TASK 210:
SUBSURFACE SITE INVESTIGATION

CANOPY INSTALLATION AT METRO-NORTH RAILROAD STATION
525 WATER STREET
BRIDGEPORT, CONNECTICUT

CT DOT Assignment No. 404-4859
CT DOT Project No. 0301-0155
HRP # CTD3018.21

PREPARED FOR:

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Department of Transportation
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1.0 INTRODUCTION

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 proposed canopy installation at the Metro-North Railroad Station located at 525 Water Street in Bridgeport, Connecticut. The investigation focused on soils beneath the planned canopy footings within the planned construction limits. The attached Figure 1 depicts the site location topographically.

The purpose of this Task 210 is 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. The investigation results will be used to assess what subsurface media, if any, would require special handling and/or disposal practices.

All field investigation and sampling methods were conducted as specified in the Task 210 Subsurface Site Investigation Work Plan finalized on January 20, 2014.

2.0 SITE DESCRIPTION AND HISTORY

The site is the Metro-North Railroad (MNRR) station located at 525 Water Street in Bridgeport, Connecticut. The planned construction project incorporates the expansion of the canopy above the platform area adjacent to the tracks. The investigation focused on soils beneath the planned canopy footings within the planned construction limits. The project limits are illustrated on Figure 2. No previous reports were available for review pertaining to the site's environmental history.

3.0 LOCAL ENVIRONMENT AND RECEPTORS

3.1 Geology

Surficial geology of the reconstruction zone and surrounding area is mapped as Artificial Fill. Artificial Fill is described as unsorted, unconsolidated material of all sizes that varies depending on location.

Bedrock geology of the construction zone and surrounding area is unmapped. Site specific bedrock exploration would be necessary in order to determine bedrock geology of the proposed construction area. Bedrock outcrops are not evident in the general area of proposed construction.

Bedrock outcrops are not evident within the project limits. General depth refusal encountered during sampling activities for this Task 210 was approximately 2 feet below the ground surface grade, unless completed to a depth of 3 feet.

3.2 Hydrogeology

The groundwater classification of the site is “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 surface water classification of the site is “B”. Class “B” surface water bodies are described as follows:

> *“Surface water known or presumed to meet Water Quality Criteria which support designated uses, which may include recreational use; fish and wildlife habitat; agricultural and industrial supply and other legitimate uses including navigation.”*

4.0 PRELIMINARY ACTIVITIES

4.1 Health and Safety Plan (HASP) Preparation

HRP developed a project-specific health and Safety Plan (HASP) for the Task 210 and included a copy as an attachment to the Work Plan when submitted. The HASP addresses the health and safety practices employed by all HRP staff and subcontractors participating in the installation of soil borings, monitoring wells, and/or soil vapor points 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. All 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. All HRP personnel were required to review and sign the HASP prior to field work commencement. Additionally, all site personnel possessed the necessary MNRR safety training requirement and were assigned a MNRR flagman while site work was performed.

4.2 Sample Location Marking and Utility Clearance

Prior to the commencement of drilling activities, HRP marked all proposed soil boring locations in the field then contacted Connecticut Call Before You Dig Services (CBYD) to arrange for a mark-out of public utility lines. The CBYD # assigned for the project was 2014-150-4643.

5.0 SOIL INVESTIGATION METHODS

5.1 Field Screening

Visual Screening
Soil samples collected as part of this investigation were visually inspected for evidence of contamination (i.e., color, odor, etc.). Any staining or unusual odors observed from the samples were recorded in the field notes.

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.

5.2 Hand Boring Installation and Sample Collection

A total of eleven (11) soil borings (HS-2, and HS-4 to HS-13) were installed manually on April 16, 2014. Two (2) additional soil borings (HS-1, HS-3) were installed but not sampled due to the composition of material at those locations (gravel). Composite soil samples were collected from each location along the soil column entirety from the surface down to approximately 3 feet below grade.

Laboratory submittal samples were chosen based on anticipated construction project disturbance depths. Soil samples were placed in laboratory-provided and preserved glassware, stored on ice in coolers, and submitted under proper chain-of-custody to Phoenix Environmental Laboratory. of Manchester, Connecticut (Manchester), a CT-certified laboratory, for analysis of some/all of the following:

- VOCs via EPA Method 8260;
- Semi-volatile organic compounds (SVOCs) via EPA Method 8270;
- Extractable Total Petroleum Hydrocarbons (ETPH) via CT ETPH Methodology;
- Resource Conservation and Recovery Act (RCRA)-8 metals via mass and toxicity characteristic leaching procedure (TCLP) (methodology varies by metal);
- Poly-chlorinated biphenyls (PCBs) via EPA Method 8082;
- Reactive Sulfide and Cyanide;
- pH;
- flashpoint; and
- Specific Conductivity.

Sampling equipment was decontaminated between sampling locations in accordance with HRP SOPs. Field sampling protocols were performed in accordance with HRPs SOPs and CT DEEP's Guidance for Collecting & Preserving Soil & Sediment Samples for Laboratory Determination of Volatile Organic Compounds document dated March 1, 2006.

6.0 GROUNDWATER INVESTIGATION METHODS

Groundwater sample collection and analysis was not conducted as part of this 210 investigation.

7.0 LABORATORY DATA RESULTS

7.1 Regulatory Criteria

Analytical results for soil obtained during this investigation 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-113q-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 an alternative site-specific numerical standards for certain sites, upon approval by the CT DEEP. The Remediation Standard Regulations 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.

Although the site is not an "establishment" nor is it associated with the CT DEEP Voluntary Remediation program, CT DEEP RSR numeric criteria were used in evaluation of environmental data for comparative purposes in order to determine proper soil management procedures. The applicable RSR standards based on general site location are as follows:

- Industrial/Commercial Direct Exposure Criteria (I/C DEC)
- GB Pollutant Mobility Criteria (GB PMC)

7.2 Data Evaluation

7.2.1 Soil Sample Analytical Results

Data from soil samples compared to applicable RSR numeric criteria is presented in Table 1. Comparison of data to Massachusetts landfill disposal acceptance criteria is presented in Table 2. The following contaminants of concern were identified via lab analysis:

VOCs

Concentrations of VOCs were not detected in any of the analyzed samples.

SVOCs

SVOC concentrations were detected in exceedance of applicable RSR numeric standards in 8 of 11 soil boring locations (HS-5, HS-7, HS-8, HS-9, HS-10, HS-11, HS-12, and HS-13). Minor concentrations of SVOCs were detected below RSR standards in the remaining 3 boring locations (HS-2), HS-4, and HS-6).

ETPH

Minor concentrations of ETPH were detected below RSR standards in 8 of 11 soil boring locations (HS-5, HS-7, HS-8, HS-9, HS-10, HS-11, HS-12, and HS-13).

RCRA-8 Metals

Leachable lead concentrations were detected in exceedance of applicable RSR numeric standards in 10 of 11 boring locations (all but HS-5). Soil boring HS-5 contained minor concentrations of leachable lead below applicable RSR standards. Total lead concentrations were detected in exceedance of applicable RSR numeric standards at HS-11.

Other total RCRA-8 metals were detected in all of the soil samples; however, those concentrations were all well below RSR standards. Minor detections of leachable barium were detected in all submitted samples. No additional leachable metals were detected above laboratory detection limits.

PCBs

PCB detections were not detected in any of the soil boring samples.

Reactive Sulfide and Cyanide, pH, flashpoint; and, Specific Conductivity

None of the submitted samples exceeded the standard Massachusetts landfill disposal criteria.

The laboratory analytical report is provided in Appendix B.

7.2.2 Quality Assurance/Quality Control (QA/QC)

Quality assurance and quality control (QA/QC) samples were collected during sampling activities to assess potential data interference from storage techniques as well as the effectiveness of practiced decontamination procedures. Trip blank samples and one (1) equipment blank sample were used for QA/QC purposes. The trip blank was used to assess proper handling/storage techniques while the equipment blank was used to ensure decontamination effectiveness, glassware quality, de-ionized water quality, and laboratory sample handling/analytical procedures. The equipment blank was analyzed for the same parameters as the submitted soil samples and the trip blank sample was analyzed for VOCs. All sampling equipment was either dedicated to a specific sample or decontaminated between each use.

The trip blank was prepared prior to job commencement and the equipment blank sample was collected in the field by pouring laboratory-supplied de-ionized water through field sampling equipment and bottling the rinseate in appropriate containers. The trip and equipment blanks were stored with the 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. The laboratory analysis results for QA/QC samples are included in Table 3.

QA/QC Results

No contaminants of concern were detected in either the trip or equipment blanks thus indicating proper sampling handling techniques were employed. Additionally, HRP reviewed the data results and QA/QC documentation including the lab report case narratives. HRP did not note any issues or discrepancies and 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

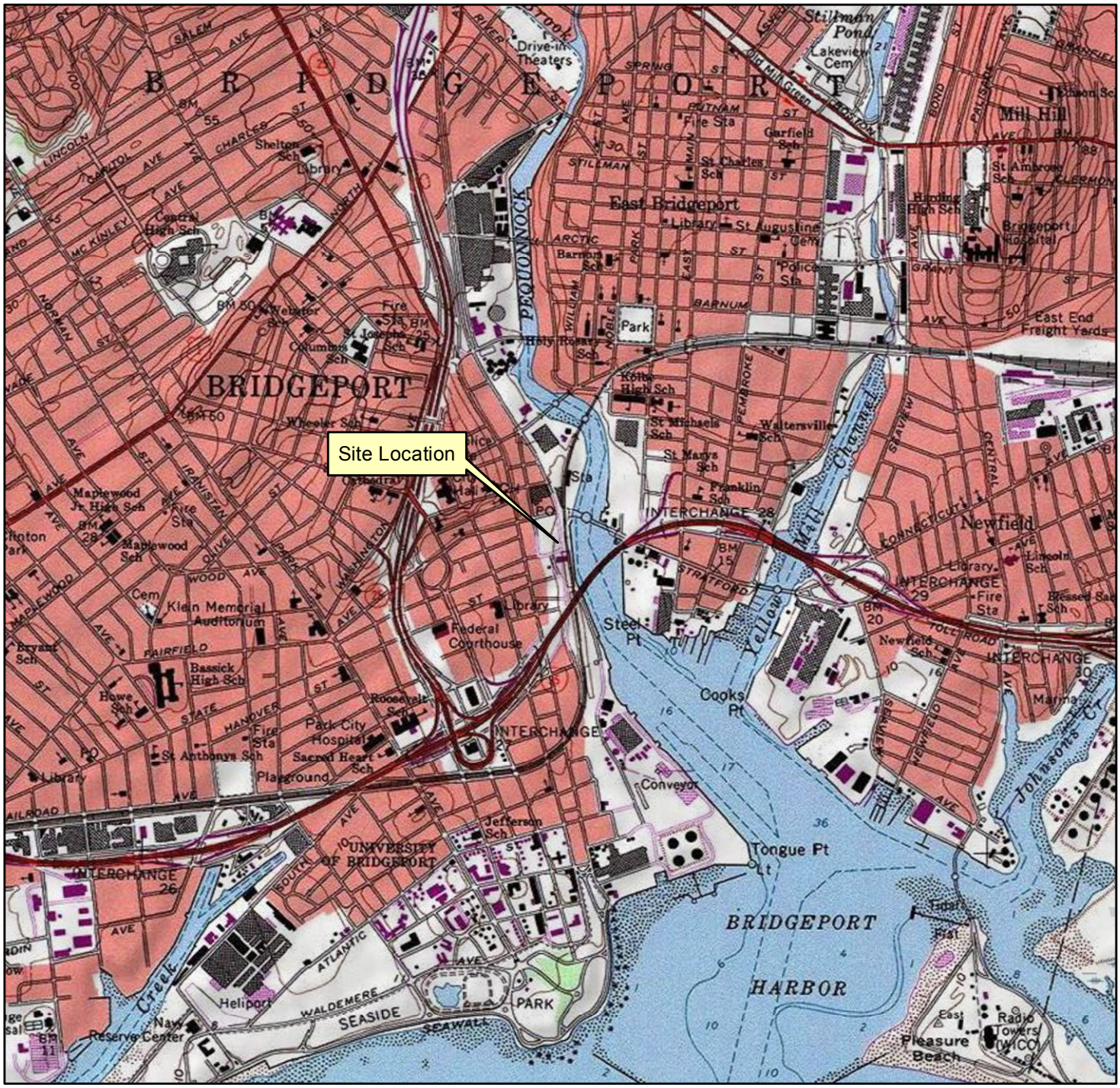
HRP completed a Task 210 (Subsurface Site Investigation) on behalf of the CT DOT in association with DOT Project No. 0301-0155, Canopy Installation at Metro-North Railroad Station located at 525 Water Street in Bridgeport, Connecticut. The investigation focused on soils within the proposed canopy footing locations in the planned construction limits. Based on the data presented in this report, HRP has made the following conclusions:

- SVOCs and lead were found to be prevalent in soil at all of the proposed footing locations. Multiple SVOC and leachable lead detections were identified in exceedance of applicable RSR standards along with a total lead exceedance at one location (HS-11).

- Excavated soil generated from footing installation should be considered "Controlled Materials and will require proper handling during disruption activities. The excavated soil should be transported to an approved disposal facility once the disposal application and profiling process has been completed.

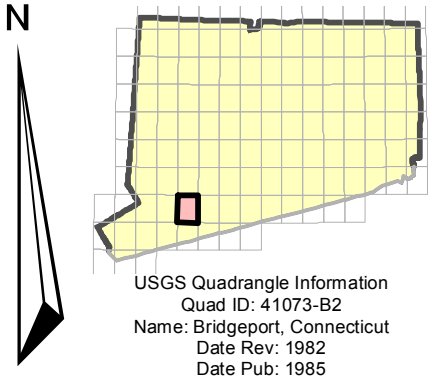
- Sampled soils (with the exception of HS-11) did not indicate any issues that would prevent the material from being accepted for disposal at a Massachusetts landfill facility. The elevated lead concentration in HS-11 will likely be reduced once all excavated material is consolidated prior to final waste characterization sampling.

FIGURES



0 1,000 2,000 4,000 6,000 8,000 Feet

1 inch = 2,000 feet



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

Figure 1
Site Location
Metro North Station
525 Water Street
Bridgeport, Connecticut
HRP # CTD3018.21
Scale 1" = 2,000'

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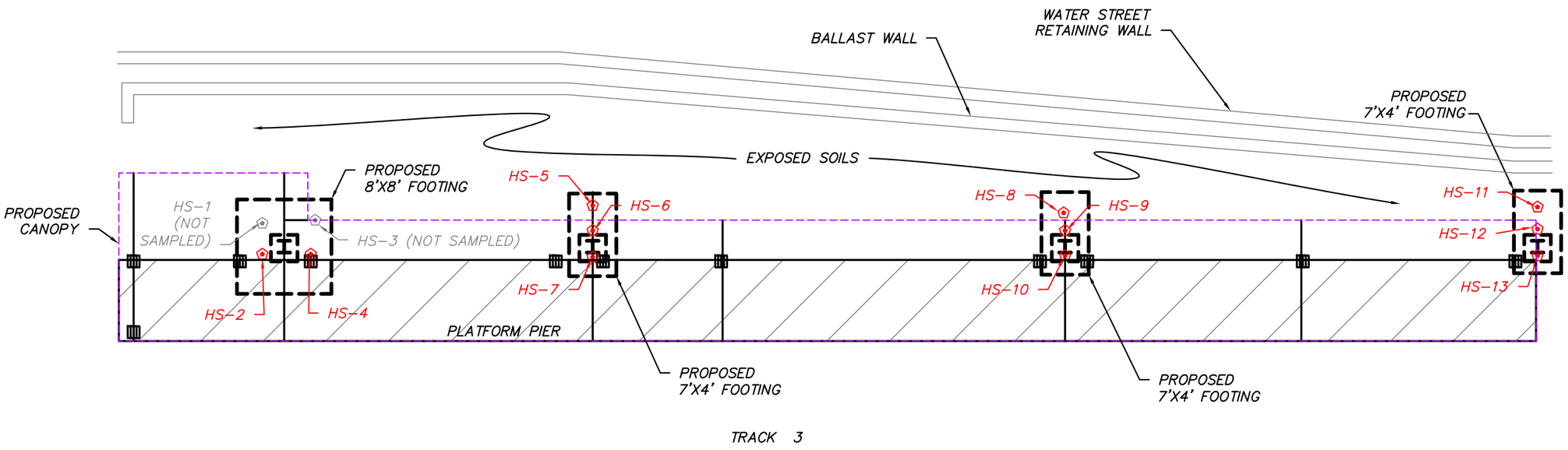
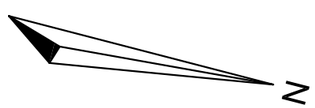
Path: V:\Data\C\CONND - CONNECTICUT DEPARTMENT OF TRANSPORTATION\Bridgeport - Bridgeport\METRO-NORTH RAILROAD STATION\CTD301821\GIS\Site Location.mxd





LEGEND

- -HAND SAMPLE LOCATION
- -PROPOSED FOOTING
- -PROPOSED CANOPY
- -EXISTING PLATFORM

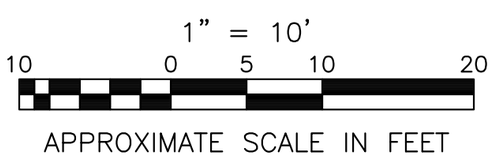


FIGURE 2
SITE PLAN WITH SOIL BORING LOCATIONS
METRO-NORTH STATION
525 WATER STREET
BRIDGEPORT, CONNECTICUT
HRP # CTD3018.21
SCALE 1" = 10'±

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V:\Data\C\CONND - CONNECTICUT DEPARTMENT OF TRANSPORTATION\Bridgeport - Bridgeport\METRO-NORTH RAILROAD STATION\CTD301821\CAD\FIGURE 2 - SI
Adobe PDF

TABLES

TABLE 1
SUMMARY OF SOIL ANALYITCAL RESULTS (COMPARISON TO RSR CRITERIA)
CT DOT - BRIDGEPORT METRO-NORTH RAILROAD STATION
HRP# CTD3018.21

				Lab Report No.:	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034
				Lab Sample No.:	BG34034SITE	BG34035SITE	BG34036SITE	BG34037SITE	BG34038SITE	BG34039SITE	BG34040SITE	BG34041SITE	BG34042SITE	BG34043SITE	BG34044SITE
					HS-2 (0-2 FT)	**HS-4 (0-2 FT)**	**HS-5 (0-3 FT)**	**HS-6 (0-3 FT)**	**HS-7 (0-3 FT)**	**HS-8 (0-3 FT)**	**HS-9 (0-3 FT)**	**HS-10 (0-3 FT)**	**HS-11 (0-3 FT)**	**HS-12 (0-3 FT)**	**HS-13 (0-3 FT)**
Date Collected					**4/16/2014**	**4/16/2014**	**4/16/2014**	**4/16/2014**	**4/16/2014**	**4/16/2014**	**4/16/2014**	**4/16/2014**	**4/16/2014**	**4/16/2014**	**4/16/2014**
SOIL-Metals			**2013 CT DEEP RSR - I/C DEC**	**2013 CT DEEP RSR - GB PMC**											
Arsenic	7440-38-2	mg/kg	10		2.2	2.7	1.8	2.2	1.3	1.8	2.3	3.1	3.4	2.8	2.4
Barium	7440-39-3	mg/kg	140,000		35.5	33.8	36.5	43.8	88.8	45.6	50.9	35.3	57.9	42.0	42.4
Cadmium	7440-43-9	mg/kg	1,000		0.63	0.59	0.63	0.38	3.47	0.65	0.98	0.72	1.40	3.43	0.68
Chromium, Total	7440-47-3	mg/kg	100		14.0	11.9	20.4	19.8	43.6	23.4	23.8	14.3	30.0	17.4	18.1
Lead	7439-92-1	mg/kg	1,000		73.0	25.1	125	62.7	485	240	266	77.8	**2060**	398	176
Mercury	7439-97-6	mg/kg	610		<0.07	<0.08	<0.07	0.16	0.15	<0.07	<0.07	<0.06	<0.07	<0.08	<0.06
Selenium	7782-49-2	mg/kg	10,000		<1.4	<1.3	<1.4	<1.3	<1.4	<1.5	<1.4	<1.4	<1.4	<1.5	<1.5
Silver	7440-22-4	mg/kg	10,000		<0.36	<0.33	<0.35	<0.33	<0.36	<0.36	<0.35	<0.36	<0.35	<0.37	<0.37
SOIL-Metals-TCLP															
Arsenic	7440-38-2	mg/l		0.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Barium	7440-39-3	mg/l		10.0	0.29	0.21	0.28	0.20	0.32	0.31	0.29	0.40	0.37	0.29	0.45
Cadmium	7440-43-9	mg/l		0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chromium, Total	7440-47-3	mg/l		0.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Lead	7439-92-1	mg/l		0.15	**0.40**	**0.47**	0.15	**0.18**	**0.27**	**0.31**	**0.45**	**0.34**	**3.26**	**1.89**	**1.39**
Mercury	7439-97-6	mg/l		0.02	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Selenium	7782-49-2	mg/l		0.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Silver	7440-22-4	mg/l		0.36	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SOIL-8270C-SVOCs															
2-Methylnaphthalene	91-57-6	µg/kg			3900	<250	320	<250	3500	700	<270	1200	<260	<2800	<1300
Acenaphthylene	208-96-8	µg/kg	2,500,000	84,000	<260	<250	360	<250	260	<260	460	<260	<260	<2800	<1300
Anthracene	120-12-7	µg/kg	2,500,000	400,000	<260	<250	<260	<250	340	<260	420	<260	<260	4500	<1300
Benzo(a)anthracene	56-55-3	µg/kg	7,800	1,000	<260	<250	1000	420	**1200**	670	**1600**	600	910	**8700**	**2200**
Benzo(a)pyrene	50-32-8	µg/kg	1,000	1,000	260	<250	970	380	**1300**	670	**1500**	630	930	**6300**	**2000**
Benzo(b)fluoranthene	205-99-2	µg/kg	7,800	1,000	480	<250	**1600**	610	**2200**	**1200**	**2700**	**1200**	**1700**	**11000**	**3300**
Benzo(ghi)perylene	191-24-2	µg/kg			270	<250	650	250	660	330	710	350	390	3500	1300
Benzo(k)fluoranthene	207-08-9	µg/kg	78,000	1,000	<260	<250	570	<250	620	380	960	380	530	**2900**	(<1300)
Bis(2-Chloroethyl)Ether	111-44-4	µg/kg	5,200	2,400	<370	<350	<370	<360	<370	<370	<390	<380	<380	(<3900)	<1900
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg	410,000	11,000	380	<250	500	<250	2000	390	**22000**	450	1000	<2800	<1300
Chrysene	218-01-9	µg/kg			380	<250	1300	490	1600	960	2100	800	1100	9700	2400
Fluoranthene	206-44-0	µg/kg	2,500,000	56,000	850	400	2700	910	3200	2000	7900	1700	2300	52000	6300
Fluorene	86-73-7	µg/kg	2,500,000	56,000	<260	<250	<260	<250	<260	<260	<270	<260	<260	3700	<1300
Hexachlorobenzene	118-74-1	µg/kg	3,600	1,000	<260	<250	<260	<250	<260	<260	<270	<260	<260	(<2800)	(<1300)
Hexachloroethane	67-72-1	µg/kg	410,000	1,000	<260	<250	<260	<250	<260	<260	<270	<260	<260	(<2800)	(<1300)
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg			<260	<250	620	<250	650	330	700	330	390	3400	<1300
Naphthalene	91-20-3	µg/kg	2,500,000	56,000	590	<250	<260	<250	620	<260	<270	<260	<260	<2800	<1300
Pentachlorophenol	87-86-5	µg/kg	48,000	1,000	<370	<350	<370	<360	<370	<370	<390	<380	<380	(<3900)	(<1900)
Phenanthrene	85-01-8	µg/kg	2,500,000	40,000	600	<250	1100	310	1300	780	2100	720	820	39000	1600
Pyrene	129-00-0	µg/kg	2,500,000	40,000	800	300	2100	700	2600	1500	4400	1400	1900	36000	5200
SOIL-8260B-VOCs					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SOIL-CTETPH															
TPH DRO	TPH DRO	mg/kg	2,500	2,500	<55	<53	150	<54	150	210	230	360	140	230	98
SOIL-PCBs-8082					ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SOIL-Misc															
Conductivity	Conductivity	umhos/cm			1300	300	220	59	140	23	44	150	25	60	150
Corrosivity (as pH)	Corrosivity (as pH)	Pos/Neg			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Flashpoint	Flashpoint	F			>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200
Ignitability	Ignitability	F			>140	>140	>140	>140	>140	>140	>140	>140	>140	>140	>140
pH	PH	Units			8.55	8.90	9.46	9.42	9.21	8.66	8.43	9.07	8.38	8.14	8.51
Reactive Cyanide	Reactive CN	mg/kg			<5.1	<5.3	<5.3	<5.4	<5.3	<5.2	<5.8	<5.5	<5.6	<5.7	<5.4
Reactive Sulfide	Reactive S2	mg/kg			<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Reactivity	Reactivity	Pos/Neg			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
solids (percent)	solids	%			91	92	90	91	89	89	85	88	88	84	89

Legend

1	Parameter reported at a concentration greater than applicable regulatory standard/criterion
<1	Parameter not detected above the laboratory reporting limit
( )	Indicates the laboratory reporting limit is greater than one or more applicable comparison criteria
BDL	Parameter consists of multiple isomers and were not detected above the laboratory reporting limit

Notes:

For Total Chromium, the DEC for Hexavalent Chromium was applied.
mg/l = milligrams per liter
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
GB PMC = Groundwater Class 'GB' Pollutant Mobility Criteria
Res DEC = Residential Direct Exposure Criteria
TCLP = Toxicity Characterization Leaching Procedure

CT DEEP = Connecticut Department of Energy and Environmental Protection
RSR = Remediation Standard Regulations
NA = Not Submitted for Analysis
TPH = Total Petroleum Hydrocarbons
VOCs = Volatile organic Compounds
SVOC = Semi Volatile Organic Compound
PCBs = Polychlorinated Biphenyls

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS (MA LANDFILL ACCEPTANCE CRITERIA)
CT DOT - BRIDGEPORT METRO-NORTH RAILROAD STATION
HRP# CTD3018.21

