	03/20/19	CW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C
1,2-Dibromoethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	03/19/19	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C
Acetone	ND	25	ug/L	1	03/19/19	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	03/19/19	MH	SW8260C
Benzene	ND	0.70	ug/L	1	03/19/19	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	03/19/19	MH	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon tetrachloride	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
cis-1,2-Dichloroethene	140	10	ug/L	10	03/20/19	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	03/19/19	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	03/19/19	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Styrene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/19/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
trans-1,2-Dichloroethene	1.4	1.0	ug/L	1	03/19/19	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/19/19	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/19/19	MH	SW8260C
Trichloroethene	16	1.0	ug/L	1	03/19/19	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/19/19	MH	SW8260C
Vinyl chloride	54	10	ug/L	10	03/20/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	100		%	1	03/19/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/19/19	MH	70 - 130 %
% Dibromofluoromethane	98		%	1	03/19/19	MH	70 - 130 %
% Toluene-d8	99		%	1	03/19/19	MH	70 - 130 %
% 1,2-dichlorobenzene-d4 (10x)	97		%	10	03/20/19	MH	70 - 130 %
% Bromofluorobenzene (10x)	100		%	10	03/20/19	MH	70 - 130 %
% Dibromofluoromethane (10x)	93		%	10	03/20/19	MH	70 - 130 %
% Toluene-d8 (10x)	95		%	10	03/20/19	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	03/20/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	03/20/19	WB	SW8270D

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	03/20/19	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	03/20/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	03/20/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Acetophenone	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Aniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Benzidine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Benzoic acid	ND	47	ug/L	1	03/20/19	WB	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Carbazole	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Dibenzofuran	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Hexachloroethane	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Isophorone	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	03/20/19	WB	SW8270D
Phenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
<b>QA/QC Surrogates</b>							
% 2,4,6-Tribromophenol	79		%	1	03/20/19	WB	15 - 110 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% 2-Fluorobiphenyl	67		%	1	03/20/19	WB	30 - 130 %
% 2-Fluorophenol	29		%	1	03/20/19	WB	15 - 110 %
% Nitrobenzene-d5	66		%	1	03/20/19	WB	30 - 130 %
% Phenol-d5	21		%	1	03/20/19	WB	15 - 110 %
% Terphenyl-d14	70		%	1	03/20/19	WB	30 - 130 %

**Semivolatiles (SIM)**

2-Methylnaphthalene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Acenaphthene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Acenaphthylene	ND	0.28	ug/L	1	03/19/19	WB	SW8270D (SIM)
Anthracene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benz(a)anthracene	0.11	0.05	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benzo(a)pyrene	ND	0.19	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benzo(b)fluoranthene	0.13	0.07	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.45	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benzo(k)fluoranthene	ND	0.28	ug/L	1	03/19/19	WB	SW8270D (SIM)
Chrysene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.09	ug/L	1	03/19/19	WB	SW8270D (SIM)
Fluoranthene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Fluorene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.06	ug/L	1	03/19/19	WB	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.12	0.09	ug/L	1	03/19/19	WB	SW8270D (SIM)
Naphthalene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Nitrobenzene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Pentachlorophenol	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Phenanthrene	0.10	0.06	ug/L	1	03/19/19	WB	SW8270D (SIM)
Pyrene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)

**QA/QC Surrogates**

% 2,4,6-Tribromophenol	103		%	1	03/19/19	WB	15 - 110 %
% 2-Fluorobiphenyl	78		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorophenol	41		%	1	03/19/19	WB	15 - 110 %
% Nitrobenzene-d5	79		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	32		%	1	03/19/19	WB	15 - 110 %
% Terphenyl-d14	87		%	1	03/19/19	WB	30 - 130 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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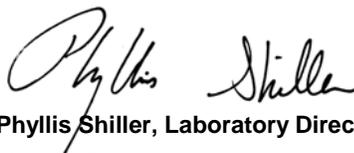
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



**Phyllis Shiller, Laboratory Director**

**March 25, 2019**

**Reviewed and Released by: Rashmi Makol, Project Manager**



Environmental Laboratories, Inc.  
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045  
 Tel. (860) 645-1102 Fax (860) 645-0823

# Analysis Report

March 25, 2019

FOR: Attn: Mr. Walt Sepelak  
 HRP Associates Inc.  
 999 Oronoque Lane  
 Stratford, CT 06614

## Sample Information

Matrix: GROUND WATER  
 Location Code: HRPSTRAT  
 Rush Request: 48 Hour  
 P.O.#:

## Custody Information

Collected by:  
 Received by: LB  
 Analyzed by: see "By" below

## Date

03/15/19  
 03/18/19

## Time

13:39  
 15:56

## Laboratory Data

SDG ID: GCC69338  
 Phoenix ID: CC69339

Project ID: CTD4042FW  
 Client ID: MW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	1	03/19/19	TH	SW6010D
Arsenic	0.004	0.004	mg/L	1	03/19/19	TH	SW6010D
Barium	0.057	0.002	mg/L	1	03/19/19	TH	SW6010D
Cadmium	< 0.001	0.001	mg/L	1	03/19/19	TH	SW6010D
Chromium	0.007	0.001	mg/L	1	03/19/19	TH	SW6010D
Silver (Dissolved)	< 0.001	0.001	mg/L	1	03/19/19	CPP	SW6010D
Arsenic (Dissolved)	< 0.004	0.004	mg/L	1	03/19/19	CPP	SW6010D
Barium (Dissolved)	0.033	0.002	mg/L	1	03/19/19	CPP	SW6010D
Cadmium (Dissolved)	< 0.001	0.001	mg/L	1	03/19/19	CPP	SW6010D
Chromium (Dissolved)	< 0.001	0.001	mg/L	1	03/19/19	CPP	SW6010D
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A
Lead (Dissolved)	< 0.002	0.002	mg/L	1	03/19/19	CPP	SW6010D
Selenium (Dissolved)	< 0.011	0.011	mg/L	1	03/19/19	CPP	SW6010D
Mercury	< 0.0002	0.0002	mg/L	1	03/20/19	RS	SW7470A
Lead	0.043	0.002	mg/L	1	03/19/19	TH	SW6010D
Selenium	< 0.010	0.010	mg/L	1	03/19/19	TH	SW6010D
Extraction of CT ETPH	Completed				03/18/19	P/AK	SW3510C/SW3520C
Filtration	Completed				03/18/19	AG	0.45um Filter
Mercury Dissolved Digestion	Completed				03/19/19	W/W	SW7470A
Mercury Digestion	Completed				03/19/19	Q/W/W	SW7470A
Extraction for Herbicide	Completed				03/19/19	SB/ML/D	SW8151A
PCB Extraction	Completed				03/18/19	E/N	SW3510C
Extraction for Pest (2 Liter)	Completed				03/18/19	E/N	SW3510C
Semi-Volatile Extraction	Completed				03/18/19		SW3520C
Dissolved Metals Preparation	Completed				03/18/19	AG	SW3005A
Total Metals Digestion	Completed				03/18/19	AG	

