PHASE II - ENVIRONMENTAL SITE ASSESSMENT

Mattabassett Regionalization Project
Middletown Inter Municipal Force Main
Gravity Sewer Line and Force Main Extension
East Main Street and River Road

Middletown, Connecticut

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1.0 INTRODUCTION

On behalf of the City of Middletown, CDR Maguire Inc. (CDRM) has conducted a Phase II Environmental Site Assessment (ESA) in association with the construction of the gravity sewer line and force main extension as part of the Mattabassett Regionalization Project – Middletown Inter Municipal Force Main Project. The proposed gravity sewer line will collect the flow from the existing influent pipes at the existing Sewage Treatment Plant on River Road and connect to the proposed Pump Station at 34 East Main Street. The force main extension will connect the proposed pump station to the force main in DeKoven Drive to be installed as part of the first phase of the regionalization project (See Figure 1 – Site Location Plan).

The purpose of this Phase II ESA is to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts to be encountered during construction associated with the proposed gravity sewer lines and force main extension. It is anticipated that Environmental Plans, Specifications, and Estimate will subsequently be prepared to assess construction related activities (i.e. proper storage, classification, transport and disposal of contaminated materials), in relationship to the environmental conditions prevalent within the project limits, as well as to specify remedial work to be included in the Contract Bid Documents.

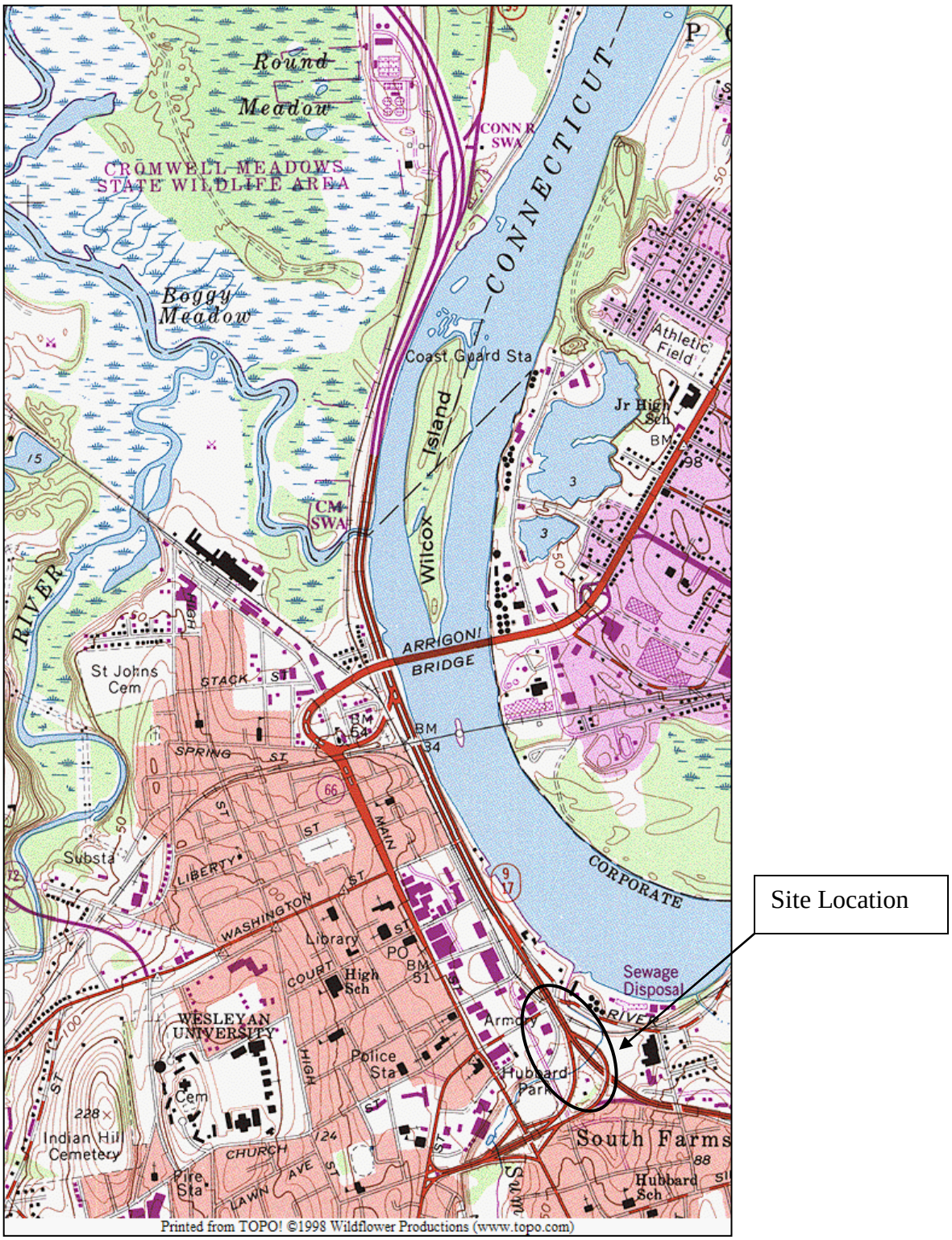


FIGURE 1 – SITE LOCATION PLAN
East Main Street and River Road
Middletown, Connecticut

2.0 SITE DESCRIPTION

2.1 Background

As part of the Mattabassett Regionalization Project, a gravity sewer line is proposed to be constructed connecting the influent pipes from the existing sewage treatment plant on River Road to the new pump station. In addition, a force main will be installed from the new pump station to the new force main in DeKoven Drive which will be installed as part of first phase of the regionalization project.

The proposed gravity sewer line will connect the existing sewage treatment plant influent pipes to the proposed pump station. The proposed gravity sewer will be installed from River Road, under the northbound on-ramp to Route 9 and under the southbound and northbound lanes of Route 9 to the proposed pump station on East Main Street. The force main extension will be installed from the new pump station along East Main Street and under Sumner's Creek and connect to the new force main to be installed under the first phase of the regionalization project. The area surrounding the project limits consists of the Route 9 and railroad corridors, undeveloped land abutting Route 9, commercial, residential and industrial properties.

This Phase II ESA investigation was conducted within the project limits in the area of anticipated construction activities associated with the proposed gravity sewer line installations and force main extension. The site area is depicted on the figures included at the end of this Report.

2.2 Geology

Topography within the project limits is characterized by urban areas, large floodplains and steep man-made banks. In the built portions of the project area, extensive manipulation of the original topographic features has occurred, including excavation and filling. The ROW of both Route 9 and the Providence and Worcester Railroad (P&WRR) line have been extensively filled within the Connecticut River Floodplain in the past. As a result, steep banks exist along both Route 9 and the railroad corridor. Natural elevations within the project area range from approximately El. 20 to El. 30.

The CTDEEP's "Surficial Materials Map" for Middletown indicates that the soils within the project limits are postglacial deposits composed of Alluvium overlying undifferentiated Coarse deposits consisting of sand and gravel and Artificial Fill. The Bedrock Geological Map of Connecticut, compiled by John Rodgers in 1985, indicates that the bedrock unit underlying the Site is the Portland Arkose, which is described as a reddish-brown arkose (brownstone).

2.3 Hydrogeology

The CTDEEP's "Water Quality Classifications Map," dated February 25, 2011 for Middletown, Connecticut depicts the groundwater quality within the project limits as "GB." The "GB" groundwater classification indicates that the groundwater is within an urbanized area of intense industrial activity where a public water supply source is available. The groundwater may not be suitable for human consumption due to waste discharges, spills or leaks of chemicals, or land use impacts. Groundwater was encountered at a depth of seven (7) feet below grade in boring PSGP-18.

The project limits are located within the Sumner Brook Drainage Basin within the Connecticut Main Stem Regional Drainage Basin within the Connecticut Major Drainage Basin. One (1) surface water body, Sumner Brook, is located within the project limits and is classified a Class B surface water body according to the CTDEEP's "Water

Quality Classifications Map", dated February 25, 2011 for Middletown, Connecticut. The Class B designation indicates that the surface water quality does not meet water quality criteria for one or more of the following uses: recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation.

The Connecticut River is located approximately 500-feet east-northeast of the project limits and is classified a Class SB surface water body by CTDEEP. The Class SB designation indicates that the surface water quality is known to be tidally influenced and does not meet water quality criteria for one or more of the following uses: recreational use, fish and wildlife habitat, agricultural and industrial supply and other legitimate uses including navigation.

3.0 SUBSURFACE INVESTIGATION

Based upon the current/former industrial and commercial nature of the project corridor, a comprehensive sampling program was conducted in the areas of anticipated construction activities on February 20, 25, 28, March 1, March 5, and July 15, 2013. The following subsections detail the results of the subsurface investigation.

3.1 Geoprobe® Soil Borings & Soil Sample Analyses

Thirteen (13) borings (PSGP-18 to PSGP-20, PSGP-30 to PSGP-35, PSGP-39 to PSGP-41 and PSGP-59 were advanced to a depth of 10-feet, 15-feet, or refusal in the areas of anticipated construction activities within the project corridor utilizing a Geoprobe® direct push unit.

The boring locations are depicted in the Phase II Environmental Site Assessment – Gravity Sewer and Force Main Extension – Sample Locations (Figure 2) at the end of this Report. Soil samples were collected continuously to 10-feet, 15-feet, or refusal utilizing a 5-foot long 2-inch diameter Macro Core Sampler with dedicated acetate liners.

The soil samples were visually inspected in the field for staining, and were described as to physical characteristics and soil type. Soil boring logs were generated in the field by the on-site qualified technician. In addition, the soil samples were screened in the field for total volatile organic compounds utilizing a Photovac photoionization detector (PID). The boring logs denote the types of soil encountered, the depth to groundwater and/or bedrock, the total depth reached in each boring, and the highest observed PID reading. Copies of the boring logs are included at the end of this report in Appendix A.

Based upon field screening results and visual observations, one (1) soil sample was collected from each boring, placed in laboratory-supplied glassware, stored in an ice-filled cooler, and submitted to the Phoenix Environmental Laboratories, Inc. in accordance with chain-of-custody procedures. All soil samples were analyzed for the

following parameters:

- Volatile Organic Compounds – EPA Method 8260
- Polycyclic Aromatic Hydrocarbons – EPA Method 8270
- Total and SPLP RCRA 8 Metals – EPA Method SW6010
- Extractable Total Petroleum Hydrocarbons – CT ETPH Method
- Polychlorinated Biphenyls – EPA Method 8082

All Geoprobe® soil borings were back-filled upon completion utilizing clean sand and/or hydrated bentonite. In paved areas, the borehole was filled to 6 inches below existing grade with hydrated bentonite, then patched with asphalt patch or concrete, as appropriate, until flush with the existing pavement. All down-hole sampling equipment was decontaminated in the field between each use utilizing an Alconox and water bath and de-ionized rinse.

3.2 Groundwater Grab Sample Collection & Analyses

A groundwater grab sample was collected from boring PSGP-40 advanced in the entrance to the pump station site off East Main Street as part of this investigation.

The groundwater sample was collected utilizing a peristaltic pump in accordance with the CTDEEP's Low Flow Sampling Procedures. The groundwater grab sample was collected by inserting one-half inch diameter, schedule 40, 10-slot, PVC well screen and riser casing into the borehole. The well screen was temporarily installed approximately 4 feet into the observed water table depth. Dedicated polyethylene tubing was placed into the temporary well and the groundwater grab sample was drawn through the tubing using a low-flow peristaltic pump. The groundwater sample was placed in laboratory-supplied glassware, stored in an ice-filled cooler and submitted to Phoenix Environmental Laboratories, Inc. and analyzed for the following parameters:

- Volatile Organic Compounds – EPA Method 8260
- Polycyclic Aromatic Hydrocarbons – EPA Method 8270
- Total and Dissolved RCRA 8 Metals – EPA Method 6010
- Extractable Total Petroleum Hydrocarbons – CT ETPH Method
- Polychlorinated Biphenyls – EPA Method 8082

The groundwater sample collected for dissolved-phase RCRA metals was field filtered using a 0.45-µm membrane filter prior to acidification.

3.3 Project Quality Assurance/Quality Control Practices

The CTDEEP's Quality Assurance and Quality Control (QA/QC) Guidance were used to ensure that the analytical results generated during the investigation are of known and appropriate quality. Specifically, the Laboratory Quality Assurance Control Reasonable Confidence Protocols (RCPs) were utilized for all laboratory analytical methods. The Laboratory Quality Assurance and Quality Control, Data Quality Assessment and Data Usability Evaluation (DQA/DUE) Guidance were utilized to ensure that the analytical data used is of known and sufficient level of quality for the intended purpose.

To assess the collection of samples in the field in terms of the sampling techniques and decontamination procedures followed, quality control and quality assurance samples were collected and analyzed.

Laboratory prepared trip blanks accompanied samples obtained during field sampling activities. The trip blanks consisted of two, 40 ml vials containing laboratory grade de-ionized water. The trip blanks were placed in the sample cooler with the daily samples until delivery to the laboratory for analysis of EPA Method 8260 volatile organic compounds.

All samples collected in the field were stored in a manner that preserved the integrity of the sample chemistry. Samples intended for organic analyses were stored in an ice-filled cooler until delivery to the laboratory. Chain-of-Custody (COC) forms accompanied all samples collected as a legal record of possession of the sample. The COC was initiated in the field and accompanied the containers during sample collection, transportation to the lab, analysis, and final disposal of the sample.

4.0 DISCUSSION OF SAMPLE RESULTS

4.1 Regulatory Criteria

The CTDEEP has amended the Remediation Standard Regulations (Regulations of Connecticut State Agencies, Section 22a-133k-1 to 3 and 22a-133q-1) effective June 27, 2013. The Remediation Standard Regulations (RSRs) apply to any action which is required pursuant to Chapter 445, 446k or section 22a-208(c)(2) of the General Statutes, including but not limited to any such action required to be taken or verified by a licensed environmental professional. The Regulations also outline the processes for establishing alternative site-specific numerical standards for certain sites and criterion for additional polluting substances not specified in the RSRs, upon approval by the CTDEEP.

The RSRs criteria applicable to the soil and groundwater sampled during this investigation are summarized below. The application of these RSRs to the results of the laboratory analyses from this investigation are discussed in subsections 4.2, and 4.3 of this section.

Soils Criteria: The RSRs are organized into two sets of criteria: the Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). The DEC and PMC are briefly explained in the following sub-sections, in relation to how they would be applicable to the types of analyses conducted on the soil samples collected for this investigation. Please refer to the RSRs for a complete explanation of the Regulations.

Direct Exposure Criteria

The purpose of the Direct Exposure Criteria (DEC) is to protect human health from risks associated with the direct contact with or ingestion of various common soil contaminants. The DEC are applicable to soil within approximately fifteen (15) feet of the ground surface. Concentrations of contaminants are evaluated based upon mass-based analyses and different criteria are established for residential and industrial/commercial properties.

The use of the less stringent commercial/industrial standards requires the placement of an environmental land use restriction on the property.

The DEC for substances other than PCBs do not apply to "inaccessible" soil at a release area provided that such soil is less than 15-feet below the ground surface and an Environmental Land Use Restriction (ELUR) is in effect with respect to the subject parcel or to the portion of such parcel containing such release area.

The DEC do not apply to metals, petroleum hydrocarbons or semi-volatile substances in soil provided such pollution is the result of: an incidental release due to the normal operation of motor vehicles, not including refueling, repair or maintenance of a motor vehicle; or normal paving and maintenance of a consolidated bituminous concrete surface provided such bituminous concrete surface has been maintained for its intended purpose.

Pollutant Mobility Criteria

The purpose of the Pollutant Mobility Criteria (PMC) is to evaluate the potential for contaminants to leach from the soil in concentrations that may degrade groundwater quality.

The PMC do not apply to "environmentally isolated" soil at a release area provided that an Environmental Land Use Restriction (ELUR) is in effect with respect to the subject parcel or to the portion of such parcel containing such release area. The PMC do not apply to polluted fill on a parcel if the fill meets the requirements of section 22a-133k-2(c)(4)(B)(i) through (vi). The PMC do not apply to substances, other than volatile substances, in soil at a release area provided that the release area meets the requirements of section 22a-133k-2(c)(4)(C)(i) through (v).

The PMC do not apply to metals, petroleum hydrocarbons or semi-volatile substances in soil provided such pollution is the result of: an incidental release due to the normal operation of motor vehicles, not including refueling, repair or maintenance of a motor

vehicle; or normal paving and maintenance of a consolidated bituminous concrete surface provided such bituminous concrete surface has been maintained for its intended purpose.

Different numerical criteria are established for GA and GAA groundwater areas, versus GB groundwater areas. Since the project corridor is located within a GB groundwater area, the less stringent criteria apply.

Groundwater Criteria: Contaminants in the groundwater are compared either to background quality or the Groundwater Protection Criteria (GWPC), the Volatilization Criteria (VC), as well as the Surface Water Protection Criteria (SWPC). However, based on the guidance provided by CTDEEP, groundwater samples collected for "Construction Projects" are compared to the effluent limits for the ***"General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Surface Water"*** (GP to Surface Water) and the ***"General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Sanitary Sewer"*** (GP to Sanitary Sewer) to determine if Groundwater Areas of Environmental Concern (GW AOECs) exist within the project limits.

4.2 Results of Soil Sample Analyses

Soil samples were collected from borings PSGP-18 to PSGP-20, PSGP-30 to PSGP-35, PSGP-39 to PSGP-41, and PSGP-59 and sent to Phoenix Environmental Laboratories, Inc. for analyses. Summaries of the laboratory results from the soil samples are presented in Table 1 located at the end of this Report, and copies of the soil sample laboratory reports are included in Appendix B. The following summarizes the results of the analyses conducted on the soil samples.

The results of the laboratory analyses indicated the presence of ETPH in eight (8) soil samples, PSGP-18, PSGP-19, PSGP-20, PSGP-30, PSGP-32, PSGP-34, PSGP-39 and PSGP-59 1-4 FT, collected as part of this subsurface investigation at concentrations above analytical detection limits. Soil sample PSGP-39 contained ETPH at a concentration of 550 mg/kg which exceeds the RDEC of 500 mg/kg but is below both the

I/C-DEC and GB PMC of 2,500 mg/kg. No other soil samples contained ETPH at concentrations exceeding the applicable RSR criteria..

VOCs were detected in two (2) soil samples, PSGP-19, and PSGP-40, collected as part of this subsurface investigation at concentrations above analytical detection limits but below the applicable CTDEEP RSR criteria. The VOCs detected in the soil samples are associated with gasoline, gasoline additives, asphalt, and general petroleum-based transportation activities. No other soil samples contained detectable concentrations of VOCs.

PAHs were detected above analytical detection limits in eleven (11) of the thirteen (13) soil samples collected and analyzed. The following table summarizes the seven (7) soil samples that contained PAHs at concentrations exceeding the applicable CTDEEP RSR criteria.