				Lab Report No.:	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034
				Lab Sample No.:	BG34034SITE	BG34035SITE	BG34036SITE	BG34037SITE	BG34038SITE	BG34039SITE	BG34040SITE	BG34041SITE	BG34042SITE	BG34043SITE	BG34044SITE
					HS-2 (0-2 FT)	**HS-4 (0-2 FT)**	**HS-5 (0-3 FT)**	**HS-6 (0-3 FT)**	**HS-7 (0-3 FT)**	**HS-8 (0-3 FT)**	**HS-9 (0-3 FT)**	**HS-10 (0-3 FT)**	**HS-11 (0-3 FT)**	**HS-12 (0-3 FT)**	**HS-13 (0-3 FT)**
Date Collected					**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**
SOIL-Metals			**MA Standard Lined**	**MA Standard Unlined**											
Arsenic	7440-38-2	mg/kg	40	40	2.2	2.7	1.8	2.2	1.3	1.8	2.3	3.1	3.4	2.8	2.4
Barium	7440-39-3	mg/kg			35.5	33.8	36.5	43.8	88.8	45.6	50.9	35.3	57.9	42.0	42.4
Cadmium	7440-43-9	mg/kg	80	30	0.63	0.59	0.63	0.38	3.47	0.65	0.98	0.72	1.40	3.43	0.68
Chromium, Total	7440-47-3	mg/kg	1,000	1,000	14.0	11.9	20.4	19.8	43.6	23.4	23.8	14.3	30.0	17.4	18.1
Lead	7439-92-1	mg/kg	2,000	1,000	73.0	25.1	125	62.7	485	240	266	77.8	**2060**	398	176
Mercury	7439-97-6	mg/kg	10	10	<0.07	<0.08	<0.07	0.16	0.15	<0.07	<0.07	<0.06	<0.07	<0.08	<0.06
Selenium	7782-49-2	mg/kg			<1.4	<1.3	<1.4	<1.3	<1.4	<1.5	<1.4	<1.4	<1.4	<1.5	<1.5
Silver	7440-22-4	mg/kg			<0.36	<0.33	<0.35	<0.33	<0.36	<0.36	<0.35	<0.36	<0.35	<0.37	<0.37
SOIL-Metals-TCLP			**MA Standard Lined**	**MA Standard Unlined**											
Arsenic	7440-38-2	mg/l	5	5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Barium	7440-39-3	mg/l	100	100	0.29	0.21	0.28	0.20	0.32	0.31	0.29	0.40	0.37	0.29	0.45
Cadmium	7440-43-9	mg/l	1	1	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chromium, Total	7440-47-3	mg/l	5	5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Lead	7439-92-1	mg/l	5	5	0.40	0.47	0.15	0.18	0.27	0.31	0.45	0.34	3.26	1.89	1.39
Mercury	7439-97-6	mg/l	0.2	0.2	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Selenium	7782-49-2	mg/l	1	1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Silver	7440-22-4	mg/l	5	5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SOIL-8270C-SVOCs			**MA Standard Lined**	**MA Standard Unlined**											
1,2,4,5-Tetrachlorobenzene	95-94-3	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
1,2,4-Trichlorobenzene	120-82-1	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
1,2-Dichlorobenzene	95-50-1	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
1,2-Diphenylhydrazine	122-66-7	µg/kg			<370	<350	<370	<360	<370	<370	<390	<380	<380	<3900	<1900
1,3-Dichlorobenzene	541-73-1	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
1,4-Dichlorobenzene	106-46-7	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2,2-Dichlorodiisopropyl ether	39638-32-9	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2,4,5-Trichlorophenol	95-95-4	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2,4,6-Trichlorophenol	88-06-2	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2,4-Dichlorophenol	120-83-2	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2,4-Dimethylphenol	105-67-9	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2,4-Dinitrophenol	51-28-5	µg/kg			<580	<570	<590	<570	<590	<590	<620	<600	<600	<6300	<3000
2,4-Dinitrotoluene	121-14-2	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2,6-Dinitrotoluene	606-20-2	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2-Chloronaphthalene	91-58-7	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2-Chlorophenol	95-57-8	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
2-Methyl-4,6-dinitrophenol	534-52-1	µg/kg			<1100	<1000	<1100	<1000	<1100	<1100	<1100	<1100	<1100	<11000	<5400
2-Methylnaphthalene	91-57-6	µg/kg			3900	<250	320	<250	3500	700	<270	1200	<260	<2800	<1300
2-Nitroaniline	88-74-4	µg/kg			<580	<570	<590	<570	<590	<590	<620	<600	<600	<6300	<3000
2-Nitrophenol	88-75-5	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
3,3-Dichlorobenzidine	91-94-1	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
3-Nitroaniline	99-09-2	µg/kg			<580	<570	<590	<570	<590	<590	<620	<600	<600	<6300	<3000
4-Bromophenylphenyl ether	101-55-3	µg/kg			<370	<350	<370	<360	<370	<370	<390	<380	<380	<3900	<1900
4-Chloro-3-methylphenol	59-50-7	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
4-Chloroaniline	106-47-8	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
4-Chlorophenyl phenylether	7005-72-3	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
4-Nitroaniline	100-01-6	µg/kg			<580	<570	<590	<570	<590	<590	<620	<600	<600	<6300	<3000
4-Nitrophenol	100-02-7	µg/kg			<1100	<1000	<1100	<1000	<1100	<1100	<1100	<1100	<1100	<11000	<5400
Acenaphthene	83-32-9	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Acenaphthylene	208-96-8	µg/kg			<260	<250	360	<250	260	<260	460	<260	<260	<2800	<1300
Acetophenone	98-86-2	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Aniline	62-53-3	µg/kg			<1100	<1000	<1100	<1000	<1100	<1100	<1100	<1100	<1100	<11000	<5400
Anthracene	120-12-7	µg/kg			<260	<250	<260	<250	340	<260	420	<260	<260	4500	<1300
Benzidine	92-87-5	µg/kg			<440	<430	<440	<430	<440	<450	<460	<450	<450	<4700	<2200
Benzo(a)anthracene	56-55-3	µg/kg			<260	<250	1000	420	1200	670	1600	600	910	8700	2200
Benzo(a)pyrene	50-32-8	µg/kg			260	<250	970	380	1300	670	1500	630	930	6300	2000
Benzo(b)fluoranthene	205-99-2	µg/kg			480	<250	1600	610	2200	1200	2700	1200	1700	11000	3300
Benzo(ghi)perylene	191-24-2	µg/kg			270	<250	650	250	660	330	710	350	390	3500	1300
Benzo(k)fluoranthene	207-08-9	µg/kg			<260	<250	570	<250	620	380	960	380	530	2900	<1300
Benzoic Acid	65-85-0	µg/kg			<1100	<1000	<1100	<1000	<1100	<1100	<1100	<1100	<1100	<11000	<5400
Bis(2-chloroethoxy)methane	111-91-1	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Bis(2-Chloroethyl)Ether	111-44-4	µg/kg			<370	<350	<370	<360	<370	<370	<390	<380	<380	<3900	<1900
Bis(2-ethylhexyl)phthalate	117-81-7	µg/kg			380	<250	500	<250	2000	390	22000	450	1000	<2800	<1300
Butylbenzyl phthalate	85-68-7	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Carbazole	86-74-8	µg/kg			<550	<530	<550	<540	<550	<560	<580	<560	<570	<5900	<2800
Chrysene	218-01-9	µg/kg			380	<250	1300	490	1600	960	2100	800	1100	9700	2400
Dibenzo(a,H)anthracene	53-70-3	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Dibenzofuran	132-64-9	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Diethyl phthalate	84-66-2	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Dimethyl phthalate	131-11-3	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Di-n-butyl phthalate	84-74-2	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Di-n-octyl phthalate	117-84-0	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Fluoranthene	206-44-0	µg/kg			850	400	2700	910	3200	2000	7900	1700	2300	52000	6300
Fluorene	86-73-7	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	3700	<1300
Hexachlorobenzene	118-74-1	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Hexachlorobutadiene	87-68-3	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Hexachlorocyclopentadiene	77-47-4	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS (MA LANDFILL ACCEPTANCE CRITERIA)
CT DOT - BRIDGEPORT METRO-NORTH RAILROAD STATION
HRP# CTD3018.21

				Lab Report No.:	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034
				Lab Sample No.:	BG34034SITE	BG34035SITE	BG34036SITE	BG34037SITE	BG34038SITE	BG34039SITE	BG34040SITE	BG34041SITE	BG34042SITE	BG34043SITE	BG34044SITE
					HS-2 (0-2 FT)	**HS-4 (0-2 FT)**	**HS-5 (0-3 FT)**	**HS-6 (0-3 FT)**	**HS-7 (0-3 FT)**	**HS-8 (0-3 FT)**	**HS-9 (0-3 FT)**	**HS-10 (0-3 FT)**	**HS-11 (0-3 FT)**	**HS-12 (0-3 FT)**	**HS-13 (0-3 FT)**
Date Collected					**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**
Hexachloroethane	67-72-1	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Indeno(1,2,3-cd)pyrene	193-39-5	µg/kg			<260	<250	620	<250	650	330	700	330	390	3400	<1300
Isophorone	78-59-1	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
m/p-cresol(s)	PMCRESOL	µg/kg			<370	<350	<370	<360	<370	<370	<390	<380	<380	<3900	<1900
Naphthalene	91-20-3	µg/kg			590	<250	<260	<250	620	<260	<270	<260	<260	<2800	<1300
Nitrobenzene	98-95-3	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
N-Nitrosodimethylamine	62-75-9	µg/kg			<370	<350	<370	<360	<370	<370	<390	<380	<380	<3900	<1900
N-Nitrosodi-n-propylamine	621-64-7	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
N-Nitrosodiphenylamine	86-30-6	µg/kg			<370	<350	<370	<360	<370	<370	<390	<380	<380	<3900	<1900
o-cresol	95-48-7	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Pentachloronitrobenzene	82-68-8	µg/kg			<370	<350	<370	<360	<370	<370	<390	<380	<380	<3900	<1900
Pentachlorophenol	87-86-5	µg/kg			<370	<350	<370	<360	<370	<370	<390	<380	<380	<3900	<1900
Phenanthrene	85-01-8	µg/kg			600	<250	1100	310	1300	780	2100	720	820	39000	1600
Phenol	108-95-2	µg/kg			<260	<250	<260	<250	<260	<260	<270	<260	<260	<2800	<1300
Pyrene	129-00-0	µg/kg			800	300	2100	700	2600	1500	4400	1400	1900	36000	5200
Pyridine	110-86-1	µg/kg			<370	<350	<370	<360	<370	<370	<390	<380	<380	<3900	<1900
TOTAL SVOCs (includes RL values)		**µg/kg**	**100,000**	**100,000**	**10690**	**6740**	**7130**	**6750**	**10310**	**7510**	**7320**	**8040**	**7100**	**75100**	**35400**
TOTAL SVOCs (detections only)		**µg/kg**	**100,000**	**100,000**	**3900**	**0**	**320**	**0**	**3500**	**700**	**0**	**1200**	**0**	**0**	**0**
SOIL-8260B-VOCs			**MA Standard Lined**	**MA Standard Unlined**											
1,1,1,2-Tetrachloroethane	630-20-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,1,1-Trichloroethane	71-55-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,1,2,2-Tetrachloroethane	79-34-5	µg/kg			<2.9	<2.7	<2.9	<3.1	<3.2	<4.7	<4.9	<3.5	<3.8	<4.0	<3.1
1,1,2-Trichloroethane	79-00-5	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,1,2-Trichlorotrifluoroethane (freon 113)	76-13-1	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,1-Dichloroethane	75-34-3	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,1-Dichloroethylene	75-35-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,1-Dichloropropylene	563-58-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,2,3-Trichlorobenzene	87-61-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
1,2,3-Trichloropropane	96-18-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
1,2,4-Trichlorobenzene	120-82-1	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
1,2,4-Trimethylbenzene	95-63-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
1,2-Dibromo-3-chloropropane	96-12-8	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
1,2-Dibromoethane (EDB) (ethylene dibromide)	106-93-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,2-Dichlorobenzene	95-50-1	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
1,2-Dichloroethane	107-06-2	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,2-Dichloropropane	78-87-5	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,3,5-Trimethylbenzene	108-67-8	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
1,3-Dichlorobenzene	541-73-1	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
1,3-Dichloropropane	142-28-9	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,3-Dichloropropene (cis)	10061-01-5	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,3-Dichloropropene (trans)	10061-02-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
1,4-Dichlorobenzene	106-46-7	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
2,2-Dichloropropane	594-20-7	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
2-Butanone (MEK)	78-93-3	µg/kg			<29	<27	<29	<31	<32	<47	<49	<35	<38	<40	<31
2-Chlorotoluene	95-49-8	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
2-Hexanone (Methyl butyl ketone/MBK)	591-78-6	µg/kg			<24	<23	<24	<26	<26	<39	<41	<30	<32	<33	<26
2-Isopropyltoluene	527-84-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
4-Chlorotoluene	106-43-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
4-Isopropyltoluene / p-Isopropyltoluene	99-87-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
Acetone	67-64-1	µg/kg			<29	<27	<29	<31	<32	<47	<49	<35	<38	<40	<31
Acrylonitrile	107-13-1	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Benzene	71-43-2	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Bromobenzene	108-86-1	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
Bromochloromethane	74-97-5	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Bromodichloromethane	75-27-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Bromoform	75-25-2	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Bromomethane	74-83-9	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Carbon disulfide	75-15-0	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Carbon tetrachloride	56-23-5	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Chlorobenzene	108-90-7	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Chloroethane	75-00-3	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Chloroform	67-66-3	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Chloromethane	74-87-3	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
cis-1,2-Dichloroethylene	156-59-2	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Dibromochloromethane	124-48-1	µg/kg			<2.9	<2.7	<2.9	<3.1	<3.2	<4.7	<4.9	<3.5	<3.8	<4.0	<3.1
Dibromomethane	74-95-3	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Dichlorodifluoromethane	75-71-8	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Ethylbenzene	100-41-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Hexachlorobutadiene	87-68-3	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
Isopropylbenzene	98-82-8	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
m-,p-,o-Xylene	1330-20-7	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
m/p-Xylenes	179601-23-1	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Methyl isobutyl ketone (MIBK)	108-10-1	µg/kg			<24	<23	<24	<26	<26	<39	<41	<30	<32	<33	<26
Methylene chloride (Dichloromethane)	75-09-2	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Methyltertbutyl ether	1634-04-4	µg/kg			<9.8	<9.0	<9.7	<10	<11	<16	<16	<12	<13	<13	<10
Naphthalene	91-20-3	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
n-Butylbenzene	104-51-8	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
n-Propylbenzene	103-65-1	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
o-Xylene	95-47-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2

TABLE 2
SUMMARY OF SOIL ANALYTICAL RESULTS (MA LANDFILL ACCEPTANCE CRITERIA)
CT DOT - BRIDGEPORT METRO-NORTH RAILROAD STATION
HRP# CTD3018.21

				Lab Report No.:	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034	GBG34034
				Lab Sample No.:	BG34034SITE	BG34035SITE	BG34036SITE	BG34037SITE	BG34038SITE	BG34039SITE	BG34040SITE	BG34041SITE	BG34042SITE	BG34043SITE	BG34044SITE
					HS-2 (0-2 FT)	**HS-4 (0-2 FT)**	**HS-5 (0-3 FT)**	**HS-6 (0-3 FT)**	**HS-7 (0-3 FT)**	**HS-8 (0-3 FT)**	**HS-9 (0-3 FT)**	**HS-10 (0-3 FT)**	**HS-11 (0-3 FT)**	**HS-12 (0-3 FT)**	**HS-13 (0-3 FT)**
Date Collected					**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**	**04/16/14**
sec-Butylbenzene	135-98-8	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
Styrene	100-42-5	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
tert-Butylbenzene	98-06-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<300	<310	<5.2
Tetrachloroethylene	127-18-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Tetrahydrofuran	109-99-9	µg/kg			<9.8	<9.0	<9.7	<10	<11	<16	<16	<12	<13	<13	<10
Toluene	108-88-3	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
trans-1,2-Dichloroethylene	156-60-5	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
trans-1,4-Dichloro-2-Butene	110-57-6	µg/kg			<9.8	<9.0	<9.7	<10	<11	<16	<16	<12	<600	<620	<10
Trichloroethylene	79-01-6	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Trichlorofluoromethane	75-69-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
Vinyl chloride	75-01-4	µg/kg			<4.9	<4.5	<4.8	<5.1	<5.3	<7.9	<8.1	<5.9	<6.4	<6.7	<5.2
SOIL-CTETPH			**MA Standard Lined**	**MA Standard Unlined**											
TPH DRO	TPH DRO	mg/kg			<55	<53	150	<54	150	210	230	360	140	230	98
SOIL-PCBs-8082			**MA Standard Lined**	**MA Standard Unlined**											
PCB-1016	12674-11-2	µg/kg			<360	<350	<370	<360	<370	<360	<390	<370	<380	<390	<370
PCB-1221	11104-28-2	µg/kg			<360	<350	<370	<360	<370	<360	<390	<370	<380	<390	<370
PCB-1232	11141-16-5	µg/kg			<360	<350	<370	<360	<370	<360	<390	<370	<380	<390	<370
PCB-1242	53469-21-9	µg/kg			<360	<350	<370	<360	<370	<360	<390	<370	<380	<390	<370
PCB-1248	12672-29-6	µg/kg			<360	<350	<370	<360	<370	<360	<390	<370	<380	<390	<370
PCB-1254	11097-69-1	µg/kg			<360	<350	<370	<360	<370	<360	<390	<370	<380	<390	<370
PCB-1260	11096-82-5	µg/kg			<360	<350	<370	<360	<370	<360	<390	<370	<380	<390	<370
PCB-1262	37324-23-5	µg/kg			<360	<350	<370	<360	<370	<360	<390	<370	<380	<390	<370
PCB-1268	11100-14-4	µg/kg			<360	<350	<370	<360	<370	<360	<390	<370	<380	<390	<370
PCBs-Total		µg/kg	2,000	2,000	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL	<BRL
SOIL-Misc			**MA Standard Lined**	**MA Standard Unlined**											
Conductivity	Conductivity	umhos/cm	8,000	4,000	1300	300	220	59	140	23	44	150	25	60	150
Corrosivity (as pH)	Corrosivity (as pH)	Pos/Neg			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Flashpoint	Flashpoint	F			>200	>200	>200	>200	>200	>200	>200	>200	>200	>200	>200
Ignitability	Ignitability	F			>140	>140	>140	>140	>140	>140	>140	>140	>140	>140	>140
pH	PH	Units			8.55	8.90	9.46	9.42	9.21	8.66	8.43	9.07	8.38	8.14	8.51
Reactive Cyanide	Reactive CN	mg/kg	>100	>100	<5.1	<5.3	<5.3	<5.4	<5.3	<5.2	<5.8	<5.5	<5.6	<5.7	<5.4
Reactive Sulfide	Reactive S2	mg/kg	>500	>500	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Reactivity	Reactivity	Pos/Neg			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
solids (percent)	solids	%			91	92	90	91	89	89	85	88	88	84	89

Legend

1	Parameter reported at a concentration greater than applicable regulatory standard/criterion
<1	Parameter not detected above the laboratory reporting limit
( )	Indicates the laboratory reporting limit is greater than one or more applicable comparison criteria
BDL	Parameter consists of multiple isomers and were not detected above the laboratory reporting limit

Notes:

For Total Chromium, the DEC for Hexavalent Chromium was applied.
For Total SVOCs and VOCs, only detections were totaled.
mg/l = milligrams per liter
mg/kg = milligrams per kilogram
µg/kg = micrograms per kilogram
GB PMC = Groundwater Class 'GB' Pollutant Mobility Criteria
Res DEC = Residential Direct Exposure Criteria
TCLP = Toxicity Characterization Leaching Procedure
CT DEEP = Connecticut Department of Energy and Environmental Protection

RSR = Remediation Standard Regulations
NE = Not Established
NA = Not Submitted for Analysis
TPH = Total Petroleum Hydrocarbons
VOCs = Volatile organic Compounds
SVOC = Semi Volatile Organic Compound
PCBs = Polychlorinated Biphenyls
MIN = Minimum result reported for all samples analyzed for parameter
MAX = Maximum result reported for all samples analyzed for parameter

TABLE 3

SUMMARY OF QA-QC ANALYTICAL RESULTS
CT DOT - BRIDGEPORT METRO-NORTH RAILROAD STATION
HRP# CTD3018.21

		Lab Report No.:	GBG34034	GBG34034	GBG34034
		Lab Sample No.:	BG34045SITE	BG34047SITE	BG34046SITE
			TRIP BLANK (L)	**TRIP BLANK (H)**	**EQUIP BLANK**
Date Collected			**04/16/14**	**04/16/14**	**04/16/14**
WATER-Metals					
Arsenic	7440-38-2	mg/l	NA	NA	<0.004
Barium	7440-39-3	mg/l	NA	NA	<0.002
Cadmium	7440-43-9	mg/l	NA	NA	<0.001
Chromium, Total	7440-47-3	mg/l	NA	NA	<0.001
Lead	7439-92-1	mg/l	NA	NA	<0.002
Mercury	7439-97-6	mg/l	NA	NA	<0.0002
Selenium	7782-49-2	mg/l	NA	NA	<0.010
Silver	7440-22-4	mg/l	NA	NA	<0.001
WATER-8270C-SVOCs			NA	NA	ND
WATER-8270SIM					
1,2,4,5-Tetrachlorobenzene	95-94-3	µg/l	NA	NA	<1.6
2,4-Dinitrophenol	51-28-5	µg/l	NA	NA	<1.0
2-Methyl-4,6-dinitrophenol	534-52-1	µg/l	NA	NA	<1.0
Acenaphthene	83-32-9	µg/l	NA	NA	<0.05
Acenaphthylene	208-96-8	µg/l	NA	NA	<0.05
Benzo(a)anthracene	56-55-3	µg/l	NA	NA	<0.02
Benzo(a)pyrene	50-32-8	µg/l	NA	NA	<0.02
Benzo(b)fluoranthene	205-99-2	µg/l	NA	NA	<0.02
Benzo(ghi)perylene	191-24-2	µg/l	NA	NA	<3.0
Benzo(k)fluoranthene	207-08-9	µg/l	NA	NA	<0.02
Bis(2-ethylhexyl)phthalate	117-81-7	µg/l	NA	NA	<1.6
Chrysene	218-01-9	µg/l	NA	NA	<0.02
Dibenzo(a,H)anthracene	53-70-3	µg/l	NA	NA	<0.01
Hexachlorobenzene	118-74-1	µg/l	NA	NA	<0.04
Hexachlorobutadiene	87-68-3	µg/l	NA	NA	<0.50
Hexachloroethane	67-72-1	µg/l	NA	NA	<2.4
Indeno(1,2,3-cd)pyrene	193-39-5	µg/l	NA	NA	<0.02
Nitrobenzene	98-95-3	µg/l	NA	NA	<0.40
Pentachloronitrobenzene	82-68-8	µg/l	NA	NA	<0.10
Pentachlorophenol	87-86-5	µg/l	NA	NA	<0.80
Phenanthrene	85-01-8	µg/l	NA	NA	0.17
Pyridine	110-86-1	µg/l	NA	NA	<0.50
SOIL/WATER-8260B-VOCs			ND	ND	ND
WATER-CTETPH					
TPH DRO	TPH DRO	mg/l	NA	NA	<0.070
WATER-PCBs-8082			ND	ND	ND
WATER-Misc					
Conductivity	Conductivity	umhos/cm	NA	NA	<5
Flashpoint	Flashpoint	F	NA	NA	>200
Ignitability	Ignitability	F	NA	NA	>140
pH	PH	Units	NA	NA	5.57
Reactive Cyanide	Reactive CN	mg/l	NA	NA	<2.0
Reactive Sulfide	Reactive S2	mg/l	NA	NA	<0.4
Reactivity	Reactivity	Pos/Neg	NA	NA	BDL

Legend

<1 Parameter not detected above the laboratory reporting limit

Notes:

mg/l = milligrams per liter
µg/l = micrograms per liter
ND = Not Detected
NA = Not Analyzed

ETPH = Extractable Total Petroleum Hydrocarbons
PCBs = Polychlorinated Biphenyls
SIM = Selective Ion Monitoring

APPENDIX A

LABORATORY ANALYTICAL REPORTS

PHOENIX
Environmental Laboratories, Inc.

Thursday, April 24, 2014

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

Project ID: CTD301821
Sample ID#s: BG34034 - BG34047

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.