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
<b><u>Chlorinated Herbicides</u></b>							
2,4,5-T	ND	2.3	ug/L	10	03/20/19	CW	SW8151A
2,4,5-TP (Silvex)	ND	2.3	ug/L	10	03/20/19	CW	SW8151A
2,4-D	ND	4.7	ug/L	10	03/20/19	CW	SW8151A
2,4-DB	ND	47	ug/L	10	03/20/19	CW	SW8151A
Dalapon	ND	2.3	ug/L	10	03/20/19	CW	SW8151A
Dicamba	ND	2.3	ug/L	10	03/20/19	CW	SW8151A
Dichloroprop	ND	4.7	ug/L	10	03/20/19	CW	SW8151A
Dinoseb	ND	4.7	ug/L	10	03/20/19	CW	SW8151A
<b><u>QA/QC Surrogates</u></b>							
% DCAA	69		%	10	03/20/19	CW	30 - 150 %
% DCAA (Confirmation)	61		%	10	03/20/19	CW	30 - 150 %
<b><u>TPH by GC (Extractable Products)</u></b>							
Ext. Petroleum H.C. (C9-C36)	ND	0.066	mg/L	1	03/19/19	JRB	CTETPH 8015D
Identification	ND		mg/L	1	03/19/19	JRB	CTETPH 8015D
<b><u>QA/QC Surrogates</u></b>							
% n-Pentacosane	72		%	1	03/19/19	JRB	50 - 150 %
<b><u>Polychlorinated Biphenyls</u></b>							
PCB-1016	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1221	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1232	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1242	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1248	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1254	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1260	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1262	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
PCB-1268	ND	0.094	ug/L	1	03/19/19	SC	SW8082A
<b><u>QA/QC Surrogates</u></b>							
% DCBP	56		%	1	03/19/19	SC	30 - 150 %
% DCBP (Confirmation)	57		%	1	03/19/19	SC	30 - 150 %
% TCMX	62		%	1	03/19/19	SC	30 - 150 %
% TCMX (Confirmation)	63		%	1	03/19/19	SC	30 - 150 %
<b><u>Pesticides</u></b>							
4,4' -DDD	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDE	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
4,4' -DDT	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
a-BHC	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Alachlor	ND	0.071	ug/L	1	03/20/19	CW	SW8081B
Aldrin	ND	0.001	ug/L	1	03/20/19	CW	SW8081B
b-BHC	ND	0.005	ug/L	1	03/20/19	CW	SW8081B
Chlordane	ND	0.28	ug/L	1	03/20/19	CW	SW8081B
d-BHC	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Dieldrin	0.010	0.001	ug/L	1	03/20/19	CW	SW8081B
Endosulfan I	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
Endosulfan II	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
Endosulfan Sulfate	ND	0.047	ug/L	1	03/20/19	CW	SW8081B

Client ID: MW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Endrin	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
Endrin Aldehyde	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
Endrin ketone	ND	0.047	ug/L	1	03/20/19	CW	SW8081B
g-BHC (Lindane)	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Heptachlor	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Heptachlor epoxide	ND	0.024	ug/L	1	03/20/19	CW	SW8081B
Methoxychlor	ND	0.094	ug/L	1	03/20/19	CW	SW8081B
Toxaphene	ND	0.94	ug/L	1	03/20/19	CW	SW8081B
<b><u>QA/QC Surrogates</u></b>							
%DCBP (Surrogate Rec)	50		%	1	03/20/19	CW	30 - 150 %
%DCBP (Surrogate Rec) (Confirmation)	68		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec)	68		%	1	03/20/19	CW	30 - 150 %
%TCMX (Surrogate Rec) (Confirmation)	61		%	1	03/20/19	CW	30 - 150 %
<b><u>Volatiles</u></b>							
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,1,1-Trichloroethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1	03/20/19	MH	SW8260C
1,1,2-Trichloroethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,1-Dichloroethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,1-Dichloroethene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,1-Dichloropropene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,2,3-Trichlorobenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,2,3-Trichloropropane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,2,4-Trichlorobenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,2,4-Trimethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,2-Dibromo-3-chloropropane	ND	0.50	ug/L	1	03/20/19	MH	SW8260C
1,2-Dibromoethane	ND	0.50	ug/L	1	03/20/19	MH	SW8260C
1,2-Dichlorobenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,2-Dichloroethane	ND	0.60	ug/L	1	03/20/19	MH	SW8260C
1,2-Dichloropropane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,3,5-Trimethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,3-Dichlorobenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,3-Dichloropropane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
1,4-Dichlorobenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
2,2-Dichloropropane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
2-Chlorotoluene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
2-Hexanone	ND	5.0	ug/L	1	03/20/19	MH	SW8260C
2-Isopropyltoluene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
4-Chlorotoluene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
4-Methyl-2-pentanone	ND	5.0	ug/L	1	03/20/19	MH	SW8260C
Acetone	ND	25	ug/L	1	03/20/19	MH	SW8260C
Acrylonitrile	ND	0.50	ug/L	1	03/20/19	MH	SW8260C
Benzene	ND	0.70	ug/L	1	03/20/19	MH	SW8260C
Bromobenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Bromochloromethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Bromodichloromethane	ND	0.50	ug/L	1	03/20/19	MH	SW8260C
Bromoform	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Bromomethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Carbon Disulfide	ND	5.0	ug/L	1	03/20/19	MH	SW8260C

Client ID: MW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Carbon tetrachloride	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Chlorobenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Chloroethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Chloroform	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Chloromethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
cis-1,2-Dichloroethene	4.7	1.0	ug/L	1	03/20/19	MH	SW8260C
cis-1,3-Dichloropropene	ND	0.40	ug/L	1	03/20/19	MH	SW8260C
Dibromochloromethane	ND	0.50	ug/L	1	03/20/19	MH	SW8260C
Dibromomethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Dichlorodifluoromethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Ethylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Hexachlorobutadiene	ND	0.40	ug/L	1	03/20/19	MH	SW8260C
Isopropylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
m&p-Xylene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Methyl ethyl ketone	ND	5.0	ug/L	1	03/20/19	MH	SW8260C
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Methylene chloride	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Naphthalene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
n-Butylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
n-Propylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
o-Xylene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
p-Isopropyltoluene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
sec-Butylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Styrene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
tert-Butylbenzene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Tetrachloroethene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Tetrahydrofuran (THF)	ND	2.5	ug/L	1	03/20/19	MH	SW8260C
Toluene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Total Xylenes	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
trans-1,2-Dichloroethene	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
trans-1,3-Dichloropropene	ND	0.40	ug/L	1	03/20/19	MH	SW8260C
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	1	03/20/19	MH	SW8260C
Trichloroethene	2.1	1.0	ug/L	1	03/20/19	MH	SW8260C
Trichlorofluoromethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Trichlorotrifluoroethane	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
Vinyl chloride	ND	1.0	ug/L	1	03/20/19	MH	SW8260C
<b><u>QA/QC Surrogates</u></b>							
% 1,2-dichlorobenzene-d4	97		%	1	03/20/19	MH	70 - 130 %
% Bromofluorobenzene	97		%	1	03/20/19	MH	70 - 130 %
% Dibromofluoromethane	92		%	1	03/20/19	MH	70 - 130 %
% Toluene-d8	93		%	1	03/20/19	MH	70 - 130 %
<b><u>Semivolatiles</u></b>							
1,2,4,5-Tetrachlorobenzene	ND	3.3	ug/L	1	03/20/19	WB	SW8270D
1,2,4-Trichlorobenzene	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
1,2-Dichlorobenzene	ND	2.4	ug/L	1	03/20/19	WB	SW8270D
1,2-Diphenylhydrazine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
1,3-Dichlorobenzene	ND	2.4	ug/L	1	03/20/19	WB	SW8270D
1,4-Dichlorobenzene	ND	2.4	ug/L	1	03/20/19	WB	SW8270D
2,4,5-Trichlorophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D