Table A – PAH Exceedances in Soil Samples

Sample ID. (Sample Depth) PAH Compound	Sample Location	Concentration (mg/kg)	GB PMC (mg/kg)	RDEC/I&C-DEC (mg/kg)
PSGP-18 (8'-10')				
Benz(a)anthracene	East Main Street	**4.8**	**1**	**1**/7.8
Benzo(a)pyrene		**4.8**	**1**	**1/1**
Benzo(b)fluoranthene		**7.4**	**1**	**1**/7.8
Benzo(k)fluoranthene		**2.0**	**1**	8.4/780
Chrysene		**6.3**	**1**	84/780
Indeno(1,2,3-cd)pyrene		**2.3**	**1**	**1**/7.8
PSGP-19 (3'-5')				
Benz(a)anthracene	East Main Street	**1.3**	**1**	**1**/7.8
Benzo(a)pyrene		**1.4**	**1**	**1/1**
Benzo(b)fluoranthene		**1.8**	**1**	**1**/7.8
Chrysene		**1.5**	**1**	84/780
PSGP-30 (3'-5')	River Road			
Chrysene		**1.1**	**1**	84/780

Table A – PAH Exceedances in Soil Samples (Continued)

Sample ID. (Sample Depth) PAH Compound	Sample Location	Concentration (mg/kg)	GB PMC (mg/kg)	RDEC/I&C-DEC (mg/kg)
PSGP-32 (0-2')				
Benz(a)anthracene	Route 9 Ramp	1.5	**1**	**1**/7.8
Benzo(a)pyrene		1.8	**1**	**1/1**
Benzo(b)fluoranthene		2.5	**1**	**1**/7.8
Chrysene		1.7	**1**	84/780
PSGP-33 (0-2')				
Benz(a)anthracene	Route 9 Ramp	**1.8**	**1**	1/7.8
Benzo(a)pyrene		**1.9**	**1**	1/1
Benzo(b)fluoranthene		**2.4**	**1**	1/7.8
Chrysene		**1.9**	**1**	84/780
PSGP-39 (0-2')				
Benz(a)anthracene	East Main Street	**1.6**	**1**	1/7.8
Benzo(a)pyrene		**1.8**	**1**	1/1
Benzo(b)fluoranthene		**2.8**	**1**	1/7.8
Chrysene		**2.3**	**1**	84/780
PSGP-59 1-4 FT (1'-4')				
Benz(a)anthracene	River Road	**3.4**	**1**	**1**/7.8
Benzo(a)pyrene		**3.8**	**1**	**1/1**
Benzo(b)fluoranthene		**4.5**	**1**	**1**/7.8
Chrysene		**4.3**	**1**	84/780
Indeno(1,2,3-cd)pyrene		**1.5**	**1**	**1**/7.8

No other detected PAHs were present at concentrations exceeding the applicable CTDEEP RSR criteria.

PCBs were not detected above analytical detection limits (ND) in any of the soil samples collected and analyzed as part of this subsurface with the exception of the soil sample collected for boring PSGP-32. Soil sample PSGP-32 (0-2') contained PCB-1260 at a concentration of 1.6 mg/kg which exceeds the RDEC of 1.0 mg/kg but is below the I/C-DEC of 10.0 mg/kg.

Various total metals were detected in the soil samples at concentrations above analytical detection limits but below the applicable CTDEEP RSR criteria with the exception of total arsenic and total lead. Total arsenic was detected in soil sample PSGP-41 (8'-10') at a concentration of 19.9 mg/kg which exceeds the RDEC and I/C-DEC of 10 mg/kg for arsenic.

Total lead was detected in soil samples PSGP-39 (1'-3') and PSGP-41 (8'-10') at concentrations of 4,380 mg/kg and 12,500 mg/kg, respectively, which exceeds both the RDEC of 400 mg/kg and the I/C-DEC of 1,000 mg/kg. No other detected total metals were present at concentrations exceeding the applicable CTDEEP RSR criteria.

Various leachable metals were detected in the soil samples at concentrations above analytical detection limits but below the applicable CTDEEP RSR criteria with the exception of leachable lead. Leachable lead was detected in soil samples PSGP-34 (0-2') and PSGP-59 1-4 FT (1'-4') at concentrations of 0.272 mg/L and 0.233 mg/L, respectively, which exceed the GM PMC of 0.15 mg/L. No other detected leachable metals were present at concentrations exceeding the applicable CTDEEP RSR criteria.

4.3 Results of Groundwater Grab Sample Analyses

Groundwater grab sample MW-40 was collected from boring PSGP-40. The groundwater grab sample was sent to Phoenix Environmental Laboratories, Inc. for analyses. A summary of the laboratory results from the groundwater grab sample is presented in Table 2 located at the end of this report, and a copy of the groundwater sample laboratory report is included in Appendix B. The following summarizes the results of the analyses conducted on groundwater grab sample MW-40.

ETPH was detected in groundwater grab sample MW-40 at a concentration of 0.89 mg/L which is below both the GP to Surface Water effluent limit of 5.0 mg/L and the GP to Sanitary Sewer effluent limit of 100.0 mg/L.

VOCs were not detected in the groundwater grab sample MW-40 at concentrations above analytical detection limits (ND).

Various PAHs were detected in groundwater grab sample MW-40 at concentrations above analytical detection limits.

Benz(a)anthracene (0.92 ug/L), benzo(a)pyrene (1.3 ug/L), benzo(k)fluoranthene (0.53 ug/L), dibenz(a,h)anthracene (0.32 ug/L), and indeno(1,2,3-cd)pyrene (1.2 ug/L) were detected in groundwater sample MW-40 at concentrations which exceed the GP to Surface Water effluent limits of 0.49 ug/L, 0.49 ug/L, 0.49 ug/L, 0.01 ug/L, and 0.49 ug/L, respectively. The CTDEEP has not established individual effluent limits for the remaining detected PAHs. The concentration of total PAHs (16.67 ug/L) in groundwater sample MW-40 also exceeds the GP to Surface Water effluent limit of 5 ug/L for total PAHs, but is below the GP to Sanitary Sewer effluent limit of 500 ug/L.

The results of the laboratory analyses of the groundwater grab sample did not indicate the presence of PCBs at concentrations above analytical detection limits (ND..

Various total and dissolved metals were detected in groundwater grab sample MW-40 at concentrations above analytical detection limits but below the applicable effluent limits with the exception of total lead. Total lead was detected in groundwater sample MW-40 at a concentrations of 0.22 mg/L which exceeds the GP to Surface Water effluent limit of 0.004 mg/L and the GP to Sanitary Sewer effluent limit of 0.1 mg/L. However, dissolved lead was not detected above analytical detection limits (ND) in groundwater sample MW-40.

4.4 Quality Assurance/Quality Control Samples

The trip blanks TB (LL and HL) did not contain detectable concentrations of VOCs. Summaries of the laboratory results from the QA/QC samples are presented in Table 3, located at the end of this Report, and copies of the analytical results associated with the quality assurance/quality control samples are included in Appendix B.

4.5 Data Quality Assessment and Data Usability Evaluation (DQA/DUE)

Thirteen (13) soil samples and one (1) groundwater grab sample were collected from within the project limits and submitted to a state-certified analytical laboratory for analyses using the CTDEEP Reasonable Confidence Protocols (RCPs) established for VOCs, PAHs, ETPH, metals, and PCBs. The samples were collected to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts to be encountered during construction of the proposed force main.

A data quality assessment and data usability evaluation was performed for the data generated in accordance with CTDEEP guidance and noted the following quality control non-conformances. Copies of the DQA and DUE worksheets are included in Appendix C

Non-conformances related to Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries, LCS/LCSD Relative Percent Differences (RPDs), Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries, detection limits, Initial Calibration Analytical Limits (ICALs), and Continuing Calibration Verification (CCVs), responses do not have significant bearing on the accuracy and usability of the data for its intended uses. In all cases the non-conformances had no impact on the data usability and the data is of sufficient quality and precision for its intended use based on multiple lines of evidence.

Based on the above findings from the DQA and DUE, the analytical data is of adequate quality and of sufficient accuracy, precision and sensitivity to confirm that contaminants of concern are present in the soil at concentrations exceeding the CTDEEP RSRs Criteria. Contaminants of concern are also present in groundwater within the project limits at concentrations exceeding the effluent limits in CTDEEP's General Permit for Discharge of Groundwater Remediation Wastewater Directly to Surface Water and the General Permit for Discharge to Sanitary Sewer effluent limits. Environmental Plans, Specifications and Estimate will be required to assess construction related activities (i.e.

proper storage, classification, transport and disposal of contaminated materials), in relationship to the environmental conditions prevalent within the project limits, as well as to specify remedial work to be included in the Contract Bid Documents.

5.0 DISCUSSION OF AFFECTED RESOURCES

Based upon the results of the laboratory analyses performed on soil and groundwater samples for this subsurface investigation, three (3) areas of environmental concern (AOECs) for soil have been identified where contaminants are present at concentrations that exceed the applicable CTDEEP RSR criteria. In addition, one (1) low-level area of environmental concern (LLAOEC) for soil has been identified, where contaminants were detected at concentrations below the applicable CTDEEP RSR standards, but above laboratory detection limits.

Based on the results of the subsurface investigation, one (1) Groundwater Area of Environmental Concern (GWAOEC) has been established within the project limits. Analytical results from the groundwater sample collected at MW-40 within the project limits indicated the presence of PAHs and total lead at concentrations exceeding the applicable effluent limits. In addition, low concentrations of ETPH were also detected in the groundwater at that location.

5.1 Areas of Environmental Concern (AOECs)

AOEC #1 - Borings PSGP-18, PSGP-19, PSGP-39, PSGP-40 & PSGP-41

Analytical results from the soil samples collected from borings PSGP-18, PSGP-19, PSGP-39, and PSGP-41 indicated the presence of ETPH, PAHs, total lead and total arsenic at concentrations exceeding the applicable CTDEEP RSR criteria. The soil sample collected from boring PSGP-40 did not contain contaminants at concentrations exceeding criteria. However, this location has been included in AOEC #1 due to the elevated concentrations of contaminants detected in the groundwater. Based on these elevated concentrations in the groundwater and detected contaminants in the soil at PSGP-40 it is likely that upon excavation the material would exceed criteria. Therefore, PSGP-40 has been included in AOEC #1. ETPH and VOCs were also detected in the soil

samples at concentrations below the applicable CTDEEP RSR criteria. The contaminants were in soils at depths of 0 to 10-feet below grade.

AOEC #2 – Borings PSGP-30 & PSGP-59

Analytical results from soil samples collected from borings PSGP-30 and PSGP-59 indicated the presence of PAHs and leachable lead at concentrations exceeding the applicable CTDEEP RSR criteria. ETPH was also detected in the soil samples at concentrations below the applicable CTDEEP RSR criteria. The contaminants were in soils at depths of 0 to 5-feet below grade.

AOEC #3 – Borings PSGP-32, PSGP-33, and PSGP-34

Analytical results from soil samples collected from borings PSGP-32, PSGP-33, and PSGP-34 indicated the presence of PAHs, PCBs, and leachable lead at concentrations exceeding the applicable CTDEEP RSR criteria. ETPH was also detected in the soil samples at concentrations below the applicable CTDEEP RSR criteria. The contaminants were in soil at depths of 0 to 2-feet below grade.

5.2 Groundwater Area of Environmental Concern (GWAOEC)

GWAOEC #1 – Boring PSGP-40

Analytical results from the groundwater sample collected from boring PSGP-40 indicated the presence of PAHs and total lead at concentrations exceeding the applicable GP to Surface Water effluent limits. The concentration of total lead also exceeds the GP to Sanitary Sewer effluent limit. In addition, ETPH was detected in the groundwater at concentrations below the permit effluent limits.

5.3 Low Level Area of Environmental Concern (LLAOEC)

LLAOEC "A" - Boring PSGP-20

Analytical results from the soil sample collected from boring PSGP-20 indicated the presence of low concentrations of ETPH and PAHs in soils at depths ranging from 0 to 5-feet below grade.

6.0 RECOMMENDATIONS

The results of the subsurface investigation conducted within the project limits indicated the presence of ETPH, PAHs, PCBs, total arsenic, total lead, and leachable lead at concentrations above the applicable CTDEEP RSR criteria. The contaminants were detected in soils at depths of 0 to 10 feet below grade. Low concentrations of ETPH, VOCs and PAHs were also detected in the soil samples. Groundwater at one (1) location within the project limits has been impacted with PAHs and total lead at concentrations that exceed the CTDEEP GP to Surface Water effluent limits. In addition, the concentration of total lead exceeds the CTDEEP GP to Sanitary Sewer effluent limit. Therefore, dewatering fluids encountered during construction within the GWAOEC may not be discharged **directly** to surface water or sanitary sewer without treatment. Dewatering fluids generated from the GWAOEC will require treatment prior to discharge to surface water or sanitary sewer in accordance with the CTDEEP's general permits or will require off-site disposal at a permitted treatment/disposal facility.

Special considerations for treatment/disposal/reuse of contaminated soil and groundwater and worker health & safety must be given to these areas in order to ensure compliance with all local, State and Federal laws. Environmental Plans, Specifications, and Estimate are therefore, recommended for the areas of construction within the AOECs and GWAOEC as described in Section 5.0 above.

7.0 LIMITATIONS

All work product and reports provided by CDR Maguire Inc. (CDRM) in connection with the performance of this Phase II Environmental Site Assessment are subject to the following limitations:

1. The observations described in this report were made under the conditions stated therein. The conclusions presented in the report were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services provided to the City of Middletown.

2. In preparing this report, CDRM has relied on certain information provided by State and local officials and information and representations made by other parties referenced therein, and on information contained in the files of State and/or local agencies made available to CDRM at the time of this investigation. To the extent that such files are missing, incomplete or not provided to CDRM, CDRM is not responsible. Although there may have been some degree of overlap in the information provided by these various sources, CDRM did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this investigation.

3. The conclusions and recommendations contained in this report are based in part upon the data from subsurface explorations. The nature and extent of variations between these explorations may not become evident until further explorations are completed. If variations or other latent conditions become evident, it will be necessary to re-evaluate the conclusions and recommendations of this report.

4. The water level readings made for this investigation were made at the times and conditions stated on the boring logs. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall, passage of time and other factors. Should additional data become available in the future, these data

should be reviewed by CDRM, and the conclusions and recommendations presented herein modified accordingly.

5. Where quantitative laboratory analyses have been conducted by an outside certified laboratory, CDRM has relied upon the data provided, and has evaluated the data in accordance with CTDEEP DQA/DUE Guidance, but has not conducted an independent evaluation of the reliability of these tests.

6. If the conclusions and recommendations contained in this report are based, in part, upon various types of chemical data, then the conclusions and recommendations are contingent upon the validity of such data. These data have been reviewed and interpretations made in the report. It should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by CDRM and the conclusions and recommendations presented herein modified accordingly.

7. Chemical analyses were performed for specific parameters during the course of this investigation, as described in the text. However, it should be noted that testing for all known chemical constituents was not performed. The conclusions and recommendations contained in this report are based only upon the chemical constituents for which testing was accomplished.

The following qualifications apply to the undersigned's opinion:

The activities described and opinions included herein are based on information gathered during this subsurface site investigation, which was limited in scope in adherence to the terms of our agreement. The professional opinion provided herein is based on the information described in this report.

The information contained herein was prepared for the use by the City of Middletown solely in conjunction with the scope of work. The conclusions and recommendations set forth in this report are based on site conditions at the time of the investigation. Future studies and findings could change the contents of this report. The professional opinions presented in this report have been developed by using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental engineering consultants practicing in this or similar localities. No other warranty, expressed or implied, is made as to the professional opinions included in this report.

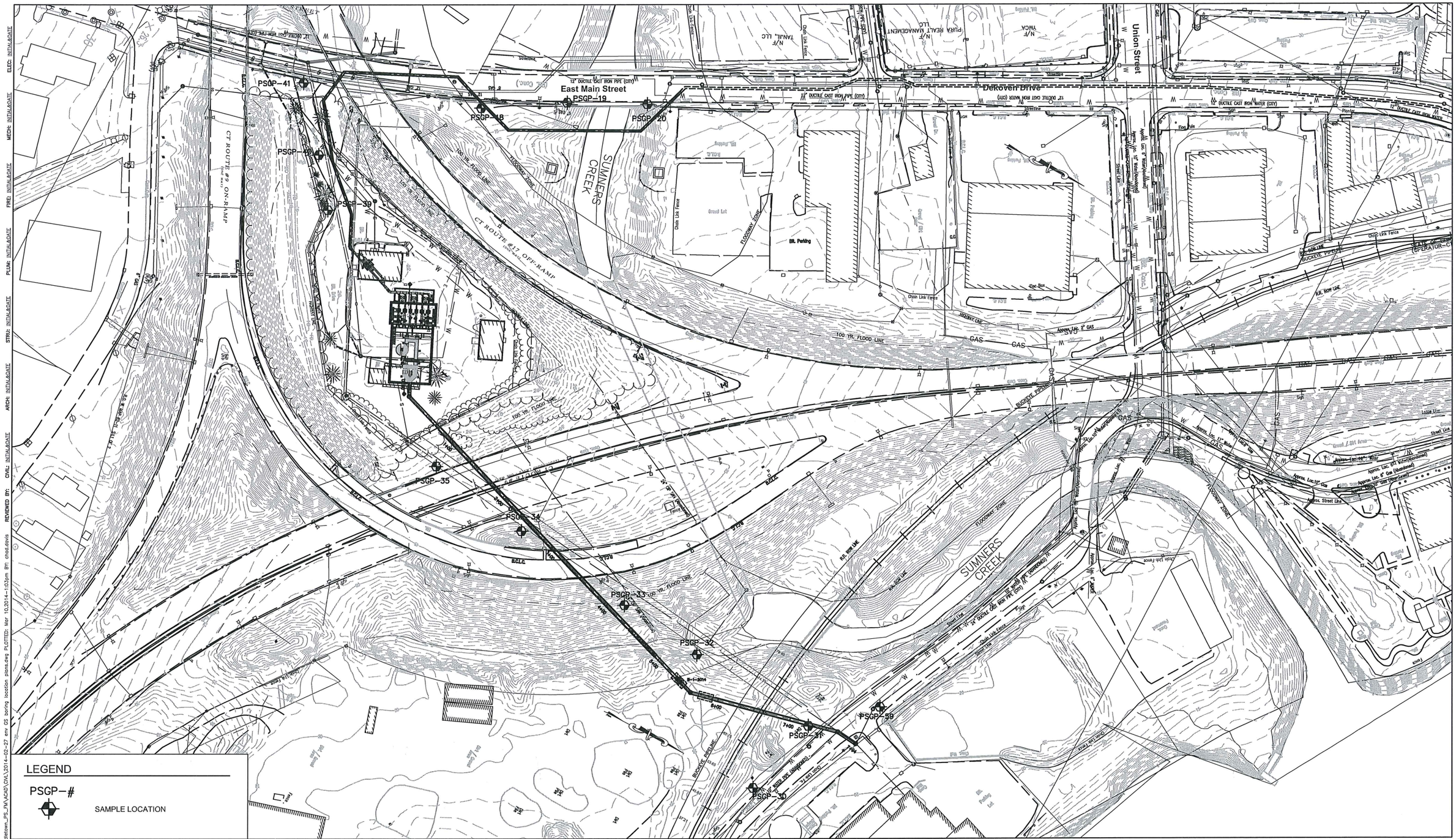
Prepared by:

Jane Witherell, PE, LEP, CHMM
Principal Engineer

Approved by:

David R. Stock, P.E.
Vice President

FIGURES



THIS LINE IS ONE INCH LONG WHEN PLOTTED AT FULL SCALE ON A 22" X 34" DRAWING

CDR MAGUIRE
2080 Silas Deane Highway
Rocky Hill, CT 06067

MARK	DATE	DESCRIPTION	BY	APP'D
1	3/10/14	REVISED PUMP STATION & PIPE LAYOUT	CAD	DRS

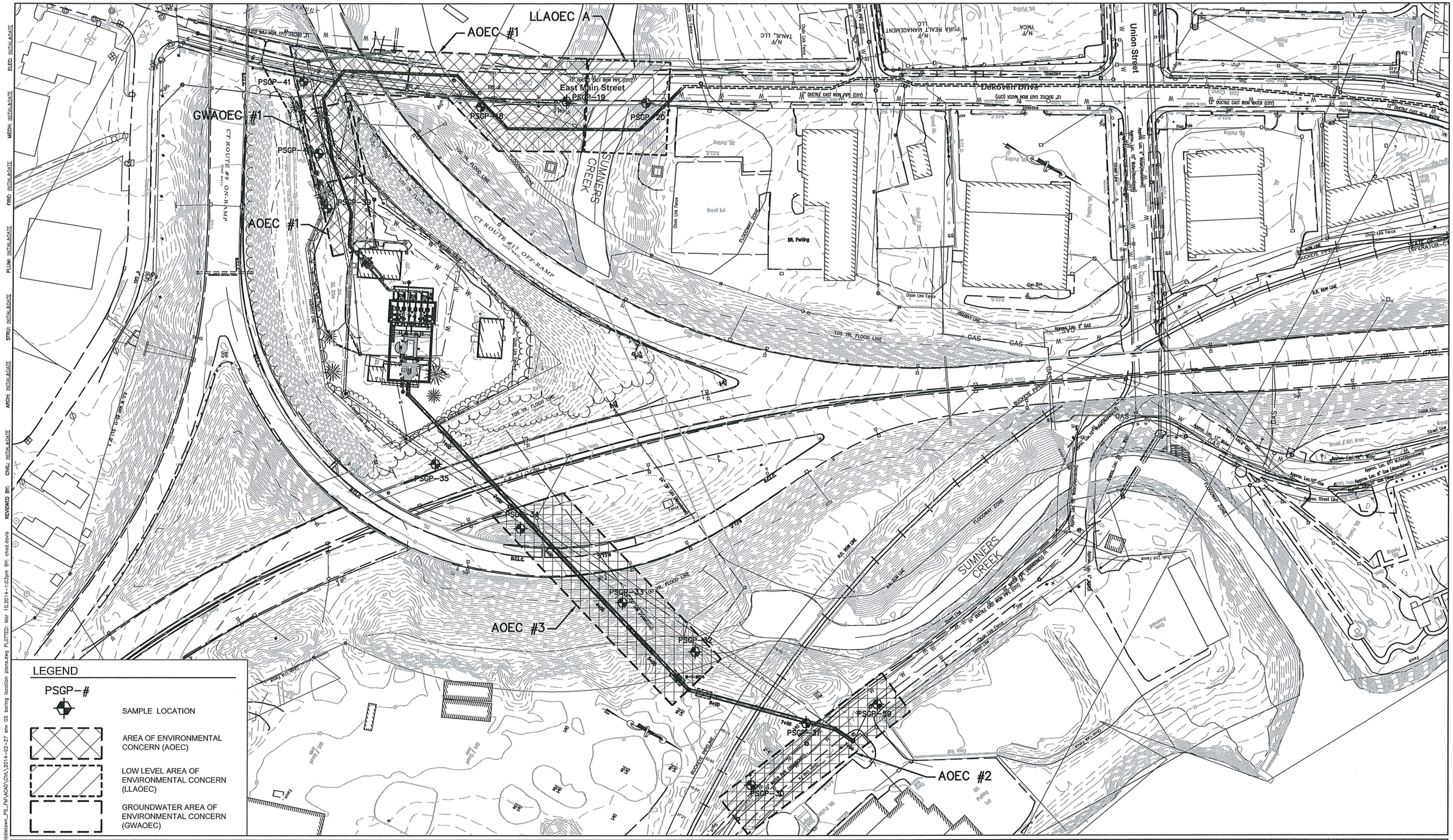
PROJECT NO.:	14712.01
DESIGNED BY:	DRS
DRAWN BY:	CAD
CHK'D BY:	
DATE:	08/08/13
SCALE:	1" = 60'

MATTABASSETT REGIONALIZATION PROJECT
MIDDLETOWN, CONNECTICUT

PHASE II ENVIRONMENTAL SITE ASSESSMENT
GRAVITY SEWER AND FORCE MAIN EXTENSION
SAMPLE LOCATIONS

SHEET NO.
FIG-2
SHEET 1 OF 1

DRAWING FILE: G:\JOBS\14712.01-Middletown_PS_FM\ACAD\CIVIL\2014-02-27 env GS boring location plans.dwg PLOTTED: Mar 10,2014-1:03pm BY: chad.davis REVIEWED BY: CIVIL: INITIAL/DATE ARCH: INITIAL/DATE STRU: INITIAL/DATE PLUM: INITIAL/DATE FIRE: INITIAL/DATE MECH: INITIAL/DATE ELEC: INITIAL/DATE



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CDR MAGUIRE
2080 Silas Deane Highway
Rocky Hill, CT 06067

MARK	DATE	DESCRIPTION	BY	APP'D
1	3/10/14	REVISED PUMP STATION & PIPE LAYOUT	CAD	DRS

PROJECT NO.:	14712.01
DESIGNED BY:	DRS
DRAWN BY:	CAD
CHK'D BY:	
DATE:	08/08/13
SCALE:	1" = 60'

MATTABASSETT REGIONALIZATION PROJECT
MIDDLETOWN, CONNECTICUT

PHASE II ENVIRONMENTAL SITE ASSESSMENT
GRAVITY SEWER AND FORCE MAIN EXTENSION
AREAS OF ENVIRONMENTAL CONCERN (AOEC)

SHEET NO.
FIG-3
SHEET 1 OF 1

DRAWING FILE: G:\JOBS\14712.01-Middletown_PS_FM\ACAD\Civil\2014-02-27 env GS boring location plans.dwg PLOTTED: Mar 10,2014-1:03pm BY: chad.davis REVIEWED BY: CIVIL: INITIAL/DATE ELEC: INITIAL/DATE MECH: INITIAL/DATE FIRE: INITIAL/DATE PLUM: INITIAL/DATE STRU: INITIAL/DATE ARCH: INITIAL/DATE

TABLES

TABLE 1- Results of Geoprobe® Boring Soil Sample Analyses
Proposed Gravity Sewer Line and Force Main Extension
Middletown, CT

Sample I.D.:	**PSGP-18**	**PSGP-19**	**PSGP-20**	**PSGP-30**	**CTDEEP PMC GB Groundwater Area**	**CTDEEP DEC Residential & Industrial/Commercial**
Sample Date:	2/28/2013	2/28/2013	3/1/2013	3/1/2013		
Sample Depth:	8'-10'	3'-5'	3'-5'	3'-5'		
Sample Location:	Gravity Sewer - East Main	Gravity Sewer - East Main	Gravity Sewer - East Main	Gravity Sewer - River Road		
ETPH - CT ETPH Method (mg/Kg)	110	110	65	73	2,500	500/2,500
VOCs - Method 8260 (mg/Kg)						
1,2,4-Trimethylbenzene	ND	2.7	ND	ND	70	500/1,000
1,3,5-Trimethylbenzene	ND	0.15	ND	ND	70	500/1,000
2-Isopropyltoluene	ND	0.0096	ND	ND	41.8	500/1,000
Ethylbenzene	ND	0.089	ND	ND	10.1	500/1,000
Isopropylbenzene	ND	0.046	ND	ND	132	500/1,000
m&p-Xylene	ND	0.32	ND	ND	19.5	500/1,000
Naphthalene	ND	0.55	ND	ND	56	1,000/2,500
n-Butylbenzene	ND	0.024	ND	ND	14	500/1,000
n-Propylbenzene	ND	0.07	ND	ND	14	500/1,000
o-Xylene	ND	0.2	ND	ND	19.5	500/1,000
p-Isopropyltoluene	ND	0.037	ND	ND	41.8	500/1,000
sec-Butylbenzene	ND	0.024	ND	ND	14	500/1,000
Toluene	ND	0.021	ND	ND	67	500/1,000
Total Xylenes	ND	0.52	ND	ND	19.5	500/1,000
ALL OTHER PARAMETERS	ND	ND	ND	ND	VARIES	VARIES
PAH's - Method 8270 (mg/Kg)						
Acenaphthylene	1.9	0.44	ND	0.47	84	1,000/2,500
Anthracene	1.1	0.27	ND	ND	400	1,000/2,500
Benz(a)anthracene	**4.8**	**1.3**	0.67	0.85	**1**	**1/**7.8
Benzo(a)pyrene	**4.8**	**1.4**	0.7	0.81	**1**	**1/1**
Benzo(b)fluoranthene	**7.4**	**1.8**	0.86	0.89	**1**	**1/**7.8
Benzo(g,h,i)perylene	2.6	0.76	0.51	0.52	42	1,000/2,500
Benzo(k)fluoranthene	**2**	0.56	0.33	ND	**1**	8.4/78
Chrysene	**6.3**	**1.5**	0.65	**1.1**	**1**	84/780
Dibenz(a,h)anthracene	0.79	ND	ND	ND	1	1/1
Fluoranthene	8.1	2.1	1.3	1.6	56	1,000/2,500
Fluorene	0.34	ND	ND	ND	56	1,000/2,500
Indeno(1,2,3-cd)pyrene	**2.3**	0.64	0.42	0.38	**1**	**1/**7.8
Naphthalene	0.31	ND	ND	ND	56	1,000/2,500
Phenanthrene	3.7	0.87	0.68	1.2	40	1,000/2,500
Pyrene	9	2.3	1.2	2.5	40	1,000/2,500
ALL OTHER PARAMETERS	ND	ND	ND	ND	VARIES	VARIES
PCBs - Method 8082 (mg/Kg)						
ALL PARAMETERS	ND	ND	ND	ND	Not Applicable	1/10
Total RCRA 8 Metals (mg/Kg)						
Arsenic	2.2	1.5	3.1	1.8		10/10
Barium	49.5	61.6	79.6	27.7		4,700/140,000
Cadmium	<0.35	0.41	<0.38	<0.35	NOT	34/1,000
Chromium	11.6	10.7	15.7	9.05		3,900/51,000
Lead	47.3	206	66.6	22.3	APPLICABLE	400/1,000
Mercury	0.19	0.15	0.15	<0.08		20/610
Selenium	<1.4	<1.6	<1.5	<1.4		340/10,000
Silver	<0.40	<0.39	<0.38	<0.35		340/10,000
SPLP RCRA 8 Metals (mg/L)						
Arsenic	<0.004	<0.004	<0.004	<0.004	0.5	
Barium	0.058	0.028	0.047	0.095	10	
Cadmium	<0.005	<0.005	<0.005	<0.005	0.05	NOT
Chromium	<0.010	<0.010	<0.010	<0.010	0.5	
Lead	0.015	<0.010	0.017	0.01	0.15	APPLICABLE
Mercury	<0.0004	<0.0004	<0.0004	<0.0004	0.02	
Selenium	<0.020	<0.020	<0.020	<0.020	0.5	
Silver	<0.010	<0.010	<0.010	<0.010	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits) The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1- Results of Geoprobe® Boring Soil Sample Analyses
Proposed Gravity Sewer Line and Force Main Extension
Middletown, CT

Continued

Sample I.D.:	**PSGP-31**	**PSGP-32**	**PSGP-33**	**PSGP-34**	**PSGP-35**	**CTDEEP PMC GB Groundwater Area**	**CTDEEP DEC Residential & Industrial/Commercial**
Sample Date:	3/1/2013	3/1/2013	3/1/2013	3/5/2013	3/5/2013		
Sample Depth:	8'-10'	0'-2'	0'-2'	0'-2'	0'-2'		
Sample Location:	Gravity Sewer - River Road	Gravity Sewer - Route 9 Ramp	Gravity Sewer - Route 9 Ramp	Gravity Sewer - Route 9 Ramp	Gravity Sewer - Route 9 Ramp		
ETPH - CT ETPH Method (mg/Kg)	ND	88	ND	100	ND	2,500	500/2,500
VOCs - Method 8260 (mg/Kg)							
ALL PARAMETERS	ND	ND	ND	ND	ND	VARIES	VARIES
PAH's - Method 8270(mg/Kg)							
Acenaphthylene	ND	1.3	0.64	ND	ND	84	1,000/2,500
Anthracene	ND	0.45	ND	ND	ND	400	1,000/2,500
Benz(a)anthracene	ND	**1.5**	**1.8**	ND	ND	**1**	**1/**7.8
Benzo(a)pyrene	ND	**1.8**	**1.9**	ND	ND	**1**	**1/1**
Benzo(b)fluoranthene	ND	**2.5**	**2.4**	0.29	ND	**1**	**1/**7.8
Benzo(g,h,i)perylene	ND	0.74	0.73	ND	ND	42	1,000/2,500
Benzo(k)fluoranthene	ND	0.66	0.88	ND	ND	1	8.4/78
Chrysene	ND	**1.7**	**1.9**	ND	ND	**1**	84/780
Fluoranthene	ND	2.3	2.6	0.45	ND	56	1,000/2,500
Indeno(1,2,3-cd)pyrene	ND	0.73	0.74	ND	ND	1	1/7.8
Phenanthrene	ND	1.2	0.83	ND	ND	40	1,000/2,500
Pyrene	ND	2.6	2.6	0.46	ND	40	1,000/2,500
ALL OTHER PARAMETERS	ND	ND	ND	ND	ND	VARIES	VARIES
Total PAH's	ND	17.48	17.02	1.2	ND		
PCBs - Method 8082 (mg/Kg)							
PCB-1260	ND	**1.6**	ND	ND	ND	Not Applicable	**1/**10
ALL PARAMETERS	ND	ND	ND	ND	ND		1/10
Total RCRA 8 Metals (mg/Kg)							
Arsenic	3.7	2.8	1.5	7.3	1.4		10/10
Barium	88.9	79.8	43.2	238	40.4		4,700/140,000
Cadmium	<0.43	1.7	<0.47	2.08	<0.43	NOT	34/1,000
Chromium	22.8	26.2	12.3	28.3	9.7		3,900/51,000
Lead	7.39	122	67.3	354	26.1	APPLICABLE	400/1000
Mercury	0.19	0.13	<0.12	0.38	<0.09		20/610
Selenium	<1.7	<1.6	<1.9	<1.6	<1.7		340/10000
Silver	<0.43	<0.4	<0.47	<2.0	<2.0		340/10000
SPLP RCRA 8 Metals (mg/L)							
Arsenic	<0.004	<0.004	<0.004	0.006	<0.004	0.5	
Barium	0.091	0.118	0.05	0.174	0.069	10	
Cadmium	<0.005	<0.005	<0.005	<0.005	<0.005	0.05	NOT
Chromium	<0.010	0.014	<0.010	0.013	<0.010	0.5	
Lead	0.019	0.093	0.089	**0.272**	0.015	**0.15**	APPLICABLE
Mercury	<0.0004	<0.0004	<0.0004	0.0006	<0.0004	0.02	
Selenium	<0.020	<0.020	<0.020	<0.020	<0.020	0.5	
Silver	<0.010	<0.010	<0.010	<0.010	<0.010	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits) The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 1- Results of Geoprobe® Boring Soil Sample Analyses
Proposed Gravity Sewer Line and Force Main Extension
Middletown, CT

Continued

Sample I.D.:	**PSGP-39**	**PSGP-40**	**PSGP-41**	**PSGP 59 1-4 FT**	**CTDEEP PMC GB Groundwater Area**	**CTDEEP DEC Residential & Industrial/Commercial**
Sample Date:	2/20/2013	2/25/2013	2/25/2013	7/15/2013		
Sample Depth:	1'-3'	8'-10'	8'-10'	1'-4'		
Sample Location:	Gravity Sewer - East Main Street	Gravity Sewer - East Main Street	Gravity Sewer - East Main Street	Gravity Sewer - River Road		
ETPH - CT ETPH Method (mg/Kg)	**550**	ND	ND	470	2,500	**500/**2,500
PCBs - Method 8082 (mg/Kg)						
ALL PARAMETERS	ND	ND	ND	ND	Not Applicable	1/10
VOCs - Method 8260 (mg/Kg)						
1,4-Dichlorobenzene	ND	0.64	ND	ND	15	26/240
ALL OTHER PARAMETERS	ND	ND	ND	ND	VARIES	VARIES
PAH's - Method 8270 (mg/Kg)						
Acenaphthylene	ND	0.28	ND	1.2	84	1,000/2,500
Anthracene	ND	ND	ND	0.59	400	1,000/2,500
Benz(a)anthracene	**1.6**	0.68	ND	**3.4**	**1**	**1**/7.8
Benzo(a)pyrene	**1.8**	0.6	ND	**3.8**	**1**	**1**/1
Benzo(b)fluoranthene	**2.8**	0.77	ND	**4.5**	**1**	**1**/7.8
Benzo(g,h,i)perylene	0.73	0.37	ND	1.8	42	1,000/2,500
Benzo(k)fluoranthene	0.79	0.28	ND	1	1	8.4/78
Chrysene	**2.3**	0.82	ND	**4.3**	**1**	84/780
Dibenz(a,h)anthracene	ND	ND	ND	0.57	1	1/1
Fluoranthene	2.7	1.4	0.42	6.1	56	1,000/2,500
Indeno(1,2,3-cd)pyrene	0.69	0.32	ND	**1.5**	**1**	**1**/7.8
Naphthalene	ND	ND	ND	0.31	56	1,00/2,500
Phenanthrene	1.3	0.33	ND	3.1	40	1,000/2,500
Pyrene	3	1.7	0.58	8.1	40	1,000/2,500
ALL OTHER PARAMETERS	ND	ND	ND	ND	VARIES	VARIES
Total RCRA 8 Metals (mg/Kg)						
Arsenic	5.4	3.9	**19.9**	2.4		10/10
Barium	315	62.7	548	90.3		4,700/140,000
Cadmium	1.46	<0.41	<0.37	.45	NOT	34/1,000
Chromium	20.5	14.3	19.2	11.4		3,900/51,000
Lead	**4,380**	122	**12,500**	259	APPLICABLE	**400/1,000**
Mercury	0.73	0.45	0.31	0.7		20/610
Selenium	<1.5	<1.6	<1.5	<1.6		340/10,000
Silver	1.44	<0.80	<0.80	<0.39		340/10,000
SPLP RCRA 8 Metals (mg/L)						
Arsenic	0.005	0.005	<0.004	0.007	0.5	
Barium	0.081	0.074	0.064	0.116	10	
Cadmium	<0.005	<0.005	<0.005	<0.005	0.05	NOT
Chromium	<0.010	<0.010	<0.010	<0.010	0.5	
Lead	0.018	0.056	0.019	**0.233**	**0.15**	APPLICABLE
Mercury	<0.0004	<0.0004	<0.0004	0.0005	0.02	
Selenium	<0.020	<0.020	<0.020	<0.020	0.5	
Silver	<0.010	<0.010	<0.010	<0.010	0.36	

ND – Not Detected (see laboratory reports for compound specific detection limits) The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

TABLE 2 - Results of Groundwater Sample Analyses
Proposed Sewage Pump Station
Middletown, CT

Sample I.D.:	**MW-40**	**CTDEEP GP to "B" Surface Water Effluent Limits**	**CTDEEP GP to Sanitary Sewer Effluent Limits**
Sample Date:	2/25/2013		
Sample Location:	PSGP-40		
Depth to Water (feet):	5		
ETPH - CT ETPH Method (mg/L)	0.89	5.0	100.0
PCBs - Method 8082 (ug/L)			
ALL PARAMETERS	ND	0.5	1.0
VOCs - Method 8260 (ug/L)			
Total VOCs	ND	50	5,000
PAHs - Method 8270 (ug/L)			
2-Methylnaphthalene	0.33	None Established	None Established
Acenaphthene	0.23	None Established	None Established
Acenaphthylene	0.54	None Established	None Established
Anthracene	0.35	None Established	None Established
Benz(a)anthracene	**0.92**	**0.49**	None Established
Benzo(a)pyrene	**1.3**	**0.49**	None Established
Benzo(b)fluoranthene	1.5	None Established	None Established
Benzo(g,h,i)perylene	1.5	None Established	None Established
Benzo(k)fluoranthene	**0.53**	**0.49**	None Established
Chrysene	1	None Established	None Established
Dibenz(a,h)anthracene	**0.32**	**0.01**	None Established
Fluoranthene	2.7	None Established	None Established
Fluorene	0.23	None Established	None Established
Indeno(1,2,3-cd)pyrene	**1.2**	**0.49**	None Established
Naphthalene	0.54	None Established	None Established
Phenanthrene	0.68	None Established	None Established
Pyrene	2.8	None Established	None Established
Total PAHs	**16.67**	**5**	500
Total RCRA 8 Metals (mg/L)			
Arsenic	<0.004	**0.004**	0.1
Barium	0.341	None Established	5
Cadmium	0.005	0.0959	0.1
Chromium	0.04	1.0	1.0
Lead	**0.22**	**0.0936**	**0.1**
Mercury	0.001	0.0097	0.005
Selenuim	<0.016	0.39	1.0
Silver	<0.002	0.048	0.1
Dissolved RCRA 8 Metals (mg/L)			
Arsenic	<0.004	**0.004**	0.1
Barium	0.096	None Established	5
Cadmium	0.007	0.0959	0.1
Chromium	<0.001	1.0	1.0
Lead	<0.002	0.0936	0.1
Mercury	<0.0002	0.0097	0.005
Selenium	<0.011	0.39	1.0
Silver	<0.001	0.048	0.1

ND – Not Detected (see laboratory reports for compound specific detection limits)

NA - Not Analyzed

TABLE 3 - Results of QA/QC Sample Analyses
Proposed Gravity Sewer Lines
Middletown, CT

Sample I.D.: Sample Date:	TB (LL) 3/5/2013	TB (HL) 3/5/2013		**CTDEEP GP to "B" Surface Water Effluent Limits**	**CTDEEP GP to Sanitary Sewer Effluent Limits**
VOCs - Method 8260 (mg/Kg)					
ALL PARAMETERS	ND	ND		VARIES	VARIES

ND – Not Detected (see laboratory reports for compound specific detection limits) The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.