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.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
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
VT Lab Registration #VT11301

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone (860) 645-1102 Fax (860) 645-0823

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	13:35
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34034

Project ID: CTD301821
Client ID: HS-2 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	04/18/14	EK	SW6010
Arsenic	2.2	0.7	mg/Kg	04/18/14	EK	SW6010
Barium	35.5	0.36	mg/Kg	04/18/14	EK	SW6010
Cadmium	0.63	0.36	mg/Kg	04/18/14	EK	SW6010
Chromium	14.0	0.36	mg/Kg	04/18/14	EK	SW6010
Mercury	< 0.07	0.07	mg/Kg	04/18/14	RS	SW-7471
Lead	73.0	0.36	mg/Kg	04/18/14	EK	SW6010
Selenium	< 1.4	1.4	mg/Kg	04/18/14	EK	SW6010
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010
TCLP Barium	0.29	0.10	mg/L	04/21/14	EK	SW6010
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470
TCLP Lead	0.40	0.10	mg/L	04/21/14	EK	SW6010
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005
Percent Solid	91		%	04/17/14	I	E160.3
Conductivity - Soil Matrix	1300	5	umhos/cm	04/21/14	TC	SM2510B
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846
Flash Point	>200	200	degree F	04/18/14	I	SW1010
Ignitability	Passed	140	degree F	04/18/14	I	SW1030
pH - Soil	8.55	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045
Reactivity Cyanide	< 5.1	5.1	mg/Kg	04/18/14	GD	SW 846-7.3
Reactivity Sulfide	< 20	20	mg/Kg	04/18/14	GD	SW846-7.3
Reactivity	Negative		Pos/Neg	04/18/14	GD	SW 846-7.3
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545

Project ID: CTD301821
Client ID: HS-2 (0-2 FT)

Phoenix I.D.: BG34034

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	SS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	ND	55	mg/Kg	04/19/14	JRB	CT ETPH/8015
Identification	ND		mg/Kg	04/19/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	109		%	04/19/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	360	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	116		%	04/18/14	AW	30 - 150 %
% TCMX	86		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-2 (0-2 FT)

Phoenix I.D.: BG34034

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
2-Hexanone	ND	24	ug/Kg	04/18/14	JLI	SW8260	
2-Isopropyltoluene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
4-Chlorotoluene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	24	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	29	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	2.9	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	29	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	9.8	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	9.8	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	9.8	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	

Project ID: CTD301821
Client ID: HS-2 (0-2 FT)

Phoenix I.D.: BG34034

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	98		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	85		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	91		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	88		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	370	ug/Kg	04/18/14	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrophenol	ND	580	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Methylnaphthalene	3900	260	ug/Kg	04/18/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Nitroaniline	ND	580	ug/Kg	04/18/14	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	04/18/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	04/18/14	DD	SW 8270
3-Nitroaniline	ND	580	ug/Kg	04/18/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	04/18/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	370	ug/Kg	04/18/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Nitroaniline	ND	580	ug/Kg	04/18/14	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Acetophenone	ND	260	ug/Kg	04/18/14	DD	SW 8270
Aniline	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Anthracene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Benzidine	ND	440	ug/Kg	04/18/14	DD	SW 8270
Benzo(a)pyrene	260	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(b)fluoranthene	480	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(ghi)perylene	270	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	04/18/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-2 (0-2 FT)

Phoenix I.D.: BG34034

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Bis(2-chloroethyl)ether	ND	370	ug/Kg	04/18/14	DD	SW 8270	
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Bis(2-ethylhexyl)phthalate	380	260	ug/Kg	04/18/14	DD	SW 8270	
Carbazole	ND	550	ug/Kg	04/18/14	DD	SW 8270	
Chrysene	380	260	ug/Kg	04/18/14	DD	SW 8270	
Dibenz(a,h)anthracene	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Dibenzofuran	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Diethyl phthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Dimethylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Di-n-butylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Di-n-octylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Fluoranthene	850	260	ug/Kg	04/18/14	DD	SW 8270	
Fluorene	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Hexachlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Hexachlorobutadiene	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Hexachlorocyclopentadiene	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Hexachloroethane	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Isophorone	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Naphthalene	590	260	ug/Kg	04/18/14	DD	SW 8270	
Nitrobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270	
N-Nitrosodimethylamine	ND	370	ug/Kg	04/18/14	DD	SW 8270	
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	04/18/14	DD	SW 8270	
N-Nitrosodiphenylamine	ND	370	ug/Kg	04/18/14	DD	SW 8270	
Pentachloronitrobenzene	ND	370	ug/Kg	04/18/14	DD	SW 8270	
Pentachlorophenol	ND	370	ug/Kg	04/18/14	DD	SW 8270	
Phenanthrene	600	260	ug/Kg	04/18/14	DD	SW 8270	
Phenol	ND	260	ug/Kg	04/18/14	DD	SW 8270	
Pyrene	800	260	ug/Kg	04/18/14	DD	SW 8270	
Pyridine	ND	370	ug/Kg	04/18/14	DD	SW 8270	
QA/QC Surrogates							
% 2,4,6-Tribromophenol	108		%	04/18/14	DD	30 - 130 %	
% 2-Fluorobiphenyl	101		%	04/18/14	DD	30 - 130 %	
% 2-Fluorophenol	95		%	04/18/14	DD	30 - 130 %	
% Nitrobenzene-d5	92		%	04/18/14	DD	30 - 130 %	
% Phenol-d5	92		%	04/18/14	DD	30 - 130 %	
% Terphenyl-d14	142		%	04/18/14	DD	30 - 130 %	3

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

3 = This parameter exceeds laboratory specified limits.
B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

Semi-Volatile Comment:
One of the surrogate recoveries was above the upper range due to sample matrix interference. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

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

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	13:30
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34035

Project ID: CTD301821
Client ID: HS-4 (0-2 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.33	0.33	mg/Kg	04/18/14	EK	SW6010
Arsenic	2.7	0.7	mg/Kg	04/18/14	EK	SW6010
Barium	33.8	0.33	mg/Kg	04/18/14	EK	SW6010
Cadmium	0.59	0.33	mg/Kg	04/18/14	EK	SW6010
Chromium	11.9	0.33	mg/Kg	04/18/14	EK	SW6010
Mercury	< 0.08	0.08	mg/Kg	04/18/14	RS	SW-7471
Lead	25.1	0.33	mg/Kg	04/18/14	EK	SW6010
Selenium	< 1.3	1.3	mg/Kg	04/18/14	EK	SW6010
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010
TCLP Barium	0.21	0.10	mg/L	04/21/14	EK	SW6010
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470
TCLP Lead	0.47	0.10	mg/L	04/21/14	EK	SW6010
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005
Percent Solid	92		%	04/17/14	I	E160.3
Conductivity - Soil Matrix	300	5	umhos/cm	04/21/14	TC	SM2510B
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846
Flash Point	>200	200	degree F	04/18/14	I	SW1010
Ignitability	Passed	140	degree F	04/18/14	I	SW1030
pH - Soil	8.90	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045
Reactivity Cyanide	< 5.3	5.3	mg/Kg	04/18/14	GD	SW 846-7.3
Reactivity Sulfide	< 20	20	mg/Kg	04/18/14	GD	SW846-7.3
Reactivity	Negative		Pos/Neg	04/18/14	GD	SW 846-7.3
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545

Project ID: CTD301821
Client ID: HS-4 (0-2 FT)

Phoenix I.D.: BG34035

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	BS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	ND	53	mg/Kg	04/21/14	JRB	CT ETPH/8015
Identification	ND		mg/Kg	04/21/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	82		%	04/21/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	350	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	350	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	350	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	350	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	350	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	350	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	350	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	350	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	350	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	51		%	04/18/14	AW	30 - 150 %
% TCMX	39		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-4 (0-2 FT)

Phoenix I.D.: BG34035

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
2-Hexanone	ND	23	ug/Kg	04/18/14	JLI	SW8260	
2-Isopropyltoluene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
4-Chlorotoluene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	23	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	27	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	2.7	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	27	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	9.0	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	9.0	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	9.0	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	4.5	ug/Kg	04/18/14	JLI	SW8260	

Project ID: CTD301821
Client ID: HS-4 (0-2 FT)

Phoenix I.D.: BG34035

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	97		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	93		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	94		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	91		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
1,2-Dichlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	350	ug/Kg	04/18/14	DD	SW 8270
1,3-Dichlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
1,4-Dichlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4-Dichlorophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4-Dimethylphenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrophenol	ND	570	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrotoluene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,6-Dinitrotoluene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Chloronaphthalene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Chlorophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Methylnaphthalene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Nitroaniline	ND	570	ug/Kg	04/18/14	DD	SW 8270
2-Nitrophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	350	ug/Kg	04/18/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	250	ug/Kg	04/18/14	DD	SW 8270
3-Nitroaniline	ND	570	ug/Kg	04/18/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	04/18/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	350	ug/Kg	04/18/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
4-Chloroaniline	ND	250	ug/Kg	04/18/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	04/18/14	DD	SW 8270
4-Nitroaniline	ND	570	ug/Kg	04/18/14	DD	SW 8270
4-Nitrophenol	ND	1000	ug/Kg	04/18/14	DD	SW 8270
Acenaphthene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Acetophenone	ND	250	ug/Kg	04/18/14	DD	SW 8270
Aniline	ND	1000	ug/Kg	04/18/14	DD	SW 8270
Anthracene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Benz(a)anthracene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Benzidine	ND	430	ug/Kg	04/18/14	DD	SW 8270
Benzo(a)pyrene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Benzo(b)fluoranthene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Benzo(ghi)perylene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Benzoic acid	ND	1000	ug/Kg	04/18/14	DD	SW 8270
Benzyl butyl phthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	04/18/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-4 (0-2 FT)

Phoenix I.D.: BG34035

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	350	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	04/18/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Carbazole	ND	530	ug/Kg	04/18/14	DD	SW 8270
Chrysene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Dibenzofuran	ND	250	ug/Kg	04/18/14	DD	SW 8270
Diethyl phthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Dimethylphthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Di-n-butylphthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Di-n-octylphthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Fluoranthene	400	250	ug/Kg	04/18/14	DD	SW 8270
Fluorene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobutadiene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Hexachloroethane	ND	250	ug/Kg	04/18/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Isophorone	ND	250	ug/Kg	04/18/14	DD	SW 8270
Naphthalene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Nitrobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodimethylamine	ND	350	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	350	ug/Kg	04/18/14	DD	SW 8270
Pentachloronitrobenzene	ND	350	ug/Kg	04/18/14	DD	SW 8270
Pentachlorophenol	ND	350	ug/Kg	04/18/14	DD	SW 8270
Phenanthrene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Phenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
Pyrene	300	250	ug/Kg	04/18/14	DD	SW 8270
Pyridine	ND	350	ug/Kg	04/18/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	111		%	04/18/14	DD	30 - 130 %
% 2-Fluorobiphenyl	86		%	04/18/14	DD	30 - 130 %
% 2-Fluorophenol	83		%	04/18/14	DD	30 - 130 %
% Nitrobenzene-d5	88		%	04/18/14	DD	30 - 130 %
% Phenol-d5	87		%	04/18/14	DD	30 - 130 %
% Terphenyl-d14	106		%	04/18/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

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

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	13:00
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34036

Project ID: CTD301821
Client ID: HS-5 (0-3 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Silver	< 0.35	0.35	mg/Kg	04/18/14	EK	SW6010	
Arsenic	1.8	0.7	mg/Kg	04/18/14	EK	SW6010	
Barium	36.5	0.35	mg/Kg	04/18/14	EK	SW6010	
Cadmium	0.63	0.35	mg/Kg	04/18/14	EK	SW6010	
Chromium	20.4	0.35	mg/Kg	04/18/14	EK	SW6010	
Mercury	< 0.07	0.07	mg/Kg	04/18/14	RS	SW-7471	
Lead	125	0.35	mg/Kg	04/18/14	EK	SW6010	
Selenium	< 1.4	1.4	mg/Kg	04/18/14	EK	SW6010	
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Barium	0.28	0.10	mg/L	04/21/14	EK	SW6010	B
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010	
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470	
TCLP Lead	0.15	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005	
Percent Solid	90		%	04/17/14	I	E160.3	
Conductivity - Soil Matrix	220	5	umhos/cm	04/21/14	TC	SM2510B	
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846	
Flash Point	>200	200	degree F	04/18/14	I	SW1010	
Ignitability	Passed	140	degree F	04/18/14	I	SW1030	
pH - Soil	9.46	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045	
Reactivity Cyanide	< 5.3	5.3	mg/Kg	04/18/14	GD	SW 846-7.3	
Reactivity Sulfide	< 20	20	mg/Kg	04/18/14	GD	SW846-7.3	
Reactivity	Negative		Pos/Neg	04/18/14	GD	SW 846-7.3	
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545	
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545	

Project ID: CTD301821
Client ID: HS-5 (0-3 FT)

Phoenix I.D.: BG34036

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	BS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	150	55	mg/Kg	04/18/14	JRB	CT ETPH/8015
Identification	**		mg/Kg	04/18/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	93		%	04/18/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	370	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	112		%	04/18/14	AW	30 - 150 %
% TCMX	88		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-5 (0-3 FT)

Phoenix I.D.: BG34036

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
2-Hexanone	ND	24	ug/Kg	04/18/14	JLI	SW8260	
2-Isopropyltoluene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
4-Chlorotoluene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	24	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	29	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	2.9	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	29	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	9.7	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	9.7	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	9.7	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	4.8	ug/Kg	04/18/14	JLI	SW8260	

Project ID: CTD301821
Client ID: HS-5 (0-3 FT)

Phoenix I.D.: BG34036

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	96		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	84		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	94		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	90		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	370	ug/Kg	04/18/14	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrophenol	ND	590	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Methylnaphthalene	320	260	ug/Kg	04/18/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Nitroaniline	ND	590	ug/Kg	04/18/14	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	04/18/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	04/18/14	DD	SW 8270
3-Nitroaniline	ND	590	ug/Kg	04/18/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	04/18/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	370	ug/Kg	04/18/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Nitroaniline	ND	590	ug/Kg	04/18/14	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Acenaphthylene	360	260	ug/Kg	04/18/14	DD	SW 8270
Acetophenone	ND	260	ug/Kg	04/18/14	DD	SW 8270
Aniline	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Anthracene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Benz(a)anthracene	1000	260	ug/Kg	04/18/14	DD	SW 8270
Benzidine	ND	440	ug/Kg	04/18/14	DD	SW 8270
Benzo(a)pyrene	970	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(b)fluoranthene	1600	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(ghi)perylene	650	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(k)fluoranthene	570	260	ug/Kg	04/18/14	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	04/18/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-5 (0-3 FT)

Phoenix I.D.: BG34036

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	370	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	04/18/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	500	260	ug/Kg	04/18/14	DD	SW 8270
Carbazole	ND	550	ug/Kg	04/18/14	DD	SW 8270
Chrysene	1300	260	ug/Kg	04/18/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	04/18/14	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Fluoranthene	2700	260	ug/Kg	04/18/14	DD	SW 8270
Fluorene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	04/18/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	620	260	ug/Kg	04/18/14	DD	SW 8270
Isophorone	ND	260	ug/Kg	04/18/14	DD	SW 8270
Naphthalene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodimethylamine	ND	370	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	370	ug/Kg	04/18/14	DD	SW 8270
Pentachloronitrobenzene	ND	370	ug/Kg	04/18/14	DD	SW 8270
Pentachlorophenol	ND	370	ug/Kg	04/18/14	DD	SW 8270
Phenanthrene	1100	260	ug/Kg	04/18/14	DD	SW 8270
Phenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
Pyrene	2100	260	ug/Kg	04/18/14	DD	SW 8270
Pyridine	ND	370	ug/Kg	04/18/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	116		%	04/18/14	DD	30 - 130 %
% 2-Fluorobiphenyl	90		%	04/18/14	DD	30 - 130 %
% 2-Fluorophenol	85		%	04/18/14	DD	30 - 130 %
% Nitrobenzene-d5	92		%	04/18/14	DD	30 - 130 %
% Phenol-d5	89		%	04/18/14	DD	30 - 130 %
% Terphenyl-d14	98		%	04/18/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 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 there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	12:40
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34037

Project ID: CTD301821
Client ID: HS-6 (0-3 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Silver	< 0.33	0.33	mg/Kg	04/18/14	EK	SW6010	
Arsenic	2.2	0.7	mg/Kg	04/18/14	EK	SW6010	
Barium	43.8	0.33	mg/Kg	04/18/14	EK	SW6010	
Cadmium	0.38	0.33	mg/Kg	04/18/14	EK	SW6010	
Chromium	19.8	0.33	mg/Kg	04/18/14	EK	SW6010	
Mercury	0.16	0.08	mg/Kg	04/18/14	RS	SW-7471	
Lead	62.7	0.33	mg/Kg	04/18/14	EK	SW6010	
Selenium	< 1.3	1.3	mg/Kg	04/18/14	EK	SW6010	
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Barium	0.20	0.10	mg/L	04/21/14	EK	SW6010	B*
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010	
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470	
TCLP Lead	0.18	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005	
Percent Solid	91		%	04/17/14	I	E160.3	
Conductivity - Soil Matrix	59	5	umhos/cm	04/21/14	TC	SM2510B	
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846	
Flash Point	>200	200	degree F	04/18/14	I	SW1010	
Ignitability	Passed	140	degree F	04/18/14	I	SW1030	
pH - Soil	9.42	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045	
Reactivity Cyanide	< 5.4	5.4	mg/Kg	04/21/14	GD	SW 846-7.3	
Reactivity Sulfide	< 20	20	mg/Kg	04/21/14	GD	SW846-7.3	
Reactivity	Negative		Pos/Neg	04/21/14	GD	SW 846-7.3	
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545	
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545	

Project ID: CTD301821
Client ID: HS-6 (0-3 FT)

Phoenix I.D.: BG34037

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/22/14	X/X	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	ND	54	mg/Kg	04/22/14	JRB	CT ETPH/8015
Identification	ND		mg/Kg	04/22/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	80		%	04/22/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	360	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	107		%	04/18/14	AW	30 - 150 %
% TCMX	78		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-6 (0-3 FT)

Phoenix I.D.: BG34037

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
2-Hexanone	ND	26	ug/Kg	04/18/14	JLI	SW8260	
2-Isopropyltoluene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
4-Chlorotoluene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	26	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	31	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	3.1	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	31	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	10	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	5.1	ug/Kg	04/18/14	JLI	SW8260	

Project ID: CTD301821
Client ID: HS-6 (0-3 FT)

Phoenix I.D.: BG34037

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	95		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	84		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	92		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	90		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
1,2-Dichlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	360	ug/Kg	04/18/14	DD	SW 8270
1,3-Dichlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
1,4-Dichlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4-Dichlorophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4-Dimethylphenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrophenol	ND	570	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrotoluene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2,6-Dinitrotoluene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Chloronaphthalene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Chlorophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Methylnaphthalene	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	250	ug/Kg	04/18/14	DD	SW 8270
2-Nitroaniline	ND	570	ug/Kg	04/18/14	DD	SW 8270
2-Nitrophenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	360	ug/Kg	04/18/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	250	ug/Kg	04/18/14	DD	SW 8270
3-Nitroaniline	ND	570	ug/Kg	04/18/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1000	ug/Kg	04/18/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	360	ug/Kg	04/18/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
4-Chloroaniline	ND	250	ug/Kg	04/18/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	250	ug/Kg	04/18/14	DD	SW 8270
4-Nitroaniline	ND	570	ug/Kg	04/18/14	DD	SW 8270
4-Nitrophenol	ND	1000	ug/Kg	04/18/14	DD	SW 8270
Acenaphthene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Acetophenone	ND	250	ug/Kg	04/18/14	DD	SW 8270
Aniline	ND	1000	ug/Kg	04/18/14	DD	SW 8270
Anthracene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Benz(a)anthracene	420	250	ug/Kg	04/18/14	DD	SW 8270
Benzidine	ND	430	ug/Kg	04/18/14	DD	SW 8270
Benzo(a)pyrene	380	250	ug/Kg	04/18/14	DD	SW 8270
Benzo(b)fluoranthene	610	250	ug/Kg	04/18/14	DD	SW 8270
Benzo(ghi)perylene	250	250	ug/Kg	04/18/14	DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Benzoic acid	ND	1000	ug/Kg	04/18/14	DD	SW 8270
Benzyl butyl phthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	250	ug/Kg	04/18/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-6 (0-3 FT)

Phoenix I.D.: BG34037

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	360	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	250	ug/Kg	04/18/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Carbazole	ND	540	ug/Kg	04/18/14	DD	SW 8270
Chrysene	490	250	ug/Kg	04/18/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Dibenzofuran	ND	250	ug/Kg	04/18/14	DD	SW 8270
Diethyl phthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Dimethylphthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Di-n-butylphthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Di-n-octylphthalate	ND	250	ug/Kg	04/18/14	DD	SW 8270
Fluoranthene	910	250	ug/Kg	04/18/14	DD	SW 8270
Fluorene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobutadiene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Hexachloroethane	ND	250	ug/Kg	04/18/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Isophorone	ND	250	ug/Kg	04/18/14	DD	SW 8270
Naphthalene	ND	250	ug/Kg	04/18/14	DD	SW 8270
Nitrobenzene	ND	250	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodimethylamine	ND	360	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	250	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	360	ug/Kg	04/18/14	DD	SW 8270
Pentachloronitrobenzene	ND	360	ug/Kg	04/18/14	DD	SW 8270
Pentachlorophenol	ND	360	ug/Kg	04/18/14	DD	SW 8270
Phenanthrene	310	250	ug/Kg	04/18/14	DD	SW 8270
Phenol	ND	250	ug/Kg	04/18/14	DD	SW 8270
Pyrene	700	250	ug/Kg	04/18/14	DD	SW 8270
Pyridine	ND	360	ug/Kg	04/18/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	107		%	04/18/14	DD	30 - 130 %
% 2-Fluorobiphenyl	83		%	04/18/14	DD	30 - 130 %
% 2-Fluorophenol	78		%	04/18/14	DD	30 - 130 %
% Nitrobenzene-d5	86		%	04/18/14	DD	30 - 130 %
% Phenol-d5	83		%	04/18/14	DD	30 - 130 %
% Terphenyl-d14	91		%	04/18/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B* = Present in blank, a bias is possible.
B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

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

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	11:45
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34038

Project ID: CTD301821
Client ID: HS-7 (0-3 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Silver	< 0.36	0.36	mg/Kg	04/18/14	EK	SW6010	
Arsenic	1.3	0.7	mg/Kg	04/18/14	EK	SW6010	
Barium	88.8	0.36	mg/Kg	04/18/14	EK	SW6010	
Cadmium	3.47	0.36	mg/Kg	04/18/14	EK	SW6010	
Chromium	43.6	0.36	mg/Kg	04/18/14	EK	SW6010	
Mercury	0.15	0.08	mg/Kg	04/18/14	RS	SW-7471	
Lead	485	3.6	mg/Kg	04/18/14	LK	SW6010	
Selenium	< 1.4	1.4	mg/Kg	04/18/14	EK	SW6010	
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Barium	0.32	0.10	mg/L	04/21/14	EK	SW6010	B
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010	
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470	
TCLP Lead	0.27	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005	
Percent Solid	89		%	04/17/14	I	E160.3	
Conductivity - Soil Matrix	140	5	umhos/cm	04/21/14	TC	SM2510B	
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846	
Flash Point	>200	200	degree F	04/18/14	I	SW1010	
Ignitability	Passed	140	degree F	04/18/14	I	SW1030	
pH - Soil	9.21	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045	
Reactivity Cyanide	< 5.3	5.3	mg/Kg	04/21/14	GD	SW 846-7.3	
Reactivity Sulfide	< 20	20	mg/Kg	04/21/14	GD	SW846-7.3	
Reactivity	Negative		Pos/Neg	04/21/14	GD	SW 846-7.3	
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545	
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545	

Project ID: CTD301821
Client ID: HS-7 (0-3 FT)

Phoenix I.D.: BG34038

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	BS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	150	55	mg/Kg	04/18/14	JRB	CT ETPH/8015
Identification	**		mg/Kg	04/18/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	102		%	04/18/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	370	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	108		%	04/18/14	AW	30 - 150 %
% TCMX	89		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-7 (0-3 FT)

Phoenix I.D.: BG34038

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
2-Hexanone	ND	26	ug/Kg	04/18/14	JLI	SW8260
2-Isopropyltoluene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
4-Chlorotoluene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	04/18/14	JLI	SW8260
Acetone	ND	32	ug/Kg	04/18/14	JLI	SW8260
Acrylonitrile	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Benzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Bromobenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Bromochloromethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Bromodichloromethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Bromoform	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Bromomethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Carbon Disulfide	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Carbon tetrachloride	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Chlorobenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Chloroethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Chloroform	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Chloromethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
cis-1,2-Dichloroethene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
cis-1,3-Dichloropropene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Dibromochloromethane	ND	3.2	ug/Kg	04/18/14	JLI	SW8260
Dibromomethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Dichlorodifluoromethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Ethylbenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Hexachlorobutadiene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Isopropylbenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
m&p-Xylene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Methyl Ethyl Ketone	ND	32	ug/Kg	04/18/14	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	04/18/14	JLI	SW8260
Methylene chloride	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Naphthalene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
n-Butylbenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
n-Propylbenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
o-Xylene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
p-Isopropyltoluene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
sec-Butylbenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Styrene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
tert-Butylbenzene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Tetrachloroethene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	04/18/14	JLI	SW8260
Toluene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Total Xylenes	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
trans-1,2-Dichloroethene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
trans-1,3-Dichloropropene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	04/18/14	JLI	SW8260
Trichloroethene	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Trichlorofluoromethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Trichlorotrifluoroethane	ND	5.3	ug/Kg	04/18/14	JLI	SW8260
Vinyl chloride	ND	5.3	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-7 (0-3 FT)

Phoenix I.D.: BG34038

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	104		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	83		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	96		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	100		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	370	ug/Kg	04/18/14	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrophenol	ND	590	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Methylnaphthalene	3500	260	ug/Kg	04/18/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Nitroaniline	ND	590	ug/Kg	04/18/14	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	04/18/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	04/18/14	DD	SW 8270
3-Nitroaniline	ND	590	ug/Kg	04/18/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	04/18/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	370	ug/Kg	04/18/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Nitroaniline	ND	590	ug/Kg	04/18/14	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Acenaphthylene	260	260	ug/Kg	04/18/14	DD	SW 8270
Acetophenone	ND	260	ug/Kg	04/18/14	DD	SW 8270
Aniline	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Anthracene	340	260	ug/Kg	04/18/14	DD	SW 8270
Benz(a)anthracene	1200	260	ug/Kg	04/18/14	DD	SW 8270
Benzidine	ND	440	ug/Kg	04/18/14	DD	SW 8270
Benzo(a)pyrene	1300	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(b)fluoranthene	2200	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(ghi)perylene	660	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(k)fluoranthene	620	260	ug/Kg	04/18/14	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	04/18/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-7 (0-3 FT)

Phoenix I.D.: BG34038

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	370	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	04/18/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	2000	260	ug/Kg	04/18/14	DD	SW 8270
Carbazole	ND	550	ug/Kg	04/18/14	DD	SW 8270
Chrysene	1600	260	ug/Kg	04/18/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	04/18/14	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Fluoranthene	3200	260	ug/Kg	04/18/14	DD	SW 8270
Fluorene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	04/18/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	650	260	ug/Kg	04/18/14	DD	SW 8270
Isophorone	ND	260	ug/Kg	04/18/14	DD	SW 8270
Naphthalene	620	260	ug/Kg	04/18/14	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodimethylamine	ND	370	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	370	ug/Kg	04/18/14	DD	SW 8270
Pentachloronitrobenzene	ND	370	ug/Kg	04/18/14	DD	SW 8270
Pentachlorophenol	ND	370	ug/Kg	04/18/14	DD	SW 8270
Phenanthrene	1300	260	ug/Kg	04/18/14	DD	SW 8270
Phenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
Pyrene	2600	260	ug/Kg	04/18/14	DD	SW 8270
Pyridine	ND	370	ug/Kg	04/18/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	106		%	04/18/14	DD	30 - 130 %
% 2-Fluorobiphenyl	79		%	04/18/14	DD	30 - 130 %
% 2-Fluorophenol	77		%	04/18/14	DD	30 - 130 %
% Nitrobenzene-d5	85		%	04/18/14	DD	30 - 130 %
% Phenol-d5	82		%	04/18/14	DD	30 - 130 %
% Terphenyl-d14	90		%	04/18/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 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 there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	11:40
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34039

Project ID: CTD301821
Client ID: HS-8 (0-3 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Silver	< 0.36	0.36	mg/Kg	04/18/14	EK	SW6010	
Arsenic	1.8	0.7	mg/Kg	04/18/14	EK	SW6010	
Barium	45.6	0.36	mg/Kg	04/18/14	EK	SW6010	
Cadmium	0.65	0.36	mg/Kg	04/18/14	EK	SW6010	
Chromium	23.4	0.36	mg/Kg	04/18/14	EK	SW6010	
Mercury	< 0.07	0.07	mg/Kg	04/18/14	RS	SW-7471	
Lead	240	3.6	mg/Kg	04/18/14	LK	SW6010	
Selenium	< 1.5	1.5	mg/Kg	04/18/14	EK	SW6010	
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Barium	0.31	0.10	mg/L	04/21/14	EK	SW6010	B
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010	
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470	
TCLP Lead	0.31	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005	
Percent Solid	89		%	04/17/14	I	E160.3	
Conductivity - Soil Matrix	23	5	umhos/cm	04/21/14	TC	SM2510B	
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846	
Flash Point	>200	200	degree F	04/21/14	Y	SW1010	
Ignitability	Passed	140	degree F	04/21/14	Y	SW1030	
pH - Soil	8.66	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045	
Reactivity Cyanide	< 5.2	5.2	mg/Kg	04/21/14	GD	SW 846-7.3	
Reactivity Sulfide	< 20	20	mg/Kg	04/21/14	GD	SW846-7.3	
Reactivity	Negative		Pos/Neg	04/21/14	GD	SW 846-7.3	
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545	
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545	

Project ID: CTD301821
Client ID: HS-8 (0-3 FT)

Phoenix I.D.: BG34039

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	BS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	210	56	mg/Kg	04/18/14	JRB	CT ETPH/8015
Identification	**		mg/Kg	04/18/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	90		%	04/18/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	360	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	360	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	95		%	04/18/14	AW	30 - 150 %
% TCMX	96		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	4.7	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-8 (0-3 FT)

Phoenix I.D.: BG34039

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
2-Hexanone	ND	39	ug/Kg	04/18/14	JLI	SW8260	
2-Isopropyltoluene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
4-Chlorotoluene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	39	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	47	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	4.7	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	47	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	16	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	16	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	16	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	7.9	ug/Kg	04/18/14	JLI	SW8260	

Project ID: CTD301821
Client ID: HS-8 (0-3 FT)