Client ID: MW-2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
2,4,6-Trichlorophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2,4-Dichlorophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2,4-Dimethylphenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2,4-Dinitrophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2,4-Dinitrotoluene	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
2,6-Dinitrotoluene	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
2-Chloronaphthalene	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
2-Chlorophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2-Methylphenol (o-cresol)	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
2-Nitroaniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
2-Nitrophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	9.4	ug/L	1	03/20/19	WB	SW8270D
3,3'-Dichlorobenzidine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
3-Nitroaniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
4,6-Dinitro-2-methylphenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
4-Bromophenyl phenyl ether	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
4-Chloro-3-methylphenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
4-Chloroaniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
4-Chlorophenyl phenyl ether	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
4-Nitroaniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
4-Nitrophenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Acetophenone	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Aniline	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Benzidine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Benzoic acid	ND	47	ug/L	1	03/20/19	WB	SW8270D
Benzyl butyl phthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Bis(2-chloroethoxy)methane	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Bis(2-chloroethyl)ether	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Bis(2-chloroisopropyl)ether	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Bis(2-ethylhexyl)phthalate	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Carbazole	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Dibenzofuran	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Diethyl phthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Dimethylphthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Di-n-butylphthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Di-n-octylphthalate	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Hexachloroethane	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
Isophorone	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
N-Nitrosodimethylamine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
N-Nitrosodi-n-propylamine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
N-Nitrosodiphenylamine	ND	4.7	ug/L	1	03/20/19	WB	SW8270D
Pentachloronitrobenzene	ND	2.4	ug/L	1	03/20/19	WB	SW8270D
Phenol	ND	0.94	ug/L	1	03/20/19	WB	SW8270D
<b><u>QA/QC Surrogates</u></b>							
% 2,4,6-Tribromophenol	75		%	1	03/20/19	WB	15 - 110 %
% 2-Fluorobiphenyl	68		%	1	03/20/19	WB	30 - 130 %
% 2-Fluorophenol	29		%	1	03/20/19	WB	15 - 110 %
% Nitrobenzene-d5	65		%	1	03/20/19	WB	30 - 130 %
% Phenol-d5	22		%	1	03/20/19	WB	15 - 110 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% Terphenyl-d14	65		%	1	03/20/19	WB	30 - 130 %

**Semivolatiles (SIM)**

2-Methylnaphthalene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Acenaphthene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Acenaphthylene	ND	0.28	ug/L	1	03/19/19	WB	SW8270D (SIM)
Anthracene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benz(a)anthracene	0.37	0.05	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benzo(a)pyrene	0.38	0.19	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benzo(b)fluoranthene	0.39	0.07	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benzo(ghi)perylene	ND	0.45	ug/L	1	03/19/19	WB	SW8270D (SIM)
Benzo(k)fluoranthene	0.32	0.28	ug/L	1	03/19/19	WB	SW8270D (SIM)
Chrysene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Dibenz(a,h)anthracene	ND	0.09	ug/L	1	03/19/19	WB	SW8270D (SIM)
Fluoranthene	0.84	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Fluorene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Hexachlorobenzene	ND	0.06	ug/L	1	03/19/19	WB	SW8270D (SIM)
Hexachlorobutadiene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Hexachlorocyclopentadiene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Indeno(1,2,3-cd)pyrene	0.35	0.09	ug/L	1	03/19/19	WB	SW8270D (SIM)
Naphthalene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Nitrobenzene	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Pentachlorophenol	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Phenanthrene	0.58	0.06	ug/L	1	03/19/19	WB	SW8270D (SIM)
Pyrene	0.71	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)
Pyridine	ND	0.47	ug/L	1	03/19/19	WB	SW8270D (SIM)

**QA/QC Surrogates**

% 2,4,6-Tribromophenol	98		%	1	03/19/19	WB	15 - 110 %
% 2-Fluorobiphenyl	76		%	1	03/19/19	WB	30 - 130 %
% 2-Fluorophenol	40		%	1	03/19/19	WB	15 - 110 %
% Nitrobenzene-d5	80		%	1	03/19/19	WB	30 - 130 %
% Phenol-d5	30		%	1	03/19/19	WB	15 - 110 %
% Terphenyl-d14	79		%	1	03/19/19	WB	30 - 130 %

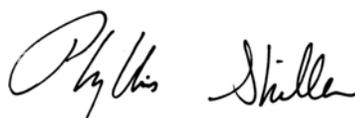
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

March 25, 2019

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.  
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# QA/QC Report

March 25, 2019

## QA/QC Data

SDG I.D.: GCC69338

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 470771 (mg/L), QC Sample No: CC69267 (CC69338, CC69339)													
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	84.8			90.2			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 470787 (mg/L), QC Sample No: CC69571 (CC69338, CC69339)													
Mercury (Dissolved)	BRL	0.0002	<0.0002	<0.0003	NC	84.0			82.9			80 - 120	20
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.													
QA/QC Batch 470734 (mg/L), QC Sample No: CC68840 (CC69338, CC69339)													
<u>ICP Metals - Aqueous</u>													
Arsenic	BRL	0.004	<0.004	<0.004	NC	103			103			75 - 125	20
Barium	BRL	0.002	0.019	0.018	5.40	104			104			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	103			104			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	102			102			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	104			103			75 - 125	20
Selenium	BRL	0.010	<0.010	<0.010	NC	101			98.2			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	109			109			75 - 125	20
QA/QC Batch 470762 (mg/L), QC Sample No: CC68850 (CC69338, CC69339)													
<u>ICP Metals - Dissolved</u>													
Arsenic	BRL	0.004	<0.004	<0.004	NC	91.3			92.5			75 - 125	20
Barium	BRL	0.002	0.113	0.111	1.80	92.5			93.9			75 - 125	20
Cadmium	BRL	0.001	<0.001	<0.001	NC	91.0			90.7			75 - 125	20
Chromium	BRL	0.001	<0.001	<0.001	NC	90.4			90.9			75 - 125	20
Lead	BRL	0.002	<0.002	<0.002	NC	91.3			90.7			75 - 125	20
Selenium	BRL	0.011	<0.011	<0.011	NC	88.6			89.3			75 - 125	20
Silver	BRL	0.001	<0.001	<0.001	NC	96.8			103			75 - 125	20



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# QA/QC Report

March 25, 2019

## QA/QC Data

SDG I.D.: GCC69338

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 470732 (mg/L), QC Sample No: CC68713 (CC69338, CC69339)										
<u>TPH by GC (Extractable Products) - Ground Water</u>										
Ext. Petroleum H.C. (C9-C36)	ND	0.10	100	99	1.0				60 - 120	30
% n-Pentacosane	77	%	80	84	4.9				50 - 150	20
Comment: A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.										
QA/QC Batch 470780 (ug/L), QC Sample No: CC69338 10X (CC69338, CC69339)										
<u>Chlorinated Herbicides - Ground Water</u>										
2,4,5-T	ND	2.5	68	70	2.9				40 - 140	20
2,4,5-TP (Silvex)	ND	2.5	75	78	3.9				40 - 140	20
2,4-D	ND	5.0	71	74	4.1				40 - 140	20
2,4-DB	ND	50	38	40	5.1				40 - 140	20
Dalapon	ND	2.5	44	63	35.5				40 - 140	20
Dicamba	ND	2.5	78	76	2.6				40 - 140	20
Dichloroprop	ND	5.0	72	76	5.4				40 - 140	20
Dinoseb	ND	5.0	64	67	4.6				40 - 140	20
% DCAA (Surrogate Rec)	69	%	73	75	2.7				30 - 150	20
% DCAA (Surrogate Rec) (Confirm	63	%	61	65	6.3				30 - 150	20
QA/QC Batch 470693 (ug/L), QC Sample No: CC69020 (CC69338, CC69339)										
<u>Polychlorinated Biphenyls - Ground Water</u>										
PCB-1016	ND	0.050	78	70	10.8				40 - 140	20
PCB-1221	ND	0.050							40 - 140	20
PCB-1232	ND	0.050							40 - 140	20
PCB-1242	ND	0.050							40 - 140	20
PCB-1248	ND	0.050							40 - 140	20
PCB-1254	ND	0.050							40 - 140	20
PCB-1260	ND	0.050	93	81	13.8				40 - 140	20
PCB-1262	ND	0.050							40 - 140	20
PCB-1268	ND	0.050							40 - 140	20
% DCBP (Surrogate Rec)	67	%	92	76	19.0				30 - 150	20
% DCBP (Surrogate Rec) (Confirm	66	%	90	76	16.9				30 - 150	20
% TCMX (Surrogate Rec)	62	%	81	74	9.0				30 - 150	20
% TCMX (Surrogate Rec) (Confirm	61	%	77	70	9.5				30 - 150	20
Comment: A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.										
QA/QC Batch 470694 (ug/L), QC Sample No: CC69020 (CC69338, CC69339)										
<u>Pesticides - Ground Water</u>										
4,4' -DDD	ND	0.003	113	120	6.0				40 - 140	20
4,4' -DDE	ND	0.003	78	101	25.7				40 - 140	20