APPENDIX A
Boring Logs

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-18
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 2-28-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		Dark-Brown SILT, trace fine Sand & f-c Gravel	0.3		
1.0		Brown fine to medium SAND, little Silt, trace fine to coarse Gravel			
2.0		ASPHALT - 2"	2.0	0	Macro Core 0'-5'
3.0		Dark-Brown fine to medium SAND, little Silt, trace fine Gravel			
4.0			4.8		
5.0		Orange-Brown to Red-Brown fine to medium SAND, little Silt & fine Gravel (wet at 7')		0	Macro Core 5'-10'
6.0					
7.0					
8.0					
9.0					
10.0			10.0		
11.0		End of Boring at 10'			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** 7'	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-19
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 2-28-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Brown fine to medium SAND & SILT, trace fine Gravel	0.5		
1.0, 2.0, 3.0		Dark-Brown SILT, little fine Sand (Petroleum Odor)	3.5	59.5	Macro Core 0'-5'
		CONCRETE - 2"			
4.0, 5.0		Dark-Brown SILT, little fine Sand (Petroleum Odor)	5.5		
6.0, 7.0, 8.0, 9.0		Gray to Black ASH & CINDERS, little Concrete, trace Brick, fine to coarse Gravel (FILL)	10.0	0	Macro Core 5'-10'
10.0, 11.0, 12.0		End of Boring at 10'			

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-20
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 3-1-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Brown SILT, little Organics, trace fine Sand	0.4		
1.0 2.0 3.0		Red-Brown fine SAND, little Silt & fine Gravel, trace Cobble		0	Macro Core 0'-5'
4.0			4.0		
		ASPHALT - 3"	4.3		
		Red-Brown fine to medium SAND, little Silt, trace fine Gravel	5.0		
5.0					
6.0		Refusal at 5' on Sandstone			
7.0		Attempted 2 Offsets			
8.0					
9.0					
10.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 5'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-30
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 3-1-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Red-Brown SILT, little fine to coarse Gravel	0.5		
		ASPHALT - 4"	0.9		
1.0					
2.0		Red-Brown SILT, little fine to coarse Gravel		0	Macro Core 0'-5'
3.0			3.0		
		CONCRETE	3.5		
4.0		Red-Brown SILT, trace fine Sand	4.5		
		Black Organic SILT, trace Asphalt	4.8		
5.0		Red-Brown SILT, trace fine Sand			
6.0			6.0		
7.0		Dark-Gray fine SAND, little Silt		0	Macro Core 5'-10'
8.0		grading to			
		Dark-Gray SILT, trace Clay & fine Sand (very moist)			
9.0					
10.0			10.0		
11.0		End of Boring at 10'			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-31
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 3-1-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown SILT, little fine to medium Sand	0.5		
1.0		Red-Brown fine to medium SAND, little Silt			
2.0			2.5	0	Macro Core 0'-5'
		Black Organic SILT, trace Asphalt	2.9		
3.0					
4.0					
5.0		Olive-Brown to Gray SILT, trace fine Sand (moist)			
6.0					
7.0				0	Macro Core 5'-10'
8.0			8.0		
9.0		Dark-Gray SILT, trace Clay & fine Sand (very moist)			
10.0			10.0		
11.0		End of Boring at 10'			
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-32
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 3-1-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown fine SAND, little Silt, trace fine Gravel & Organics	0.4		
1.0		Red-Brown SILT, trace fine Sand	2.0	0	Hand Auger 0'-2'
2.0					
3.0					
4.0					
5.0					
6.0		Refusal at 2' on Cobbles/Gravel Attempted 2 Offsets			
7.0					
8.0					
9.0					
10.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 4"
Rig: Hand Auger	**Boring Depth:** 2'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-33
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 3-1-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown fine SAND, little Silt, trace fine Gravel & Organics	0.4		
1.0		Brown fine to medium SAND, little Silt (moist)	2.0	0	Hand Auger 0'-2'
2.0					
3.0					
4.0					
5.0					
6.0		Refusal at 2' on Cobbles/Gravel Attempted 2 Offsets			
7.0					
8.0					
9.0					
10.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 4"
Rig: Hand Auger	**Boring Depth:** 2'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-34
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 3-5-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown SILT, little Organics, trace f-c Gravel	0.4		
1.0		Brown to Red-Brown fine to coarse SAND, trace Silt & f-c Gravel	2.0	0	Hand Auger 0'-2'
2.0					
3.0					
4.0					
5.0					
6.0		Refusal at 2' on Cobbles/Gravel Attempted 2 Offsets			
7.0					
8.0					
9.0					
10.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 4"
Rig: Hand Auger	**Boring Depth:** 2'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-35
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 3-5-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
		Dark-Brown SILT, little Organics, trace f-c Gravel	0.4	0	Hand Auger 0'-2'
		Brown to Red-Brown fine to coarse SAND, trace Silt & f-c Gravel	1.0		
1.0		Dark-Brown to Black fine SAND mixed with Ash & Cinders, f-c Gravel, Glass (FILL)	2.0		
2.0					
3.0					
4.0					
5.0					
		Refusal at 2' on Cobbles/Gravel			
6.0		Attempted 2 Offsets			
7.0					
8.0					
9.0					
10.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 4"
Rig: Hand Auger	**Boring Depth:** 2'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-39
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 2-20-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		ASPHALT - 2"			
1.0		Red-Brown fine to medium SAND, little Silt, trace fine Gravel	1.5		
2.0				0	Macro Core 0'-5'
3.0					
4.0					
5.0		Gray to Black ASH & CINDERS mixed with Brick, Concrete, fine to medium Sand, fine to coarse Gravel, and Ceramics (FILL)			
6.0					
7.0				0	Macro Core 5'-10'
8.0					
9.0					
10.0			10.0		
		End of Boring at 10'			
11.0					
12.0					

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-40
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 2-25-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
		Ground Surface	0.0		
0.0		ASPHALT - 3"			
		Gray fine to coarse GRAVEL mixed with Brown fine Sand	1.0		
1.0 – 5.0		Red-Brown SILT, little fine Sand, trace fine to coarse Gravel	5.0	0	Macro Core 0'-5'
5.0 – 10.0		Dark-Brown fine to medium SAND, little Silt (wet, Petroleum Odor)	10.0	4.7	Macro Core 5'-10'
10.0		End of Boring at 10'			
		Groundwater Grab Sample Collected			

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** 5'	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-41
Location: Middletown, CT	**Inspector:** J. Buehler
Client: CDR Maguire	**Date:** 2-25-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0 2.0 3.0 4.0		Brown SILT, little Concrete & Brick, trace fine Sand & Gravel (FILL)	5.0	0	Macro Core 0'-5'
5.0 6.0 7.0 8.0 9.0		Dark-Brown fine to coarse SAND, trace fine to coarse Gravel & Silt (wet)	10.0	0	Macro Core 5'-10'
10.0 11.0 12.0		End of Boring at 10'			

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** 5'	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 10'	**Page:** 1 of 1

SOIL BORING LOG

Project: Pump Station & Gravity Sewers	**Boring:** PSGP-59
Location: Middletown, CT	**Inspector:** M. Bazzano
Client: CDR Maguire	**Date:** 7-15-13

Logical Environmental Solutions
354 South River Road
Tolland, CT 06084
Truck, Portable & ATV/Backhoe-Mounted Geoprobes

Depth (feet)	Symbol	Description	Depth (feet)	PID (ppm)	Sample Interval
0.0		Ground Surface	0.0		
1.0		Dark-Brown fine to medium SAND, little Silt			
2.0, 3.0		Red-Brown SILT, little fine to medium Sand, trace Coal & fine to coarse Gravel	4.0	1.3	Macro Core 0'-5'
4.0, 5.0, 6.0, 7.0		Dark-Gray to Black ASH & CINDERS, trace Glass, Ceramics, & fine to coarse Gravel	8.0	0.4	Macro Core 5'-10'
8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0		Gray SILT, little fine Sand grading to Gray SILT, trace Clay & fine Sand (very soft & moist)	15.0	0.3	Macro Core 10'-15'
16.0, 17.0, 18.0, 19.0, 20.0		End of Boring at 15'			

Soil Description: and = 35-50% some = 20-35% little = 10-20% trace = 1-10%

Driller: W. Lineberry	**Depth to Water:** Dry	**Boring Dia.:** 2"
Rig: Geoprobe 540U	**Boring Depth:** 15'	**Page:** 1 of 1

APPENDIX B
Laboratory Reports

PHOENIX
Environmental Laboratories, Inc.

Friday, March 15, 2013

Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Project ID: MIDDLETOWN PUMP STATION
Sample ID#s: BD41558 - BD41567

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

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	7:00
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41558

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-20

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	03/04/13	LK	SW6010
Arsenic	3.1	0.8	mg/Kg	03/04/13	LK	SW6010
Barium	79.6	0.38	mg/Kg	03/04/13	LK	SW6010
Cadmium	< 0.38	0.38	mg/Kg	03/04/13	LK	SW6010
Chromium	15.7	0.38	mg/Kg	03/04/13	LK	SW6010
Mercury	0.15	0.06	mg/Kg	03/05/13	JA	SW-7471
Lead	66.6	0.38	mg/Kg	03/04/13	LK	SW6010
Selenium	< 1.5	1.5	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.047	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	0.017	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	89		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/01/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	65	56	mg/Kg	03/04/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-20

Phoenix I.D.: BD41558

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/04/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	95		%	03/04/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	360	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	102		%	03/04/13	AW	30 - 150 %
% TCMX	99		%	03/04/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,1,1-Trichloroethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	03/04/13	R/J	SW8260
1,1,2-Trichloroethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloroethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloroethene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloropropene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,2,3-Trichloropropane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,2-Dibromoethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichlorobenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichloroethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichloropropane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,3-Dichlorobenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,3-Dichloropropane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
1,4-Dichlorobenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
2,2-Dichloropropane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
2-Chlorotoluene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
2-Hexanone	ND	24	ug/Kg	03/04/13	R/J	SW8260
2-Isopropyltoluene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
4-Chlorotoluene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
4-Methyl-2-pentanone	ND	24	ug/Kg	03/04/13	R/J	SW8260
Acetone	ND	96	ug/Kg	03/04/13	R/J	SW8260
Acrylonitrile	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Benzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Bromobenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Bromochloromethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-20

Phoenix I.D.: BD41558

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Bromoform	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Bromomethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Carbon Disulfide	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Carbon tetrachloride	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Chlorobenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Chloroethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Chloroform	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Chloromethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Dibromochloromethane	ND	2.9	ug/Kg	03/04/13	R/J	SW8260
Dibromomethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Dichlorodifluoromethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Ethylbenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Hexachlorobutadiene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Isopropylbenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
m&p-Xylene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Methyl Ethyl Ketone	ND	29	ug/Kg	03/04/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	9.6	ug/Kg	03/04/13	R/J	SW8260
Methylene chloride	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Naphthalene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
n-Butylbenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
n-Propylbenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
o-Xylene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
p-Isopropyltoluene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
sec-Butylbenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Styrene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
tert-Butylbenzene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Tetrachloroethene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	9.6	ug/Kg	03/04/13	R/J	SW8260
Toluene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Total Xylenes	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	9.6	ug/Kg	03/04/13	R/J	SW8260
Trichloroethene	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Trichlorofluoromethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Trichlorotrifluoroethane	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
Vinyl chloride	ND	4.8	ug/Kg	03/04/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	102		%	03/04/13	R/J	70 - 130 %
% Bromofluorobenzene	97		%	03/04/13	R/J	70 - 130 %
% Dibromofluoromethane	104		%	03/04/13	R/J	70 - 130 %
% Toluene-d8	99		%	03/04/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	03/01/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	03/01/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	03/01/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-20

Phoenix I.D.: BD41558

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	260	ug/Kg	03/01/13	DD	SW 8270
Benz(a)anthracene	670	260	ug/Kg	03/01/13	DD	SW 8270
Benzo(a)pyrene	700	260	ug/Kg	03/01/13	DD	SW 8270
Benzo(b)fluoranthene	860	260	ug/Kg	03/01/13	DD	SW 8270
Benzo(ghi)perylene	510	260	ug/Kg	03/01/13	DD	SW 8270
Benzo(k)fluoranthene	330	260	ug/Kg	03/01/13	DD	SW 8270
Chrysene	650	260	ug/Kg	03/01/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	03/01/13	DD	SW 8270
Fluoranthene	1300	260	ug/Kg	03/01/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	03/01/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	420	260	ug/Kg	03/01/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	03/01/13	DD	SW 8270
Phenanthrene	680	260	ug/Kg	03/01/13	DD	SW 8270
Pyrene	1200	260	ug/Kg	03/01/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	79		%	03/01/13	DD	30 - 130 %
% Nitrobenzene-d5	81		%	03/01/13	DD	30 - 130 %
% Terphenyl-d14	83		%	03/01/13	DD	30 - 130 %

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

Comments:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C19 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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	7:06
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41559

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-21

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	03/04/13	LK	SW6010
Arsenic	3.5	0.8	mg/Kg	03/04/13	LK	SW6010
Barium	76.7	0.41	mg/Kg	03/04/13	LK	SW6010
Cadmium	< 0.41	0.41	mg/Kg	03/04/13	LK	SW6010
Chromium	13.2	0.41	mg/Kg	03/04/13	LK	SW6010
Mercury	0.81	0.08	mg/Kg	03/05/13	JA	SW-7471
Lead	77.3	0.41	mg/Kg	03/04/13	LK	SW6010
Selenium	< 1.7	1.7	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	0.006	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.111	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	0.0007	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	0.204	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	85		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/01/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	57	mg/Kg	03/04/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-21

Phoenix I.D.: BD41559

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	03/04/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	99		%	03/04/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	380	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	77		%	03/04/13	AW	30 - 150 %
% TCMX	74		%	03/04/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,1,1-Trichloroethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	03/04/13	R/J	SW8260
1,1,2-Trichloroethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloroethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloroethene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloropropene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,2,3-Trichloropropane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,2-Dibromoethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichlorobenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichloroethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichloropropane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,3-Dichlorobenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,3-Dichloropropane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
1,4-Dichlorobenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
2,2-Dichloropropane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
2-Chlorotoluene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
2-Hexanone	ND	25	ug/Kg	03/04/13	R/J	SW8260
2-Isopropyltoluene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
4-Chlorotoluene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
4-Methyl-2-pentanone	ND	25	ug/Kg	03/04/13	R/J	SW8260
Acetone	ND	99	ug/Kg	03/04/13	R/J	SW8260
Acrylonitrile	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Benzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Bromobenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Bromochloromethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-21

Phoenix I.D.: BD41559

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Bromoform	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Bromomethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Carbon Disulfide	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Carbon tetrachloride	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Chlorobenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Chloroethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Chloroform	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Chloromethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Dibromochloromethane	ND	3.0	ug/Kg	03/04/13	R/J	SW8260
Dibromomethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Dichlorodifluoromethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Ethylbenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Hexachlorobutadiene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Isopropylbenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
m&p-Xylene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Methyl Ethyl Ketone	ND	30	ug/Kg	03/04/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	9.9	ug/Kg	03/04/13	R/J	SW8260
Methylene chloride	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Naphthalene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
n-Butylbenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
n-Propylbenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
o-Xylene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
p-Isopropyltoluene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
sec-Butylbenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Styrene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
tert-Butylbenzene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Tetrachloroethene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	9.9	ug/Kg	03/04/13	R/J	SW8260
Toluene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Total Xylenes	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	9.9	ug/Kg	03/04/13	R/J	SW8260
Trichloroethene	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Trichlorofluoromethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Trichlorotrifluoroethane	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
Vinyl chloride	ND	4.9	ug/Kg	03/04/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	102		%	03/04/13	R/J	70 - 130 %
% Bromofluorobenzene	93		%	03/04/13	R/J	70 - 130 %
% Dibromofluoromethane	103		%	03/04/13	R/J	70 - 130 %
% Toluene-d8	98		%	03/04/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	270	ug/Kg	03/01/13	DD	SW 8270
Acenaphthene	ND	270	ug/Kg	03/01/13	DD	SW 8270
Acenaphthylene	ND	270	ug/Kg	03/01/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-21

Phoenix I.D.: BD41559

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	270	ug/Kg	03/01/13	DD	SW 8270
Benz(a)anthracene	530	270	ug/Kg	03/01/13	DD	SW 8270
Benzo(a)pyrene	680	270	ug/Kg	03/01/13	DD	SW 8270
Benzo(b)fluoranthene	800	270	ug/Kg	03/01/13	DD	SW 8270
Benzo(ghi)perylene	450	270	ug/Kg	03/01/13	DD	SW 8270
Benzo(k)fluoranthene	290	270	ug/Kg	03/01/13	DD	SW 8270
Chrysene	500	270	ug/Kg	03/01/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	270	ug/Kg	03/01/13	DD	SW 8270
Fluoranthene	590	270	ug/Kg	03/01/13	DD	SW 8270
Fluorene	ND	270	ug/Kg	03/01/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	430	270	ug/Kg	03/01/13	DD	SW 8270
Naphthalene	ND	270	ug/Kg	03/01/13	DD	SW 8270
Phenanthrene	320	270	ug/Kg	03/01/13	DD	SW 8270
Pyrene	540	270	ug/Kg	03/01/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	83		%	03/01/13	DD	30 - 130 %
% Nitrobenzene-d5	86		%	03/01/13	DD	30 - 130 %
% Terphenyl-d14	90		%	03/01/13	DD	30 - 130 %