Phoenix I.D.: BG34039

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	99		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	87		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	92		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	90		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	370	ug/Kg	04/18/14	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrophenol	ND	590	ug/Kg	04/18/14	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Methylnaphthalene	700	260	ug/Kg	04/18/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	04/18/14	DD	SW 8270
2-Nitroaniline	ND	590	ug/Kg	04/18/14	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	370	ug/Kg	04/18/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	04/18/14	DD	SW 8270
3-Nitroaniline	ND	590	ug/Kg	04/18/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	04/18/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	370	ug/Kg	04/18/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	04/18/14	DD	SW 8270
4-Nitroaniline	ND	590	ug/Kg	04/18/14	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Acetophenone	ND	260	ug/Kg	04/18/14	DD	SW 8270
Aniline	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Anthracene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Benz(a)anthracene	670	260	ug/Kg	04/18/14	DD	SW 8270
Benzidine	ND	450	ug/Kg	04/18/14	DD	SW 8270
Benzo(a)pyrene	670	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(b)fluoranthene	1200	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(ghi)perylene	330	260	ug/Kg	04/18/14	DD	SW 8270
Benzo(k)fluoranthene	380	260	ug/Kg	04/18/14	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	04/18/14	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	04/18/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-8 (0-3 FT)

Phoenix I.D.: BG34039

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	370	ug/Kg	04/18/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	04/18/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	390	260	ug/Kg	04/18/14	DD	SW 8270
Carbazole	ND	560	ug/Kg	04/18/14	DD	SW 8270
Chrysene	960	260	ug/Kg	04/18/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	04/18/14	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	04/18/14	DD	SW 8270
Fluoranthene	2000	260	ug/Kg	04/18/14	DD	SW 8270
Fluorene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	04/18/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	330	260	ug/Kg	04/18/14	DD	SW 8270
Isophorone	ND	260	ug/Kg	04/18/14	DD	SW 8270
Naphthalene	ND	260	ug/Kg	04/18/14	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodimethylamine	ND	370	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	04/18/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	370	ug/Kg	04/18/14	DD	SW 8270
Pentachloronitrobenzene	ND	370	ug/Kg	04/18/14	DD	SW 8270
Pentachlorophenol	ND	370	ug/Kg	04/18/14	DD	SW 8270
Phenanthrene	780	260	ug/Kg	04/18/14	DD	SW 8270
Phenol	ND	260	ug/Kg	04/18/14	DD	SW 8270
Pyrene	1500	260	ug/Kg	04/18/14	DD	SW 8270
Pyridine	ND	370	ug/Kg	04/18/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	107		%	04/18/14	DD	30 - 130 %
% 2-Fluorobiphenyl	81		%	04/18/14	DD	30 - 130 %
% 2-Fluorophenol	76		%	04/18/14	DD	30 - 130 %
% Nitrobenzene-d5	82		%	04/18/14	DD	30 - 130 %
% Phenol-d5	82		%	04/18/14	DD	30 - 130 %
% Terphenyl-d14	87		%	04/18/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 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 there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	11:20
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34040

Project ID: CTD301821
Client ID: HS-9 (0-3 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Silver	< 0.35	0.35	mg/Kg	04/18/14	EK	SW6010	
Arsenic	2.3	0.7	mg/Kg	04/18/14	EK	SW6010	
Barium	50.9	0.35	mg/Kg	04/18/14	EK	SW6010	
Cadmium	0.98	0.35	mg/Kg	04/18/14	EK	SW6010	
Chromium	23.8	0.35	mg/Kg	04/18/14	EK	SW6010	
Mercury	< 0.07	0.07	mg/Kg	04/18/14	RS	SW-7471	
Lead	266	3.5	mg/Kg	04/18/14	LK	SW6010	
Selenium	< 1.4	1.4	mg/Kg	04/18/14	EK	SW6010	
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Barium	0.29	0.10	mg/L	04/21/14	EK	SW6010	B
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010	
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470	
TCLP Lead	0.45	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005	
Percent Solid	85		%	04/17/14	I	E160.3	
Conductivity - Soil Matrix	44	5	umhos/cm	04/21/14	TC	SM2510B	
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846	
Flash Point	>200	200	degree F	04/21/14	Y	SW1010	
Ignitability	Passed	140	degree F	04/21/14	Y	SW1030	
pH - Soil	8.43	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045	
Reactivity Cyanide	< 5.8	5.8	mg/Kg	04/21/14	GD	SW 846-7.3	
Reactivity Sulfide	< 20	20	mg/Kg	04/21/14	GD	SW846-7.3	
Reactivity	Negative		Pos/Neg	04/21/14	GD	SW 846-7.3	
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545	
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545	

Project ID: CTD301821
Client ID: HS-9 (0-3 FT)

Phoenix I.D.: BG34040

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	BS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	230	58	mg/Kg	04/18/14	JRB	CT ETPH/8015
Identification	**		mg/Kg	04/18/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	97		%	04/18/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	390	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	96		%	04/18/14	AW	30 - 150 %
% TCMX	96		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-9 (0-3 FT)

Phoenix I.D.: BG34040

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
2-Hexanone	ND	41	ug/Kg	04/18/14	JLI	SW8260	
2-Isopropyltoluene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
4-Chlorotoluene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	41	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	49	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	4.9	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	49	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	16	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	16	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	16	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	8.1	ug/Kg	04/18/14	JLI	SW8260	

Project ID: CTD301821
Client ID: HS-9 (0-3 FT)

Phoenix I.D.: BG34040

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	97		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	80		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	97		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	89		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	270	ug/Kg	04/19/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	270	ug/Kg	04/19/14	DD	SW 8270
1,2-Dichlorobenzene	ND	270	ug/Kg	04/19/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	390	ug/Kg	04/19/14	DD	SW 8270
1,3-Dichlorobenzene	ND	270	ug/Kg	04/19/14	DD	SW 8270
1,4-Dichlorobenzene	ND	270	ug/Kg	04/19/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	270	ug/Kg	04/19/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	270	ug/Kg	04/19/14	DD	SW 8270
2,4-Dichlorophenol	ND	270	ug/Kg	04/19/14	DD	SW 8270
2,4-Dimethylphenol	ND	270	ug/Kg	04/19/14	DD	SW 8270
2,4-Dinitrophenol	ND	620	ug/Kg	04/19/14	DD	SW 8270
2,4-Dinitrotoluene	ND	270	ug/Kg	04/19/14	DD	SW 8270
2,6-Dinitrotoluene	ND	270	ug/Kg	04/19/14	DD	SW 8270
2-Chloronaphthalene	ND	270	ug/Kg	04/19/14	DD	SW 8270
2-Chlorophenol	ND	270	ug/Kg	04/19/14	DD	SW 8270
2-Methylnaphthalene	ND	270	ug/Kg	04/19/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	270	ug/Kg	04/19/14	DD	SW 8270
2-Nitroaniline	ND	620	ug/Kg	04/19/14	DD	SW 8270
2-Nitrophenol	ND	270	ug/Kg	04/19/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	390	ug/Kg	04/19/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	270	ug/Kg	04/19/14	DD	SW 8270
3-Nitroaniline	ND	620	ug/Kg	04/19/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	04/19/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	390	ug/Kg	04/19/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	270	ug/Kg	04/19/14	DD	SW 8270
4-Chloroaniline	ND	270	ug/Kg	04/19/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	270	ug/Kg	04/19/14	DD	SW 8270
4-Nitroaniline	ND	620	ug/Kg	04/19/14	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	04/19/14	DD	SW 8270
Acenaphthene	ND	270	ug/Kg	04/19/14	DD	SW 8270
Acenaphthylene	460	270	ug/Kg	04/19/14	DD	SW 8270
Acetophenone	ND	270	ug/Kg	04/19/14	DD	SW 8270
Aniline	ND	1100	ug/Kg	04/19/14	DD	SW 8270
Anthracene	420	270	ug/Kg	04/19/14	DD	SW 8270
Benz(a)anthracene	1600	270	ug/Kg	04/19/14	DD	SW 8270
Benzidine	ND	460	ug/Kg	04/19/14	DD	SW 8270
Benzo(a)pyrene	1500	270	ug/Kg	04/19/14	DD	SW 8270
Benzo(b)fluoranthene	2700	270	ug/Kg	04/19/14	DD	SW 8270
Benzo(ghi)perylene	710	270	ug/Kg	04/19/14	DD	SW 8270
Benzo(k)fluoranthene	960	270	ug/Kg	04/19/14	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	04/19/14	DD	SW 8270
Benzyl butyl phthalate	ND	270	ug/Kg	04/19/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	270	ug/Kg	04/19/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-9 (0-3 FT)

Phoenix I.D.: BG34040

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	390	ug/Kg	04/19/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	270	ug/Kg	04/19/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	22000	270	ug/Kg	04/19/14	DD	SW 8270
Carbazole	ND	580	ug/Kg	04/19/14	DD	SW 8270
Chrysene	2100	270	ug/Kg	04/19/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	270	ug/Kg	04/19/14	DD	SW 8270
Dibenzofuran	ND	270	ug/Kg	04/19/14	DD	SW 8270
Diethyl phthalate	ND	270	ug/Kg	04/19/14	DD	SW 8270
Dimethylphthalate	ND	270	ug/Kg	04/19/14	DD	SW 8270
Di-n-butylphthalate	ND	270	ug/Kg	04/19/14	DD	SW 8270
Di-n-octylphthalate	ND	270	ug/Kg	04/19/14	DD	SW 8270
Fluoranthene	7900	270	ug/Kg	04/19/14	DD	SW 8270
Fluorene	ND	270	ug/Kg	04/19/14	DD	SW 8270
Hexachlorobenzene	ND	270	ug/Kg	04/19/14	DD	SW 8270
Hexachlorobutadiene	ND	270	ug/Kg	04/19/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	270	ug/Kg	04/19/14	DD	SW 8270
Hexachloroethane	ND	270	ug/Kg	04/19/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	700	270	ug/Kg	04/19/14	DD	SW 8270
Isophorone	ND	270	ug/Kg	04/19/14	DD	SW 8270
Naphthalene	ND	270	ug/Kg	04/19/14	DD	SW 8270
Nitrobenzene	ND	270	ug/Kg	04/19/14	DD	SW 8270
N-Nitrosodimethylamine	ND	390	ug/Kg	04/19/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	270	ug/Kg	04/19/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	390	ug/Kg	04/19/14	DD	SW 8270
Pentachloronitrobenzene	ND	390	ug/Kg	04/19/14	DD	SW 8270
Pentachlorophenol	ND	390	ug/Kg	04/19/14	DD	SW 8270
Phenanthrene	2100	270	ug/Kg	04/19/14	DD	SW 8270
Phenol	ND	270	ug/Kg	04/19/14	DD	SW 8270
Pyrene	4400	270	ug/Kg	04/19/14	DD	SW 8270
Pyridine	ND	390	ug/Kg	04/19/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	110		%	04/19/14	DD	30 - 130 %
% 2-Fluorobiphenyl	84		%	04/19/14	DD	30 - 130 %
% 2-Fluorophenol	78		%	04/19/14	DD	30 - 130 %
% Nitrobenzene-d5	89		%	04/19/14	DD	30 - 130 %
% Phenol-d5	86		%	04/19/14	DD	30 - 130 %
% Terphenyl-d14	107		%	04/19/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 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 there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	11:00
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34041

Project ID: CTD301821
Client ID: HS-10 (0-3 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Silver	< 0.36	0.36	mg/Kg	04/18/14	EK	SW6010	
Arsenic	3.1	0.7	mg/Kg	04/18/14	EK	SW6010	
Barium	35.3	0.36	mg/Kg	04/18/14	EK	SW6010	
Cadmium	0.72	0.36	mg/Kg	04/18/14	EK	SW6010	
Chromium	14.3	0.36	mg/Kg	04/18/14	EK	SW6010	
Mercury	< 0.06	0.06	mg/Kg	04/18/14	RS	SW-7471	
Lead	77.8	0.36	mg/Kg	04/18/14	EK	SW6010	
Selenium	< 1.4	1.4	mg/Kg	04/18/14	EK	SW6010	
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Barium	0.40	0.10	mg/L	04/21/14	EK	SW6010	B
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010	
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470	
TCLP Lead	0.34	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005	
Percent Solid	88		%	04/17/14	I	E160.3	
Conductivity - Soil Matrix	150	5	umhos/cm	04/21/14	TC	SM2510B	
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846	
Flash Point	>200	200	degree F	04/21/14	Y	SW1010	
Ignitability	Passed	140	degree F	04/21/14	Y	SW1030	
pH - Soil	9.07	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045	
Reactivity Cyanide	< 5.5	5.5	mg/Kg	04/21/14	GD	SW 846-7.3	
Reactivity Sulfide	< 20	20	mg/Kg	04/21/14	GD	SW846-7.3	
Reactivity	Negative		Pos/Neg	04/21/14	GD	SW 846-7.3	
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545	
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545	

Project ID: CTD301821
Client ID: HS-10 (0-3 FT)

Phoenix I.D.: BG34041

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	JS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	360	280	mg/Kg	04/18/14	JRB	CT ETPH/8015
Identification	**		mg/Kg	04/18/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	96		%	04/18/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	370	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	100		%	04/18/14	AW	30 - 150 %
% TCMX	96		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.5	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-10 (0-3 FT)

Phoenix I.D.: BG34041

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
2-Hexanone	ND	30	ug/Kg	04/18/14	JLI	SW8260	
2-Isopropyltoluene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
4-Chlorotoluene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	30	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	35	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	3.5	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	35	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	12	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	5.9	ug/Kg	04/18/14	JLI	SW8260	

Project ID: CTD301821
Client ID: HS-10 (0-3 FT)

Phoenix I.D.: BG34041

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	100		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	94		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	91		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	91		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	380	ug/Kg	04/19/14	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4-Dinitrophenol	ND	600	ug/Kg	04/19/14	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	04/19/14	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	04/19/14	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2-Methylnaphthalene	1200	260	ug/Kg	04/19/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	04/19/14	DD	SW 8270
2-Nitroaniline	ND	600	ug/Kg	04/19/14	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	04/19/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	04/19/14	DD	SW 8270
3-Nitroaniline	ND	600	ug/Kg	04/19/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	04/19/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	380	ug/Kg	04/19/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	04/19/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	04/19/14	DD	SW 8270
4-Nitroaniline	ND	600	ug/Kg	04/19/14	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	04/19/14	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Acetophenone	ND	260	ug/Kg	04/19/14	DD	SW 8270
Aniline	ND	1100	ug/Kg	04/19/14	DD	SW 8270
Anthracene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Benz(a)anthracene	600	260	ug/Kg	04/19/14	DD	SW 8270
Benzidine	ND	450	ug/Kg	04/19/14	DD	SW 8270
Benzo(a)pyrene	630	260	ug/Kg	04/19/14	DD	SW 8270
Benzo(b)fluoranthene	1200	260	ug/Kg	04/19/14	DD	SW 8270
Benzo(ghi)perylene	350	260	ug/Kg	04/19/14	DD	SW 8270
Benzo(k)fluoranthene	380	260	ug/Kg	04/19/14	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	04/19/14	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	04/19/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-10 (0-3 FT)

Phoenix I.D.: BG34041

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	380	ug/Kg	04/19/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	04/19/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	450	260	ug/Kg	04/19/14	DD	SW 8270
Carbazole	ND	560	ug/Kg	04/19/14	DD	SW 8270
Chrysene	800	260	ug/Kg	04/19/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	04/19/14	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Fluoranthene	1700	260	ug/Kg	04/19/14	DD	SW 8270
Fluorene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	04/19/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	330	260	ug/Kg	04/19/14	DD	SW 8270
Isophorone	ND	260	ug/Kg	04/19/14	DD	SW 8270
Naphthalene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
N-Nitrosodimethylamine	ND	380	ug/Kg	04/19/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	04/19/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	380	ug/Kg	04/19/14	DD	SW 8270
Pentachloronitrobenzene	ND	380	ug/Kg	04/19/14	DD	SW 8270
Pentachlorophenol	ND	380	ug/Kg	04/19/14	DD	SW 8270
Phenanthrene	720	260	ug/Kg	04/19/14	DD	SW 8270
Phenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
Pyrene	1400	260	ug/Kg	04/19/14	DD	SW 8270
Pyridine	ND	380	ug/Kg	04/19/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	108		%	04/19/14	DD	30 - 130 %
% 2-Fluorobiphenyl	82		%	04/19/14	DD	30 - 130 %
% 2-Fluorophenol	79		%	04/19/14	DD	30 - 130 %
% Nitrobenzene-d5	87		%	04/19/14	DD	30 - 130 %
% Phenol-d5	85		%	04/19/14	DD	30 - 130 %
% Terphenyl-d14	98		%	04/19/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 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 there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	9:50
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34042

Project ID: CTD301821
Client ID: HS-11 (0-3 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Silver	< 0.35	0.35	mg/Kg	04/18/14	EK	SW6010	
Arsenic	3.4	0.7	mg/Kg	04/18/14	EK	SW6010	
Barium	57.9	0.35	mg/Kg	04/18/14	EK	SW6010	
Cadmium	1.40	0.35	mg/Kg	04/18/14	EK	SW6010	
Chromium	30.0	0.35	mg/Kg	04/18/14	EK	SW6010	
Mercury	< 0.07	0.07	mg/Kg	04/18/14	RS	SW-7471	
Lead	2060	35	mg/Kg	04/18/14	LK	SW6010	
Selenium	< 1.4	1.4	mg/Kg	04/18/14	EK	SW6010	
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Barium	0.37	0.10	mg/L	04/21/14	EK	SW6010	B
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010	
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470	
TCLP Lead	3.26	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005	
Percent Solid	88		%	04/17/14	I	E160.3	
Conductivity - Soil Matrix	25	5	umhos/cm	04/21/14	TC	SM2510B	
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846	
Flash Point	>200	200	degree F	04/21/14	Y	SW1010	
Ignitability	Passed	140	degree F	04/21/14	Y	SW1030	
pH - Soil	8.38	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045	
Reactivity Cyanide	< 5.6	5.6	mg/Kg	04/21/14	GD	SW 846-7.3	
Reactivity Sulfide	< 20	20	mg/Kg	04/21/14	GD	SW846-7.3	
Reactivity	Negative		Pos/Neg	04/21/14	GD	SW 846-7.3	
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545	
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545	

Project ID: CTD301821
Client ID: HS-11 (0-3 FT)

Phoenix I.D.: BG34042

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	JS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	140	56	mg/Kg	04/18/14	JRB	CT ETPH/8015
Identification	**		mg/Kg	04/18/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	87		%	04/18/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	380	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	380	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	380	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	380	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	380	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	380	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	380	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	380	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	380	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	81		%	04/18/14	AW	30 - 150 %
% TCMX	84		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.8	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	300	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	300	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	300	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-11 (0-3 FT)

Phoenix I.D.: BG34042

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
2-Hexanone	ND	32	ug/Kg	04/18/14	JLI	SW8260	
2-Isopropyltoluene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
4-Chlorotoluene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	32	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	38	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	3.8	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	38	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	300	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	13	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	600	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	6.4	ug/Kg	04/18/14	JLI	SW8260	

Project ID: CTD301821
Client ID: HS-11 (0-3 FT)

Phoenix I.D.: BG34042

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	101		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	96		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	100		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	87		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
1,2-Dichlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	380	ug/Kg	04/19/14	DD	SW 8270
1,3-Dichlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
1,4-Dichlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4-Dichlorophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4-Dimethylphenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,4-Dinitrophenol	ND	600	ug/Kg	04/19/14	DD	SW 8270
2,4-Dinitrotoluene	ND	260	ug/Kg	04/19/14	DD	SW 8270
2,6-Dinitrotoluene	ND	260	ug/Kg	04/19/14	DD	SW 8270
2-Chloronaphthalene	ND	260	ug/Kg	04/19/14	DD	SW 8270
2-Chlorophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
2-Methylnaphthalene	ND	260	ug/Kg	04/19/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	260	ug/Kg	04/19/14	DD	SW 8270
2-Nitroaniline	ND	600	ug/Kg	04/19/14	DD	SW 8270
2-Nitrophenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	380	ug/Kg	04/19/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	260	ug/Kg	04/19/14	DD	SW 8270
3-Nitroaniline	ND	600	ug/Kg	04/19/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	1100	ug/Kg	04/19/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	380	ug/Kg	04/19/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
4-Chloroaniline	ND	260	ug/Kg	04/19/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	260	ug/Kg	04/19/14	DD	SW 8270
4-Nitroaniline	ND	600	ug/Kg	04/19/14	DD	SW 8270
4-Nitrophenol	ND	1100	ug/Kg	04/19/14	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Acetophenone	ND	260	ug/Kg	04/19/14	DD	SW 8270
Aniline	ND	1100	ug/Kg	04/19/14	DD	SW 8270
Anthracene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Benz(a)anthracene	910	260	ug/Kg	04/19/14	DD	SW 8270
Benzidine	ND	450	ug/Kg	04/19/14	DD	SW 8270
Benzo(a)pyrene	930	260	ug/Kg	04/19/14	DD	SW 8270
Benzo(b)fluoranthene	1700	260	ug/Kg	04/19/14	DD	SW 8270
Benzo(ghi)perylene	390	260	ug/Kg	04/19/14	DD	SW 8270
Benzo(k)fluoranthene	530	260	ug/Kg	04/19/14	DD	SW 8270
Benzoic acid	ND	1100	ug/Kg	04/19/14	DD	SW 8270
Benzyl butyl phthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	260	ug/Kg	04/19/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-11 (0-3 FT)

Phoenix I.D.: BG34042

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	380	ug/Kg	04/19/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	260	ug/Kg	04/19/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	1000	260	ug/Kg	04/19/14	DD	SW 8270
Carbazole	ND	570	ug/Kg	04/19/14	DD	SW 8270
Chrysene	1100	260	ug/Kg	04/19/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Dibenzofuran	ND	260	ug/Kg	04/19/14	DD	SW 8270
Diethyl phthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Dimethylphthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Di-n-butylphthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Di-n-octylphthalate	ND	260	ug/Kg	04/19/14	DD	SW 8270
Fluoranthene	2300	260	ug/Kg	04/19/14	DD	SW 8270
Fluorene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Hexachlorobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Hexachlorobutadiene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Hexachloroethane	ND	260	ug/Kg	04/19/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	390	260	ug/Kg	04/19/14	DD	SW 8270
Isophorone	ND	260	ug/Kg	04/19/14	DD	SW 8270
Naphthalene	ND	260	ug/Kg	04/19/14	DD	SW 8270
Nitrobenzene	ND	260	ug/Kg	04/19/14	DD	SW 8270
N-Nitrosodimethylamine	ND	380	ug/Kg	04/19/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	260	ug/Kg	04/19/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	380	ug/Kg	04/19/14	DD	SW 8270
Pentachloronitrobenzene	ND	380	ug/Kg	04/19/14	DD	SW 8270
Pentachlorophenol	ND	380	ug/Kg	04/19/14	DD	SW 8270
Phenanthrene	820	260	ug/Kg	04/19/14	DD	SW 8270
Phenol	ND	260	ug/Kg	04/19/14	DD	SW 8270
Pyrene	1900	260	ug/Kg	04/19/14	DD	SW 8270
Pyridine	ND	380	ug/Kg	04/19/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	109		%	04/19/14	DD	30 - 130 %
% 2-Fluorobiphenyl	85		%	04/19/14	DD	30 - 130 %
% 2-Fluorophenol	79		%	04/19/14	DD	30 - 130 %
% Nitrobenzene-d5	89		%	04/19/14	DD	30 - 130 %
% Phenol-d5	87		%	04/19/14	DD	30 - 130 %
% Terphenyl-d14	102		%	04/19/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

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.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 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 there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	9:40
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34043

Project ID: CTD301821
Client ID: HS-12 (0-3 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Silver	< 0.37	0.37	mg/Kg	04/18/14	EK	SW6010	
Arsenic	2.8	0.7	mg/Kg	04/18/14	EK	SW6010	
Barium	42.0	0.37	mg/Kg	04/18/14	EK	SW6010	
Cadmium	3.43	0.37	mg/Kg	04/18/14	EK	SW6010	
Chromium	17.4	0.37	mg/Kg	04/18/14	EK	SW6010	
Mercury	< 0.08	0.08	mg/Kg	04/18/14	RS	SW-7471	
Lead	398	3.7	mg/Kg	04/18/14	LK	SW6010	
Selenium	< 1.5	1.5	mg/Kg	04/18/14	EK	SW6010	
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Barium	0.29	0.10	mg/L	04/21/14	EK	SW6010	B
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010	
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470	
TCLP Lead	1.89	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005	
Percent Solid	84		%	04/17/14	I	E160.3	
Conductivity - Soil Matrix	60	5	umhos/cm	04/21/14	TC	SM2510B	
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846	
Flash Point	>200	200	degree F	04/21/14	Y	SW1010	
Ignitability	Passed	140	degree F	04/21/14	Y	SW1030	
pH - Soil	8.14	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045	
Reactivity Cyanide	< 5.7	5.7	mg/Kg	04/21/14	GD	SW 846-7.3	
Reactivity Sulfide	< 20	20	mg/Kg	04/21/14	GD	SW846-7.3	
Reactivity	Negative		Pos/Neg	04/21/14	GD	SW 846-7.3	
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545	
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545	

Project ID: CTD301821
Client ID: HS-12 (0-3 FT)

Phoenix I.D.: BG34043

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	JS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	230	59	mg/Kg	04/18/14	JRB	CT ETPH/8015
Identification	**		mg/Kg	04/18/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	109		%	04/18/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	390	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	390	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	86		%	04/18/14	AW	30 - 150 %
% TCMX	84		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	4.0	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	310	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	310	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	310	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-12 (0-3 FT)

Phoenix I.D.: BG34043

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
2-Hexanone	ND	33	ug/Kg	04/18/14	JLI	SW8260
2-Isopropyltoluene	ND	310	ug/Kg	04/18/14	JLI	SW8260
4-Chlorotoluene	ND	310	ug/Kg	04/18/14	JLI	SW8260
4-Methyl-2-pentanone	ND	33	ug/Kg	04/18/14	JLI	SW8260
Acetone	ND	40	ug/Kg	04/18/14	JLI	SW8260
Acrylonitrile	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Benzene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Bromobenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
Bromochloromethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Bromodichloromethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Bromoform	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Bromomethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Carbon Disulfide	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Carbon tetrachloride	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Chlorobenzene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Chloroethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Chloroform	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Chloromethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
cis-1,2-Dichloroethene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
cis-1,3-Dichloropropene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Dibromochloromethane	ND	4.0	ug/Kg	04/18/14	JLI	SW8260
Dibromomethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Dichlorodifluoromethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Ethylbenzene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Hexachlorobutadiene	ND	310	ug/Kg	04/18/14	JLI	SW8260
Isopropylbenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
m&p-Xylene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Methyl Ethyl Ketone	ND	40	ug/Kg	04/18/14	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	04/18/14	JLI	SW8260
Methylene chloride	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Naphthalene	ND	310	ug/Kg	04/18/14	JLI	SW8260
n-Butylbenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
n-Propylbenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
o-Xylene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
p-Isopropyltoluene	ND	310	ug/Kg	04/18/14	JLI	SW8260
sec-Butylbenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
Styrene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
tert-Butylbenzene	ND	310	ug/Kg	04/18/14	JLI	SW8260
Tetrachloroethene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Tetrahydrofuran (THF)	ND	13	ug/Kg	04/18/14	JLI	SW8260
Toluene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Total Xylenes	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
trans-1,2-Dichloroethene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
trans-1,3-Dichloropropene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	620	ug/Kg	04/18/14	JLI	SW8260
Trichloroethene	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Trichlorofluoromethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Trichlorotrifluoroethane	ND	6.7	ug/Kg	04/18/14	JLI	SW8260
Vinyl chloride	ND	6.7	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-12 (0-3 FT)