## QA/QC Data

SDG I.D.: GCC69338

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
4,4' -DDT	ND	0.003	107	89	18.4				40 - 140	20
a-BHC	ND	0.002	89	101	12.6				40 - 140	20
Alachlor	ND	0.005	NA	NA	NC				40 - 140	20
Aldrin	ND	0.002	75	86	13.7				40 - 140	20
b-BHC	ND	0.010	101	102	1.0				40 - 140	20
Chlordane	ND	0.050	91	94	3.2				40 - 140	20
d-BHC	ND	0.005	92	97	5.3				40 - 140	20
Dieldrin	ND	0.002	95	100	5.1				40 - 140	20
Endosulfan I	ND	0.005	115	97	17.0				40 - 140	20
Endosulfan II	ND	0.005	105	121	14.2				40 - 140	20
Endosulfan sulfate	ND	0.005	105	107	1.9				40 - 140	20
Endrin	ND	0.005	104	128	20.7				40 - 140	20
Endrin aldehyde	ND	0.005	112	118	5.2				40 - 140	20
Endrin ketone	ND	0.005	114	73	43.9				40 - 140	20
g-BHC	ND	0.002	82	94	13.6				40 - 140	20
Heptachlor	ND	0.005	104	101	2.9				40 - 140	20
Heptachlor epoxide	ND	0.005	94	103	9.1				40 - 140	20
Methoxychlor	ND	0.005	107	102	4.8				40 - 140	20
Toxaphene	ND	0.20	NA	NA	NC				40 - 140	20
% DCBP	57	%	86	84	2.4				30 - 150	20
% DCBP (Confirmation)	66	%	94	94	0.0				30 - 150	20
% TCMX	62	%	82	85	3.6				30 - 150	20
% TCMX (Confirmation)	70	%	100	91	9.4				30 - 150	20

Comment:

A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

QA/QC Batch 470744 (ug/L), QC Sample No: CC69338 (CC69338, CC69339)

### Semivolatiles - Ground Water

1,2,4,5-Tetrachlorobenzene	ND	3.5	71	71	0.0				30 - 130	20
1,2,4-Trichlorobenzene	ND	3.5	62	62	0.0				30 - 130	20
1,2-Dichlorobenzene	ND	1.0	57	57	0.0				30 - 130	20
1,2-Diphenylhydrazine	ND	1.6	84	87	3.5				30 - 130	20
1,3-Dichlorobenzene	ND	1.0	55	56	1.8				30 - 130	20
1,4-Dichlorobenzene	ND	1.0	56	56	0.0				30 - 130	20
2,4,5-Trichlorophenol	ND	1.0	96	99	3.1				30 - 130	20
2,4,6-Trichlorophenol	ND	1.0	93	94	1.1				30 - 130	20
2,4-Dichlorophenol	ND	1.0	82	80	2.5				30 - 130	20
2,4-Dimethylphenol	ND	1.0	78	81	3.8				30 - 130	20
2,4-Dinitrophenol	ND	1.0	99	89	10.6				30 - 130	20
2,4-Dinitrotoluene	ND	3.5	99	100	1.0				30 - 130	20
2,6-Dinitrotoluene	ND	3.5	95	93	2.1				30 - 130	20
2-Chloronaphthalene	ND	3.5	75	77	2.6				30 - 130	20
2-Chlorophenol	ND	1.0	65	65	0.0				30 - 130	20
2-Methylphenol (o-cresol)	ND	1.0	73	72	1.4				30 - 130	20
2-Nitroaniline	ND	3.5	130	128	1.6				30 - 130	20
2-Nitrophenol	ND	1.0	78	79	1.3				30 - 130	20
3&4-Methylphenol (m&p-cresol)	ND	1.0	74	74	0.0				30 - 130	20
3,3'-Dichlorobenzidine	ND	5.0	129	130	0.8				30 - 130	20
3-Nitroaniline	ND	5.0	126	127	0.8				30 - 130	20
4,6-Dinitro-2-methylphenol	ND	1.0	120	112	6.9				30 - 130	20
4-Bromophenyl phenyl ether	ND	3.5	86	89	3.4				30 - 130	20
4-Chloro-3-methylphenol	ND	1.0	97	99	2.0				30 - 130	20

## QA/QC Data

SDG I.D.: GCC69338

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
4-Chloroaniline	ND	3.5	99	98	1.0				30 - 130	20
4-Chlorophenyl phenyl ether	ND	1.0	84	86	2.4				30 - 130	20
4-Nitroaniline	ND	5.0	96	98	2.1				30 - 130	20
4-Nitrophenol	ND	1.0	51	51	0.0				15 - 130	20
Acetophenone	ND	3.5	75	73	2.7				30 - 130	20
Aniline	ND	3.5	79	74	6.5				30 - 130	20
Benzidine	ND	4.5	81	78	3.8				30 - 130	20
Benzoic acid	ND	10	19	23	19.0				30 - 130	20
Benzyl butyl phthalate	ND	1.5	100	99	1.0				30 - 130	20
Bis(2-chloroethoxy)methane	ND	3.5	75	73	2.7				30 - 130	20
Bis(2-chloroethyl)ether	ND	1.0	61	60	1.7				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	1.0	55	54	1.8				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	1.5	103	103	0.0				30 - 130	20
Carbazole	ND	5.0	93	95	2.1				30 - 130	20
Dibenzofuran	ND	3.5	81	85	4.8				30 - 130	20
Diethyl phthalate	ND	1.5	95	96	1.0				30 - 130	20
Dimethylphthalate	ND	1.5	90	92	2.2				30 - 130	20
Di-n-butylphthalate	ND	1.5	97	100	3.0				30 - 130	20
Di-n-octylphthalate	ND	1.5	106	107	0.9				30 - 130	20
Hexachloroethane	ND	3.5	55	57	3.6				30 - 130	20
Isophorone	ND	3.5	74	74	0.0				30 - 130	20
N-Nitrosodimethylamine	ND	1.0	47	48	2.1				30 - 130	20
N-Nitrosodi-n-propylamine	ND	3.5	80	78	2.5				30 - 130	20
N-Nitrosodiphenylamine	ND	3.5	90	92	2.2				30 - 130	20
Pentachloronitrobenzene	ND	5.0	93	96	3.2				30 - 130	20
Phenol	ND	1.0	34	33	3.0				15 - 130	20
% 2,4,6-Tribromophenol	83	%	96	97	1.0				15 - 110	20
% 2-Fluorobiphenyl	70	%	74	75	1.3				30 - 130	20
% 2-Fluorophenol	40	%	39	38	2.6				15 - 110	20
% Nitrobenzene-d5	69	%	71	69	2.9				30 - 130	20
% Phenol-d5	30	%	31	31	0.0				15 - 110	20
% Terphenyl-d14	75	%	84	83	1.2				30 - 130	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 470744 (ug/L), QC Sample No: CC69338 (CC69338, CC69339)