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

Comments:

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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	7:15
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41560

Project ID:
Client ID: PSGP-22

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.42	0.42	mg/Kg	03/04/13	LK	SW6010
Arsenic	5.1	0.8	mg/Kg	03/04/13	LK	SW6010
Barium	110	0.42	mg/Kg	03/04/13	LK	SW6010
Cadmium	< 0.42	0.42	mg/Kg	03/04/13	LK	SW6010
Chromium	11.8	0.42	mg/Kg	03/04/13	LK	SW6010
Mercury	1.62	0.08	mg/Kg	03/05/13	JA	SW-7471
Lead	242	4.2	mg/Kg	03/04/13	EK	SW6010
Selenium	< 1.7	1.7	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.093	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	0.0004	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	0.094	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	83		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/01/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	60	mg/Kg	03/04/13	JRB	CT ETPH/8015

Project ID:
Client ID: PSGP-22

Phoenix I.D.: BD41560

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	03/04/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	98		%	03/04/13	JRB	50 - 150 %

Polychlorinated Biphenyls

PCB-1016	ND	390	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	390	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	390	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	390	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	390	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	390	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	ND	390	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	390	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	390	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	97		%	03/04/13	AW	30 - 150 %
% TCMX	94		%	03/04/13	AW	30 - 150 %

Volatiles

1,1,1,2-Tetrachloroethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,1,1-Trichloroethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	03/14/13	H/J	SW8260
1,1,2-Trichloroethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,1-Dichloroethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,1-Dichloroethene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,1-Dichloropropene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,2,3-Trichloropropane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,2-Dibromoethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,2-Dichlorobenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,2-Dichloroethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,2-Dichloropropane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,3-Dichlorobenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,3-Dichloropropane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
1,4-Dichlorobenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
2,2-Dichloropropane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
2-Chlorotoluene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
2-Hexanone	ND	28	ug/Kg	03/14/13	H/J	SW8260
2-Isopropyltoluene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
4-Chlorotoluene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
4-Methyl-2-pentanone	ND	28	ug/Kg	03/14/13	H/J	SW8260
Acetone	ND	110	ug/Kg	03/14/13	H/J	SW8260
Acrylonitrile	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Benzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Bromobenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Bromochloromethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260

Project ID:
Client ID: PSGP-22

Phoenix I.D.: BD41560

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Bromoform	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Bromomethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Carbon Disulfide	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Carbon tetrachloride	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Chlorobenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Chloroethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Chloroform	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Chloromethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Dibromochloromethane	ND	3.4	ug/Kg	03/14/13	H/J	SW8260
Dibromomethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Dichlorodifluoromethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Ethylbenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Hexachlorobutadiene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Isopropylbenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
m&p-Xylene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Methyl Ethyl Ketone	ND	34	ug/Kg	03/14/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	03/14/13	H/J	SW8260
Methylene chloride	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Naphthalene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
n-Butylbenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
n-Propylbenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
o-Xylene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
p-Isopropyltoluene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
sec-Butylbenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Styrene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
tert-Butylbenzene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Tetrachloroethene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	03/14/13	H/J	SW8260
Toluene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Total Xylenes	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	03/14/13	H/J	SW8260
Trichloroethene	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Trichlorofluoromethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Trichlorotrifluoroethane	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
Vinyl chloride	ND	5.6	ug/Kg	03/14/13	H/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	102		%	03/14/13	H/J	70 - 130 %
% Bromofluorobenzene	80		%	03/14/13	H/J	70 - 130 %
% Dibromofluoromethane	104		%	03/14/13	H/J	70 - 130 %
% Toluene-d8	98		%	03/14/13	H/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Acenaphthene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Acenaphthylene	ND	280	ug/Kg	03/01/13	DD	SW 8270

Project ID:
Client ID: PSGP-22

Phoenix I.D.: BD41560

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Benz(a)anthracene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Benzo(a)pyrene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Benzo(b)fluoranthene	310	280	ug/Kg	03/01/13	DD	SW 8270
Benzo(ghi)perylene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Benzo(k)fluoranthene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Chrysene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Fluoranthene	360	280	ug/Kg	03/01/13	DD	SW 8270
Fluorene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Naphthalene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Phenanthrene	ND	280	ug/Kg	03/01/13	DD	SW 8270
Pyrene	330	280	ug/Kg	03/01/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	79		%	03/01/13	DD	30 - 130 %
% Nitrobenzene-d5	84		%	03/01/13	DD	30 - 130 %
% Terphenyl-d14	86		%	03/01/13	DD	30 - 130 %

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

Comments:

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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	7:40
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41561

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-23

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.41	0.41	mg/Kg	03/04/13	LK	SW6010
Arsenic	2.9	0.8	mg/Kg	03/04/13	LK	SW6010
Barium	55.3	0.41	mg/Kg	03/04/13	LK	SW6010
Cadmium	< 0.41	0.41	mg/Kg	03/04/13	LK	SW6010
Chromium	19.2	0.41	mg/Kg	03/04/13	LK	SW6010
Mercury	< 0.10	0.10	mg/Kg	03/05/13	JA	SW-7471
Lead	8.58	0.41	mg/Kg	03/04/13	LK	SW6010
Selenium	< 1.6	1.6	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.132	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	75		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/01/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	66	mg/Kg	03/04/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-23

Phoenix I.D.: BD41561

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	03/04/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	88		%	03/04/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	430	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	430	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	430	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	430	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	430	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	430	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	ND	430	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	430	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	430	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	92		%	03/04/13	AW	30 - 150 %
% TCMX	92		%	03/04/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,1,1-Trichloroethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.5	ug/Kg	03/06/13	H/J	SW8260
1,1,2-Trichloroethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,1-Dichloroethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,1-Dichloroethene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,1-Dichloropropene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,2,3-Trichloropropane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,2-Dibromoethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,2-Dichlorobenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,2-Dichloroethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,2-Dichloropropane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,3-Dichlorobenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,3-Dichloropropane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
1,4-Dichlorobenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
2,2-Dichloropropane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
2-Chlorotoluene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
2-Hexanone	ND	29	ug/Kg	03/06/13	H/J	SW8260
2-Isopropyltoluene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
4-Chlorotoluene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
4-Methyl-2-pentanone	ND	29	ug/Kg	03/06/13	H/J	SW8260
Acetone	ND	120	ug/Kg	03/06/13	H/J	SW8260
Acrylonitrile	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Benzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Bromobenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Bromochloromethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Bromoform	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Bromomethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Carbon Disulfide	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Carbon tetrachloride	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Chlorobenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Chloroethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Chloroform	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Chloromethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Dibromochloromethane	ND	3.5	ug/Kg	03/06/13	H/J	SW8260
Dibromomethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Dichlorodifluoromethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Ethylbenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Hexachlorobutadiene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Isopropylbenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
m&p-Xylene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Methyl Ethyl Ketone	ND	35	ug/Kg	03/06/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	03/06/13	H/J	SW8260
Methylene chloride	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Naphthalene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
n-Butylbenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
n-Propylbenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
o-Xylene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
p-Isopropyltoluene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
sec-Butylbenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Styrene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
tert-Butylbenzene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Tetrachloroethene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	12	ug/Kg	03/06/13	H/J	SW8260
Toluene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Total Xylenes	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	03/06/13	H/J	SW8260
Trichloroethene	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Trichlorofluoromethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Trichlorotrifluoroethane	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
Vinyl chloride	ND	5.8	ug/Kg	03/06/13	H/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	100		%	03/06/13	H/J	70 - 130 %
% Bromofluorobenzene	97		%	03/06/13	H/J	70 - 130 %
% Dibromofluoromethane	98		%	03/06/13	H/J	70 - 130 %
% Toluene-d8	97		%	03/06/13	H/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Acenaphthene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Acenaphthylene	ND	300	ug/Kg	03/02/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-23

Phoenix I.D.: BD41561

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benz(a)anthracene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benzo(a)pyrene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benzo(b)fluoranthene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benzo(ghi)perylene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benzo(k)fluoranthene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Chrysene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Fluoranthene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Fluorene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Naphthalene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Phenanthrene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Pyrene	ND	300	ug/Kg	03/02/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	72		%	03/02/13	DD	30 - 130 %
% Nitrobenzene-d5	78		%	03/02/13	DD	30 - 130 %
% Terphenyl-d14	83		%	03/02/13	DD	30 - 130 %

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

Comments:

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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	8:00
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41562

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-24

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	03/04/13	LK	SW6010
Arsenic	4.8	0.8	mg/Kg	03/04/13	LK	SW6010
Barium	122	0.39	mg/Kg	03/04/13	LK	SW6010
Cadmium	< 0.39	0.39	mg/Kg	03/04/13	LK	SW6010
Chromium	13.8	0.39	mg/Kg	03/04/13	LK	SW6010
Mercury	1.16	0.10	mg/Kg	03/05/13	JA	SW-7471
Lead	808	3.9	mg/Kg	03/04/13	EK	SW6010
Selenium	< 1.5	1.5	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.042	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	0.135	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	82		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/01/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	60	mg/Kg	03/04/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-24

Phoenix I.D.: BD41562

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	03/04/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	94		%	03/04/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	400	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	400	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	400	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	400	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	400	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	400	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	ND	400	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	400	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	400	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	87		%	03/04/13	AW	30 - 150 %
% TCMX	88		%	03/04/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,1,1-Trichloroethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	03/06/13	H/J	SW8260
1,1,2-Trichloroethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,1-Dichloroethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,1-Dichloroethene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,1-Dichloropropene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,2,3-Trichloropropane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,2-Dibromoethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,2-Dichlorobenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,2-Dichloroethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,2-Dichloropropane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,3-Dichlorobenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,3-Dichloropropane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
1,4-Dichlorobenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
2,2-Dichloropropane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
2-Chlorotoluene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
2-Hexanone	ND	26	ug/Kg	03/06/13	H/J	SW8260
2-Isopropyltoluene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
4-Chlorotoluene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	03/06/13	H/J	SW8260
Acetone	ND	100	ug/Kg	03/06/13	H/J	SW8260
Acrylonitrile	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Benzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Bromobenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Bromochloromethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-24

Phoenix I.D.: BD41562

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Bromoform	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Bromomethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Carbon Disulfide	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Carbon tetrachloride	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Chlorobenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Chloroethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Chloroform	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Chloromethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Dibromochloromethane	ND	3.1	ug/Kg	03/06/13	H/J	SW8260
Dibromomethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Dichlorodifluoromethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Ethylbenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Hexachlorobutadiene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Isopropylbenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
m&p-Xylene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Methyl Ethyl Ketone	ND	31	ug/Kg	03/06/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	03/06/13	H/J	SW8260
Methylene chloride	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Naphthalene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
n-Butylbenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
n-Propylbenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
o-Xylene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
p-Isopropyltoluene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
sec-Butylbenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Styrene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
tert-Butylbenzene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Tetrachloroethene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	03/06/13	H/J	SW8260
Toluene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Total Xylenes	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	03/06/13	H/J	SW8260
Trichloroethene	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Trichlorofluoromethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Trichlorotrifluoroethane	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
Vinyl chloride	ND	5.1	ug/Kg	03/06/13	H/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	97		%	03/06/13	H/J	70 - 130 %
% Bromofluorobenzene	95		%	03/06/13	H/J	70 - 130 %
% Dibromofluoromethane	96		%	03/06/13	H/J	70 - 130 %
% Toluene-d8	98		%	03/06/13	H/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Acenaphthene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Acenaphthylene	ND	280	ug/Kg	03/02/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-24

Phoenix I.D.: BD41562

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Benz(a)anthracene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Benzo(a)pyrene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Benzo(b)fluoranthene	300	280	ug/Kg	03/02/13	DD	SW 8270
Benzo(ghi)perylene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Benzo(k)fluoranthene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Chrysene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Fluoranthene	290	280	ug/Kg	03/02/13	DD	SW 8270
Fluorene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Naphthalene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Phenanthrene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Pyrene	ND	280	ug/Kg	03/02/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	76		%	03/02/13	DD	30 - 130 %
% Nitrobenzene-d5	80		%	03/02/13	DD	30 - 130 %
% Terphenyl-d14	82		%	03/02/13	DD	30 - 130 %

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

Comments:

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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	8:40
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41563

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-29

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.37	0.37	mg/Kg	03/04/13	LK	SW6010
Arsenic	0.8	0.7	mg/Kg	03/04/13	LK	SW6010
Barium	66.3	0.37	mg/Kg	03/04/13	LK	SW6010
Cadmium	< 0.37	0.37	mg/Kg	03/04/13	LK	SW6010
Chromium	13.1	0.37	mg/Kg	03/04/13	LK	SW6010
Mercury	< 0.07	0.07	mg/Kg	03/05/13	JA	SW-7471
Lead	64.2	0.37	mg/Kg	03/04/13	LK	SW6010
Selenium	< 1.5	1.5	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.168	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	0.011	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	0.053	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	90		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/01/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	55	mg/Kg	03/04/13	JRB	CT ETPH/8015

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	03/04/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	90		%	03/04/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	360	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	360	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	95		%	03/04/13	AW	30 - 150 %
% TCMX	93		%	03/04/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,1,1-Trichloroethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	03/07/13	R/P	SW8260
1,1,2-Trichloroethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,1-Dichloroethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,1-Dichloroethene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,1-Dichloropropene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,2,3-Trichlorobenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,2,3-Trichloropropane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,2,4-Trichlorobenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,2,4-Trimethylbenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dibromo-3-chloropropane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dibromoethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dichlorobenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dichloroethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dichloropropane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,3,5-Trimethylbenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,3-Dichlorobenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,3-Dichloropropane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
1,4-Dichlorobenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
2,2-Dichloropropane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
2-Chlorotoluene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
2-Hexanone	ND	22	ug/Kg	03/07/13	R/P	SW8260
2-Isopropyltoluene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
4-Chlorotoluene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
4-Methyl-2-pentanone	ND	22	ug/Kg	03/07/13	R/P	SW8260
Acetone	ND	89	ug/Kg	03/07/13	R/P	SW8260
Acrylonitrile	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Benzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Bromobenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Bromochloromethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Bromoform	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Bromomethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Carbon Disulfide	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Carbon tetrachloride	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Chlorobenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Chloroethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Chloroform	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Chloromethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
cis-1,2-Dichloroethene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
cis-1,3-Dichloropropene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Dibromochloromethane	ND	2.7	ug/Kg	03/07/13	R/P	SW8260
Dibromomethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Dichlorodifluoromethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Ethylbenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Hexachlorobutadiene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Isopropylbenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
m&p-Xylene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Methyl Ethyl Ketone	ND	27	ug/Kg	03/07/13	R/P	SW8260
Methyl t-butyl ether (MTBE)	ND	8.9	ug/Kg	03/07/13	R/P	SW8260
Methylene chloride	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Naphthalene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
n-Butylbenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
n-Propylbenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
o-Xylene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
p-Isopropyltoluene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
sec-Butylbenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Styrene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
tert-Butylbenzene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Tetrachloroethene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Tetrahydrofuran (THF)	ND	8.9	ug/Kg	03/07/13	R/P	SW8260
Toluene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Total Xylenes	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
trans-1,2-Dichloroethene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
trans-1,3-Dichloropropene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
trans-1,4-dichloro-2-butene	ND	8.9	ug/Kg	03/07/13	R/P	SW8260
Trichloroethene	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Trichlorofluoromethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Trichlorotrifluoroethane	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
Vinyl chloride	ND	4.4	ug/Kg	03/07/13	R/P	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	100		%	03/07/13	R/P	70 - 130 %
% Bromofluorobenzene	94		%	03/07/13	R/P	70 - 130 %
% Dibromofluoromethane	101		%	03/07/13	R/P	70 - 130 %
% Toluene-d8	100		%	03/07/13	R/P	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Acenaphthylene	ND	260	ug/Kg	03/02/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-29

Phoenix I.D.: BD41563

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Benz(a)anthracene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Benzo(a)pyrene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Benzo(b)fluoranthene	290	260	ug/Kg	03/02/13	DD	SW 8270
Benzo(ghi)perylene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Chrysene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Fluoranthene	490	260	ug/Kg	03/02/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Phenanthrene	400	260	ug/Kg	03/02/13	DD	SW 8270
Pyrene	460	260	ug/Kg	03/02/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	77		%	03/02/13	DD	30 - 130 %
% Nitrobenzene-d5	79		%	03/02/13	DD	30 - 130 %
% Terphenyl-d14	84		%	03/02/13	DD	30 - 130 %

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

Comments:

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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	9:00
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41564

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-31

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.43	0.43	mg/Kg	03/04/13	LK	SW6010
Arsenic	3.7	0.9	mg/Kg	03/04/13	LK	SW6010
Barium	88.9	0.43	mg/Kg	03/04/13	LK	SW6010
Cadmium	< 0.43	0.43	mg/Kg	03/04/13	LK	SW6010
Chromium	22.8	0.43	mg/Kg	03/04/13	LK	SW6010
Mercury	0.19	0.07	mg/Kg	03/05/13	JA	SW-7471
Lead	7.39	0.43	mg/Kg	03/04/13	LK	SW6010
Selenium	< 1.7	1.7	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.091	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	0.019	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	75		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/01/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	64	mg/Kg	03/04/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-31

Phoenix I.D.: BD41564

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	03/04/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	91		%	03/04/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	440	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	440	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	440	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	440	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	440	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	440	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	ND	440	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	440	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	440	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	94		%	03/04/13	AW	30 - 150 %
% TCMX	78		%	03/04/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	28	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
4-Methyl-2-pentanone	ND	28	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	110	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	3.4	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	34	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	5.6	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	115		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	88		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	95		%	03/07/13	R/J	70 - 130 %
% Toluene-d8	101		%	03/07/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Acenaphthene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Acenaphthylene	ND	300	ug/Kg	03/02/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-31

Phoenix I.D.: BD41564

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benz(a)anthracene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benzo(a)pyrene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benzo(b)fluoranthene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benzo(ghi)perylene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Benzo(k)fluoranthene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Chrysene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Fluoranthene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Fluorene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Naphthalene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Phenanthrene	ND	300	ug/Kg	03/02/13	DD	SW 8270
Pyrene	ND	300	ug/Kg	03/02/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	72		%	03/02/13	DD	30 - 130 %
% Nitrobenzene-d5	77		%	03/02/13	DD	30 - 130 %
% Terphenyl-d14	85		%	03/02/13	DD	30 - 130 %

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

Comments:

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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	9:15
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41565

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-30

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.35	0.35	mg/Kg	03/04/13	LK	SW6010
Arsenic	1.8	0.7	mg/Kg	03/04/13	LK	SW6010
Barium	27.7	0.35	mg/Kg	03/04/13	LK	SW6010
Cadmium	< 0.35	0.35	mg/Kg	03/04/13	LK	SW6010
Chromium	9.05	0.35	mg/Kg	03/04/13	LK	SW6010
Mercury	< 0.08	0.08	mg/Kg	03/05/13	JA	SW-7471
Lead	22.3	0.35	mg/Kg	03/04/13	LK	SW6010
Selenium	< 1.4	1.4	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.095	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	87		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	JJ/V	SW3545
Extraction of CT ETPH	Completed			03/01/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	73	57	mg/Kg	03/04/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-30