Phoenix I.D.: BG34043

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	104		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	92		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	105		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	94		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
1,2-Dichlorobenzene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	3900	ug/Kg	04/21/14	DD	SW 8270
1,3-Dichlorobenzene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
1,4-Dichlorobenzene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2,4-Dichlorophenol	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2,4-Dimethylphenol	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2,4-Dinitrophenol	ND	6300	ug/Kg	04/21/14	DD	SW 8270
2,4-Dinitrotoluene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2,6-Dinitrotoluene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2-Chloronaphthalene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2-Chlorophenol	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2-Methylnaphthalene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	2800	ug/Kg	04/21/14	DD	SW 8270
2-Nitroaniline	ND	6300	ug/Kg	04/21/14	DD	SW 8270
2-Nitrophenol	ND	2800	ug/Kg	04/21/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	3900	ug/Kg	04/21/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	2800	ug/Kg	04/21/14	DD	SW 8270
3-Nitroaniline	ND	6300	ug/Kg	04/21/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	11000	ug/Kg	04/21/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	3900	ug/Kg	04/21/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	2800	ug/Kg	04/21/14	DD	SW 8270
4-Chloroaniline	ND	2800	ug/Kg	04/21/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	2800	ug/Kg	04/21/14	DD	SW 8270
4-Nitroaniline	ND	6300	ug/Kg	04/21/14	DD	SW 8270
4-Nitrophenol	ND	11000	ug/Kg	04/21/14	DD	SW 8270
Acenaphthene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Acenaphthylene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Acetophenone	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Aniline	ND	11000	ug/Kg	04/21/14	DD	SW 8270
Anthracene	4500	2800	ug/Kg	04/21/14	DD	SW 8270
Benz(a)anthracene	8700	2800	ug/Kg	04/21/14	DD	SW 8270
Benzidine	ND	4700	ug/Kg	04/21/14	DD	SW 8270
Benzo(a)pyrene	6300	2800	ug/Kg	04/21/14	DD	SW 8270
Benzo(b)fluoranthene	11000	2800	ug/Kg	04/21/14	DD	SW 8270
Benzo(ghi)perylene	3500	2800	ug/Kg	04/21/14	DD	SW 8270
Benzo(k)fluoranthene	2900	2800	ug/Kg	04/21/14	DD	SW 8270
Benzoic acid	ND	11000	ug/Kg	04/21/14	DD	SW 8270
Benzyl butyl phthalate	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	2800	ug/Kg	04/21/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-12 (0-3 FT)

Phoenix I.D.: BG34043

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	3900	ug/Kg	04/21/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Carbazole	ND	5900	ug/Kg	04/21/14	DD	SW 8270
Chrysene	9700	2800	ug/Kg	04/21/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Dibenzofuran	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Diethyl phthalate	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Dimethylphthalate	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Di-n-butylphthalate	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Di-n-octylphthalate	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Fluoranthene	52000	2800	ug/Kg	04/21/14	DD	SW 8270
Fluorene	3700	2800	ug/Kg	04/21/14	DD	SW 8270
Hexachlorobenzene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Hexachlorobutadiene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Hexachloroethane	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	3400	2800	ug/Kg	04/21/14	DD	SW 8270
Isophorone	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Naphthalene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Nitrobenzene	ND	2800	ug/Kg	04/21/14	DD	SW 8270
N-Nitrosodimethylamine	ND	3900	ug/Kg	04/21/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	2800	ug/Kg	04/21/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	3900	ug/Kg	04/21/14	DD	SW 8270
Pentachloronitrobenzene	ND	3900	ug/Kg	04/21/14	DD	SW 8270
Pentachlorophenol	ND	3900	ug/Kg	04/21/14	DD	SW 8270
Phenanthrene	39000	2800	ug/Kg	04/21/14	DD	SW 8270
Phenol	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Pyrene	36000	2800	ug/Kg	04/21/14	DD	SW 8270
Pyridine	ND	3900	ug/Kg	04/21/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	*Diluted Out		%	04/21/14	DD	30 - 130 %
% 2-Fluorobiphenyl	*Diluted Out		%	04/21/14	DD	30 - 130 %
% 2-Fluorophenol	*Diluted Out		%	04/21/14	DD	30 - 130 %
% Nitrobenzene-d5	*Diluted Out		%	04/21/14	DD	30 - 130 %
% Phenol-d5	*Diluted Out		%	04/21/14	DD	30 - 130 %
% Terphenyl-d14	*Diluted Out		%	04/21/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

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.

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

Semi-Volatile Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, a dilution was required resulting in an elevated RL for the semivolatile analysis.

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

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	9:30
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34044

Project ID: CTD301821
Client ID: HS-13 (0-3 FT)

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Silver	< 0.37	0.37	mg/Kg	04/18/14	EK	SW6010	
Arsenic	2.4	0.7	mg/Kg	04/18/14	EK	SW6010	
Barium	42.4	0.37	mg/Kg	04/18/14	EK	SW6010	
Cadmium	0.68	0.37	mg/Kg	04/18/14	EK	SW6010	
Chromium	18.1	0.37	mg/Kg	04/18/14	EK	SW6010	
Mercury	< 0.06	0.06	mg/Kg	04/18/14	RS	SW-7471	
Lead	176	3.7	mg/Kg	04/18/14	LK	SW6010	
Selenium	< 1.5	1.5	mg/Kg	04/18/14	EK	SW6010	
TCLP Silver	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Arsenic	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Barium	0.45	0.10	mg/L	04/21/14	EK	SW6010	B
TCLP Cadmium	< 0.050	0.050	mg/L	04/21/14	EK	SW6010	
TCLP Chromium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Mercury	< 0.0002	0.0002	mg/L	04/21/14	RS	SW7470	
TCLP Lead	1.39	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Selenium	< 0.10	0.10	mg/L	04/21/14	EK	SW6010	
TCLP Metals Digestion	Completed			04/21/14	I/I	SW3005	
Percent Solid	89		%	04/17/14	I	E160.3	
Conductivity - Soil Matrix	150	5	umhos/cm	04/21/14	TC	SM2510B	
Corrosivity	Negative		Pos/Neg	04/17/14	DH/KDB	SW846	
Flash Point	>200	200	degree F	04/21/14	Y	SW1010	
Ignitability	Passed	140	degree F	04/21/14	Y	SW1030	
pH - Soil	8.51	0.10	pH Units	04/17/14 20:30	DH/KDB	4500-H B/9045	
Reactivity Cyanide	< 5.4	5.4	mg/Kg	04/21/14	GD	SW 846-7.3	
Reactivity Sulfide	< 20	20	mg/Kg	04/21/14	GD	SW846-7.3	
Reactivity	Negative		Pos/Neg	04/21/14	GD	SW 846-7.3	
Soil Extraction for PCB	Completed			04/17/14	BB/V	SW3545	
Soil Extraction for SVOA	Completed			04/17/14	JJ/FV	SW3545	

Project ID: CTD301821
Client ID: HS-13 (0-3 FT)

Phoenix I.D.: BG34044

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Extraction of CT ETPH	Completed			04/17/14	JS/F	3545
Mercury Digestion	Completed			04/18/14	I/I	SW7471
TCLP Digestion Mercury	Completed			04/21/14	I/I	E1311/7470
TCLP Extraction for Metals	Completed			04/18/14	I	EPA 1311
Total Metals Digest	Completed			04/17/14	AG	SW846 - 3050
Field Extraction	Completed			04/16/14		SW5035
TPH by GC (Extractable Products)						
Ext. Petroleum HC	98	55	mg/Kg	04/20/14	JRB	CT ETPH/8015
Identification	**		mg/Kg	04/20/14	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	106		%	04/20/14	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1221	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1232	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1242	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1248	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1254	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1260	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1262	ND	370	ug/Kg	04/18/14	AW	SW 8082
PCB-1268	ND	370	ug/Kg	04/18/14	AW	SW 8082
QA/QC Surrogates						
% DCBP	100		%	04/18/14	AW	30 - 150 %
% TCMX	94		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-13 (0-3 FT)

Phoenix I.D.: BG34044

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
2-Hexanone	ND	26	ug/Kg	04/18/14	JLI	SW8260
2-Isopropyltoluene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
4-Chlorotoluene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	04/18/14	JLI	SW8260
Acetone	ND	31	ug/Kg	04/18/14	JLI	SW8260
Acrylonitrile	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Benzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Bromobenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Bromochloromethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Bromodichloromethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Bromoform	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Bromomethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Carbon Disulfide	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Carbon tetrachloride	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Chlorobenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Chloroethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Chloroform	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Chloromethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
cis-1,2-Dichloroethene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
cis-1,3-Dichloropropene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Dibromochloromethane	ND	3.1	ug/Kg	04/18/14	JLI	SW8260
Dibromomethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Dichlorodifluoromethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Ethylbenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Hexachlorobutadiene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Isopropylbenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
m&p-Xylene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Methyl Ethyl Ketone	ND	31	ug/Kg	04/18/14	JLI	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	04/18/14	JLI	SW8260
Methylene chloride	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Naphthalene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
n-Butylbenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
n-Propylbenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
o-Xylene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
p-Isopropyltoluene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
sec-Butylbenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Styrene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
tert-Butylbenzene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Tetrachloroethene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	04/18/14	JLI	SW8260
Toluene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Total Xylenes	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
trans-1,2-Dichloroethene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
trans-1,3-Dichloropropene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	04/18/14	JLI	SW8260
Trichloroethene	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Trichlorofluoromethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Trichlorotrifluoroethane	ND	5.2	ug/Kg	04/18/14	JLI	SW8260
Vinyl chloride	ND	5.2	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: HS-13 (0-3 FT)

Phoenix I.D.: BG34044

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	105		%	04/18/14	JLI	70 - 130 %
% Bromofluorobenzene	93		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	104		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	103		%	04/18/14	JLI	70 - 130 %
Semivolatiles						
1,2,4,5-Tetrachlorobenzene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
1,2,4-Trichlorobenzene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
1,2-Dichlorobenzene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
1,2-Diphenylhydrazine	ND	1900	ug/Kg	04/21/14	DD	SW 8270
1,3-Dichlorobenzene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
1,4-Dichlorobenzene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2,4,5-Trichlorophenol	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2,4,6-Trichlorophenol	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2,4-Dichlorophenol	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2,4-Dimethylphenol	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2,4-Dinitrophenol	ND	3000	ug/Kg	04/21/14	DD	SW 8270
2,4-Dinitrotoluene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2,6-Dinitrotoluene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2-Chloronaphthalene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2-Chlorophenol	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2-Methylnaphthalene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2-Methylphenol (o-cresol)	ND	1300	ug/Kg	04/21/14	DD	SW 8270
2-Nitroaniline	ND	3000	ug/Kg	04/21/14	DD	SW 8270
2-Nitrophenol	ND	1300	ug/Kg	04/21/14	DD	SW 8270
3&4-Methylphenol (m&p-cresol)	ND	1900	ug/Kg	04/21/14	DD	SW 8270
3,3'-Dichlorobenzidine	ND	1300	ug/Kg	04/21/14	DD	SW 8270
3-Nitroaniline	ND	3000	ug/Kg	04/21/14	DD	SW 8270
4,6-Dinitro-2-methylphenol	ND	5400	ug/Kg	04/21/14	DD	SW 8270
4-Bromophenyl phenyl ether	ND	1900	ug/Kg	04/21/14	DD	SW 8270
4-Chloro-3-methylphenol	ND	1300	ug/Kg	04/21/14	DD	SW 8270
4-Chloroaniline	ND	1300	ug/Kg	04/21/14	DD	SW 8270
4-Chlorophenyl phenyl ether	ND	1300	ug/Kg	04/21/14	DD	SW 8270
4-Nitroaniline	ND	3000	ug/Kg	04/21/14	DD	SW 8270
4-Nitrophenol	ND	5400	ug/Kg	04/21/14	DD	SW 8270
Acenaphthene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Acenaphthylene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Acetophenone	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Aniline	ND	5400	ug/Kg	04/21/14	DD	SW 8270
Anthracene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Benz(a)anthracene	2200	1300	ug/Kg	04/21/14	DD	SW 8270
Benzidine	ND	2200	ug/Kg	04/21/14	DD	SW 8270
Benzo(a)pyrene	2000	1300	ug/Kg	04/21/14	DD	SW 8270
Benzo(b)fluoranthene	3300	1300	ug/Kg	04/21/14	DD	SW 8270
Benzo(ghi)perylene	1300	1300	ug/Kg	04/21/14	DD	SW 8270
Benzo(k)fluoranthene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Benzoic acid	ND	5400	ug/Kg	04/21/14	DD	SW 8270
Benzyl butyl phthalate	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Bis(2-chloroethoxy)methane	ND	1300	ug/Kg	04/21/14	DD	SW 8270

Project ID: CTD301821
Client ID: HS-13 (0-3 FT)

Phoenix I.D.: BG34044

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bis(2-chloroethyl)ether	ND	1900	ug/Kg	04/21/14	DD	SW 8270
Bis(2-chloroisopropyl)ether	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Bis(2-ethylhexyl)phthalate	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Carbazole	ND	2800	ug/Kg	04/21/14	DD	SW 8270
Chrysene	2400	1300	ug/Kg	04/21/14	DD	SW 8270
Dibenz(a,h)anthracene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Dibenzofuran	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Diethyl phthalate	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Dimethylphthalate	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Di-n-butylphthalate	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Di-n-octylphthalate	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Fluoranthene	6300	1300	ug/Kg	04/21/14	DD	SW 8270
Fluorene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Hexachlorobenzene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Hexachlorobutadiene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Hexachlorocyclopentadiene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Hexachloroethane	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Isophorone	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Naphthalene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Nitrobenzene	ND	1300	ug/Kg	04/21/14	DD	SW 8270
N-Nitrosodimethylamine	ND	1900	ug/Kg	04/21/14	DD	SW 8270
N-Nitrosodi-n-propylamine	ND	1300	ug/Kg	04/21/14	DD	SW 8270
N-Nitrosodiphenylamine	ND	1900	ug/Kg	04/21/14	DD	SW 8270
Pentachloronitrobenzene	ND	1900	ug/Kg	04/21/14	DD	SW 8270
Pentachlorophenol	ND	1900	ug/Kg	04/21/14	DD	SW 8270
Phenanthrene	1600	1300	ug/Kg	04/21/14	DD	SW 8270
Phenol	ND	1300	ug/Kg	04/21/14	DD	SW 8270
Pyrene	5200	1300	ug/Kg	04/21/14	DD	SW 8270
Pyridine	ND	1900	ug/Kg	04/21/14	DD	SW 8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	92		%	04/21/14	DD	30 - 130 %
% 2-Fluorobiphenyl	94		%	04/21/14	DD	30 - 130 %
% 2-Fluorophenol	81		%	04/21/14	DD	30 - 130 %
% Nitrobenzene-d5	86		%	04/21/14	DD	30 - 130 %
% Phenol-d5	81		%	04/21/14	DD	30 - 130 %
% Terphenyl-d14	123		%	04/21/14	DD	30 - 130 %

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

B = Present in blank, no bias suspected.

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

TPH Comment:
**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C10 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

Semi-Volatile Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, a dilution was required resulting in an elevated RL for the semivolatile analysis.

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

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	0:00
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34045

Project ID: CTD301821
Client ID: TRIP BLANK LOW

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	04/16/14		E160.3
Field Extraction	Completed			04/16/14		SW5035
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260
2-Hexanone	ND	25	ug/Kg	04/18/14	JLI	SW8260
2-Isopropyltoluene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
Client ID: TRIP BLANK LOW

Phoenix I.D.: BG34045

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
4-Chlorotoluene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	25	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	30	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	3.0	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	30	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	10	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	5.0	ug/Kg	04/18/14	JLI	SW8260	
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	97		%	04/18/14	JLI	70 - 130 %	

Project ID: CTD301821

Client ID: TRIP BLANK LOW

Phoenix I.D.: BG34045

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% Bromofluorobenzene	93		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	94		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	92		%	04/18/14	JLI	70 - 130 %

B = Present in blank, no bias suspected.

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

Comments:

TRIP BLANK INCLUDED. %SOLIDS ASSUMED 100%

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

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

April 24, 2014

Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:		04/16/14	15:00
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34046

Project ID: CTD301821
Client ID: EQUIP BLANK

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	04/18/14	LK	SW6010/E200.7
Arsenic	< 0.004	0.004	mg/L	04/18/14	LK	SW6010/E200.7
Barium	< 0.002	0.002	mg/L	04/18/14	LK	SW6010/E200.7
Cadmium	< 0.001	0.001	mg/L	04/18/14	LK	SW6010/E200.7
Chromium	< 0.001	0.001	mg/L	04/18/14	LK	SW6010/E200.7
Mercury	< 0.0002	0.0002	mg/L	04/18/14	RS	SW7470/245.1
Lead	< 0.002	0.002	mg/L	04/18/14	LK	SW6010/E200.7
Selenium	< 0.010	0.010	mg/L	04/18/14	LK	SW6010/E200.7
Conductivity	< 5	5	umhos/cm	04/18/14	BS/EG	SM2510B
Flash Point	>200	200	degree F	04/21/14	Y	SW1010
Ignitability	Passed	140	degree F	04/21/14	Y	SW1030
pH	5.57	0.10	pH Units	04/18/14 06:59	BS/EG	4500-H B/9040
Reactivity Cyanide	< 2.0	2.0	mg/L	04/21/14	GD	SW 846-7.3
Reactivity Sulfide	< 0.4	0.4	mg/L	04/21/14	GD	SW846-7.3
Reactivity	Negative		Pos/Neg	04/21/14	GD	SW 846-7.3
Extraction of CT ETPH	Completed			04/17/14	e/K/D	3510/3520
Mercury Digestion	Completed			04/18/14	I/I	SW7470/245.1
PCB Extraction	Completed			04/17/14	L	SW3510C
Semi-Volatile Extraction	Completed			04/17/14	e/D/K	SW3520
Total Metals Digestion	Completed			04/17/14	AG	SW846 - 3050

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	0.070	mg/L	04/18/14	JRB	CTETPH/8015D
Identification	ND		mg/L	04/18/14	JRB	CTETPH/8015D
QA/QC Surrogates						
% n-Pentacosane	108		%	04/18/14	JRB	50 - 150 %

Project ID: CTD301821
Client ID: EQUIP BLANK

Phoenix I.D.: BG34046

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Polychlorinated Biphenyls						
PCB-1016	ND	0.50	ug/L	04/18/14	AW	8082
PCB-1221	ND	0.50	ug/L	04/18/14	AW	8082
PCB-1232	ND	0.50	ug/L	04/18/14	AW	8082
PCB-1242	ND	0.50	ug/L	04/18/14	AW	8082
PCB-1248	ND	0.50	ug/L	04/18/14	AW	8082
PCB-1254	ND	0.50	ug/L	04/18/14	AW	8082
PCB-1260	ND	0.50	ug/L	04/18/14	AW	8082
PCB-1262	ND	0.50	ug/L	04/18/14	AW	8082
PCB-1268	ND	0.50	ug/L	04/18/14	AW	8082
QA/QC Surrogates						
% DCBP	86		%	04/18/14	AW	30 - 150 %
% TCMX	76		%	04/18/14	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	04/18/14	RM	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	04/18/14	RM	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	04/18/14	RM	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	04/18/14	RM	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	04/18/14	RM	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	04/18/14	RM	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	04/18/14	RM	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	04/18/14	RM	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	04/18/14	RM	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	04/18/14	RM	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	04/18/14	RM	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	04/18/14	RM	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	04/18/14	RM	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	04/18/14	RM	SW8260
2-Chlorotoluene	ND	1.0	ug/L	04/18/14	RM	SW8260
2-Hexanone	ND	5.0	ug/L	04/18/14	RM	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	04/18/14	RM	SW8260
4-Chlorotoluene	ND	1.0	ug/L	04/18/14	RM	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	04/18/14	RM	SW8260
Acetone	ND	25	ug/L	04/18/14	RM	SW8260
Acrylonitrile	ND	5.0	ug/L	04/18/14	RM	SW8260
Benzene	ND	0.70	ug/L	04/18/14	RM	SW8260
Bromobenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
Bromochloromethane	ND	1.0	ug/L	04/18/14	RM	SW8260
Bromodichloromethane	ND	0.50	ug/L	04/18/14	RM	SW8260
Bromoform	ND	1.0	ug/L	04/18/14	RM	SW8260
Bromomethane	ND	1.0	ug/L	04/18/14	RM	SW8260

Project ID: CTD301821
Client ID: EQUIP BLANK

Phoenix I.D.: BG34046

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Carbon Disulfide	ND	5.0	ug/L	04/18/14	RM	SW8260
Carbon tetrachloride	ND	1.0	ug/L	04/18/14	RM	SW8260
Chlorobenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
Chloroethane	ND	1.0	ug/L	04/18/14	RM	SW8260
Chloroform	ND	1.0	ug/L	04/18/14	RM	SW8260
Chloromethane	ND	1.0	ug/L	04/18/14	RM	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	04/18/14	RM	SW8260
cis-1,3-Dichloropropene	ND	0.40	ug/L	04/18/14	RM	SW8260
Dibromochloromethane	ND	0.50	ug/L	04/18/14	RM	SW8260
Dibromomethane	ND	1.0	ug/L	04/18/14	RM	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	04/18/14	RM	SW8260
Ethylbenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	04/18/14	RM	SW8260
Isopropylbenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
m&p-Xylene	ND	1.0	ug/L	04/18/14	RM	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	04/18/14	RM	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	04/18/14	RM	SW8260
Methylene chloride	ND	1.0	ug/L	04/18/14	RM	SW8260
Naphthalene	ND	1.0	ug/L	04/18/14	RM	SW8260
n-Butylbenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
n-Propylbenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
o-Xylene	ND	1.0	ug/L	04/18/14	RM	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	04/18/14	RM	SW8260
sec-Butylbenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
Styrene	ND	1.0	ug/L	04/18/14	RM	SW8260
tert-Butylbenzene	ND	1.0	ug/L	04/18/14	RM	SW8260
Tetrachloroethene	ND	1.0	ug/L	04/18/14	RM	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	04/18/14	RM	SW8260
Toluene	ND	1.0	ug/L	04/18/14	RM	SW8260
Total Xylenes	ND	2.0	ug/L	04/18/14	RM	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	04/18/14	RM	SW8260
trans-1,3-Dichloropropene	ND	0.40	ug/L	04/18/14	RM	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	04/18/14	RM	SW8260
Trichloroethene	ND	1.0	ug/L	04/18/14	RM	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	04/18/14	RM	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	04/18/14	RM	SW8260
Vinyl chloride	ND	1.0	ug/L	04/18/14	RM	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	97		%	04/18/14	RM	70 - 130 %
% Bromofluorobenzene	102		%	04/18/14	RM	70 - 130 %
% Dibromofluoromethane	100		%	04/18/14	RM	70 - 130 %
% Toluene-d8	100		%	04/18/14	RM	70 - 130 %

Semivolatiles

1,2,4-Trichlorobenzene	ND	5.0	ug/L	04/19/14	DD	SW8270
1,2-Dichlorobenzene	ND	2.5	ug/L	04/19/14	DD	SW8270
1,2-Diphenylhydrazine	ND	5.0	ug/L	04/19/14	DD	SW8270
1,3-Dichlorobenzene	ND	2.5	ug/L	04/19/14	DD	SW8270
1,4-Dichlorobenzene	ND	2.5	ug/L	04/19/14	DD	SW8270
2,4,5-Trichlorophenol	ND	1.0	ug/L	04/19/14	DD	SW8270

Project ID: CTD301821
Client ID: EQUIP BLANK

Phoenix I.D.: BG34046

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
2,4,6-Trichlorophenol	ND	1.0	ug/L	04/19/14	DD	SW8270
2,4-Dichlorophenol	ND	1.0	ug/L	04/19/14	DD	SW8270
2,4-Dimethylphenol	ND	1.0	ug/L	04/19/14	DD	SW8270
2,4-Dinitrotoluene	ND	5.0	ug/L	04/19/14	DD	SW8270
2,6-Dinitrotoluene	ND	5.0	ug/L	04/19/14	DD	SW8270
2-Chloronaphthalene	ND	5.0	ug/L	04/19/14	DD	SW8270
2-Chlorophenol	ND	1.0	ug/L	04/19/14	DD	SW8270
2-Methylnaphthalene	ND	5.0	ug/L	04/19/14	DD	SW8270
2-Methylphenol (o-cresol)	ND	1.0	ug/L	04/19/14	DD	SW8270
2-Nitroaniline	ND	5.0	ug/L	04/19/14	DD	SW8270
2-Nitrophenol	ND	1.0	ug/L	04/19/14	DD	SW8270
3&4-Methylphenol (m&p-cresol)	ND	10	ug/L	04/19/14	DD	SW8270
3,3'-Dichlorobenzidine	ND	5.0	ug/L	04/19/14	DD	SW8270
3-Nitroaniline	ND	5.0	ug/L	04/19/14	DD	SW8270
4-Bromophenyl phenyl ether	ND	5.0	ug/L	04/19/14	DD	SW8270
4-Chloro-3-methylphenol	ND	1.0	ug/L	04/19/14	DD	SW8270
4-Chloroaniline	ND	5.0	ug/L	04/19/14	DD	SW8270
4-Chlorophenyl phenyl ether	ND	1.0	ug/L	04/19/14	DD	SW8270
4-Nitroaniline	ND	5.0	ug/L	04/19/14	DD	SW8270
4-Nitrophenol	ND	1.0	ug/L	04/19/14	DD	SW8270
Acetophenone	ND	5.0	ug/L	04/19/14	DD	SW8270
Aniline	ND	5.0	ug/L	04/19/14	DD	SW8270
Anthracene	ND	5.0	ug/L	04/19/14	DD	SW8270
Benzidine	ND	50	ug/L	04/19/14	DD	SW8270
Benzoic acid	ND	50	ug/L	04/19/14	DD	SW8270
Benzyl butyl phthalate	ND	5.0	ug/L	04/19/14	DD	SW8270
Bis(2-chloroethoxy)methane	ND	5.0	ug/L	04/19/14	DD	SW8270
Bis(2-chloroethyl)ether	ND	1.0	ug/L	04/19/14	DD	SW8270
Bis(2-chloroisopropyl)ether	ND	5.0	ug/L	04/19/14	DD	SW8270
Carbazole	ND	5.0	ug/L	04/19/14	DD	SW8270
Dibenzofuran	ND	5.0	ug/L	04/19/14	DD	SW8270
Diethyl phthalate	ND	5.0	ug/L	04/19/14	DD	SW8270
Dimethylphthalate	ND	5.0	ug/L	04/19/14	DD	SW8270
Di-n-butylphthalate	ND	5.0	ug/L	04/19/14	DD	SW8270
Di-n-octylphthalate	ND	5.0	ug/L	04/19/14	DD	SW8270
Fluoranthene	ND	5.0	ug/L	04/19/14	DD	SW8270
Fluorene	ND	5.0	ug/L	04/19/14	DD	SW8270
Hexachlorocyclopentadiene	ND	5.0	ug/L	04/19/14	DD	SW8270
Isophorone	ND	5.0	ug/L	04/19/14	DD	SW8270
Naphthalene	ND	5.0	ug/L	04/19/14	DD	SW8270
N-Nitrosodimethylamine	ND	5.0	ug/L	04/19/14	DD	SW8270
N-Nitrosodi-n-propylamine	ND	5.0	ug/L	04/19/14	DD	SW8270
N-Nitrosodiphenylamine	ND	5.0	ug/L	04/19/14	DD	SW8270
Phenol	ND	1.0	ug/L	04/19/14	DD	SW8270
Pyrene	ND	5.0	ug/L	04/19/14	DD	SW8270
QA/QC Surrogates						
% 2,4,6-Tribromophenol	91		%	04/19/14	DD	15 - 110 %
% 2-Fluorobiphenyl	95		%	04/19/14	DD	30 - 130 %
% 2-Fluorophenol	69		%	04/19/14	DD	15 - 110 %