### Semivolatiles (SIM) - Ground Water

2-Methylnaphthalene	ND	0.50	57	60	5.1				30 - 130	20
Acenaphthene	ND	0.50	67	71	5.8				30 - 130	20
Acenaphthylene	ND	0.50	65	70	7.4				30 - 130	20
Anthracene	ND	0.50	76	81	6.4				30 - 130	20
Benz(a)anthracene	ND	0.50	75	80	6.5				30 - 130	20
Benzo(a)pyrene	ND	0.50	81	86	6.0				30 - 130	20
Benzo(b)fluoranthene	ND	0.50	84	90	6.9				30 - 130	20
Benzo(ghi)perylene	ND	0.50	77	79	2.6				30 - 130	20
Benzo(k)fluoranthene	ND	0.50	83	87	4.7				30 - 130	20
Chrysene	ND	0.50	78	82	5.0				30 - 130	20
Dibenz(a,h)anthracene	ND	0.50	92	95	3.2				30 - 130	20
Fluoranthene	ND	0.50	79	84	6.1				30 - 130	20
Fluorene	ND	0.50	73	78	6.6				30 - 130	20
Hexachlorobenzene	ND	0.50	73	76	4.0				30 - 130	20

## QA/QC Data

SDG I.D.: GCC69338

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Hexachlorobutadiene	ND	0.50	48	50	4.1				30 - 130	20
Hexachlorocyclopentadiene	ND	0.50	49	54	9.7				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	0.50	89	94	5.5				30 - 130	20
Naphthalene	ND	0.50	52	54	3.8				30 - 130	20
Nitrobenzene	ND	0.50	59	68	14.2				30 - 130	20
Pentachlorophenol	ND	0.50	89	98	9.6				30 - 130	20
Phenanthrene	ND	0.50	73	78	6.6				30 - 130	20
Pyrene	ND	0.50	81	87	7.1				30 - 130	20
Pyridine	ND	0.50	38	37	2.7				30 - 130	20
% 2,4,6-Tribromophenol	101	%	85	91	6.8				15 - 110	20
% 2-Fluorobiphenyl	74	%	62	63	1.6				30 - 130	20
% 2-Fluorophenol	46	%	31	31	0.0				15 - 110	20
% Nitrobenzene-d5	84	%	60	63	4.9				30 - 130	20
% Phenol-d5	37	%	25	27	7.7				15 - 110	20
% Terphenyl-d14	89	%	72	75	4.1				30 - 130	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Batch 470999 (ug/L), QC Sample No: CC69338 (CC69338)

### Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	92	94	2.2				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	97	100	3.0				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	96	95	1.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	92	93	1.1				70 - 130	30
1,1-Dichloroethane	ND	1.0	92	95	3.2				70 - 130	30
1,1-Dichloroethene	ND	1.0	97	99	2.0				70 - 130	30
1,1-Dichloropropene	ND	1.0	97	99	2.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	106	107	0.9				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	96	96	0.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	97	98	1.0				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	92	93	1.1				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	106	108	1.9				70 - 130	30
1,2-Dibromoethane	ND	1.0	95	97	2.1				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	91	93	2.2				70 - 130	30
1,2-Dichloroethane	ND	1.0	91	91	0.0				70 - 130	30
1,2-Dichloropropane	ND	1.0	89	90	1.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	94	97	3.1				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	91	93	2.2				70 - 130	30
1,3-Dichloropropane	ND	1.0	92	95	3.2				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	90	92	2.2				70 - 130	30
2,2-Dichloropropane	ND	1.0	91	93	2.2				70 - 130	30
2-Chlorotoluene	ND	1.0	92	95	3.2				70 - 130	30
2-Hexanone	ND	5.0	103	95	8.1				70 - 130	30
2-Isopropyltoluene	ND	1.0	94	97	3.1				70 - 130	30
4-Chlorotoluene	ND	1.0	91	93	2.2				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	92	93	1.1				70 - 130	30
Acetone	ND	5.0	89	91	2.2				70 - 130	30
Acrylonitrile	ND	5.0	97	94	3.1				70 - 130	30
Benzene	ND	0.70	92	94	2.2				70 - 130	30
Bromobenzene	ND	1.0	91	93	2.2				70 - 130	30
Bromochloromethane	ND	1.0	91	92	1.1				70 - 130	30

## QA/QC Data

SDG I.D.: GCC69338

Parameter	BIK		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
Bromodichloromethane	ND	0.50	92	93	1.1				70 - 130	30
Bromoform	ND	1.0	101	101	0.0				70 - 130	30
Bromomethane	ND	1.0	94	95	1.1				70 - 130	30
Carbon Disulfide	ND	1.0	96	99	3.1				70 - 130	30
Carbon tetrachloride	ND	1.0	101	104	2.9				70 - 130	30
Chlorobenzene	ND	1.0	91	93	2.2				70 - 130	30
Chloroethane	ND	1.0	92	94	2.2				70 - 130	30
Chloroform	ND	1.0	89	94	5.5				70 - 130	30
Chloromethane	ND	1.0	91	93	2.2				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	90	90	0.0				70 - 130	30
Dibromochloromethane	ND	0.50	96	97	1.0				70 - 130	30
Dibromomethane	ND	1.0	92	94	2.2				70 - 130	30
Dichlorodifluoromethane	ND	1.0	98	100	2.0				70 - 130	30
Ethylbenzene	ND	1.0	94	96	2.1				70 - 130	30
Hexachlorobutadiene	ND	0.40	101	101	0.0				70 - 130	30
Isopropylbenzene	ND	1.0	96	99	3.1				70 - 130	30
m&p-Xylene	ND	1.0	93	95	2.1				70 - 130	30
Methyl ethyl ketone	ND	5.0	98	100	2.0				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	90	92	2.2				70 - 130	30
Methylene chloride	ND	1.0	84	84	0.0				70 - 130	30
Naphthalene	ND	1.0	107	110	2.8				70 - 130	30
n-Butylbenzene	ND	1.0	96	98	2.1				70 - 130	30
n-Propylbenzene	ND	1.0	96	99	3.1				70 - 130	30
o-Xylene	ND	1.0	92	94	2.2				70 - 130	30
p-Isopropyltoluene	ND	1.0	96	98	2.1				70 - 130	30
sec-Butylbenzene	ND	1.0	97	100	3.0				70 - 130	30
Styrene	ND	1.0	92	93	1.1				70 - 130	30
tert-Butylbenzene	ND	1.0	96	98	2.1				70 - 130	30
Tetrachloroethene	ND	1.0	95	98	3.1				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	82	83	1.2				70 - 130	30
Toluene	ND	1.0	92	93	1.1				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	94	96	2.1				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	91	93	2.2				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	96	99	3.1				70 - 130	30
Trichloroethene	ND	1.0	95	96	1.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	106	107	0.9				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	108	112	3.6				70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	99	100	1.0				70 - 130	30
% Bromofluorobenzene	95	%	100	100	0.0				70 - 130	30
% Dibromofluoromethane	92	%	99	99	0.0				70 - 130	30
% Toluene-d8	98	%	99	99	0.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

QA/QC Batch 471166 (ug/L), QC Sample No: CC69863 (CC69338 (10X) , CC69339)

### Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	1.0	105	102	2.9				70 - 130	30
1,1,1-Trichloroethane	ND	1.0	98	93	5.2				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	0.50	101	98	3.0				70 - 130	30
1,1,2-Trichloroethane	ND	1.0	97	94	3.1				70 - 130	30
1,1-Dichloroethane	ND	1.0	96	91	5.3				70 - 130	30
1,1-Dichloroethene	ND	1.0	104	96	8.0				70 - 130	30