Phoenix I.D.: BD41565

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/04/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	112		%	03/04/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	380	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	380	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	98		%	03/04/13	AW	30 - 150 %
% TCMX	83		%	03/04/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	26	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	100	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-30

Phoenix I.D.: BD41565

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	3.1	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	31	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	5.1	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	102		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	94		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	96		%	03/07/13	R/J	70 - 130 %
% Toluene-d8	98		%	03/07/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Acenaphthylene	470	260	ug/Kg	03/02/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-30

Phoenix I.D.: BD41565

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Benz(a)anthracene	850	260	ug/Kg	03/02/13	DD	SW 8270
Benzo(a)pyrene	810	260	ug/Kg	03/02/13	DD	SW 8270
Benzo(b)fluoranthene	890	260	ug/Kg	03/02/13	DD	SW 8270
Benzo(ghi)perylene	520	260	ug/Kg	03/02/13	DD	SW 8270
Benzo(k)fluoranthene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Chrysene	1100	260	ug/Kg	03/02/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Fluoranthene	1600	260	ug/Kg	03/02/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	380	260	ug/Kg	03/02/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	03/02/13	DD	SW 8270
Phenanthrene	1200	260	ug/Kg	03/02/13	DD	SW 8270
Pyrene	2500	260	ug/Kg	03/02/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	81		%	03/02/13	DD	30 - 130 %
% Nitrobenzene-d5	82		%	03/02/13	DD	30 - 130 %
% Terphenyl-d14	99		%	03/02/13	DD	30 - 130 %

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

Comments:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C19 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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	9:50
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41566

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-32

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	03/04/13	LK	SW6010
Arsenic	2.8	0.8	mg/Kg	03/04/13	LK	SW6010
Barium	79.8	0.40	mg/Kg	03/04/13	LK	SW6010
Cadmium	1.70	0.40	mg/Kg	03/04/13	LK	SW6010
Chromium	26.2	0.40	mg/Kg	03/04/13	LK	SW6010
Mercury	0.13	0.09	mg/Kg	03/05/13	JA	SW-7471
Lead	122	0.40	mg/Kg	03/04/13	LK	SW6010
Selenium	< 1.6	1.6	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.118	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	0.014	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	0.093	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	81		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/05/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	88	61	mg/Kg	03/06/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-32

Phoenix I.D.: BD41566

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/06/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	NR		%	03/06/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	410	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	410	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	410	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	410	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	410	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	410	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	1600	410	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	410	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	410	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	103		%	03/04/13	AW	30 - 150 %
% TCMX	83		%	03/04/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	23	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
4-Methyl-2-pentanone	ND	23	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	91	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-32

Phoenix I.D.: BD41566

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	2.7	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	27	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	9.1	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	9.1	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	9.1	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	4.6	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	94		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	87		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	100		%	03/07/13	R/J	70 - 130 %
% Toluene-d8	95		%	03/07/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Acenaphthene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Acenaphthylene	1300	280	ug/Kg	03/02/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-32

Phoenix I.D.: BD41566

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	450	280	ug/Kg	03/02/13	DD	SW 8270
Benz(a)anthracene	1500	280	ug/Kg	03/02/13	DD	SW 8270
Benzo(a)pyrene	1800	280	ug/Kg	03/02/13	DD	SW 8270
Benzo(b)fluoranthene	2500	280	ug/Kg	03/02/13	DD	SW 8270
Benzo(ghi)perylene	740	280	ug/Kg	03/02/13	DD	SW 8270
Benzo(k)fluoranthene	660	280	ug/Kg	03/02/13	DD	SW 8270
Chrysene	1700	280	ug/Kg	03/02/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Fluoranthene	2300	280	ug/Kg	03/02/13	DD	SW 8270
Fluorene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	730	280	ug/Kg	03/02/13	DD	SW 8270
Naphthalene	ND	280	ug/Kg	03/02/13	DD	SW 8270
Phenanthrene	1200	280	ug/Kg	03/02/13	DD	SW 8270
Pyrene	2600	280	ug/Kg	03/02/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	84		%	03/02/13	DD	30 - 130 %
% Nitrobenzene-d5	87		%	03/02/13	DD	30 - 130 %
% Terphenyl-d14	88		%	03/02/13	DD	30 - 130 %

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

Comments:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C19 to C36. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

*For ETPH, no surrogate reported due to interference of unknown compound.

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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

PHOENIX

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

Analysis Report

March 15, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	03/01/13	10:00
Location Code:	MAGU-DAS	Received by:	LB	03/01/13	12:00
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02A300				

Laboratory Data

SDG ID: GBD41558
Phoenix ID: BD41567

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-33

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.47	0.47	mg/Kg	03/04/13	LK	SW6010
Arsenic	1.5	0.9	mg/Kg	03/04/13	LK	SW6010
Barium	43.2	0.47	mg/Kg	03/04/13	LK	SW6010
Cadmium	< 0.47	0.47	mg/Kg	03/04/13	LK	SW6010
Chromium	12.3	0.47	mg/Kg	03/04/13	LK	SW6010
Mercury	< 0.12	0.12	mg/Kg	03/05/13	JA	SW-7471
Lead	67.3	0.47	mg/Kg	03/04/13	LK	SW6010
Selenium	< 1.9	1.9	mg/Kg	03/04/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/04/13	EK	SW6010
SPLP Barium	0.050	0.010	mg/L	03/04/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/04/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/04/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/05/13	JA	1312/SW7470
SPLP Lead	0.089	0.010	mg/L	03/04/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/04/13	EK	SW6010
SPLP Metals Digestion	Completed			03/04/13	X/X	SW846-3005
Percent Solid	69		%	03/01/13	JL	E160.3
Soil Extraction for PCB	Completed			03/01/13	JB/V	SW3545
Soil Extraction SVOA BN	Completed			03/01/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/01/13	JJ/V	3545
Mercury Digestion	Completed			03/04/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/04/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/01/13	X	EPA 1312
Total Metals Digest	Completed			03/01/13	AG	SW846 - 3050
Field Extraction	Completed			03/01/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	71	mg/Kg	03/04/13	JRB	CT ETPH/8015

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	03/04/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	110		%	03/04/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	480	ug/Kg	03/04/13	AW	SW 8082
PCB-1221	ND	480	ug/Kg	03/04/13	AW	SW 8082
PCB-1232	ND	480	ug/Kg	03/04/13	AW	SW 8082
PCB-1242	ND	480	ug/Kg	03/04/13	AW	SW 8082
PCB-1248	ND	480	ug/Kg	03/04/13	AW	SW 8082
PCB-1254	ND	480	ug/Kg	03/04/13	AW	SW 8082
PCB-1260	ND	480	ug/Kg	03/04/13	AW	SW 8082
PCB-1262	ND	480	ug/Kg	03/04/13	AW	SW 8082
PCB-1268	ND	480	ug/Kg	03/04/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	90		%	03/04/13	AW	30 - 150 %
% TCMX	78		%	03/04/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,1,1-Trichloroethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,1,2,2-Tetrachloroethane	ND	3.9	ug/Kg	03/07/13	R/P	SW8260
1,1,2-Trichloroethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,1-Dichloroethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,1-Dichloroethene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,1-Dichloropropene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,2,3-Trichlorobenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,2,3-Trichloropropane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,2,4-Trichlorobenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,2,4-Trimethylbenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dibromo-3-chloropropane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dibromoethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dichlorobenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dichloroethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,2-Dichloropropane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,3,5-Trimethylbenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,3-Dichlorobenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,3-Dichloropropane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
1,4-Dichlorobenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
2,2-Dichloropropane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
2-Chlorotoluene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
2-Hexanone	ND	32	ug/Kg	03/07/13	R/P	SW8260
2-Isopropyltoluene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
4-Chlorotoluene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
4-Methyl-2-pentanone	ND	32	ug/Kg	03/07/13	R/P	SW8260
Acetone	ND	130	ug/Kg	03/07/13	R/P	SW8260
Acrylonitrile	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Benzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Bromobenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Bromochloromethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Bromoform	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Bromomethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Carbon Disulfide	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Carbon tetrachloride	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Chlorobenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Chloroethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Chloroform	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Chloromethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
cis-1,2-Dichloroethene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
cis-1,3-Dichloropropene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Dibromochloromethane	ND	3.9	ug/Kg	03/07/13	R/P	SW8260
Dibromomethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Dichlorodifluoromethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Ethylbenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Hexachlorobutadiene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Isopropylbenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
m&p-Xylene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Methyl Ethyl Ketone	ND	39	ug/Kg	03/07/13	R/P	SW8260
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	03/07/13	R/P	SW8260
Methylene chloride	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Naphthalene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
n-Butylbenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
n-Propylbenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
o-Xylene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
p-Isopropyltoluene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
sec-Butylbenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Styrene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
tert-Butylbenzene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Tetrachloroethene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Tetrahydrofuran (THF)	ND	13	ug/Kg	03/07/13	R/P	SW8260
Toluene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Total Xylenes	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
trans-1,2-Dichloroethene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
trans-1,3-Dichloropropene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	03/07/13	R/P	SW8260
Trichloroethene	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Trichlorofluoromethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Trichlorotrifluoroethane	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
Vinyl chloride	ND	6.4	ug/Kg	03/07/13	R/P	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	96		%	03/07/13	R/P	70 - 130 %
% Bromofluorobenzene	87		%	03/07/13	R/P	70 - 130 %
% Dibromofluoromethane	96		%	03/07/13	R/P	70 - 130 %
% Toluene-d8	96		%	03/07/13	R/P	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	330	ug/Kg	03/02/13	DD	SW 8270
Acenaphthene	ND	330	ug/Kg	03/02/13	DD	SW 8270
Acenaphthylene	640	330	ug/Kg	03/02/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-33

Phoenix I.D.: BD41567

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	330	ug/Kg	03/02/13	DD	SW 8270
Benz(a)anthracene	1800	330	ug/Kg	03/02/13	DD	SW 8270
Benzo(a)pyrene	1900	330	ug/Kg	03/02/13	DD	SW 8270
Benzo(b)fluoranthene	2400	330	ug/Kg	03/02/13	DD	SW 8270
Benzo(ghi)perylene	730	330	ug/Kg	03/02/13	DD	SW 8270
Benzo(k)fluoranthene	880	330	ug/Kg	03/02/13	DD	SW 8270
Chrysene	1900	330	ug/Kg	03/02/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	330	ug/Kg	03/02/13	DD	SW 8270
Fluoranthene	2600	330	ug/Kg	03/02/13	DD	SW 8270
Fluorene	ND	330	ug/Kg	03/02/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	740	330	ug/Kg	03/02/13	DD	SW 8270
Naphthalene	ND	330	ug/Kg	03/02/13	DD	SW 8270
Phenanthrene	830	330	ug/Kg	03/02/13	DD	SW 8270
Pyrene	2600	330	ug/Kg	03/02/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	81		%	03/02/13	DD	30 - 130 %
% Nitrobenzene-d5	83		%	03/02/13	DD	30 - 130 %
% Terphenyl-d14	94		%	03/02/13	DD	30 - 130 %

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

Comments:

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
March 15, 2013
Reviewed and Released by: Phyllis Shiller, Laboratory Director

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

QA/QC Report

March 15, 2013

QA/QC Data

SDG I.D.: GBD41558

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 221964, QC Sample No: BD39023 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565)													
ICP Metals - SPLP Extraction													
Arsenic	BRL	0.006	0.005	NC	99.1	98.2	0.9	102	101	1.0	75 - 125	20	
Barium	BRL	0.064	0.064	0	100	102	2.0	100	98.8	1.2	75 - 125	20	
Cadmium	BRL	<0.005	<0.005	NC	102	101	1.0	102	100	2.0	75 - 125	20	
Chromium	BRL	<0.010	<0.010	NC	98.6	97.6	1.0	100	99.3	0.7	75 - 125	20	
Lead	BRL	<0.010	<0.010	NC	100	99.5	0.5	101	100	1.0	75 - 125	20	
Selenium	BRL	<0.020	<0.020	NC	100	99.9	0.1	103	102	1.0	75 - 125	20	
Silver	BRL	<0.010	<0.010	NC	96.6	96.7	0.1	99.4	98.2	1.2	75 - 125	20	
QA/QC Batch 222477, QC Sample No: BD41561 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)													
ICP Metals - Soil													
Arsenic	BRL	2.9	2.46	NC	93.7	97.4	3.9	88.0	89.2	1.4	75 - 125	30	
Barium	BRL	55.3	56.8	2.70	103	109	5.7	104	111	6.5	75 - 125	30	
Cadmium	BRL	<0.41	<0.46	NC	96.6	99.1	2.6	90.4	91.1	0.8	75 - 125	30	
Chromium	BRL	19.2	19.2	0	101	104	2.9	95.8	97.2	1.5	75 - 125	30	
Lead	BRL	8.58	8.51	0.80	100	101	1.0	91.1	92.1	1.1	75 - 125	30	
Selenium	BRL	<1.6	<1.9	NC	93.1	97.7	4.8	92.1	94.6	2.7	75 - 125	30	
Silver	BRL	<0.41	<0.46	NC	98.2	102	3.8	96.0	96.7	0.7	75 - 125	30	
QA/QC Batch 222535, QC Sample No: BD41566 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)													
Mercury - Soil	BRL	0.13	0.17	NC	101	99.8	1.2	>125	>125	NC	70 - 130	30	m
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 222538, QC Sample No: BD41825 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)													
Mercury - Water	BRL	0.0003	<0.0002	NC	118	120	1.7	123	120	2.5	70 - 130	20	
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 222565, QC Sample No: BD41971 (BD41566, BD41567)													
ICP Metals - SPLP Extraction													
Arsenic	BRL	0.004	<0.004	NC	97.5	97.6	0.1	98.0	97.7	0.3	75 - 125	20	
Barium	BRL	0.052	0.049	NC	97.2	96.1	1.1	97.0	94.7	2.4	75 - 125	20	
Cadmium	BRL	<0.005	<0.005	NC	104	105	1.0	104	104	0.0	75 - 125	20	
Chromium	BRL	<0.010	<0.010	NC	98.9	99.1	0.2	99.8	98.5	1.3	75 - 125	20	
Lead	BRL	<0.010	<0.010	NC	99.9	101	1.1	101	100	1.0	75 - 125	20	
Selenium	BRL	<0.020	<0.020	NC	96.8	96.8	0.0	96.0	95.7	0.3	75 - 125	20	
Silver	BRL	<0.010	<0.010	NC	94.9	94.1	0.8	95.5	93.6	2.0	75 - 125	20	

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

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

March 15, 2013

QA/QC Data

SDG I.D.: GBD41558

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 222468, QC Sample No: BD41560 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)									
Polychlorinated Biphenyls - Soil									
PCB-1016	ND	85	84	1.2	84	79	6.1	40 - 140	30
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	85	78	8.6	83	72	14.2	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	89	96	92	4.3	92	90	2.2	30 - 150	30
% TCMX (Surrogate Rec)	85	91	89	2.2	90	87	3.4	30 - 150	30
QA/QC Batch 222469, QC Sample No: BD41560 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)									
TPH by GC (Extractable Products) - Soil									
Ext. Petroleum HC	ND	80	70	13.3	82	90	9.3	60 - 120	30
% n-Pentacosane	84	85	91	6.8	91	101	10.4	50 - 150	30
QA/QC Batch 222467, QC Sample No: BD41560 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)									
Polynuclear Aromatic HC - Soil									
2-Methylnaphthalene	ND	82	82	0.0	77	84	8.7	30 - 130	30
Acenaphthene	ND	79	78	1.3	83	89	7.0	30 - 130	30
Acenaphthylene	ND	82	82	0.0	83	87	4.7	30 - 130	30
Anthracene	ND	85	84	1.2	84	92	9.1	30 - 130	30
Benz(a)anthracene	ND	90	89	1.1	88	100	12.8	30 - 130	30
Benzo(a)pyrene	ND	79	79	0.0	82	88	7.1	30 - 130	30
Benzo(b)fluoranthene	ND	87	88	1.1	96	103	7.0	30 - 130	30
Benzo(ghi)perylene	ND	90	85	5.7	81	106	26.7	30 - 130	30
Benzo(k)fluoranthene	ND	85	83	2.4	90	94	4.3	30 - 130	30
Chrysene	ND	82	82	0.0	92	104	12.2	30 - 130	30
Dibenz(a,h)anthracene	ND	90	86	4.5	81	108	28.6	30 - 130	30
Fluoranthene	ND	83	83	0.0	95	99	4.1	30 - 130	30
Fluorene	ND	82	82	0.0	81	89	9.4	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	90	86	4.5	82	108	27.4	30 - 130	30
Naphthalene	ND	82	84	2.4	78	82	5.0	30 - 130	30
Phenanthrene	ND	86	85	1.2	87	95	8.8	30 - 130	30
Pyrene	ND	83	84	1.2	101	103	2.0	30 - 130	30
% 2-Fluorobiphenyl	79	81	80	1.2	84	89	5.8	30 - 130	30
% Nitrobenzene-d5	79	81	80	1.2	74	80	7.8	30 - 130	30
% Terphenyl-d14	86	88	86	2.3	109	105	3.7	30 - 130	30

QA/QC Data

SDG I.D.: GBD41558

QA/QC Batch 222871, QC Sample No: BD41563 (BD41563, BD41564, BD41565, BD41566, BD41567)