Project ID: CTD301821
Client ID: EQUIP BLANK

Phoenix I.D.: BG34046

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% Nitrobenzene-d5	95		%	04/19/14	DD	30 - 130 %
% Phenol-d5	64		%	04/19/14	DD	15 - 110 %
% Terphenyl-d14	120		%	04/19/14	DD	30 - 130 %

Semivolatiles

1,2,4,5-Tetrachlorobenzene	ND	1.6	ug/L	04/19/14	DD	SW8270 (SIM)
2,4-Dinitrophenol	ND	1.0	ug/L	04/19/14	DD	SW8270 (SIM)
4,6-Dinitro-2-methylphenol	ND	1.0	ug/L	04/19/14	DD	SW8270 (SIM)
Acenaphthene	ND	0.05	ug/L	04/19/14	DD	SW8270 (SIM)
Acenaphthylene	ND	0.05	ug/L	04/19/14	DD	SW8270 (SIM)
Benz(a)anthracene	ND	0.02	ug/L	04/19/14	DD	SW8270 (SIM)
Benzo(a)pyrene	ND	0.02	ug/L	04/19/14	DD	SW8270 (SIM)
Benzo(b)fluoranthene	ND	0.02	ug/L	04/19/14	DD	SW8270 (SIM)
Benzo(ghi)perylene	ND	3.0	ug/L	04/19/14	DD	SW8270 (SIM)
Benzo(k)fluoranthene	ND	0.02	ug/L	04/19/14	DD	SW8270 (SIM)
Bis(2-ethylhexyl)phthalate	ND	1.6	ug/L	04/19/14	DD	SW8270 (SIM)
Chrysene	ND	0.02	ug/L	04/19/14	DD	SW8270 (SIM)
Dibenz(a,h)anthracene	ND	0.01	ug/L	04/19/14	DD	SW8270 (SIM)
Hexachlorobenzene	ND	0.04	ug/L	04/19/14	DD	SW8270 (SIM)
Hexachlorobutadiene	ND	0.50	ug/L	04/19/14	DD	SW8270 (SIM)
Hexachloroethane	ND	2.4	ug/L	04/19/14	DD	SW8270 (SIM)
Indeno(1,2,3-cd)pyrene	ND	0.02	ug/L	04/19/14	DD	SW8270 (SIM)
Nitrobenzene	ND	0.40	ug/L	04/19/14	DD	SW8270 (SIM)
Pentachloronitrobenzene	ND	0.10	ug/L	04/19/14	DD	SW8270 (SIM)
Pentachlorophenol	ND	0.80	ug/L	04/19/14	DD	SW8270 (SIM)
Phenanthrene	0.17	0.05	ug/L	04/19/14	DD	SW8270 (SIM)
Pyridine	ND	0.50	ug/L	04/19/14	DD	SW8270 (SIM)
QA/QC Surrogates						
% 2,4,6-Tribromophenol	91		%	04/19/14	DD	15 - 110 %
% 2-Fluorobiphenyl	95		%	04/19/14	DD	30 - 130 %
% 2-Fluorophenol	69		%	04/19/14	DD	15 - 110 %
% Nitrobenzene-d5	95		%	04/19/14	DD	30 - 130 %
% Phenol-d5	64		%	04/19/14	DD	15 - 110 %
% Terphenyl-d14	120		%	04/19/14	DD	30 - 130 %

Project ID: CTD301821
Client ID: EQUIP BLANK

Phoenix I.D.: BG34046

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

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

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.

Corrosivity is based solely on the pH analysis performed above.

Ignitability is based solely on the results of the closed cup flashpoint analysis performed above. Passed is >140 degree F.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

The reactivity, reported above, is based only on the EPA Interim Guidance for Reactive Cyanide and Reactive Sulfide. This method is no longer listed in the current version of SW-846.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director
April 24, 2014
Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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

Analysis Report

April 24, 2014

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

Sample Information		Custody Information		Date	Time
Matrix:	SOLID	Collected by:		04/16/14	0:00
Location Code:	HRPSTRAT	Received by:	SW	04/17/14	14:53
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:	136629				

Laboratory Data

SDG ID: GBG34034
Phoenix ID: BG34047

Project ID: CTD301821
Client ID: TRIP BLANK HIGH

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%	04/16/14		E160.3
Field Extraction	Completed			04/16/14		SW5035
Volatiles						
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,1,1-Trichloroethane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,1,2-Trichloroethane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloroethene	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,1-Dichloropropene	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichlorobenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,2,3-Trichloropropane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trichlorobenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,2,4-Trimethylbenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,2-Dibromoethane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichlorobenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloroethane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,2-Dichloropropane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,3,5-Trimethylbenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichlorobenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,3-Dichloropropane	ND	250	ug/Kg	04/18/14	JLI	SW8260
1,4-Dichlorobenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260
2,2-Dichloropropane	ND	250	ug/Kg	04/18/14	JLI	SW8260
2-Chlorotoluene	ND	250	ug/Kg	04/18/14	JLI	SW8260
2-Hexanone	ND	1300	ug/Kg	04/18/14	JLI	SW8260
2-Isopropyltoluene	ND	250	ug/Kg	04/18/14	JLI	SW8260

Project ID: CTD301821
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Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
4-Chlorotoluene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
4-Methyl-2-pentanone	ND	1300	ug/Kg	04/18/14	JLI	SW8260	
Acetone	ND	5000	ug/Kg	04/18/14	JLI	SW8260	
Acrylonitrile	ND	500	ug/Kg	04/18/14	JLI	SW8260	
Benzene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Bromobenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Bromochloromethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Bromodichloromethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Bromoform	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Bromomethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Carbon Disulfide	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Carbon tetrachloride	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Chlorobenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Chloroethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Chloroform	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Chloromethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
cis-1,2-Dichloroethene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
cis-1,3-Dichloropropene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Dibromochloromethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Dibromomethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Dichlorodifluoromethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Ethylbenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Hexachlorobutadiene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Isopropylbenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
m&p-Xylene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Methyl Ethyl Ketone	ND	3000	ug/Kg	04/18/14	JLI	SW8260	
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Methylene chloride	ND	500	ug/Kg	04/18/14	JLI	SW8260	B
Naphthalene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
n-Butylbenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
n-Propylbenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
o-Xylene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
p-Isopropyltoluene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
sec-Butylbenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Styrene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
tert-Butylbenzene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Tetrachloroethene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Tetrahydrofuran (THF)	ND	500	ug/Kg	04/18/14	JLI	SW8260	
Toluene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Total Xylenes	ND	250	ug/Kg	04/18/14	JLI	SW8260	
trans-1,2-Dichloroethene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
trans-1,3-Dichloropropene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	04/18/14	JLI	SW8260	
Trichloroethene	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Trichlorofluoromethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Trichlorotrifluoroethane	ND	250	ug/Kg	04/18/14	JLI	SW8260	
Vinyl chloride	ND	250	ug/Kg	04/18/14	JLI	SW8260	
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	98		%	04/18/14	JLI	70 - 130 %	

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Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% Bromofluorobenzene	96		%	04/18/14	JLI	70 - 130 %
% Dibromofluoromethane	88		%	04/18/14	JLI	70 - 130 %
% Toluene-d8	93		%	04/18/14	JLI	70 - 130 %

B = Present in blank, no bias suspected.

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

Comments:

TRIP BLANK INCLUDED. %SOLIDS ASSUMED 100%

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

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

April 24, 2014

Reviewed and Released by: Kathleen Cressia, QA/QC Officer

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QA/QC Report

April 24, 2014

QA/QC Data

SDG I.D.: GBG34034

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 271807, QC Sample No: BG33608 (BG34046)													
ICP Metals - Aqueous													
Arsenic	BRL	<0.004	<0.004	NC	100	102	2.0	103	106	2.9	75 - 125	20	
Barium	BRL	0.055	0.056	1.80	104	105	1.0	103	106	2.9	75 - 125	20	
Cadmium	BRL	<0.001	<0.001	NC	101	102	1.0	100	103	3.0	75 - 125	20	
Chromium	BRL	<0.001	<0.001	NC	99.4	101	1.6	99.9	102	2.1	75 - 125	20	
Lead	BRL	<0.002	<0.002	NC	99.0	101	2.0	99.2	102	2.8	75 - 125	20	
Selenium	BRL	<0.010	<0.010	NC	102	104	1.9	103	105	1.9	75 - 125	20	
Silver	BRL	<0.001	<0.001	NC	99.8	102	2.2	100	103	3.0	75 - 125	20	
QA/QC Batch 271960, QC Sample No: BG33742 (BG34040, BG34041, BG34042, BG34043, BG34044)													
Mercury - Soil	BRL	<0.06	<0.06	NC	96.2	96.3	0.1	91.8	92.0	0.2	70 - 130	30	
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 271909, QC Sample No: BG34035 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)													
ICP Metals - Soil													
Arsenic	BRL	2.7	3.25	NC	107	107	0.0	102	102	0.0	75 - 125	30	
Barium	BRL	33.8	37.1	9.30	105	106	0.9	126	111	12.7	75 - 125	30	m
Cadmium	BRL	0.59	0.65	NC	102	97.8	4.2	98.5	98.1	0.4	75 - 125	30	
Chromium	BRL	11.9	13.7	14.1	110	106	3.7	105	107	1.9	75 - 125	30	
Lead	BRL	25.1	39.5	44.6	102	101	1.0	105	101	3.9	75 - 125	30	r
Selenium	BRL	<1.3	<1.4	NC	95.0	94.5	0.5	92.5	92.7	0.2	75 - 125	30	
Silver	BRL	<0.33	<0.35	NC	101	103	2.0	101	101	0.0	75 - 125	30	
QA/QC Batch 271959, QC Sample No: BG34036 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039)													
Mercury - Soil	BRL	<0.07	<0.07	NC	102	99.0	3.0	94.0	96.4	2.5	70 - 130	30	
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 271961, QC Sample No: BG34046 (BG34046)													
Mercury - Water	BRL	<0.0002	<0.0002	NC	94.0	89.1	5.4	87.3	83.2	4.8	70 - 130	20	
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 271964, QC Sample No: BG34114 (BG34034, BG34035)													
ICP Metals - TCLP Extraction													
Arsenic	BRL	0.13	<0.10	NC	112	111	0.9	101	102	1.0	75 - 125	20	
Barium	BRL	0.35	0.31	NC	102	99.9	2.1	97.9	97.5	0.4	75 - 125	20	
Cadmium	BRL	0.006	<0.050	NC	106	104	1.9	101	102	1.0	75 - 125	20	
Chromium	BRL	0.02	<0.10	NC	104	102	1.9	99.0	99.3	0.3	75 - 125	20	
Lead	BRL	0.06	0.02 B	NC	104	102	1.9	99.3	99.7	0.4	75 - 125	20	
Selenium	BRL	0.16	<0.10	NC	114	114	0.0	101	102	1.0	75 - 125	20	
Silver	BRL	<0.10	<0.10	NC	110	108	1.8	99.2	99.5	0.3	75 - 125	20	

QA/QC Data

SDG I.D.: GBG34034

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 272119, QC Sample No: BG34600 (BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)												
ICP Metals - TCLP Extraction												
Arsenic	BRL	0.03	<0.01	NC	120	118	1.7	113	113	0.0	75 - 125	20
Barium	0.02	0.97	0.93	4.20	114	112	1.8	102	100	2.0	75 - 125	20
Cadmium	BRL	0.017	0.016	NC	108	107	0.9	103	103	0.0	75 - 125	20
Chromium	BRL	0.005	0.005 B	NC	109	108	0.9	103	104	1.0	75 - 125	20
Lead	BRL	0.451	0.439	2.70	105	104	1.0	99.2	99.3	0.1	75 - 125	20
Selenium	BRL	0.03	<0.01	NC	121	119	1.7	112	112	0.0	75 - 125	20
Silver	BRL	<0.010	<0.010	NC	112	110	1.8	107	108	0.9	75 - 125	20
QA/QC Batch 272116, QC Sample No: BG34657 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)												
Mercury - Water	BRL	<0.0002	<0.0002	NC	100	108	7.7	103	102	1.0	70 - 130	20

Comment:

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

m = This parameter is outside laboratory ms/msd specified recovery limits.
r = This parameter is outside laboratory rpd specified recovery limits.

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SDG I.D.: GBG34034

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 271969, QC Sample No: BG33752 (BG34034, BG34035, BG34036, BG34037, BG34038)												
Flash Point		>200	>200	NC	100						85 - 115	30
QA/QC Batch 272205, QC Sample No: BG33753 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)												
Conductivity - Soil Matrix	BRL	700	700	0	104						85 - 115	30
QA/QC Batch 271958, QC Sample No: BG33923 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)												
pH - Soil		8.11	8.02	1.10	98.8						85 - 115	20
QA/QC Batch 272003, QC Sample No: BG34005 (BG34046)												
Conductivity	BRL	242	247	2.00	104						85 - 115	20
QA/QC Batch 271988, QC Sample No: BG34005 (BG34046)												
pH		6.66	6.56	1.50	97.8						85 - 115	20
QA/QC Batch 272029, QC Sample No: BG34035 (BG34034, BG34035, BG34036)												
Reactivity Cyanide	BRL	<5.3	<5.3	NC	92.5						85 - 115	30
QA/QC Batch 272161, QC Sample No: BG34037 (BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044, BG34046)												
Reactivity Cyanide	BRL	<5.4	<5.4	NC	92.1						85 - 115	30
QA/QC Batch 272120, QC Sample No: BG34041 (BG34039, BG34040, BG34041, BG34042, BG34043, BG34044, BG34046)												
Flash Point		>200	>200	NC	100						85 - 115	30

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SDG I.D.: GBG34034

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 271651, QC Sample No: BG32053 (BG34046)									
TPH by GC (Extractable Products) - Water									
Ext. Petroleum HC	ND	60	78	26.1	61	55	10.3	60 - 120	30
% n-Pentacosane	88	96	128	28.6	104	91	13.3	50 - 150	20
QA/QC Batch 271775, QC Sample No: BG33410 (BG34046)									
Polychlorinated Biphenyls - Water									
PCB-1016	ND	89	78	13.2	80	91	12.9	40 - 140	20
PCB-1221	ND							40 - 140	20
PCB-1232	ND							40 - 140	20
PCB-1242	ND							40 - 140	20
PCB-1248	ND							40 - 140	20
PCB-1254	ND							40 - 140	20
PCB-1260	ND	84	82	2.4	60	69	14.0	40 - 140	20
PCB-1262	ND							40 - 140	20
PCB-1268	ND							40 - 140	20
% DCBP (Surrogate Rec)	79	93	89	4.4	51	55	7.5	30 - 150	20
% TCMX (Surrogate Rec)	82	83	84	1.2	84	94	11.2	30 - 150	20
QA/QC Batch 272136, QC Sample No: BG33415 (BG34046)									
Volatiles - Water									
1,1,1,2-Tetrachloroethane	ND	105	100	4.9	97	97	0.0	70 - 130	30
1,1,1-Trichloroethane	ND	114	113	0.9	101	103	2.0	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	107	101	5.8	105	109	3.7	70 - 130	30
1,1,2-Trichloroethane	ND	110	102	7.5	100	106	5.8	70 - 130	30
1,1-Dichloroethane	ND	118	114	3.4	104	108	3.8	70 - 130	30
1,1-Dichloroethene	ND	92	88	4.4	79	78	1.3	70 - 130	30
1,1-Dichloropropene	ND	113	117	3.5	101	102	1.0	70 - 130	30
1,2,3-Trichlorobenzene	ND	100	99	1.0	97	105	7.9	70 - 130	30
1,2,3-Trichloropropane	ND	106	111	4.6	110	112	1.8	70 - 130	30
1,2,4-Trichlorobenzene	ND	101	103	2.0	97	104	7.0	70 - 130	30
1,2,4-Trimethylbenzene	ND	114	117	2.6	103	101	2.0	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	100	94	6.2	96	104	8.0	70 - 130	30
1,2-Dibromoethane	ND	113	107	5.5	102	108	5.7	70 - 130	30
1,2-Dichlorobenzene	ND	102	99	3.0	96	99	3.1	70 - 130	30
1,2-Dichloroethane	ND	114	107	6.3	105	108	2.8	70 - 130	30
1,2-Dichloropropane	ND	111	110	0.9	101	106	4.8	70 - 130	30
1,3,5-Trimethylbenzene	ND	111	113	1.8	104	102	1.9	70 - 130	30
1,3-Dichlorobenzene	ND	103	102	1.0	99	99	0.0	70 - 130	30
1,3-Dichloropropane	ND	113	107	5.5	105	108	2.8	70 - 130	30
1,4-Dichlorobenzene	ND	103	102	1.0	97	97	0.0	70 - 130	30
2,2-Dichloropropane	ND	113	110	2.7	90	90	0.0	70 - 130	30
2-Chlorotoluene	ND	106	107	0.9	101	99	2.0	70 - 130	30
2-Hexanone	ND	114	104	9.2	106	118	10.7	70 - 130	30

QA/QC Data

SDG I.D.: GBG34034

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Isopropyltoluene	ND	101	105	3.9	98	98	0.0	70 - 130	30	
4-Chlorotoluene	ND	110	107	2.8	101	99	2.0	70 - 130	30	
4-Methyl-2-pentanone	ND	119	109	8.8	113	121	6.8	70 - 130	30	
Acetone	ND	119	107	10.6	121	124	2.4	70 - 130	30	
Acrylonitrile	ND	125	107	15.5	110	123	11.2	70 - 130	30	
Benzene	ND	108	110	1.8	101	102	1.0	70 - 130	30	
Bromobenzene	ND	107	104	2.8	99	101	2.0	70 - 130	30	
Bromochloromethane	ND	111	103	7.5	101	106	4.8	70 - 130	30	
Bromodichloromethane	ND	111	105	5.6	103	105	1.9	70 - 130	30	
Bromoform	ND	105	98	6.9	98	102	4.0	70 - 130	30	
Bromomethane	ND	86	99	14.1	39	49	22.7	70 - 130	30	m
Carbon Disulfide	ND	85	84	1.2	84	86	2.4	70 - 130	30	
Carbon tetrachloride	ND	112	115	2.6	98	98	0.0	70 - 130	30	
Chlorobenzene	ND	105	103	1.9	99	99	0.0	70 - 130	30	
Chloroethane	ND	86	83	3.6	74	75	1.3	70 - 130	30	
Chloroform	ND	114	111	2.7	106	108	1.9	70 - 130	30	
Chloromethane	ND	106	107	0.9	85	85	0.0	70 - 130	30	
cis-1,2-Dichloroethene	ND	114	110	3.6	99	106	6.8	70 - 130	30	
cis-1,3-Dichloropropene	ND	110	107	2.8	102	105	2.9	70 - 130	30	
Dibromochloromethane	ND	110	103	6.6	99	106	6.8	70 - 130	30	
Dibromomethane	ND	112	108	3.6	103	112	8.4	70 - 130	30	
Dichlorodifluoromethane	ND	107	103	3.8	74	74	0.0	70 - 130	30	
Ethylbenzene	ND	103	104	1.0	97	95	2.1	70 - 130	30	
Hexachlorobutadiene	ND	105	123	15.8	97	103	6.0	70 - 130	30	
Isopropylbenzene	ND	110	115	4.4	103	100	3.0	70 - 130	30	
m&p-Xylene	ND	105	104	1.0	97	97	0.0	70 - 130	30	
Methyl ethyl ketone	ND	119	107	10.6	111	136	20.2	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	104	97	7.0	105	108	2.8	70 - 130	30	
Methylene chloride	ND	101	94	7.2	89	97	8.6	70 - 130	30	
Naphthalene	ND	103	103	0.0	100	112	11.3	70 - 130	30	
n-Butylbenzene	ND	117	122	4.2	104	104	0.0	70 - 130	30	
n-Propylbenzene	ND	117	121	3.4	102	101	1.0	70 - 130	30	
o-Xylene	ND	109	108	0.9	102	102	0.0	70 - 130	30	
p-Isopropyltoluene	ND	110	116	5.3	104	103	1.0	70 - 130	30	
sec-Butylbenzene	ND	107	112	4.6	103	101	2.0	70 - 130	30	
Styrene	ND	109	108	0.9	101	104	2.9	70 - 130	30	
tert-Butylbenzene	ND	112	115	2.6	103	99	4.0	70 - 130	30	
Tetrachloroethene	ND	104	107	2.8	95	94	1.1	70 - 130	30	
Tetrahydrofuran (THF)	ND	115	105	9.1	106	118	10.7	70 - 130	30	
Toluene	ND	105	108	2.8	97	99	2.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	106	103	2.9	94	94	0.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	110	102	7.5	101	106	4.8	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	115	101	13.0	99	106	6.8	70 - 130	30	
Trichloroethene	ND	107	110	2.8	99	98	1.0	70 - 130	30	
Trichlorofluoromethane	ND	91	90	1.1	74	75	1.3	70 - 130	30	
Trichlorotrifluoroethane	ND	90	87	3.4	74	74	0.0	70 - 130	30	
Vinyl chloride	ND	95	95	0.0	75	75	0.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	100	96	4.1	100	101	1.0	70 - 130	30	
% Bromofluorobenzene	101	102	101	1.0	102	103	1.0	70 - 130	30	
% Dibromofluoromethane	95	102	98	4.0	100	104	3.9	70 - 130	30	
% Toluene-d8	101	100	104	3.9	102	101	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBG34034

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

Comment:

A blank MS/MSD was analyzed with this batch.

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

QA/QC Batch 272130, QC Sample No: BG33717 (BG34038, BG34042 (42X) , BG34043 (50, 1X) , BG34044)

Volatiles - Solid

1,1,1,2-Tetrachloroethane	ND	108	105	2.8	94	94	0.0	70 - 130	30	
1,1,1-Trichloroethane	ND	98	97	1.0	84	87	3.5	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	107	102	4.8	92	105	13.2	70 - 130	30	
1,1,2-Trichloroethane	ND	115	110	4.4	93	97	4.2	70 - 130	30	
1,1-Dichloroethane	ND	98	97	1.0	82	89	8.2	70 - 130	30	
1,1-Dichloroethene	ND	94	90	4.3	81	81	0.0	70 - 130	30	
1,1-Dichloropropene	ND	105	97	7.9	89	88	1.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	118	107	9.8	67	66	1.5	70 - 130	30	m
1,2,3-Trichloropropane	ND	113	110	2.7	91	110	18.9	70 - 130	30	
1,2,4-Trichlorobenzene	ND	119	105	12.5	64	63	1.6	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	118	112	5.2	92	104	12.2	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	106	95	10.9	78	95	19.7	70 - 130	30	
1,2-Dibromoethane	ND	114	108	5.4	93	87	6.7	70 - 130	30	
1,2-Dichlorobenzene	ND	108	103	4.7	83	90	8.1	70 - 130	30	
1,2-Dichloroethane	ND	112	106	5.5	89	91	2.2	70 - 130	30	
1,2-Dichloropropane	ND	107	101	5.8	92	92	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	110	106	3.7	93	104	11.2	70 - 130	30	
1,3-Dichlorobenzene	ND	109	104	4.7	84	90	6.9	70 - 130	30	
1,3-Dichloropropane	ND	112	105	6.5	96	98	2.1	70 - 130	30	
1,4-Dichlorobenzene	ND	109	103	5.7	81	87	7.1	70 - 130	30	
2,2-Dichloropropane	ND	102	97	5.0	81	85	4.8	70 - 130	30	
2-Chlorotoluene	ND	109	101	7.6	92	103	11.3	70 - 130	30	
2-Hexanone	ND	113	105	7.3	76	84	10.0	70 - 130	30	
2-Isopropyltoluene	ND	106	101	4.8	90	103	13.5	70 - 130	30	
4-Chlorotoluene	ND	109	104	4.7	86	96	11.0	70 - 130	30	
4-Methyl-2-pentanone	ND	120	110	8.7	91	94	3.2	70 - 130	30	
Acetone	ND	88	87	1.1	71	80	11.9	70 - 130	30	
Acrylonitrile	ND	90	87	3.4	69	79	13.5	70 - 130	30	m
Benzene	ND	104	101	2.9	95	94	1.1	70 - 130	30	
Bromobenzene	ND	110	102	7.5	93	99	6.3	70 - 130	30	
Bromochloromethane	ND	98	95	3.1	89	92	3.3	70 - 130	30	
Bromodichloromethane	ND	111	101	9.4	94	92	2.2	70 - 130	30	
Bromoform	ND	111	107	3.7	90	99	9.5	70 - 130	30	
Bromomethane	ND	87	93	6.7	83	86	3.6	70 - 130	30	
Carbon Disulfide	ND	85	83	2.4	79	79	0.0	70 - 130	30	
Carbon tetrachloride	ND	107	104	2.8	90	92	2.2	70 - 130	30	
Chlorobenzene	ND	105	100	4.9	87	89	2.3	70 - 130	30	
Chloroethane	ND	93	93	0.0	83	87	4.7	70 - 130	30	
Chloroform	ND	100	98	2.0	85	88	3.5	70 - 130	30	
Chloromethane	ND	93	94	1.1	79	80	1.3	70 - 130	30	
cis-1,2-Dichloroethene	ND	96	97	1.0	83	85	2.4	70 - 130	30	
cis-1,3-Dichloropropene	ND	110	106	3.7	94	93	1.1	70 - 130	30	
Dibromochloromethane	ND	118	114	3.4	97	97	0.0	70 - 130	30	
Dibromomethane	ND	110	101	8.5	88	90	2.2	70 - 130	30	
Dichlorodifluoromethane	ND	95	95	0.0	71	76	6.8	70 - 130	30	
Ethylbenzene	ND	103	102	1.0	90	96	6.5	70 - 130	30	
Hexachlorobutadiene	ND	107	100	6.8	71	76	6.8	70 - 130	30	