## QA/QC Data

SDG I.D.: GCC69338

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,1-Dichloropropene	ND	1.0	99	94	5.2				70 - 130	30
1,2,3-Trichlorobenzene	ND	1.0	96	92	4.3				70 - 130	30
1,2,3-Trichloropropane	ND	1.0	93	91	2.2				70 - 130	30
1,2,4-Trichlorobenzene	ND	1.0	99	94	5.2				70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	98	92	6.3				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	1.0	110	104	5.6				70 - 130	30
1,2-Dibromoethane	ND	1.0	97	95	2.1				70 - 130	30
1,2-Dichlorobenzene	ND	1.0	99	93	6.3				70 - 130	30
1,2-Dichloroethane	ND	1.0	93	90	3.3				70 - 130	30
1,2-Dichloropropane	ND	1.0	97	93	4.2				70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	97	92	5.3				70 - 130	30
1,3-Dichlorobenzene	ND	1.0	100	95	5.1				70 - 130	30
1,3-Dichloropropane	ND	1.0	98	92	6.3				70 - 130	30
1,4-Dichlorobenzene	ND	1.0	99	94	5.2				70 - 130	30
2,2-Dichloropropane	ND	1.0	103	97	6.0				70 - 130	30
2-Chlorotoluene	ND	1.0	100	94	6.2				70 - 130	30
2-Hexanone	ND	5.0	91	91	0.0				70 - 130	30
2-Isopropyltoluene	ND	1.0	105	101	3.9				70 - 130	30
4-Chlorotoluene	ND	1.0	100	94	6.2				70 - 130	30
4-Methyl-2-pentanone	ND	5.0	94	90	4.3				70 - 130	30
Acetone	ND	5.0	88	73	18.6				70 - 130	30
Acrylonitrile	ND	5.0	94	90	4.3				70 - 130	30
Benzene	ND	0.70	98	95	3.1				70 - 130	30
Bromobenzene	ND	1.0	102	95	7.1				70 - 130	30
Bromochloromethane	ND	1.0	99	95	4.1				70 - 130	30
Bromodichloromethane	ND	0.50	102	97	5.0				70 - 130	30
Bromoform	ND	1.0	110	108	1.8				70 - 130	30
Bromomethane	ND	1.0	103	101	2.0				70 - 130	30
Carbon Disulfide	ND	1.0	108	102	5.7				70 - 130	30
Carbon tetrachloride	ND	1.0	103	96	7.0				70 - 130	30
Chlorobenzene	ND	1.0	99	97	2.0				70 - 130	30
Chloroethane	ND	1.0	107	102	4.8				70 - 130	30
Chloroform	ND	1.0	95	91	4.3				70 - 130	30
Chloromethane	ND	1.0	94	87	7.7				70 - 130	30
cis-1,2-Dichloroethene	ND	1.0	99	95	4.1				70 - 130	30
cis-1,3-Dichloropropene	ND	0.40	102	98	4.0				70 - 130	30
Dibromochloromethane	ND	0.50	112	111	0.9				70 - 130	30
Dibromomethane	ND	1.0	97	93	4.2				70 - 130	30
Dichlorodifluoromethane	ND	1.0	106	99	6.8				70 - 130	30
Ethylbenzene	ND	1.0	97	94	3.1				70 - 130	30
Hexachlorobutadiene	ND	0.40	108	100	7.7				70 - 130	30
Isopropylbenzene	ND	1.0	102	94	8.2				70 - 130	30
m&p-Xylene	ND	1.0	96	92	4.3				70 - 130	30
Methyl ethyl ketone	ND	5.0	99	86	14.1				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	1.0	93	91	2.2				70 - 130	30
Methylene chloride	ND	1.0	93	90	3.3				70 - 130	30
Naphthalene	ND	1.0	98	94	4.2				70 - 130	30
n-Butylbenzene	ND	1.0	101	95	6.1				70 - 130	30
n-Propylbenzene	ND	1.0	102	95	7.1				70 - 130	30
o-Xylene	ND	1.0	98	95	3.1				70 - 130	30
p-Isopropyltoluene	ND	1.0	101	94	7.2				70 - 130	30
sec-Butylbenzene	ND	1.0	104	98	5.9				70 - 130	30
Styrene	ND	1.0	97	94	3.1				70 - 130	30

QA/QC Data

SDG I.D.: GCC69338

Parameter	Blk		LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
	Blank	RL								
tert-Butylbenzene	ND	1.0	100	93	7.3				70 - 130	30
Tetrachloroethene	ND	1.0	104	98	5.9				70 - 130	30
Tetrahydrofuran (THF)	ND	2.5	87	84	3.5				70 - 130	30
Toluene	ND	1.0	100	96	4.1				70 - 130	30
trans-1,2-Dichloroethene	ND	1.0	102	98	4.0				70 - 130	30
trans-1,3-Dichloropropene	ND	0.40	97	93	4.2				70 - 130	30
trans-1,4-dichloro-2-butene	ND	5.0	119	115	3.4				70 - 130	30
Trichloroethene	ND	1.0	103	96	7.0				70 - 130	30
Trichlorofluoromethane	ND	1.0	95	89	6.5				70 - 130	30
Trichlorotrifluoroethane	ND	1.0	101	98	3.0				70 - 130	30
Vinyl chloride	ND	1.0	102	95	7.1				70 - 130	30
% 1,2-dichlorobenzene-d4	96	%	100	99	1.0				70 - 130	30
% Bromofluorobenzene	99	%	97	99	2.0				70 - 130	30
% Dibromofluoromethane	94	%	99	97	2.0				70 - 130	30
% Toluene-d8	92	%	102	100	2.0				70 - 130	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

- RPD - Relative Percent Difference
- LCS - Laboratory Control Sample
- LCSD - Laboratory Control Sample Duplicate
- MS - Matrix Spike
- MS Dup - Matrix Spike Duplicate
- NC - No Criteria
- Intf - Interference