Volatiles - Soil

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,1,2-Tetrachloroethane	ND	101	95	6.1	99	104	4.9	70 - 130	30	
1,1,1-Trichloroethane	ND	101	92	9.3	100	104	3.9	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	94	90	4.3	90	96	6.5	70 - 130	30	
1,1,2-Trichloroethane	ND	101	96	5.1	95	99	4.1	70 - 130	30	
1,1-Dichloroethane	ND	103	96	7.0	100	104	3.9	70 - 130	30	
1,1-Dichloroethene	ND	100	94	6.2	57	53	7.3	70 - 130	30	m
1,1-Dichloropropene	ND	100	91	9.4	103	106	2.9	70 - 130	30	
1,2,3-Trichlorobenzene	ND	96	88	8.7	99	103	4.0	70 - 130	30	
1,2,3-Trichloropropane	ND	92	94	2.2	90	95	5.4	70 - 130	30	
1,2,4-Trichlorobenzene	ND	91	82	10.4	100	104	3.9	70 - 130	30	
1,2,4-Trimethylbenzene	ND	102	92	10.3	103	107	3.8	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	102	98	4.0	80	88	9.5	70 - 130	30	
1,2-Dibromoethane	ND	98	94	4.2	94	97	3.1	70 - 130	30	
1,2-Dichlorobenzene	ND	97	89	8.6	98	102	4.0	70 - 130	30	
1,2-Dichloroethane	ND	99	94	5.2	101	103	2.0	70 - 130	30	
1,2-Dichloropropane	ND	100	94	6.2	100	102	2.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	100	91	9.4	103	107	3.8	70 - 130	30	
1,3-Dichlorobenzene	ND	98	89	9.6	102	106	3.8	70 - 130	30	
1,3-Dichloropropane	ND	101	95	6.1	97	100	3.0	70 - 130	30	
1,4-Dichlorobenzene	ND	96	88	8.7	99	103	4.0	70 - 130	30	
2,2-Dichloropropane	ND	103	93	10.2	91	95	4.3	70 - 130	30	
2-Chlorotoluene	ND	102	93	9.2	102	105	2.9	70 - 130	30	
2-Hexanone	ND	77	74	4.0	52	55	5.6	70 - 130	30	m
2-Isopropyltoluene	ND	100	90	10.5	103	107	3.8	70 - 130	30	
4-Chlorotoluene	ND	95	88	7.7	102	106	3.8	70 - 130	30	
4-Methyl-2-pentanone	ND	99	96	3.1	80	84	4.9	70 - 130	30	
Acetone	ND	62	50	21.4	<40	<40	NC	70 - 130	30	l,m
Acrylonitrile	ND	98	97	1.0	82	96	15.7	70 - 130	30	
Benzene	ND	98	91	7.4	100	103	3.0	70 - 130	30	
Bromobenzene	ND	97	91	6.4	98	104	5.9	70 - 130	30	
Bromochloromethane	ND	100	94	6.2	98	99	1.0	70 - 130	30	
Bromodichloromethane	ND	103	97	6.0	99	101	2.0	70 - 130	30	
Bromoform	ND	100	95	5.1	88	91	3.4	70 - 130	30	
Bromomethane	ND	102	87	15.9	46	46	0.0	70 - 130	30	m
Carbon Disulfide	ND	96	86	11.0	56	53	5.5	70 - 130	30	m
Carbon tetrachloride	ND	103	95	8.1	98	102	4.0	70 - 130	30	
Chlorobenzene	ND	100	93	7.3	102	104	1.9	70 - 130	30	
Chloroethane	ND	114	101	12.1	<40	<40	NC	70 - 130	30	m
Chloroform	ND	102	94	8.2	99	102	3.0	70 - 130	30	
Chloromethane	ND	96	84	13.3	105	103	1.9	70 - 130	30	
cis-1,2-Dichloroethene	ND	100	94	6.2	98	102	4.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	99	92	7.3	96	98	2.1	70 - 130	30	
Dibromochloromethane	ND	104	97	7.0	95	98	3.1	70 - 130	30	
Dibromomethane	ND	102	96	6.1	96	101	5.1	70 - 130	30	
Dichlorodifluoromethane	ND	103	91	12.4	98	105	6.9	70 - 130	30	
Ethylbenzene	ND	99	90	9.5	102	105	2.9	70 - 130	30	
Hexachlorobutadiene	ND	96	83	14.5	102	108	5.7	70 - 130	30	
Isopropylbenzene	ND	101	92	9.3	102	107	4.8	70 - 130	30	
m&p-Xylene	ND	99	91	8.4	102	106	3.8	70 - 130	30	
Methyl ethyl ketone	ND	67	65	3.0	45	46	2.2	70 - 130	30	l,m

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Methyl t-butyl ether (MTBE)	ND	95	89	6.5	100	103	3.0	70 - 130	30	
Methylene chloride	ND	92	84	9.1	88	91	3.4	70 - 130	30	
Naphthalene	ND	98	92	6.3	93	97	4.2	70 - 130	30	
n-Butylbenzene	ND	97	87	10.9	103	107	3.8	70 - 130	30	
n-Propylbenzene	ND	103	93	10.2	103	107	3.8	70 - 130	30	
o-Xylene	ND	95	87	8.8	101	105	3.9	70 - 130	30	
p-Isopropyltoluene	ND	101	91	10.4	103	109	5.7	70 - 130	30	
sec-Butylbenzene	ND	99	89	10.6	103	107	3.8	70 - 130	30	
Styrene	ND	91	83	9.2	101	104	2.9	70 - 130	30	
tert-Butylbenzene	ND	104	94	10.1	103	108	4.7	70 - 130	30	
Tetrachloroethene	ND	100	90	10.5	103	106	2.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	92	89	3.3	86	91	5.6	70 - 130	30	
Toluene	ND	98	91	7.4	100	104	3.9	70 - 130	30	
trans-1,2-Dichloroethene	ND	102	94	8.2	104	108	3.8	70 - 130	30	
trans-1,3-Dichloropropene	ND	99	93	6.3	93	97	4.2	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	98	94	4.2	77	82	6.3	70 - 130	30	
Trichloroethene	ND	103	96	7.0	98	102	4.0	70 - 130	30	
Trichlorofluoromethane	ND	108	98	9.7	<40	<40	NC	70 - 130	30	m
Trichlorotrifluoroethane	ND	104	91	13.3	76	69	9.7	70 - 130	30	m
Vinyl chloride	ND	104	95	9.0	92	96	4.3	70 - 130	30	
% 1,2-dichlorobenzene-d4	99	99	99	0.0	97	97	0.0	70 - 130	30	
% Bromofluorobenzene	103	101	99	2.0	101	99	2.0	70 - 130	30	
% Dibromofluoromethane	97	102	102	0.0	99	96	3.1	70 - 130	30	
% Toluene-d8	101	101	101	0.0	100	100	0.0	70 - 130	30	

Comment:

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

QA/QC Batch 222968, QC Sample No: BD41567 (BD41567)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	106	104	1.9	103	105	1.9	70 - 130	30	
1,1,1-Trichloroethane	ND	90	90	0.0	93	88	5.5	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	88	89	1.1	90	91	1.1	70 - 130	30	
1,1,2-Trichloroethane	ND	105	103	1.9	100	100	0.0	70 - 130	30	
1,1-Dichloroethane	ND	98	97	1.0	100	94	6.2	70 - 130	30	
1,1-Dichloroethene	ND	100	100	0.0	75	75	0.0	70 - 130	30	
1,1-Dichloropropene	ND	98	94	4.2	101	96	5.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	107	103	3.8	102	107	4.8	70 - 130	30	
1,2,3-Trichloropropane	ND	84	87	3.5	88	87	1.1	70 - 130	30	
1,2,4-Trichlorobenzene	ND	107	97	9.8	101	109	7.6	70 - 130	30	
1,2,4-Trimethylbenzene	ND	100	95	5.1	97	97	0.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	99	107	7.8	94	94	0.0	70 - 130	30	
1,2-Dibromoethane	ND	106	104	1.9	103	104	1.0	70 - 130	30	
1,2-Dichlorobenzene	ND	101	98	3.0	99	101	2.0	70 - 130	30	
1,2-Dichloroethane	ND	100	98	2.0	101	101	0.0	70 - 130	30	
1,2-Dichloropropane	ND	102	98	4.0	100	99	1.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	98	94	4.2	98	98	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	102	97	5.0	99	103	4.0	70 - 130	30	
1,3-Dichloropropane	ND	97	96	1.0	96	97	1.0	70 - 130	30	
1,4-Dichlorobenzene	ND	101	95	6.1	98	102	4.0	70 - 130	30	
2,2-Dichloropropane	ND	109	86	23.6	81	77	5.1	70 - 130	30	
2-Chlorotoluene	ND	103	98	5.0	102	101	1.0	70 - 130	30	
2-Hexanone	ND	69	75	8.3	54	51	5.7	70 - 130	30	l,m
2-Isopropyltoluene	ND	100	95	5.1	102	101	1.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBD41558

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4-Chlorotoluene	ND	99	93	6.3	99	100	1.0	70 - 130	30	
4-Methyl-2-pentanone	ND	88	93	5.5	83	78	6.2	70 - 130	30	
Acetone	ND	47	55	15.7	<40	<40	NC	70 - 130	30	l,m
Acrylonitrile	ND	95	104	9.0	101	96	5.1	70 - 130	30	
Benzene	ND	97	93	4.2	99	97	2.0	70 - 130	30	
Bromobenzene	ND	104	100	3.9	104	104	0.0	70 - 130	30	
Bromochloromethane	ND	107	95	11.9	96	93	3.2	70 - 130	30	
Bromodichloromethane	ND	105	102	2.9	100	100	0.0	70 - 130	30	
Bromoform	ND	109	111	1.8	105	104	1.0	70 - 130	30	
Bromomethane	ND	97	104	7.0	53	57	7.3	70 - 130	30	m
Carbon Disulfide	ND	89	89	0.0	65	65	0.0	70 - 130	30	m
Carbon tetrachloride	ND	101	99	2.0	102	97	5.0	70 - 130	30	
Chlorobenzene	ND	103	99	4.0	103	103	0.0	70 - 130	30	
Chloroethane	ND	108	104	3.8	<40	<40	NC	70 - 130	30	m
Chloroform	ND	90	90	0.0	92	89	3.3	70 - 130	30	
Chloromethane	ND	78	81	3.8	92	83	10.3	70 - 130	30	
cis-1,2-Dichloroethene	ND	128	91	33.8	93	89	4.4	70 - 130	30	r
cis-1,3-Dichloropropene	ND	97	94	3.1	94	93	1.1	70 - 130	30	
Dibromochloromethane	ND	108	108	0.0	101	102	1.0	70 - 130	30	
Dibromomethane	ND	99	98	1.0	98	97	1.0	70 - 130	30	
Dichlorodifluoromethane	ND	83	83	0.0	86	80	7.2	70 - 130	30	
Ethylbenzene	ND	102	99	3.0	107	106	0.9	70 - 130	30	
Hexachlorobutadiene	ND	111	106	4.6	115	115	0.0	70 - 130	30	
Isopropylbenzene	ND	101	97	4.0	102	100	2.0	70 - 130	30	
m&p-Xylene	ND	106	101	4.8	108	108	0.0	70 - 130	30	
Methyl ethyl ketone	ND	52	59	12.6	41	<40	NC	70 - 130	30	l,m
Methyl t-butyl ether (MTBE)	ND	99	99	0.0	108	107	0.9	70 - 130	30	
Methylene chloride	ND	90	90	0.0	97	91	6.4	70 - 130	30	
Naphthalene	ND	98	100	2.0	97	98	1.0	70 - 130	30	
n-Butylbenzene	ND	94	88	6.6	92	94	2.2	70 - 130	30	
n-Propylbenzene	ND	105	100	4.9	102	100	2.0	70 - 130	30	
o-Xylene	ND	99	96	3.1	108	106	1.9	70 - 130	30	
p-Isopropyltoluene	ND	105	98	6.9	102	102	0.0	70 - 130	30	
sec-Butylbenzene	ND	97	92	5.3	99	99	0.0	70 - 130	30	
Styrene	ND	94	91	3.2	106	105	0.9	70 - 130	30	
tert-Butylbenzene	ND	103	98	5.0	103	102	1.0	70 - 130	30	
Tetrachloroethene	ND	112	109	2.7	115	114	0.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	75	83	10.1	79	73	7.9	70 - 130	30	
Toluene	ND	100	95	5.1	101	99	2.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	101	100	1.0	111	103	7.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	97	95	2.1	93	92	1.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	88	92	4.4	76	75	1.3	70 - 130	30	
Trichloroethene	ND	112	107	4.6	106	104	1.9	70 - 130	30	
Trichlorofluoromethane	ND	104	103	1.0	<40	<40	NC	70 - 130	30	m
Trichlorotrifluoroethane	ND	109	110	0.9	108	109	0.9	70 - 130	30	
Vinyl chloride	ND	95	95	0.0	87	81	7.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	97	100	100	0.0	101	98	3.0	70 - 130	30	
% Bromofluorobenzene	102	98	99	1.0	100	98	2.0	70 - 130	30	
% Dibromofluoromethane	97	99	104	4.9	101	99	2.0	70 - 130	30	
% Toluene-d8	102	102	101	1.0	101	101	0.0	70 - 130	30	

Comment:

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

QA/QC Data

SDG I.D.: GBD41558

QA/QC Batch 223559, QC Sample No: BD41889 (BD41558, BD41559)

Volatiles - Soil

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,1,1,2-Tetrachloroethane	ND	97	110	12.6				70 - 130	30
1,1,1-Trichloroethane	ND	96	108	11.8				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	89	95	6.5				70 - 130	30
1,1,2-Trichloroethane	ND	102	107	4.8				70 - 130	30
1,1-Dichloroethane	ND	98	115	16.0				70 - 130	30
1,1-Dichloroethene	ND	102	119	15.4				70 - 130	30
1,1-Dichloropropene	ND	96	107	10.8				70 - 130	30
1,2,3-Trichlorobenzene	ND	104	96	8.0				70 - 130	30
1,2,3-Trichloropropane	ND	80	101	23.2				70 - 130	30
1,2,4-Trichlorobenzene	ND	98	96	2.1				70 - 130	30
1,2,4-Trimethylbenzene	ND	88	101	13.8				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	97	96	1.0				70 - 130	30
1,2-Dibromoethane	ND	103	103	0.0				70 - 130	30
1,2-Dichlorobenzene	ND	92	102	10.3				70 - 130	30
1,2-Dichloroethane	ND	96	100	4.1				70 - 130	30
1,2-Dichloropropane	ND	94	103	9.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	86	100	15.1				70 - 130	30
1,3-Dichlorobenzene	ND	92	103	11.3				70 - 130	30
1,3-Dichloropropane	ND	92	98	6.3				70 - 130	30
1,4-Dichlorobenzene	ND	93	103	10.2				70 - 130	30
2,2-Dichloropropane	ND	99	109	9.6				70 - 130	30
2-Chlorotoluene	ND	87	100	13.9				70 - 130	30
2-Hexanone	ND	77	78	1.3				70 - 130	30
2-Isopropyltoluene	ND	87	100	13.9				70 - 130	30
4-Chlorotoluene	ND	87	100	13.9				70 - 130	30
4-Methyl-2-pentanone	ND	95	93	2.1				70 - 130	30
Acetone	ND	94	93	1.1				70 - 130	30
Acrylonitrile	ND	106	115	8.1				70 - 130	30
Benzene	ND	94	103	9.1				70 - 130	30
Bromobenzene	ND	90	102	12.5				70 - 130	30
Bromochloromethane	ND	107	114	6.3				70 - 130	30
Bromodichloromethane	ND	98	107	8.8				70 - 130	30
Bromoform	ND	108	113	4.5				70 - 130	30
Bromomethane	ND	118	124	5.0				70 - 130	30
Carbon Disulfide	ND	96	112	15.4				70 - 130	30
Carbon tetrachloride	ND	99	112	12.3				70 - 130	30
Chlorobenzene	ND	93	105	12.1				70 - 130	30
Chloroethane	ND	109	126	14.5				70 - 130	30
Chloroform	ND	99	107	7.8				70 - 130	30
Chloromethane	ND	91	97	6.4				70 - 130	30
cis-1,2-Dichloroethene	ND	112	119	6.1				70 - 130	30
cis-1,3-Dichloropropene	ND	96	103	7.0				70 - 130	30
Dibromochloromethane	ND	100	109	8.6				70 - 130	30
Dibromomethane	ND	104	106	1.9				70 - 130	30
Dichlorodifluoromethane	ND	91	102	11.4				70 - 130	30
Ethylbenzene	ND	90	101	11.5				70 - 130	30
Hexachlorobutadiene	ND	91	95	4.3				70 - 130	30
Isopropylbenzene	ND	87	103	16.8				70 - 130	30
m&p-Xylene	ND	92	104	12.2				70 - 130	30
Methyl ethyl ketone	ND	82	77	6.3				70 - 130	30

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Methyl t-butyl ether (MTBE)	ND	94	100	6.2				70 - 130	30	
Methylene chloride	ND	103	117	12.7				70 - 130	30	
Naphthalene	ND	109	88	21.3				70 - 130	30	
n-Butylbenzene	ND	88	98	10.8				70 - 130	30	
n-Propylbenzene	ND	90	105	15.4				70 - 130	30	
o-Xylene	ND	96	111	14.5				70 - 130	30	
p-Isopropyltoluene	ND	89	101	12.6				70 - 130	30	
sec-Butylbenzene	ND	85	99	15.2				70 - 130	30	
Styrene	ND	96	107	10.8				70 - 130	30	
tert-Butylbenzene	ND	87	100	13.9				70 - 130	30	
Tetrachloroethene	ND	94	108	13.9				70 - 130	30	
Tetrahydrofuran (THF)	ND	97	95	2.1				70 - 130	30	
Toluene	ND	94	104	10.1				70 - 130	30	
trans-1,2-Dichloroethene	ND	97	120	21.2				70 - 130	30	
trans-1,3-Dichloropropene	ND	99	102	3.0				70 - 130	30	
trans-1,4-dichloro-2-butene	ND	101	97	4.0				70 - 130	30	
Trichloroethene	ND	101	111	9.4				70 - 130	30	
Trichlorofluoromethane	ND	109	121	10.4				70 - 130	30	
Trichlorotrifluoroethane	ND	106	121	13.2				70 - 130	30	
Vinyl chloride	ND	92	102	10.3				70 - 130	30	
% 1,2-dichlorobenzene-d4	99	100	100	0.0				70 - 130	30	
% Bromofluorobenzene	94	98	96	2.1				70 - 130	30	
% Dibromofluoromethane	100	106	101	4.8				70 - 130	30	
% Toluene-d8	98	99	97	2.0				70 - 130	30	

Comment:

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

QA/QC Batch 222746, QC Sample No: BD42394 (BD41561, BD41562)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	109	112	2.7	109	108	0.9	70 - 130	30	
1,1,1-Trichloroethane	ND	108	114	5.4	110	107	2.8	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	103	104	1.0	108	113	4.5	70 - 130	30	
1,1,2-Trichloroethane	ND	107	111	3.7	107	114	6.3	70 - 130	30	
1,1-Dichloroethane	ND	111	116	4.4	111	110	0.9	70 - 130	30	
1,1-Dichloroethene	ND	108	114	5.4	102	102	0.0	70 - 130	30	
1,1-Dichloropropene	ND	108	108	0.0	106	113	6.4	70 - 130	30	
1,2,3-Trichlorobenzene	ND	95	102	7.1	103	105	1.9	70 - 130	30	
1,2,3-Trichloropropane	ND	102	105	2.9	104	104	0.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	86	89	3.4	100	101	1.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	103	106	2.9	109	108	0.9	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	109	113	3.6	103	113	9.3	70 - 130	30	
1,2-Dibromoethane	ND	106	111	4.6	108	111	2.7	70 - 130	30	
1,2-Dichlorobenzene	ND	101	102	1.0	105	108	2.8	70 - 130	30	
1,2-Dichloroethane	ND	103	107	3.8	101	106	4.8	70 - 130	30	
1,2-Dichloropropane	ND	105	110	4.7	106	112	5.5	70 - 130	30	
1,3,5-Trimethylbenzene	ND	101	103	2.0	108	108	0.0	70 - 130	30	
1,3-Dichlorobenzene	ND	100	101	1.0	106	106	0.0	70 - 130	30	
1,3-Dichloropropane	ND	110	112	1.8	109	110	0.9	70 - 130	30	
1,4-Dichlorobenzene	ND	97	98	1.0	105	107	1.9	70 - 130	30	
2,2-Dichloropropane	ND	110	111	0.9	105	100	4.9	70 - 130	30	
2-Chlorotoluene	ND	100	103	3.0	108	109	0.9	70 - 130	30	
2-Hexanone	ND	74	77	4.0	65	66	1.5	70 - 130	30	m
2-Isopropyltoluene	ND	103	106	2.9	111	112	0.9	70 - 130	30	