QA/QC Data

SDG I.D.: GBG34034

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Isopropylbenzene	ND	110	104	5.6	97	108	10.7	70 - 130	30	
m&p-Xylene	ND	106	103	2.9	91	93	2.2	70 - 130	30	
Methyl ethyl ketone	ND	92	85	7.9	67	82	20.1	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	110	107	2.8	100	100	0.0	70 - 130	30	
Methylene chloride	ND	95	93	2.1	109	119	8.8	70 - 130	30	
Naphthalene	ND	120	111	7.8	72	68	5.7	70 - 130	30	m
n-Butylbenzene	ND	115	106	8.1	82	90	9.3	70 - 130	30	
n-Propylbenzene	ND	116	107	8.1	92	104	12.2	70 - 130	30	
o-Xylene	ND	106	102	3.8	97	101	4.0	70 - 130	30	
p-Isopropyltoluene	ND	114	108	5.4	88	98	10.8	70 - 130	30	
sec-Butylbenzene	ND	106	101	4.8	91	104	13.3	70 - 130	30	
Styrene	ND	108	103	4.7	94	92	2.2	70 - 130	30	
tert-Butylbenzene	ND	111	108	2.7	95	110	14.6	70 - 130	30	
Tetrachloroethene	ND	104	97	7.0	89	92	3.3	70 - 130	30	
Tetrahydrofuran (THF)	ND	100	94	6.2	74	81	9.0	70 - 130	30	
Toluene	ND	106	102	3.8	93	91	2.2	70 - 130	30	
trans-1,2-Dichloroethene	ND	92	93	1.1	79	82	3.7	70 - 130	30	
trans-1,3-Dichloropropene	ND	110	108	1.8	91	87	4.5	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	106	99	6.8	81	91	11.6	70 - 130	30	
Trichloroethene	ND	106	100	5.8	94	89	5.5	70 - 130	30	
Trichlorofluoromethane	ND	99	97	2.0	83	87	4.7	70 - 130	30	
Trichlorotrifluoroethane	ND	92	91	1.1	78	82	5.0	70 - 130	30	
Vinyl chloride	ND	92	94	2.2	81	82	1.2	70 - 130	30	
% 1,2-dichlorobenzene-d4	102	101	100	1.0	99	102	3.0	70 - 130	30	
% Bromofluorobenzene	97	101	104	2.9	97	92	5.3	70 - 130	30	
% Dibromofluoromethane	94	92	96	4.3	86	90	4.5	70 - 130	30	
% Toluene-d8	102	100	101	1.0	100	98	2.0	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 271904, QC Sample No: BG33807 (BG34041, BG34042, BG34043, BG34044)

TPH by GC (Extractable Products) - Solid

Ext. Petroleum HC	ND	110	67	48.6	64	54	16.9	60 - 120	30	r
% n-Pentacosane	54	98	60	48.1	71	56	23.6	50 - 150	30	r

QA/QC Batch 271906, QC Sample No: BG33807 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041)

Semivolatiles - Solid

1,2,4,5-Tetrachlorobenzene	ND	90	95	5.4	94	94	0.0	30 - 130	30	
1,2,4-Trichlorobenzene	ND	91	90	1.1	93	93	0.0	30 - 130	30	
1,2-Dichlorobenzene	ND	83	83	0.0	83	84	1.2	30 - 130	30	
1,2-Diphenylhydrazine	ND	92	95	3.2	92	97	5.3	30 - 130	30	
1,3-Dichlorobenzene	ND	83	83	0.0	83	84	1.2	30 - 130	30	
1,4-Dichlorobenzene	ND	83	82	1.2	83	83	0.0	30 - 130	30	
2,4,5-Trichlorophenol	ND	95	102	7.1	103	103	0.0	30 - 130	30	
2,4,6-Trichlorophenol	ND	96	104	8.0	107	107	0.0	30 - 130	30	
2,4-Dichlorophenol	ND	97	101	4.0	100	101	1.0	30 - 130	30	
2,4-Dimethylphenol	ND	61	63	3.2	66	68	3.0	30 - 130	30	
2,4-Dinitrophenol	ND	<10	<10	NC	21	30	35.3	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	93	98	5.2	92	97	5.3	30 - 130	30	
2,6-Dinitrotoluene	ND	92	96	4.3	95	96	1.0	30 - 130	30	
2-Chloronaphthalene	ND	91	94	3.2	97	97	0.0	30 - 130	30	
2-Chlorophenol	ND	90	92	2.2	93	93	0.0	30 - 130	30	
2-Methylnaphthalene	ND	87	89	2.3	88	89	1.1	30 - 130	30	

QA/QC Data

SDG I.D.: GBG34034

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
2-Methylphenol (o-cresol)	ND	84	88	4.7	88	88	0.0	30 - 130	30	
2-Nitroaniline	ND	163	162	0.6	136	NC	NC	30 - 130	30	l,m
2-Nitrophenol	ND	96	98	2.1	100	102	2.0	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	87	95	8.8	92	91	1.1	30 - 130	30	
3,3'-Dichlorobenzidine	ND	150	163	8.3	134	142	5.8	30 - 130	30	l,m
3-Nitroaniline	ND	166	175	5.3	NC	NC	NC	30 - 130	30	l
4,6-Dinitro-2-methylphenol	ND	56	68	19.4	83	89	7.0	30 - 130	30	
4-Bromophenyl phenyl ether	ND	88	94	6.6	100	95	5.1	30 - 130	30	
4-Chloro-3-methylphenol	ND	98	105	6.9	100	104	3.9	30 - 130	30	
4-Chloroaniline	ND	93	94	1.1	81	87	7.1	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	93	101	8.2	99	100	1.0	30 - 130	30	
4-Nitroaniline	ND	100	105	4.9	101	106	4.8	30 - 130	30	
4-Nitrophenol	ND	99	111	11.4	99	113	13.2	30 - 130	30	
Acenaphthene	ND	88	91	3.4	91	93	2.2	30 - 130	30	
Acenaphthylene	ND	88	92	4.4	93	96	3.2	30 - 130	30	
Acetophenone	ND	91	94	3.2	93	93	0.0	30 - 130	30	
Aniline	ND	94	97	3.1	86	89	3.4	30 - 130	30	
Anthracene	ND	92	94	2.2	95	97	2.1	30 - 130	30	
Benz(a)anthracene	ND	80	84	4.9	83	84	1.2	30 - 130	30	
Benzidine	ND	>200	>200	NC	NC	NC	NC	30 - 130	30	l
Benzo(a)pyrene	ND	84	87	3.5	88	92	4.4	30 - 130	30	
Benzo(b)fluoranthene	ND	98	95	3.1	99	108	8.7	30 - 130	30	
Benzo(ghi)perylene	ND	88	87	1.1	91	97	6.4	30 - 130	30	
Benzo(k)fluoranthene	ND	94	102	8.2	108	101	6.7	30 - 130	30	
Benzyl butyl phthalate	ND	82	85	3.6	92	87	5.6	30 - 130	30	
Bis(2-chloroethoxy)methane	ND	89	90	1.1	92	93	1.1	30 - 130	30	
Bis(2-chloroethyl)ether	ND	76	75	1.3	75	76	1.3	30 - 130	30	
Bis(2-chloroisopropyl)ether	ND	88	88	0.0	89	91	2.2	30 - 130	30	
Bis(2-ethylhexyl)phthalate	ND	86	89	3.4	96	93	3.2	30 - 130	30	
Carbazole	ND	150	144	4.1	144	NC	NC	30 - 130	30	l,m
Chrysene	ND	81	86	6.0	82	87	5.9	30 - 130	30	
Dibenz(a,h)anthracene	ND	93	93	0.0	95	99	4.1	30 - 130	30	
Dibenzofuran	ND	90	94	4.3	93	96	3.2	30 - 130	30	
Diethyl phthalate	ND	91	96	5.3	96	97	1.0	30 - 130	30	
Dimethylphthalate	ND	91	95	4.3	96	97	1.0	30 - 130	30	
Di-n-butylphthalate	ND	102	97	5.0	107	101	5.8	30 - 130	30	
Di-n-octylphthalate	ND	81	87	7.1	82	84	2.4	30 - 130	30	
Fluoranthene	ND	107	98	8.8	108	116	7.1	30 - 130	30	
Fluorene	ND	94	101	7.2	98	101	3.0	30 - 130	30	
Hexachlorobenzene	ND	89	91	2.2	99	93	6.3	30 - 130	30	
Hexachlorobutadiene	ND	89	89	0.0	91	92	1.1	30 - 130	30	
Hexachlorocyclopentadiene	ND	54	59	8.8	52	49	5.9	30 - 130	30	
Hexachloroethane	ND	83	84	1.2	84	85	1.2	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	91	91	0.0	94	99	5.2	30 - 130	30	
Isophorone	ND	96	97	1.0	99	100	1.0	30 - 130	30	
Naphthalene	ND	88	88	0.0	90	91	1.1	30 - 130	30	
Nitrobenzene	ND	87	89	2.3	88	89	1.1	30 - 130	30	
N-Nitrosodimethylamine	ND	83	84	1.2	84	84	0.0	30 - 130	30	
N-Nitrosodi-n-propylamine	ND	86	91	5.6	89	88	1.1	30 - 130	30	
N-Nitrosodiphenylamine	ND	103	109	5.7	103	109	5.7	30 - 130	30	
Pentachloronitrobenzene	ND	97	98	1.0	107	103	3.8	30 - 130	30	
Pentachlorophenol	ND	91	97	6.4	126	131	3.9	30 - 130	30	m
Phenanthrene	ND	93	95	2.1	97	105	7.9	30 - 130	30	

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Phenol	ND	92	96	4.3	96	95	1.0	30 - 130	30	
Pyrene	ND	110	99	10.5	112	128	13.3	30 - 130	30	
Pyridine	ND	81	77	5.1	73	77	5.3	30 - 130	30	
% 2,4,6-Tribromophenol	92	93	96	3.2	101	104	2.9	30 - 130	30	
% 2-Fluorobiphenyl	82	84	87	3.5	90	89	1.1	30 - 130	30	
% 2-Fluorophenol	87	83	86	3.6	86	88	2.3	30 - 130	30	
% Nitrobenzene-d5	84	83	86	3.6	84	86	2.4	30 - 130	30	
% Phenol-d5	87	84	89	5.8	86	87	1.2	30 - 130	30	
% Terphenyl-d14	89	115	103	11.0	115	122	5.9	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 271900, QC Sample No: BG33927 (BG34046)

Semivolatiles - Water

1,2,4,5-Tetrachlorobenzene	ND	97	95	2.1				30 - 130	20	
1,2,4-Trichlorobenzene	ND	93	92	1.1				30 - 130	20	
1,2-Dichlorobenzene	ND	83	82	1.2				30 - 130	20	
1,2-Diphenylhydrazine	ND	93	90	3.3				30 - 130	20	
1,3-Dichlorobenzene	ND	84	81	3.6				30 - 130	20	
1,4-Dichlorobenzene	ND	83	82	1.2				30 - 130	20	
2,4,5-Trichlorophenol	ND	103	102	1.0				30 - 130	20	
2,4,6-Trichlorophenol	ND	105	104	1.0				30 - 130	20	
2,4-Dichlorophenol	ND	101	98	3.0				30 - 130	20	
2,4-Dimethylphenol	ND	61	59	3.3				30 - 130	20	
2,4-Dinitrophenol	ND	106	100	5.8				30 - 130	20	
2,4-Dinitrotoluene	ND	104	100	3.9				30 - 130	20	
2,6-Dinitrotoluene	ND	97	95	2.1				30 - 130	20	
2-Chloronaphthalene	ND	95	93	2.1				30 - 130	20	
2-Chlorophenol	ND	86	86	0.0				30 - 130	20	
2-Methylnaphthalene	ND	90	87	3.4				30 - 130	20	
2-Methylphenol (o-cresol)	ND	80	80	0.0				30 - 130	20	
2-Nitroaniline	ND	165	139	17.1				30 - 130	20	I
2-Nitrophenol	ND	103	102	1.0				30 - 130	20	
3&4-Methylphenol (m&p-cresol)	ND	86	85	1.2				30 - 130	20	
3,3'-Dichlorobenzidine	ND	>200	185	NC				30 - 130	20	I
3-Nitroaniline	ND	173	159	8.4				30 - 130	20	I
4,6-Dinitro-2-methylphenol	ND	122	113	7.7				30 - 130	20	
4-Bromophenyl phenyl ether	ND	97	97	0.0				30 - 130	20	
4-Chloro-3-methylphenol	ND	103	101	2.0				30 - 130	20	
4-Chloroaniline	ND	68	64	6.1				30 - 130	20	
4-Chlorophenyl phenyl ether	ND	101	101	0.0				30 - 130	20	
4-Nitroaniline	ND	101	98	3.0				30 - 130	20	
4-Nitrophenol	ND	107	98	8.8				15 - 130	20	
Acenaphthene	ND	89	88	1.1				30 - 130	20	
Acenaphthylene	ND	92	90	2.2				30 - 130	20	
Acetophenone	ND	92	91	1.1				30 - 130	20	
Aniline	ND	59	57	3.4				30 - 130	20	
Anthracene	ND	96	93	3.2				30 - 130	20	
Benz(a)anthracene	ND	90	90	0.0				30 - 130	20	
Benzidine	ND	>200	>200	NC				30 - 130	20	I
Benzo(a)pyrene	ND	88	86	2.3				30 - 130	20	
Benzo(b)fluoranthene	ND	101	105	3.9				30 - 130	20	

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Benzo(ghi)perylene	ND	100	85	16.2				30 - 130	20
Benzo(k)fluoranthene	ND	98	97	1.0				30 - 130	20
Benzoic acid	ND	73	68	7.1				30 - 130	20
Benzyl butyl phthalate	ND	90	99	9.5				30 - 130	20
Bis(2-chloroethoxy)methane	ND	89	87	2.3				30 - 130	20
Bis(2-chloroethyl)ether	ND	73	71	2.8				30 - 130	20
Bis(2-chloroisopropyl)ether	ND	82	80	2.5				30 - 130	20
Bis(2-ethylhexyl)phthalate	ND	92	101	9.3				30 - 130	20
Carbazole	ND	144	131	9.5				30 - 130	20
Chrysene	ND	101	102	1.0				30 - 130	20
Dibenz(a,h)anthracene	ND	107	90	17.3				30 - 130	20
Dibenzofuran	ND	97	95	2.1				30 - 130	20
Diethyl phthalate	ND	97	97	0.0				30 - 130	20
Dimethylphthalate	ND	96	95	1.0				30 - 130	20
Di-n-butylphthalate	ND	100	99	1.0				30 - 130	20
Di-n-octylphthalate	ND	99	102	3.0				30 - 130	20
Fluoranthene	ND	104	97	7.0				30 - 130	20
Fluorene	ND	101	99	2.0				30 - 130	20
Hexachlorobenzene	ND	93	94	1.1				30 - 130	20
Hexachlorobutadiene	ND	94	93	1.1				30 - 130	20
Hexachlorocyclopentadiene	ND	62	60	3.3				30 - 130	20
Hexachloroethane	ND	82	83	1.2				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	104	89	15.5				30 - 130	20
Isophorone	ND	94	93	1.1				30 - 130	20
Naphthalene	ND	86	85	1.2				30 - 130	20
Nitrobenzene	ND	86	84	2.4				30 - 130	20
N-Nitrosodimethylamine	ND	72	67	7.2				30 - 130	20
N-Nitrosodi-n-propylamine	ND	89	87	2.3				30 - 130	20
N-Nitrosodiphenylamine	ND	112	107	4.6				30 - 130	20
Pentachloronitrobenzene	ND	102	104	1.9				30 - 130	20
Pentachlorophenol	ND	118	120	1.7				30 - 130	20
Phenanthrene	ND	98	97	1.0				30 - 130	20
Phenol	ND	82	81	1.2				15 - 130	20
Pyrene	ND	107	99	7.8				30 - 130	20
Pyridine	ND	41	41	0.0				30 - 130	20
% 2,4,6-Tribromophenol	91	97	97	0.0				15 - 110	20
% 2-Fluorobiphenyl	87	88	87	1.1				30 - 130	20
% 2-Fluorophenol	83	69	67	2.9				15 - 110	20
% Nitrobenzene-d5	94	84	82	2.4				30 - 130	20
% Phenol-d5	86	71	70	1.4				15 - 110	20
% Terphenyl-d14	93	93	85	9.0				30 - 130	20

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 271903, QC Sample No: BG34035 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040)

TPH by GC (Extractable Products) - Solid

Ext. Petroleum HC	ND	64	68	6.1	71	79	10.7	60 - 120	30
% n-Pentacosane	123	66	74	11.4	79	84	6.1	50 - 150	30

QA/QC Batch 271911, QC Sample No: BG34104 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)

Polychlorinated Biphenyls - Solid

PCB-1016	ND	84			96	102	6.1	40 - 140	30

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
PCB-1221	ND							40 - 140	30	
PCB-1232	ND							40 - 140	30	
PCB-1242	ND							40 - 140	30	
PCB-1248	ND							40 - 140	30	
PCB-1254	ND							40 - 140	30	
PCB-1260	ND	87			85	100	16.2	40 - 140	30	
PCB-1262	ND							40 - 140	30	
PCB-1268	ND							40 - 140	30	
% DCBP (Surrogate Rec)	64	85			88	89	1.1	30 - 150	30	
% TCMX (Surrogate Rec)	61	93			84	89	5.8	30 - 150	30	
QA/QC Batch 271910, QC Sample No: BG34107 (BG34042, BG34043, BG34044)										
Semivolatiles - Solid										
1,2,4,5-Tetrachlorobenzene	ND	84	87	3.5	84	82	2.4	30 - 130	30	
1,2,4-Trichlorobenzene	ND	85	85	0.0	84	83	1.2	30 - 130	30	
1,2-Dichlorobenzene	ND	80	80	0.0	77	77	0.0	30 - 130	30	
1,2-Diphenylhydrazine	ND	86	86	0.0	83	89	7.0	30 - 130	30	
1,3-Dichlorobenzene	ND	80	79	1.3	77	77	0.0	30 - 130	30	
1,4-Dichlorobenzene	ND	79	77	2.6	76	75	1.3	30 - 130	30	
2,4,5-Trichlorophenol	ND	93	96	3.2	98	99	1.0	30 - 130	30	
2,4,6-Trichlorophenol	ND	87	89	2.3	94	95	1.1	30 - 130	30	
2,4-Dichlorophenol	ND	90	91	1.1	90	89	1.1	30 - 130	30	
2,4-Dimethylphenol	ND	56	56	0.0	58	59	1.7	30 - 130	30	
2,4-Dinitrophenol	ND	<10	<10	NC	18	26	36.4	30 - 130	30	l,m,r
2,4-Dinitrotoluene	ND	91	92	1.1	90	91	1.1	30 - 130	30	
2,6-Dinitrotoluene	ND	89	88	1.1	88	90	2.2	30 - 130	30	
2-Chloronaphthalene	ND	86	87	1.2	87	88	1.1	30 - 130	30	
2-Chlorophenol	ND	84	84	0.0	81	82	1.2	30 - 130	30	
2-Methylnaphthalene	ND	82	82	0.0	81	80	1.2	30 - 130	30	
2-Methylphenol (o-cresol)	ND	81	82	1.2	80	83	3.7	30 - 130	30	
2-Nitroaniline	ND	115	115	0.0	113	118	4.3	30 - 130	30	
2-Nitrophenol	ND	83	84	1.2	86	91	5.6	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	82	81	1.2	78	81	3.8	30 - 130	30	
3,3'-Dichlorobenzidine	ND	107	112	4.6	94	98	4.2	30 - 130	30	
3-Nitroaniline	ND	91	91	0.0	87	89	2.3	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	32	40	22.2	86	94	8.9	30 - 130	30	
4-Bromophenyl phenyl ether	ND	85	86	1.2	85	84	1.2	30 - 130	30	
4-Chloro-3-methylphenol	ND	94	96	2.1	90	94	4.3	30 - 130	30	
4-Chloroaniline	ND	58	59	1.7	51	54	5.7	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	84	86	2.4	85	84	1.2	30 - 130	30	
4-Nitroaniline	ND	95	93	2.1	90	99	9.5	30 - 130	30	
4-Nitrophenol	ND	91	89	2.2	97	104	7.0	30 - 130	30	
Acenaphthene	ND	84	85	1.2	85	85	0.0	30 - 130	30	
Acenaphthylene	ND	85	84	1.2	84	86	2.4	30 - 130	30	
Acetophenone	ND	85	84	1.2	81	84	3.6	30 - 130	30	
Aniline	ND	79	78	1.3	67	69	2.9	30 - 130	30	
Anthracene	ND	86	88	2.3	86	87	1.2	30 - 130	30	
Benz(a)anthracene	ND	86	87	1.2	87	86	1.2	30 - 130	30	
Benzidine	ND	>200	>200	NC	NC	NC	NC	30 - 130	30	l
Benzo(a)pyrene	ND	78	78	0.0	79	78	1.3	30 - 130	30	
Benzo(b)fluoranthene	ND	84	88	4.7	88	90	2.2	30 - 130	30	
Benzo(ghi)perylene	ND	84	87	3.5	85	85	0.0	30 - 130	30	
Benzo(k)fluoranthene	ND	87	85	2.3	87	83	4.7	30 - 130	30	

QA/QC Data

SDG I.D.: GBG34034

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Benzyl butyl phthalate	ND	88	85	3.5	89	92	3.3	30 - 130	30
Bis(2-chloroethoxy)methane	ND	81	81	0.0	79	81	2.5	30 - 130	30
Bis(2-chloroethyl)ether	ND	78	77	1.3	74	77	4.0	30 - 130	30
Bis(2-chloroisopropyl)ether	ND	81	79	2.5	75	81	7.7	30 - 130	30
Bis(2-ethylhexyl)phthalate	ND	86	84	2.4	86	87	1.2	30 - 130	30
Carbazole	ND	91	91	0.0	96	97	1.0	30 - 130	30
Chrysene	ND	87	87	0.0	89	88	1.1	30 - 130	30
Dibenz(a,h)anthracene	ND	86	88	2.3	87	87	0.0	30 - 130	30
Dibenzofuran	ND	86	86	0.0	86	85	1.2	30 - 130	30
Diethyl phthalate	ND	86	87	1.2	85	86	1.2	30 - 130	30
Dimethylphthalate	ND	85	85	0.0	84	86	2.4	30 - 130	30
Di-n-butylphthalate	ND	86	86	0.0	88	89	1.1	30 - 130	30
Di-n-octylphthalate	ND	83	85	2.4	78	86	9.8	30 - 130	30
Fluoranthene	ND	89	86	3.4	96	94	2.1	30 - 130	30
Fluorene	ND	86	88	2.3	87	87	0.0	30 - 130	30
Hexachlorobenzene	ND	86	84	2.4	83	86	3.6	30 - 130	30
Hexachlorobutadiene	ND	81	82	1.2	80	79	1.3	30 - 130	30
Hexachlorocyclopentadiene	ND	67	72	7.2	65	64	1.6	30 - 130	30
Hexachloroethane	ND	80	80	0.0	76	78	2.6	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	85	87	2.3	86	86	0.0	30 - 130	30
Isophorone	ND	87	88	1.1	85	87	2.3	30 - 130	30
Naphthalene	ND	82	82	0.0	80	81	1.2	30 - 130	30
Nitrobenzene	ND	83	80	3.7	78	82	5.0	30 - 130	30
N-Nitrosodimethylamine	ND	83	78	6.2	70	77	9.5	30 - 130	30
N-Nitrosodi-n-propylamine	ND	83	83	0.0	77	83	7.5	30 - 130	30
N-Nitrosodiphenylamine	ND	95	98	3.1	96	97	1.0	30 - 130	30
Pentachloronitrobenzene	ND	87	88	1.1	89	90	1.1	30 - 130	30
Pentachlorophenol	ND	73	74	1.4	111	112	0.9	30 - 130	30
Phenanthrene	ND	87	87	0.0	87	88	1.1	30 - 130	30
Phenol	ND	96	93	3.2	90	95	5.4	30 - 130	30
Pyrene	ND	91	88	3.4	98	95	3.1	30 - 130	30
Pyridine	ND	73	71	2.8	61	64	4.8	30 - 130	30
% 2,4,6-Tribromophenol	83	87	85	2.3	85	93	9.0	30 - 130	30
% 2-Fluorobiphenyl	78	79	80	1.3	80	80	0.0	30 - 130	30
% 2-Fluorophenol	78	78	77	1.3	75	77	2.6	30 - 130	30
% Nitrobenzene-d5	77	80	79	1.3	76	78	2.6	30 - 130	30
% Phenol-d5	80	82	80	2.5	78	81	3.8	30 - 130	30
% Terphenyl-d14	76	95	91	4.3	102	96	6.1	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 272030, QC Sample No: BG34114 (BG34034, BG34035, BG34036, BG34037, BG34039, BG34040, BG34041, BG34042, BG34045, BG34047 (50X))

Volatiles - Solid

1,1,1,2-Tetrachloroethane	ND	86	87	1.2	99	103	4.0	70 - 130	30
1,1,1-Trichloroethane	ND	85	81	4.8	108	109	0.9	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	87	87	0.0	99	103	4.0	70 - 130	30
1,1,2-Trichloroethane	ND	88	86	2.3	99	102	3.0	70 - 130	30
1,1-Dichloroethane	ND	82	79	3.7	105	106	0.9	70 - 130	30
1,1-Dichloroethene	ND	81	77	5.1	116	118	1.7	70 - 130	30
1,1-Dichloropropene	ND	94	99	5.2	108	114	5.4	70 - 130	30
1,2,3-Trichlorobenzene	ND	94	93	1.1	103	103	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GBG34034

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2,3-Trichloropropane	ND	92	94	2.2	93	103	10.2	70 - 130	30
1,2,4-Trichlorobenzene	ND	105	104	1.0	104	102	1.9	70 - 130	30
1,2,4-Trimethylbenzene	ND	99	103	4.0	106	106	0.0	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	80	79	1.3	99	102	3.0	70 - 130	30
1,2-Dibromoethane	ND	91	89	2.2	103	105	1.9	70 - 130	30
1,2-Dichlorobenzene	ND	94	92	2.2	105	105	0.0	70 - 130	30
1,2-Dichloroethane	ND	88	84	4.7	101	103	2.0	70 - 130	30
1,2-Dichloropropane	ND	91	88	3.4	104	105	1.0	70 - 130	30
1,3,5-Trimethylbenzene	ND	99	104	4.9	107	107	0.0	70 - 130	30
1,3-Dichlorobenzene	ND	102	100	2.0	106	104	1.9	70 - 130	30
1,3-Dichloropropane	ND	93	95	2.1	102	102	0.0	70 - 130	30
1,4-Dichlorobenzene	ND	95	93	2.1	105	105	0.0	70 - 130	30
2,2-Dichloropropane	ND	88	95	7.7	102	106	3.8	70 - 130	30
2-Chlorotoluene	ND	102	106	3.8	109	112	2.7	70 - 130	30
2-Hexanone	ND	76	81	6.4	93	98	5.2	70 - 130	30
2-Isopropyltoluene	ND	103	107	3.8	107	109	1.9	70 - 130	30
4-Chlorotoluene	ND	99	106	6.8	106	108	1.9	70 - 130	30
4-Methyl-2-pentanone	ND	83	83	0.0	98	102	4.0	70 - 130	30
Acetone	ND	68	75	9.8	97	92	5.3	70 - 130	30
Acrylonitrile	ND	69	68	1.5	98	102	4.0	70 - 130	30
Benzene	ND	90	86	4.5	106	109	2.8	70 - 130	30
Bromobenzene	ND	99	103	4.0	108	109	0.9	70 - 130	30
Bromochloromethane	ND	87	84	3.5	102	104	1.9	70 - 130	30
Bromodichloromethane	ND	90	87	3.4	99	105	5.9	70 - 130	30
Bromoform	ND	86	87	1.2	100	104	3.9	70 - 130	30
Bromomethane	ND	91	89	2.2	118	122	3.3	70 - 130	30
Carbon Disulfide	ND	86	82	4.8	111	115	3.5	70 - 130	30
Carbon tetrachloride	ND	94	86	8.9	110	115	4.4	70 - 130	30
Chlorobenzene	ND	93	91	2.2	106	109	2.8	70 - 130	30
Chloroethane	ND	89	87	2.3	115	114	0.9	70 - 130	30
Chloroform	ND	85	80	6.1	103	105	1.9	70 - 130	30
Chloromethane	ND	87	83	4.7	106	109	2.8	70 - 130	30
cis-1,2-Dichloroethene	ND	84	83	1.2	103	108	4.7	70 - 130	30
cis-1,3-Dichloropropene	ND	89	86	3.4	104	106	1.9	70 - 130	30
Dibromochloromethane	ND	90	90	0.0	103	105	1.9	70 - 130	30
Dibromomethane	ND	89	92	3.3	96	103	7.0	70 - 130	30
Dichlorodifluoromethane	ND	80	77	3.8	109	118	7.9	70 - 130	30
Ethylbenzene	ND	93	90	3.3	108	110	1.8	70 - 130	30
Hexachlorobutadiene	ND	106	113	6.4	98	96	2.1	70 - 130	30
Isopropylbenzene	ND	91	88	3.4	110	113	2.7	70 - 130	30
m&p-Xylene	ND	93	90	3.3	107	108	0.9	70 - 130	30
Methyl ethyl ketone	ND	75	80	6.5	94	101	7.2	70 - 130	30
Methyl t-butyl ether (MTBE)	ND	89	86	3.4	100	103	3.0	70 - 130	30
Methylene chloride	2.1 JS	83	81	2.4	100	100	0.0	70 - 130	30
Naphthalene	ND	99	101	2.0	104	108	3.8	70 - 130	30
n-Butylbenzene	ND	101	108	6.7	105	106	0.9	70 - 130	30
n-Propylbenzene	ND	100	105	4.9	111	112	0.9	70 - 130	30
o-Xylene	ND	94	92	2.2	108	109	0.9	70 - 130	30
p-Isopropyltoluene	ND	101	107	5.8	107	108	0.9	70 - 130	30
sec-Butylbenzene	ND	100	104	3.9	108	110	1.8	70 - 130	30
Styrene	ND	95	94	1.1	107	108	0.9	70 - 130	30
tert-Butylbenzene	ND	101	105	3.9	109	112	2.7	70 - 130	30
Tetrachloroethene	ND	95	91	4.3	109	110	0.9	70 - 130	30

QA/QC Data

SDG I.D.: GBG34034

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Tetrahydrofuran (THF)	ND	80	83	3.7	91	99	8.4	70 - 130	30
Toluene	ND	93	88	5.5	108	112	3.6	70 - 130	30
trans-1,2-Dichloroethene	ND	87	84	3.5	112	114	1.8	70 - 130	30
trans-1,3-Dichloropropene	ND	88	85	3.5	101	103	2.0	70 - 130	30
trans-1,4-dichloro-2-butene	ND	97	103	6.0	107	112	4.6	70 - 130	30
Trichloroethene	ND	95	89	6.5	107	112	4.6	70 - 130	30
Trichlorofluoromethane	ND	96	90	6.5	114	118	3.4	70 - 130	30
Trichlorotrifluoroethane	ND	99	95	4.1	113	117	3.5	70 - 130	30
Vinyl chloride	ND	93	90	3.3	113	118	4.3	70 - 130	30
% 1,2-dichlorobenzene-d4	99	101	101	0.0	100	101	1.0	70 - 130	30
% Bromofluorobenzene	92	96	97	1.0	99	97	2.0	70 - 130	30
% Dibromofluoromethane	92	96	98	2.1	98	98	0.0	70 - 130	30
% Toluene-d8	93	100	98	2.0	98	97	1.0	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.