Phyllis Shiller, Laboratory Director  
March 25, 2019

Monday, March 25, 2019

Criteria: CT: GWP, SWP

State: CT

## Sample Criteria Exceedances Report

GCC69338 - HRPSTRAT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL	Criteria	Analysis Units
CC69338	\$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2		ug/L
CC69338	\$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.50	0.05	0.05		ug/L
CC69338	\$8260GWR	cis-1,2-Dichloroethene	CT / RSR GWPC (ug/l) / Volatiles	140	10	70	70		ug/L
CC69338	\$8260GWR	Trichloroethene	CT / RSR GWPC (ug/l) / Volatiles	16	1.0	5	5		ug/L
CC69338	\$8260GWR	Vinyl chloride	CT / RSR GWPC (ug/l) / Volatiles	54	10	2	2		ug/L
CC69338	\$8270-CTSISR	Indeno(1,2,3-cd)pyrene	CT / RSR GWPC (ug/l) / APS Organics	0.12	0.09	0.1	0.1		ug/L
CC69338	\$8270-CTSISR	Benz(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	0.11	0.05	0.06	0.06		ug/L
CC69338	\$8270-CTSISR	Benzo(b)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	0.13	0.07	0.08	0.08		ug/L
CC69338	\$8270-CTSISR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.10	0.06	0.077	0.077		ug/L
CC69338	AS-WM	Arsenic	CT / RSR SWPC (ug/l) / Inorganics	0.005	0.004	0.004	0.004		mg/L
CC69338	PB-WM	Lead	CT / RSR GWPC (ug/l) / Inorganics	0.041	0.002	0.015	0.015		mg/L
CC69338	PB-WM	Lead	CT / RSR SWPC (ug/l) / Inorganics	0.041	0.002	0.013	0.013		mg/L
CC69339	\$8260GWR	1,2-Dibromo-3-chloropropane	CT / RSR GWPC (ug/l) / APS Organics	ND	0.50	0.2	0.2		ug/L
CC69339	\$8260GWR	1,2-Dibromoethane	CT / RSR GWPC (ug/l) / Volatiles	ND	0.50	0.05	0.05		ug/L
CC69339	\$8270-CTSISR	Indeno(1,2,3-cd)pyrene	CT / RSR GWPC (ug/l) / APS Organics	0.35	0.09	0.1	0.1		ug/L
CC69339	\$8270-CTSISR	Benzo(a)anthracene	CT / RSR GWPC (ug/l) / Semivolatiles	0.37	0.05	0.06	0.06		ug/L
CC69339	\$8270-CTSISR	Benzo(a)pyrene	CT / RSR GWPC (ug/l) / Semivolatiles	0.38	0.19	0.2	0.2		ug/L
CC69339	\$8270-CTSISR	Benzo(b)fluoranthene	CT / RSR GWPC (ug/l) / Semivolatiles	0.39	0.07	0.08	0.08		ug/L
CC69339	\$8270-CTSISR	Benzo(a)anthracene	CT / RSR SWPC (ug/l) / Semivolatiles	0.37	0.05	0.3	0.3		ug/L
CC69339	\$8270-CTSISR	Benzo(a)pyrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.38	0.19	0.3	0.3		ug/L
CC69339	\$8270-CTSISR	Benzo(b)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	0.39	0.07	0.3	0.3		ug/L
CC69339	\$8270-CTSISR	Benzo(k)fluoranthene	CT / RSR SWPC (ug/l) / Semivolatiles	0.32	0.28	0.3	0.3		ug/L
CC69339	\$8270-CTSISR	Phenanthrene	CT / RSR SWPC (ug/l) / Semivolatiles	0.58	0.06	0.077	0.077		ug/L
CC69339	\$PEST_GAWR	Dieldrin	CT / RSR GWPC (ug/l) / Pest/PCB/TPH	0.010	0.001	0.002	0.002		ug/L
CC69339	PB-WM	Lead	CT / RSR GWPC (ug/l) / Inorganics	0.043	0.002	0.015	0.015		mg/L
CC69339	PB-WM	Lead	CT / RSR SWPC (ug/l) / Inorganics	0.043	0.002	0.013	0.013		mg/L

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedances. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedance information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



## REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

**Laboratory Name:** Phoenix Environmental Labs, Inc.

**Client:** HRP Associates Inc.

**Project Location:** CTD4042FW

**Project Number:**

**Laboratory Sample ID(s):** CC69338, CC69339

**Sampling Date(s):** 3/15/2019

**List RCP Methods Used (e.g., 8260, 8270, et cetera)** 6010, 7470/7471, 8081, 8082, 8151, 8260, 8270, ETPH

<b>1</b>	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>1A</b>	Were the method specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>1B</b>	<u><i>VPH and EPH methods only:</i></u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA
<b>2</b>	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>3</b>	Were samples received at an appropriate temperature (< 6 Degrees C)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
<b>4</b>	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Sections: Herbicide Narration, PEST Narration, SVOA Narration.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>5</b>	a) Were reporting limits specified or referenced on the chain-of-custody?  b) Were these reporting limits met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>6</b>	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>7</b>	Are project-specific matrix spikes and laboratory duplicates included in the data set?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

**I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.**

**Authorized Signature:** Rashmi Makol **Position:** Project Manager

**Printed Name:** Rashmi Makol **Date:** Monday, March 25, 2019

**Name of Laboratory** Phoenix Environmental Labs, Inc.

**This certification form is to be used for RCP methods only.**



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## RCP Certification Report

March 25, 2019

SDG I.D.: GCC69338

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### **SDG Comments**

#### Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only the RCRA 8 Metals are reported as requested on the chain of custody.

#### Volatile 8260 analysis:

1,2-Dibromoethane and 1,2-Dibromo-3-chloropropane do not meet the GWP these compounds are analyzed by GC/ECD to achieve this criteria.

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### **ICP Metals Narration**

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

#### **Instrument:**

**BLUE 03/19/19 08:17**

Cindy Pearce, Tina Hall, Chemist 03/19/19

CC69338, CC69339

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

---

### **ETPH Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### **Instrument:**

**AU-XL1 03/19/19-1**

Jeff Bucko, Chemist 03/19/19

CC69338, CC69339

The initial calibration (ETPH219I) RSD for the compound list was less than 30% except for the following compounds: None.

As per section 7.2.3, a discrimination check standard was run (319A003) and contained the following outliers: None.

The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

#### **QC (Batch Specific):**

**Batch 470732 (CC68713)**

CC69338, CC69339

All LCS recoveries were within 60 - 120 with the following exceptions: None.

All LCSD recoveries were within 60 - 120 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional surrogate criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. The ETPH/DRO LCS has been normalized based on the alkane calibration.

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### **Herbicide Narration**

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## RCP Certification Report

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### ***Herbicide Narration***

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

**QC Batch 470780 (Samples: CC69338, CC69339): -----**

**The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (2,4-DB)**

**The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (Dalapon)**

#### **Instrument:**

**AU-ECD12 03/20/19-1**

Carol Wohlmuth, Chemist 03/20/19

CC69338, CC69339

The initial calibration (HRB318AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (HRB318BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

#### **QC (Batch Specific):**

**Batch 470780 (CC69338)**

CC69338, CC69339

All LCS recoveries were within 40 - 140 with the following exceptions: 2,4-DB(38%)

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: Dalapon(35.5%)

---

### ***Mercury Narration***

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

#### **Instrument:**

**MERLIN 03/20/19 07:54**

Rick Schweitzer, Chemist 03/20/19

CC69338, CC69339

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

#### **QC (Batch Specific):**

**Batch 470771 (CC69267)**

CC69338, CC69339

All LCS recoveries were within 80 - 120 with the following exceptions: None.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-



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## Certification Report

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SDG I.D.: GCC69338

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### **Mercury Narration**

125%.

#### **Batch 470787 (CC69571)**

CC69338, CC69339

All LCS recoveries were within 80 - 120 with the following exceptions: None.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

---

### **ICP Metals Narration**

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

#### **Instrument:**

##### **BLUE 03/19/19 08:17**

Cindy Pearce, Tina Hall, Chemist 03/19/19

CC69338, CC69339

The initial calibration met criteria.

The continuing calibration standards met criteria for all the elements reported. The linear range is defined daily by the calibration range.

The continuing calibration blanks were less than the reporting level for the elements reported.

The ICSA and ICSAB were analyzed at the beginning and end of the run and were within criteria. The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

#### **QC (Batch Specific):**

##### **Batch 470734 (CC68840)**

CC69338, CC69339

All LCS recoveries were within 75 - 125 with the following exceptions: None.

##### **Batch 470762 (CC68850)**

CC69338, CC69339

All LCS recoveries were within 75 - 125 with the following exceptions: None.

---

### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### **Instrument:**

##### **AU-ECD1 03/19/19-1**

Saadia Chudary, Chemist 03/19/19

CC69338, CC69339

The initial calibration (PC318AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC318BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

#### **QC (Batch Specific):**

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## RCP Certification Report

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SDG I.D.: GCC69338

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### PCB Narration

#### Batch 470693 (CC69020)

CC69338, CC69339

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

---

### PEST Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

**QC Batch 470694 (Samples: CC69338, CC69339): -----**

**The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (4,4" -DDE, Endrin, Endrin ketone)**

#### Instrument:

##### AU-ECD7 03/20/19-1

Carol Wohlmuth, Chemist 03/20/19

CC69338, CC69339

The initial calibration (PS318AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PS318BI) RSD for the compound list was less than 20% except for the following compounds: None.

The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.

The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.

The continuing calibration %D for the compound list was less than 20% except for the following compounds:

Samples: CC69338, CC69339

Preceding CC 320A005 - 4,4'-DDD 22%H (20%), Endrin 44%H (20%), Methoxychlor 44%H (20%)

Succeeding CC 320A020 - b-BHC 22%H (20%), Endrin 31%H (20%), Heptachlor -27%L (20%)

A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

Samples: CC69338, CC69339

Preceding CC 320B005 - Methoxychlor 35%H (20%)

Succeeding CC 320B020 - 4,4'-DDD -31%L (20%)

A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

#### QC (Batch Specific):

##### Batch 470694 (CC69020)

CC69338, CC69339

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: 4,4' -DDE(25.7%), Endrin(20.7%), Endrin ketone(43.9%)

A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

---

### SVOA Narration



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## RCP Certification Report

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### SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

**QC Batch 470744 (Samples: CC69338, CC69339): -----**

**One or more analytes is below the method criteria. A low bias for these analytes is possible. (Benzoic acid)**

#### Instrument:

**CHEM19 03/19/19-2** Wes Bryon, Chemist 03/19/19

CC69338, CC69339

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Evaluation (CHEM19/19\_SPLIT\_0317):

97% of target compounds met criteria.

The following compounds had %RSDs >20%: 4,6-Dinitro-2-methylphenol 30% (20%), Benzoic acid 28% (20%)

The following compounds did not meet recommended response factors: 2,4-Dinitrophenol 0 (0.01), 2-Nitrophenol 0.064 (0.1)

The following compounds did not meet a minimum response factors: 2,4-Dinitrophenol 0 (0.01)

Continuing Calibration Verification (CHEM19/0319\_31-19\_SPLIT\_0317):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

99% of target compounds met criteria.

The following compounds did not meet % deviation criteria: Benzoic acid 45%H (30%)

The following compounds did not meet maximum % deviations: Benzoic acid 45%H (40%)

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.076 (0.1)

The following compounds did not meet minimum response factors: None.

#### QC (Batch Specific):

##### **Batch 470744 (CC69338)**

CC69338, CC69339

All LCS recoveries were within 30 - 130 with the following exceptions: Benzoic acid(19%)

All LCSD recoveries were within 30 - 130 with the following exceptions: Benzoic acid(23%)

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

---

### SVOASIM Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### Instrument:

**CHEM25 03/19/19-1** Wes Bryon, Chemist 03/19/19

CC69338, CC69339

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Evaluation (CHEM25/25\_SIM18\_0315):



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## RCP Certification Report

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### SVOASIM Narration

100% of target compounds met criteria.

The following compounds had %RSDs >20%: None.

The following compounds did not meet recommended response factors: Hexachlorocyclopentadiene 0 (0.05), Pentachlorophenol 0 (0.05)

The following compounds did not meet a minimum response factors: Hexachlorocyclopentadiene 0 (0.01), Pentachlorophenol 0 (0.01)

Continuing Calibration Verification (CHEM25/0319\_03-25\_SIM18\_0315):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: None.

The following compounds did not meet minimum response factors: None.

### QC (Batch Specific):

#### **Batch 470744 (CC69338)**

CC69338, CC69339

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

---

### VOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

#### **Instrument:**

#### **CHEM02 03/19/19-1**

Michael Hahn, Chemist 03/19/19

CC69338

Initial Calibration Evaluation (CHEM02/VT-P0318):

95% of target compounds met criteria.

The following compounds had %RSDs >20%: Acetone 29% (20%), Methylene chloride 22% (20%), Tetrahydrofuran (THF) 30% (20%)

The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.027 (0.05), 2-Hexanone 0.070 (0.1), 4-Methyl-2-pentanone 0.094 (0.1), Acetone 0.044 (0.1), Bromoform 0.073 (0.1), Methyl ethyl ketone 0.058 (0.1), Tetrahydrofuran (THF) 0.049 (0.05)

The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM02/0319\_02-VT-P0318):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.025 (0.05), Bromoform 0.074 (0.1), Tetrahydrofuran (THF) 0.039 (0.05)



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## RCP Certification Report

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### VOA Narration

The following compounds did not meet minimum response factors: None.

**CHEM17 03/20/19-1**

Michael Hahn, Chemist 03/20/19

CC69338, CC69339

Initial Calibration Evaluation (CHEM17/VT-S0318):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: 1,2-Dibromo-3-chloropropane 23% (20%), trans-1,4-dichloro-2-butene 23% (20%)

The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.036 (0.05), 2-Hexanone 0.065 (0.1), Acetone 0.036 (0.1), Acrylonitrile 0.047 (0.05), Bromoform 0.082 (0.1), Methyl ethyl ketone 0.046 (0.1),

Tetrahydrofuran (THF) 0.032 (0.05)

The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM17/0320\_05-VT-S0318):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

98% of target compounds met criteria.

The following compounds did not meet % deviation criteria: 1,2-Dibromo-3-chloropropane 33%H (30%), trans-1,4-dichloro-2-butene 39%H (30%)

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.048 (0.05), Acrylonitrile 0.049 (0.05), Tetrahydrofuran (THF) 0.028 (0.05)

The following compounds did not meet minimum response factors: None.

### QC (Batch Specific):

**Batch 470999 (CC69338)**

CC69338

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

**Batch 471166 (CC69863)**

CC69338, CC69339

All LCS recoveries were within 70 - 130 with the following exceptions: None.

All LCSD recoveries were within 70 - 130 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

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### Temperature Narration

The samples were received at 1.6C with cooling initiated.

(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



**Sarah Bell**

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**From:** Sarah Bell  
**Sent:** Tuesday, March 19, 2019 11:48 AM  
**To:** Sarah Bell  
**Subject:** FW: Phoenix Labs - GCC69338, CTD40428W - COC Acknowledgement

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**From:** Jessica A. Bilyard [<mailto:Jessica.Bilyard@hrpassociates.com>]  
**Sent:** Tuesday, March 19, 2019 7:27 AM  
**To:** Client Services  
**Subject:** RE: Phoenix Labs - GCC69338, CTD40428W - COC Acknowledgement

Good morning. The project for this COC is CTD4042FW. Additionally, the note should say "individual PCB arclor <0.05 ug/L" for water.

Thanks!



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**Jessica A. Bilyard, CPESC** | Senior Project Scientist  
HRP Associates, Inc.  
O 203.380.1395 Ext. 1315

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**From:** Client Services [<mailto:clientservices@phoenixlabs.com>]  
**Sent:** Monday, March 18, 2019 7:30 PM  
**To:** Jessica A. Bilyard  
**Subject:** Phoenix Labs - GCC69338, CTD40428W - COC Acknowledgement

Please email client services only if you have a Price Quote# for this SDG, a Quote# was not listed on the COC.

Please email client services only if you Require a PO# on your Invoice, a PO# was not listed on the COC.

GCC69338 Criteria:  
GROUND WATER(2): CT GWP (GA GW Protection), CT SWP (SW Protection)

Please email client services only if you require criteria different than what is listed.

Delivery group GCC69338 (CTD40428W ) has been logged in for the following samples:

Phoenix Id	Client Id
CC69338	MW-1
CC69339	MW-2

The samples were received at 1.6C with cooling initiated. (Note acceptance criteria for relevant matrices is above freezing up to 6°C)

If there are any questions regarding this submittal, please call Phoenix Client Services at extension 200.

Phoenix Environmental Laboratories, Inc.  
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Tel. (860) 645-1102  
Fax. (860) 645-0823  
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Please do not reply to this email.

cc'd:jenny.mooney@hrpassociates.com;walter.sepelak@hrpassociates.com;EDD@HRPASSOCIATES.COM;jessica.bilyard@hrpassociates.com