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
April 24, 2014

Criteria: None

State: CT

Sample Criteria Exceedences Report

GBG34034 - HRPSTRAT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this 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: CTD301821 **Project Number:**

Laboratory Sample ID(s): BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044, BG34045, BG34046, BG34047

Sampling Date(s): 4/16/2014

RCP Methods Used:

☑ 1311/1312 ☑ 6010 ☐ 7000 ☐ 7196 ☑ 7470/7471 ☐ 8081 ☐ EPH ☐ TO15

☑ 8082 ☐ 8151 ☑ 8260 ☑ 8270 ☑ ETPH ☐ 9010/9012 ☐ VPH

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?	☑ Yes ☐ No
1a.	Were the method specified preservation and holding time requirements met?	☑ Yes ☐ No
1b.	EPH and VPH methods only: Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2.	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	☑ Yes ☐ No
3.	Were samples received at an appropriate temperature (< 6 Degrees C)?	☑ Yes ☐ No ☐ NA
4.	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ETPH Narration, ICP Narration, SVOA Narration, VOA Narration.	☐ Yes ☑ No
5a.	Were reporting limits specified or referenced on the chain-of-custody?	☐ Yes ☑ No
5b.	Were these reporting limits met?	☐ Yes ☐ No ☑ NA
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?	☐ Yes ☑ No ☐ NA
7.	Are project-specific matrix spikes and laboratory duplicates included in the data set?	☑ Yes ☐ No ☐ NA

Note: For all questions to which the response was "No" (with the exception of question #5a, #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".

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowlegde 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.

Date: Thursday, April 24, 2014

Authorized Signature: Kathleen Cressia

Printed Name: Kathleen Cressia

Position: QA/QC Officer

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

April 24, 2014

SDG I.D.: GBG34034

The client requested a shorter list of elements than the 6010 RCP list.

Cyanide Narration

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

Instrument: Lachat 04/10/14-1 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044, BG34046)

The samples were distilled in accordance with the method.
The initial calibration met criteria.

The calibration check standards (ICV,CCV) were within 15% of true value and were analyzed at a frequencey of one per ten samples.
The continuing calibration blanks (ICB,CCB) had concentrations less than the reporting level.

The method blank, laboratory control sample (LCS), and matrix spike were distilled with the samples.

Printed Name Greg Danielewski
Position: Chemist
Date: 4/10/2014

QC (Site Specific)

---------- Sample No: BG34035, QA/QC Batch: 272029 ----------

All LCS recoveries were within 85 - 115 with the following exceptions: None.

---------- Sample No: BG34037, QA/QC Batch: 272161 ----------

All LCS recoveries were within 85 - 115 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.

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

April 24, 2014

SDG I.D.: GBG34034

ETPH Narration

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

QC Batch 271651 (Samples: BG34046): -----

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

QC Batch 271904 (Samples: BG34041, BG34042, BG34043, BG34044): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Ext. Petroleum HC)

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

Instrument: Au-fid84 04/18/14-1 (BG34041, BG34046)

Initial Calibration (FID84 - ETPH_13) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

Printed Name Jeff Bucko
Position: Chemist
Date: 4/18/2014

Instrument: Au-fid84 04/18/14-2 (BG34036, BG34038, BG34039, BG34040, BG34042, BG34043)

Initial Calibration (FID84 - ETPH_13) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: C36

Printed Name Jeff Bucko
Position: Chemist
Date: 4/18/2014

Instrument: Au-fid84 04/19/14-1 (BG34034, BG34035)

Initial Calibration (FID84 - ETPH_13) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

Printed Name Jeff Bucko
Position: Chemist
Date: 4/19/2014

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April 24, 2014

SDG I.D.: GBG34034

Instrument: Au-fid84 04/21/14-1 (BG34035)

Initial Calibration (FID84 - ETPH_13) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

Printed Name Jeff Bucko
Position: Chemist
Date: 4/21/2014

Instrument: Au-fid84 04/21/14-2 (BG34037)

Initial Calibration (FID84 - ETPH_13) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: none

Printed Name Jeff Bucko
Position: Chemist
Date: 4/21/2014

Instrument: Au-xl1 04/19/14-2 (BG34044)

Initial Calibration (FIDXL1 ETPH_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: None

Printed Name Jeff Bucko
Position: Chemist
Date: 4/19/2014

Instrument: Au-xl2 04/22/14-1 (BG34037)

Initial Calibration (FID1 - ETPH_1) - The initial calibration curve was within method criteria and had a %RSD less than 30%.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers: None

Printed Name Jeff Bucko
Position: Chemist
Date: 4/22/2014

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SDG I.D.: GBG34034

QC (Site Specific)

---------- Sample No: BG34035, QA/QC Batch: 271903 ----------

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.

All MS recoveries were within 50 - 150 with the following exceptions: None.

All MSD recoveries were within 50 - 150 with the following exceptions: None.

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.

QC (Batch Specific)

---------- Sample No: BG32053, QA/QC Batch: 271651 ----------

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: % n-Pentacosane(28.6%)

---------- Sample No: BG33807, QA/QC Batch: 271904 ----------

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: % n-Pentacosane(48.1%), Ext. Petroleum HC(48.6%)

Mercury Narration

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

Instrument: Merlin 04/18/14-1 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044, BG34046)

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 interfernce for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

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SDG I.D.: GBG34034

Printed Name Rick Schweitzer
Position: Chemist
Date: 4/18/2014

Instrument: Merlin 04/21/14-1 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)

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 interfernce for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

Printed Name Rick Schweitzer
Position: Chemist
Date: 4/21/2014

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SDG I.D.: GBG34034

QC (Site Specific)

---------- Sample No: BG34036, QA/QC Batch: 271959 ----------

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 75 - 125 with the following exceptions: None.

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

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

---------- Sample No: BG34046, QA/QC Batch: 271961 ----------

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 20% with the following exceptions: None.

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

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

All MS/MSD RPDs were less than 20% 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.

QC (Batch Specific)

---------- Sample No: BG33742, QA/QC Batch: 271960 ----------

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.

---------- Sample No: BG34657, QA/QC Batch: 272116 ----------

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 20% with the following exceptions: None.

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SDG I.D.: GBG34034

ICP Narration

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

QC Batch 271909 (Samples: BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044): -----

The MS and/or the MSD recovery is above the upper range, therefore a slight high bias is possible. (Barium)

QC Batch 272119 (Samples: BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044): -----

A trace amount of an analyte was found in blank. Due to the concentration in the blank relative to the samples, no bias is suspected. (TCLP Extraction- Barium(BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044))

Instrument: Arcos 04/18/14-1 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)

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.

Printed Name Laura Kinnin
Position: Chemist
Date: 4/18/2014

Instrument: Arcos 04/21/14-1 (BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)

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.

Printed Name Laura Kinnin
Position: Chemist
Date: 4/21/2014

Instrument: Blue 04/18/14-1 (BG34035, BG34038, BG34039, BG34040, BG34042, BG34043, BG34044, BG34046)

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.

Printed Name Laura Kinnin
Position: Chemist
Date: 4/18/2014

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SDG I.D.: GBG34034

QC (Site Specific)

---------- Sample No: BG34035, QA/QC Batch: 271909 ----------

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

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

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

All MS recoveries were within 75 - 125 with the following exceptions: Barium(126%)

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

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.

QC (Batch Specific)

---------- Sample No: BG33608, QA/QC Batch: 271807 ----------

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

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

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

---------- Sample No: BG34114, QA/QC Batch: 271964 ----------

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

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

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

---------- Sample No: BG34600, QA/QC Batch: 272119 ----------

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

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

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

PCB Narration

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

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SDG I.D.: GBG34034

Instrument: Au-ecd1 04/18/14-1 (BG34046)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner
Position: Chemist
Date: 4/18/2014

Instrument: Au-ecd24 04/18/14-1 (BG34039, BG34040, BG34041, BG34042, BG34043, BG34044)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner
Position: Chemist
Date: 4/18/2014

Instrument: Au-ecd5 04/18/14-1 (BG34034, BG34035, BG34036, BG34037, BG34038)

8082 Narration:

The initial calibration RSD for the compound list was less than 15% except for the following compounds: none

The continuing calibration standards were within acceptance criteria except for the following compounds: none

Printed Name Adam Werner
Position: Chemist
Date: 4/18/2014

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SDG I.D.: GBG34034

QC (Batch Specific)

---------- Sample No: BG33410, QA/QC Batch: 271775 ----------

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.

---------- Sample No: BG34104, QA/QC Batch: 271911 ----------

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

SVOA Narration

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

QC Batch 271900 (Samples: BG34046): -----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (2-Nitroaniline, 3,3''-Dichlorobenzidine, 3-Nitroaniline, Benzidine, Carbazole)

QC Batch 271906 (Samples: BG34034, BG34035, BG34036, BG34037, BG34038, BG34039, BG34040, BG34041): -----

The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (2,4-Dinitrophenol)

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (3-Nitroaniline, Benzidine)

The QC recovery for one or more analytes is above the upper range but were not reported in the sample(s), therefore no significant bias is suspected. (2-Nitroaniline, 3,3''-Dichlorobenzidine, Carbazole)

QC Batch 271910 (Samples: BG34042, BG34043, BG34044): -----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Benzidine)

The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (2,4-Dinitrophenol)

Instrument: Chem06 04/18/14-1 (BG34034)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.Initial Calibration Verification (CHEM06/SV_0414):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,3,4,6-tetrachlorophenol (21%), Benzidine (26%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM06/0418_02-SV_0414):
93% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: 2,4-dinitrophenol (64%)[30%], 3-nitroaniline (-31%)[30%], 4,6-dinitro-2-methylphenol

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SDG I.D.: GBG34034

(41%)[30%], Benzidine (-77%)[30%], Benzoic Acid (40%)[30%], Hexachlorocyclopentadiene (35%)[30%]
The following compounds did not meet maximum % deviations: 2,4-dinitrophenol (64%)[40%], 4,6-dinitro-2-methylphenol (41%)[40%], Benzidine (-77%)[40%]
The following compounds did not meet recommended response factors: 2-nitrophenol (.060)[0.1], Hexachlorobenzene (.079)[0.1]
The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 4/18/2014

Instrument: Chem06 04/19/14-1 (BG34046)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.Initial Calibration Verification (CHEM06/SV_0414):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,3,4,6-tetrachlorophenol (21%), Benzidine (26%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM06/0419_02-SV_0414):
99% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: Benzidine (47%)[30%]
The following compounds did not meet maximum % deviations: Benzidine (47%)[40%]
The following compounds did not meet recommended response factors: 2-nitrophenol (.067)[0.1], Hexachlorobenzene (.075)[0.1]
The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 4/19/2014

Instrument: Chem06 04/21/14-1 (BG34040, BG34043, BG34044)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.Initial Calibration Verification (CHEM06/SV_0421):
92% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,3,4,6-tetrachlorophenol (22%), 2,4-Dinitrophenol (47%), 3,3'-dichlorobenzidine (28%), 3-Nitroaniline (30%), 4,6-Dinitro-2-methylphenol (24%), Benzidine (42%), Pentachlorophenol (21%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM06/0421_11-SV_0421):
98% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: 2,4-dinitrophenol (-69%)[30%], Benzidine (-41%)[30%]
The following compounds did not meet maximum % deviations: 2,4-dinitrophenol (-69%)[40%], Benzidine (-41%)[40%]
The following compounds did not meet recommended response factors: 2-nitrophenol (.072)[0.1], Hexachlorobenzene (.081)[0.1]
The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 4/21/2014

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SDG I.D.: GBG34034

Instrument: Chem07 04/18/14-1 (BG34035, BG34036, BG34037, BG34038, BG34039)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.Initial Calibration Verification (CHEM07/SV_0414):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol (29%), 3,3'-dichlorobenzidine (21%), Benzidine (36%), Hexachlorocyclopentadiene (27%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM07/0418_02-SV_0414):
100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. 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: Hexachlorobenzene (.087)[0.1]
The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 4/18/2014

Instrument: Chem07 04/19/14-1 (BG34040, BG34041, BG34042, BG34043)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.Initial Calibration Verification (CHEM07/SV_0414):
95% of target compounds met criteria.
The following compounds had %RSDs >20%: 2,4-Dinitrophenol (29%), 3,3'-dichlorobenzidine (21%), Benzidine (36%), Hexachlorocyclopentadiene (27%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM07/0419_02-SV_0414):
97% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: 3,3'-dichlorobenzidine (48%)[30%], Benzidine (94%)[30%], Benzoic Acid (-41%)[30%]
The following compounds did not meet maximum % deviations: 3,3'-dichlorobenzidine (48%)[40%], Benzidine (94%)[40%], Benzoic Acid (-41%)[40%]
The following compounds did not meet recommended response factors: Hexachlorobenzene (.084)[0.1]
The following compounds did not meet minimum response factors: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 4/19/2014

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SDG I.D.: GBG34034

QC (Batch Specific)

---------- Sample No: BG33807, QA/QC Batch: 271906 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 2-Nitroaniline(163%), 3,3'-Dichlorobenzidine(150%), 3-Nitroaniline(166%), Benzidine(>200%), Carbazole(150%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 2-Nitroaniline(162%), 3,3'-Dichlorobenzidine(163%), 3-Nitroaniline(175%), Benzidine(>200%), Carbazole(144%)

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

---------- Sample No: BG33927, QA/QC Batch: 271900 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: 2-Nitroaniline(165%), 3,3'-Dichlorobenzidine(>200%), 3-Nitroaniline(173%), Benzidine(>200%), Carbazole(144%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2-Nitroaniline(139%), 3,3'-Dichlorobenzidine(185%), 3-Nitroaniline(159%), Benzidine(>200%), Carbazole(131%)

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

---------- Sample No: BG34107, QA/QC Batch: 271910 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), Benzidine(>200%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), Benzidine(>200%)

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

SVOASIM Narration

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

Instrument: Chem04 04/18/14-1 (BG34046)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.

If PAH/base neutral were requested, Phoenix utilized a method that contained a shortened list , so some of the compounds in the narrative may be non-applicable.Initial Calibration Verification (CHEM04/SIM_0418):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet a minimum response factor of 0.01: 2,4-Dinitrophenol (.000), 4,6-Dinitro-2-methylphenol (.000)

Continuing Calibration Verification (CHEM04/0418_13-SIM_0418):
100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.

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SDG I.D.: GBG34034

The following compounds did not meet recommended response factors: 2,4-dinitrophenol (.000)[0.01], 2-chlorophenol (.731)[0.8], 2-nitrophenol (.086)[0.1], 4,6-dinitro-2-methylphenol (.000)[0.01], Bis(2-chloroethyl)ether (.656)[0.7]
The following compounds did not meet minimum response factors: 2,4-dinitrophenol (.000)[0.01], 4,6-dinitro-2-methylphenol (.000)[0.01]

Printed Name Damien Drobinski
Position: Chemist
Date: 4/18/2014

Instrument: Chem04 04/18/14-2 (BG34046)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.

If PAH/base neutral were requested, Phoenix utilized a method that contained a shortened list , so some of the compounds in the narrative may be non-applicable.Initial Calibration Verification (CHEM04/SIM_0418):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet a minimum response factor of 0.01: 2,4-Dinitrophenol (.000), 4,6-Dinitro-2-methylphenol (.000)

Continuing Calibration Verification (CHEM04/0418_39A-SIM_0418):
98% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration. The following compounds did not meet % deviation criteria: Pentachlorophenol (36%)[30%]
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2,4-dinitrophenol (.000)[0.01], 2-chlorophenol (.708)[0.8], 2-nitrophenol (.093)[0.1], 4,6-dinitro-2-methylphenol (.000)[0.01], Bis(2-chloroethyl)ether (.630)[0.7], Pentachlorophenol (.029)[0.05]
The following compounds did not meet minimum response factors: 2,4-dinitrophenol (.000)[0.01], 4,6-dinitro-2-methylphenol (.000)[0.01]

Printed Name Damien Drobinski
Position: Chemist
Date: 4/18/2014

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SDG I.D.: GBG34034

QC (Batch Specific)

---------- Sample No: BG33807, QA/QC Batch: 271906 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 2-Nitroaniline(163%), 3,3'-Dichlorobenzidine(150%), 3-Nitroaniline(166%), Benzidine(>200%), Carbazole(150%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 2-Nitroaniline(162%), 3,3'-Dichlorobenzidine(163%), 3-Nitroaniline(175%), Benzidine(>200%), Carbazole(144%)

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

---------- Sample No: BG33927, QA/QC Batch: 271900 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: 2-Nitroaniline(165%), 3,3'-Dichlorobenzidine(>200%), 3-Nitroaniline(173%), Benzidine(>200%), Carbazole(144%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2-Nitroaniline(139%), 3,3'-Dichlorobenzidine(185%), 3-Nitroaniline(159%), Benzidine(>200%), Carbazole(131%)

All LCS/LCSD RPDs were less than 20% with the following exceptions: None.

---------- Sample No: BG34107, QA/QC Batch: 271910 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), Benzidine(>200%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), Benzidine(>200%)

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

VOA Narration

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

QC Batch 272030 (Samples: BG34034, BG34035, BG34036, BG34037, BG34039, BG34040, BG34041, BG34042, BG34045, BG34047): -----

One or more analytes is below the method criteria. A low bias for these analytes is possible. (Acrylonitrile)

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. (Acetone)

Instrument: Chem15 04/18/14-1 (BG34038, BG34042, BG34043, BG34044)

Initial Calibration Verification (CHEM15/RCPS_0415#1):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM15/0418B02-RCPS_0415#1):

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

April 24, 2014

SDG I.D.: GBG34034

99% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the continuing calibration. The following compounds did not meet % deviation criteria: Methylene Chloride (-31%)[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.

Printed Name Jane Li
Position: Chemist
Date: 4/18/2014

Instrument: Chem17 04/18/14-1 (BG34046)

Initial Calibration Verification (CHEM17/RCPS_0415):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Acrolein (24%), Bromomethane (30%), Methylene Chloride (31%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM17/0418S06-RCPS_0415):
100% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the continuing calibration. 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.

Printed Name Raman Makol
Position: Chemist
Date: 4/18/2014

Instrument: Chem18 04/17/14-2 (BG34034, BG34035, BG34036, BG34037, BG34039, BG34040, BG34041, BG34042, BG34045, BG34047)

Initial Calibration Verification (CHEM18/voa5g_0415#2):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone (23%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM18/0417M38-voa5g_0415#2):
99% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the continuing calibration. The following compounds did not meet % deviation criteria: N-propylbenzene (-39%)[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.

Printed Name Jane Li
Position: Chemist
Date: 4/17/2014

Environmental Laboratories, Inc.
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RCP Certification Report

April 24, 2014

SDG I.D.: GBG34034

QC Comments: QC Batch 272136 04/18/14 (BG34046)

A blank MS/MSD was analyzed with this batch.

QC (Batch Specific)

---------- Sample No: BG33415, QA/QC Batch: 272136 ----------

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.

---------- Sample No: BG33717, QA/QC Batch: 272130 ----------

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.

---------- Sample No: BG34114, QA/QC Batch: 272030 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(68%), Acrylonitrile(69%)

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

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

Temperature Narration

The samples were received at 6C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

Temp 6 °C Pg 1 of 2

PHOENIX Environmental Laboratories, Inc.

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

Contact Options:
[X] Fax: 203-380-1438
[ ] Phone:
[X] Email: jerry.moore@hrpassociates.com

Customer: HRP Associates, Inc.
Address: 999 Oronoque Lane
Stratford, CT 06614

Project: CT030182 1
Report to: Walt Sepelak
Invoice to: CT DOT Proj: No SALES TAX / ISP Form Required

Project P.O: CTDAS project 136629

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 4-16-14

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

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs 8260	SVOCs 8270	ETPH via CT ETPH	RCRA 8 Metals (total & mg/L)	PCBs 8082	Reactivity, Cn/S	Flash point	specific conductivity	pH			Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
	~~HS-1~~	S	4-16-14																						
34034	HS-2 (0-2')	S	4-16-14	1:35 pm	X	X	X	X	X	X	X	X	X				3	2							
	~~HS-3~~																								
34035	HS-4 (0-2')	S	4-16-14	1:30 pm	X	X	X	X	X	X	X	X	X				3	2							
34036	HS-5 (0-3')			1:00 pm	X	X	X	X	X	X	X	X	X				3	2							
34037	HS-6 (0-3')			12:40 pm	X	X	X	X	X	X	X	X	X				3	2							
34038	HS-7 (0-3')			11:45 am	X	X	X	X	X	X	X	X	X				3	2							
34039	HS-8 (0-3')			11:40 am	X	X	X	X	X	X	X	X	X				3	2							
34040	HS-9 (0-3')			11:20 am	X	X	X	X	X	X	X	X	X				3	2							
34041	HS-10 (0-3')			11:00 am	X	X	X	X	X	X	X	X	X				3	2							
34042	HS-11 (0-3')			9:50 am	X	X	X	X	X	X	X	X	X				3	2							
34043	HS-12 (0-3')	↓	↓	9:40 am	X	X	X	X	X	X	X	X	X				3	2							

Relinquished by:	Accepted by:	Date:	Time:
[signature]		4/17/14	1420
[signature]	Paradise	4/17/14	1453

Comments, Special Requirements or Regulations:

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[X] 3 Days*
[ ] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

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

Data Format
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES

State where samples were collected: CT

Cooler: Yes [X] No [ ]
Coolant: IPK [X] ICE [ ] No [ ]

Temp 6 °C Pg 2 of 2

PHOENIX Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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Address: 999 Oronoque Lane
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Project: CTD 301821
Report to: Walt Sepelak
Invoice to: CT DOT Proj / NO SALES TAX / ISP Form Required

Project P.O: CT DAS proj: 136629

This section MUST be completed with Bottle Quantities.

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34044	HS-13 (0-5')	S	4-16-14	9:30am	X	X	X	X	X	X	X	X	X				3	2								
34045	Trip Blank L	—	—	—	X	X											3									
34046	Equip Blank EB-1	W	4-16-14	3:00pm	X	X	X	X	X	X	X	X	X				3			3	3	1		1	1	
34047	TB - High																									

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	4/17/14	1420
	Paradise	4/17/14	1453

Comments, Special Requirements or Regulations:

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[X] 3 Days*
[ ] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[X] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[ ] GB Mobility
[ ] Residential DEC
[ ] I/C DEC
[ ] Other

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

State where samples were collected: CT

Data Format
[X] Excel
[X] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[ ] Phoenix Std Report
[ ] Other

* SURCHARGE APPLIES

GBG 34034

Shannon - Phoenixlabs

From: Walter A. Sepelak [walter.sepelak@hrpassociates.com]
Sent: Friday, April 18, 2014 10:31 AM
To: Shannon - Phoenixlabs; Jenny Mooney
Subject: RE: CTD301821

Thanks for asking..it should actually be total and TCLP..please update

Sent from my Verizon Wireless 4G LTE smartphone

-------- Original message --------
From: Shannon - Phoenixlabs
Date:04/18/2014 10:27 AM (GMT-05:00)
To: Jenny Mooney
Cc: "Walter A. Sepelak"
Subject: CTD301821

Good Morning,
Please take a look at the attached chain of custody. I just want to make sure you only need Total on the metals and not SPLP or TCLP as well. Please let me know. Thank you.

Shannon Wilhelm
Phoenix Environmental Labs