QA/QC Data

SDG I.D.: GBD41558

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
4-Chlorotoluene	ND	98	101	3.0	108	108	0.0	70 - 130	30	
4-Methyl-2-pentanone	ND	105	106	0.9	97	101	4.0	70 - 130	30	
Acetone	ND	70	74	5.6	<40	<40	NC	70 - 130	30	m
Acrylonitrile	ND	109	109	0.0	106	105	0.9	70 - 130	30	
Benzene	ND	105	108	2.8	109	112	2.7	70 - 130	30	
Bromobenzene	ND	102	105	2.9	107	107	0.0	70 - 130	30	
Bromochloromethane	ND	107	114	6.3	107	108	0.9	70 - 130	30	
Bromodichloromethane	ND	108	111	2.7	103	108	4.7	70 - 130	30	
Bromoform	ND	118	120	1.7	102	104	1.9	70 - 130	30	
Bromomethane	ND	106	122	14.0	82	92	11.5	70 - 130	30	
Carbon Disulfide	ND	105	110	4.7	104	105	1.0	70 - 130	30	
Carbon tetrachloride	ND	115	117	1.7	106	110	3.7	70 - 130	30	
Chlorobenzene	ND	104	107	2.8	109	110	0.9	70 - 130	30	
Chloroethane	ND	115	120	4.3	56	53	5.5	70 - 130	30	m
Chloroform	ND	108	112	3.6	106	107	0.9	70 - 130	30	
Chloromethane	ND	124	127	2.4	120	114	5.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	108	116	7.1	112	110	1.8	70 - 130	30	
cis-1,3-Dichloropropene	ND	102	107	4.8	103	107	3.8	70 - 130	30	
Dibromochloromethane	ND	111	115	3.5	104	107	2.8	70 - 130	30	
Dibromomethane	ND	107	112	4.6	106	108	1.9	70 - 130	30	
Dichlorodifluoromethane	ND	143	150	4.8	114	116	1.7	70 - 130	30	l
Ethylbenzene	ND	102	103	1.0	109	110	0.9	70 - 130	30	
Hexachlorobutadiene	ND	96	101	5.1	108	108	0.0	70 - 130	30	
Isopropylbenzene	ND	107	109	1.9	110	111	0.9	70 - 130	30	
m&p-Xylene	ND	102	105	2.9	110	110	0.0	70 - 130	30	
Methyl ethyl ketone	ND	66	67	1.5	52	51	1.9	70 - 130	30	l,m
Methyl t-butyl ether (MTBE)	ND	99	106	6.8	105	104	1.0	70 - 130	30	
Methylene chloride	ND	101	109	7.6	103	103	0.0	70 - 130	30	
Naphthalene	ND	104	110	5.6	104	111	6.5	70 - 130	30	
n-Butylbenzene	ND	99	101	2.0	113	112	0.9	70 - 130	30	
n-Propylbenzene	ND	105	108	2.8	108	108	0.0	70 - 130	30	
o-Xylene	ND	112	113	0.9	110	109	0.9	70 - 130	30	
p-Isopropyltoluene	ND	103	106	2.9	112	112	0.0	70 - 130	30	
sec-Butylbenzene	ND	104	106	1.9	112	112	0.0	70 - 130	30	
Styrene	ND	103	105	1.9	107	106	0.9	70 - 130	30	
tert-Butylbenzene	ND	106	109	2.8	111	112	0.9	70 - 130	30	
Tetrachloroethene	ND	102	105	2.9	110	107	2.8	70 - 130	30	
Tetrahydrofuran (THF)	ND	103	108	4.7	98	100	2.0	70 - 130	30	
Toluene	ND	102	107	4.8	111	112	0.9	70 - 130	30	
trans-1,2-Dichloroethene	ND	107	112	4.6	109	105	3.7	70 - 130	30	
trans-1,3-Dichloropropene	ND	103	104	1.0	102	106	3.8	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	108	110	1.8	100	101	1.0	70 - 130	30	
Trichloroethene	ND	110	114	3.6	104	107	2.8	70 - 130	30	
Trichlorofluoromethane	ND	120	126	4.9	60	60	0.0	70 - 130	30	m
Trichlorotrifluoroethane	ND	114	122	6.8	108	106	1.9	70 - 130	30	
Vinyl chloride	ND	117	123	5.0	116	115	0.9	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	102	100	2.0	101	100	1.0	70 - 130	30	
% Bromofluorobenzene	96	101	100	1.0	99	100	1.0	70 - 130	30	
% Dibromofluoromethane	100	100	102	2.0	97	99	2.0	70 - 130	30	
% Toluene-d8	97	99	102	3.0	99	103	4.0	70 - 130	30	

Comment:

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

QA/QC Data

SDG I.D.: GBD41558

QA/QC Batch 223554, QC Sample No: BD45837 (BD41560)

Volatiles - Soil

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,1,2-Tetrachloroethane	ND	107	114	6.3	98	83	16.6	70 - 130	30	
1,1,1-Trichloroethane	ND	115	120	4.3	101	82	20.8	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	103	110	6.6	108	96	11.8	70 - 130	30	
1,1,2-Trichloroethane	ND	109	117	7.1	88	79	10.8	70 - 130	30	
1,1-Dichloroethane	ND	111	119	7.0	97	82	16.8	70 - 130	30	
1,1-Dichloroethene	ND	113	121	6.8	96	77	22.0	70 - 130	30	
1,1-Dichloropropene	ND	109	118	7.9	94	74	23.8	70 - 130	30	
1,2,3-Trichlorobenzene	ND	104	106	1.9	49	45	8.5	70 - 130	30	m
1,2,3-Trichloropropane	ND	101	106	4.8	108	95	12.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	99	102	3.0	57	51	11.1	70 - 130	30	m
1,2,4-Trimethylbenzene	ND	106	112	5.5	53	<40	NC	70 - 130	30	m
1,2-Dibromo-3-chloropropane	ND	114	120	5.1	97	88	9.7	70 - 130	30	
1,2-Dibromoethane	ND	102	110	7.5	85	77	9.9	70 - 130	30	
1,2-Dichlorobenzene	ND	102	108	5.7	76	62	20.3	70 - 130	30	m
1,2-Dichloroethane	ND	106	112	5.5	92	82	11.5	70 - 130	30	
1,2-Dichloropropane	ND	106	116	9.0	96	80	18.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND	104	110	5.6	62	43	36.2	70 - 130	30	m,r
1,3-Dichlorobenzene	ND	102	107	4.8	89	74	18.4	70 - 130	30	
1,3-Dichloropropane	ND	102	108	5.7	93	84	10.2	70 - 130	30	
1,4-Dichlorobenzene	ND	102	107	4.8	87	73	17.5	70 - 130	30	
2,2-Dichloropropane	ND	103	108	4.7	107	84	24.1	70 - 130	30	
2-Chlorotoluene	ND	105	111	5.6	90	67	29.3	70 - 130	30	m
2-Hexanone	ND	82	83	1.2	40	<40	NC	70 - 130	30	m
2-Isopropyltoluene	ND	102	109	6.6	98	77	24.0	70 - 130	30	
4-Chlorotoluene	ND	100	105	4.9	90	68	27.8	70 - 130	30	m
4-Methyl-2-pentanone	ND	102	104	1.9	42	<40	NC	70 - 130	30	m
Acetone	ND	80	83	3.7	59	53	10.7	70 - 130	30	m
Acrylonitrile	ND	108	109	0.9	57	52	9.2	70 - 130	30	m
Benzene	ND	107	115	7.2	94	77	19.9	70 - 130	30	
Bromobenzene	ND	103	111	7.5	97	79	20.5	70 - 130	30	
Bromochloromethane	ND	110	117	6.2	92	81	12.7	70 - 130	30	
Bromodichloromethane	ND	108	120	10.5	92	77	17.8	70 - 130	30	
Bromoform	ND	116	121	4.2	81	75	7.7	70 - 130	30	
Bromomethane	ND	114	131	13.9	63	50	23.0	70 - 130	30	l,m
Carbon Disulfide	ND	115	122	5.9	94	76	21.2	70 - 130	30	
Carbon tetrachloride	ND	111	121	8.6	101	80	23.2	70 - 130	30	
Chlorobenzene	ND	104	111	6.5	89	74	18.4	70 - 130	30	
Chloroethane	ND	118	126	6.6	99	83	17.6	70 - 130	30	
Chloroform	ND	111	118	6.1	96	82	15.7	70 - 130	30	
Chloromethane	ND	125	133	6.2	89	73	19.8	70 - 130	30	l
cis-1,2-Dichloroethene	ND	110	118	7.0	94	77	19.9	70 - 130	30	
cis-1,3-Dichloropropene	ND	106	114	7.3	79	69	13.5	70 - 130	30	m
Dibromochloromethane	ND	110	117	6.2	91	82	10.4	70 - 130	30	
Dibromomethane	ND	106	114	7.3	89	79	11.9	70 - 130	30	
Dichlorodifluoromethane	ND	>150	>150	NC	92	73	23.0	70 - 130	30	l
Ethylbenzene	ND	103	108	4.7	88	69	24.2	70 - 130	30	m
Hexachlorobutadiene	ND	102	106	3.8	68	54	23.0	70 - 130	30	m
Isopropylbenzene	ND	108	114	5.4	108	83	26.2	70 - 130	30	
m&p-Xylene	ND	104	108	3.8	64	48	28.6	70 - 130	30	m
Methyl ethyl ketone	ND	83	82	1.2	62	53	15.7	70 - 130	30	m

QA/QC Data

SDG I.D.: GBD41558

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Methyl t-butyl ether (MTBE)	ND	106	101	4.8	110	99	10.5	70 - 130	30	
Methylene chloride	ND	104	112	7.4	90	78	14.3	70 - 130	30	
Naphthalene	ND	106	113	6.4	NC	NC	NC	70 - 130	30	
n-Butylbenzene	ND	106	111	4.6	81	57	34.8	70 - 130	30	m,r
n-Propylbenzene	ND	107	114	6.3	101	75	29.5	70 - 130	30	
o-Xylene	ND	111	116	4.4	80	63	23.8	70 - 130	30	m
p-Isopropyltoluene	ND	107	113	5.5	94	68	32.1	70 - 130	30	m,r
sec-Butylbenzene	ND	104	110	5.6	98	73	29.2	70 - 130	30	
Styrene	ND	105	110	4.7	64	46	32.7	70 - 130	30	m,r
tert-Butylbenzene	ND	107	113	5.5	107	85	22.9	70 - 130	30	
Tetrachloroethene	ND	109	111	1.8	100	80	22.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	106	109	2.8	94	89	5.5	70 - 130	30	
Toluene	ND	106	115	8.1	85	68	22.2	70 - 130	30	m
trans-1,2-Dichloroethene	ND	112	120	6.9	96	77	22.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	105	113	7.3	81	71	13.2	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	105	113	7.3	90	77	15.6	70 - 130	30	
Trichloroethene	ND	111	121	8.6	94	76	21.2	70 - 130	30	
Trichlorofluoromethane	ND	123	132	7.1	100	80	22.2	70 - 130	30	l
Trichlorotrifluoroethane	ND	112	117	4.4	102	79	25.4	70 - 130	30	
Vinyl chloride	ND	120	130	8.0	94	76	21.2	70 - 130	30	
% 1,2-dichlorobenzene-d4	98	100	101	1.0	98	98	0.0	70 - 130	30	
% Bromofluorobenzene	96	100	100	0.0	91	92	1.1	70 - 130	30	
% Dibromofluoromethane	98	101	102	1.0	101	104	2.9	70 - 130	30	
% Toluene-d8	95	100	102	2.0	98	97	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of 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
March 15, 2013

Sample Criteria Exceedences Report

GBD41558 - MAGU-DAS

Requested Criteria: GBM, RC

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BD41559	SPLP-PB	SPLP Lead	CT / INORGANIC SUBSTANCES / GB PMC (mg/l)**	0.204	0.010	0.15	0.15	mg/L
BD41562	PB-SM	Lead	CT / INORGANIC SUBSTANCES / RES DEC (mg/kg)	808	3.9	400	400	mg/Kg
BD41565	$8100SMR	Chrysene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1100	260	1000	1000	ug/Kg
BD41566	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1500	280	1000	1000	ug/Kg
BD41566	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1500	280	1000	1000	ug/Kg
BD41566	$8100SMR	Chrysene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1700	280	1000	1000	ug/Kg
BD41566	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	2500	280	1000	1000	ug/Kg
BD41566	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	2500	280	1000	1000	ug/Kg
BD41566	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1800	280	1000	1000	ug/Kg
BD41566	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1800	280	1000	1000	ug/Kg
BD41566	$PCB_SMR	PCB-1260	CT / PESTICIDES, PCB's, TPH, a / RES DEC (mg/kg)	1600	410	1000	1000	ug/Kg
BD41567	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1800	330	1000	1000	ug/Kg
BD41567	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1800	330	1000	1000	ug/Kg
BD41567	$8100SMR	Chrysene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1900	330	1000	1000	ug/Kg
BD41567	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	2400	330	1000	1000	ug/Kg
BD41567	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	2400	330	1000	1000	ug/Kg
BD41567	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1900	330	1000	1000	ug/Kg
BD41567	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1900	330	1000	1000	ug/Kg

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:** MAGU-DAS

Project Location: MIDDLETOWN PUMP STATION **Project Number:**

Laboratory Sample ID(s): BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567

Sampling Date(s): 3/1/2013

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: Mercury 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.

Authorized Signature: _____

Date: Friday, March 15, 2013

Printed Name: Maryam Taylor

Position: Project Manager

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

RCP Certification Report

March 15, 2013

SDG I.D.: GBD41558

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

8270 Semi-volatile Organics:
Only the PAH constituents are reported as requested on the chain-of-custody.

ETPH Narration

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

Instrument: Au-fid1 03/04/13-1 (BD41558, BD41559, BD41560)

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

The daily continuing calibration standard was within method criteria of +/- 30 %D.

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: 3/4/2013

Instrument: Au-fid1 03/04/13-2 (BD41561, BD41562, BD41563, BD41564, BD41565, BD41567)

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

The daily continuing calibration standard was within method criteria of +/- 30 %D.

As per section 7.2.3, a discrimination check standard was run and contained the following outliers:C10

Printed Name Jeff Bucko
Position: Chemist
Date: 3/4/2013

Instrument: Au-xl1 03/06/13-1 (BD41566)

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

The daily continuing calibration standard was within method criteria of +/- 30 %D.

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: 3/6/2013

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

RCP Certification Report

March 15, 2013

SDG I.D.: GBD41558

QC (Site Specific)

---------- Sample No: BD41560, QA/QC Batch: 222469 ----------

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 60 - 120 with the following exceptions: None.

All MSD recoveries were within 60 - 120 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.

Mercury Narration

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

QC Batch 222535 (Samples: BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567): -----

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

Instrument: Merlin 03/05/13-1 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)

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 Joe Andrulat
Position: Chemist
Date: 3/5/2013

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RCP Certification Report

March 15, 2013

SDG I.D.: GBD41558

QC (Site Specific)

---------- Sample No: BD41566, QA/QC Batch: 222535 ----------

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: Mercury(>125%)

All MSD recoveries were within 75 - 125 with the following exceptions: Mercury(>125%)

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: BD41825, QA/QC Batch: 222538 ----------

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.

ICP Narration

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

Instrument: Arcos 03/04/13-1 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)

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: 3/4/2013

Instrument: Blue 03/04/13-1 (BD41559, BD41560, BD41562, BD41566)

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.

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RCP Certification Report

March 15, 2013

SDG I.D.: GBD41558

Printed Name	Laura Kinnin
Position:	Chemist
Date:	3/4/2013

QC (Site Specific)

---------- Sample No: BD41561, QA/QC Batch: 222477 ----------

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: 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.

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: BD39023, QA/QC Batch: 221964 ----------

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: BD41971, QA/QC Batch: 222565 ----------

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.

Instrument: Au-ecd24 03/04/13-1 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)

8082 Narration:

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

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March 15, 2013

SDG I.D.: GBD41558

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

Printed Name Adam Werner
Position: Chemist
Date: 3/4/2013

QC (Site Specific)

---------- Sample No: BD41560, QA/QC Batch: 222468 ----------

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

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

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

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

All MSD recoveries were within 40 - 140 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.

SVOA Narration

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

Instrument: Chem06 03/03/13-2 (BD41560)

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

Initial Calibration (Chem06/SV_0227)
Greater than 90% of the target compounds met calibration criteria with a RSD <20% or >0.99 correlation coefficient. The following compounds had RSDs >20% and <0.99 correlation coefficient: Benzaldehyde, 2,4-dinitrophenol, Atrazine

The following compounds failed to meet the minimum required response factor: 2-nitrophenol, Hexachlorobenzene, % 2,4,6-tribromophenol

Continuing Calibration:
Greater than 80% of target compounds met continuing calibration criteria with a %D <20. The following compounds had >20% difference from the initial calibration: Benzaldehyde, Aniline, Hexachlorocyclopentadiene, Atrazine, 3,3'-dichlorobenzidine

Printed Name Damien Drobinski
Position: Chemist
Date: 3/3/2013

Instrument: Chem07 03/01/13-2 (BD41558, BD41559, BD41560, BD41561, BD41562, BD41563, BD41564, BD41565, BD41566, BD41567)

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RCP Certification Report

March 15, 2013

SDG I.D.: GBD41558

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

Initial Calibration (Chem07/SV_0222):
Greater than 90% of the target compounds met calibration criteria with a RSD <20% or >0.99 correlation coefficient. The following compounds had RSDs >20% and <0.99 correlation coefficient: Benzaldehyde, 2,4-dinitrophenol, Carbazole

The following compounds failed to meet the minimum required response factor: 2-nitrophenol, Hexachlorobenzene

Continuing Calibration:
Greater than 80% of target compounds met continuing calibration criteria with a %D <20. The following compunds had >20% difference from the initial calibration: Benzaldehyde, Hexachlorocyclopentadiene, 3-Nitroaniline, 2-Nitroaniline, Pentachlorophenol, Atrazine

Printed Name Damien Drobinski
Position: Chemist
Date: 3/1/2013

QC (Site Specific)

---------- Sample No: BD41560, QA/QC Batch: 222467 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

All MS recoveries were within 30 - 130 with the following exceptions: None.

All MSD recoveries were within 30 - 130 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.

PHOENIX

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RCP Certification Report

March 15, 2013

SDG I.D.: GBD41558

VOA Narration

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

QC Batch 222746 (Samples: BD41561, BD41562): -----

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. (Dichlorodifluoromethane)

The QC recoveries for one or more analytes is below the lower range, but within the method criteria. A slight low bias is likely. (Methyl ethyl ketone)

QC Batch 222871 (Samples: BD41563, BD41564, BD41565, BD41566): -----

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the lower range, therefore a slight low bias is possible. (1,1-Dichloroethene, 2-Hexanone, Bromomethane, Carbon Disulfide, Chloroethane, Trichlorofluoromethane, Trichlorotrifluoroethane)

The QC recoveries for one or more analytes is below the lower range, but within the method criteria. A slight low bias is likely. (Acetone, Methyl ethyl ketone)

QC Batch 222968 (Samples: BD41567): -----

Several QC recoveries are below the lower range, but within the method criteria. A slight low bias for these analytes is likely. (2-Hexanone)

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the lower range, therefore a slight low bias is possible. (Bromomethane, Carbon Disulfide, Chloroethane, Trichlorofluoromethane)

The QC recoveries for one or more analytes is below the lower range, but within the method criteria. A slight low bias is likely. (Acetone, Methyl ethyl ketone)

QC Batch 223554 (Samples: BD41560): -----

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. (Bromomethane, Chloromethane, Dichlorodifluoromethane, Trichlorofluoromethane)

Instrument: Chem03 03/03/13-2 (BD41558, BD41559)

Initial Calibration Verification (RCPS_0227):
>90% of target compounds met method criteria.
The following compounds had %RSDs >20%: Acetone

Continuing Calibration Verification:
>80% of target compounds met method criteria. Internal standards were within the 50%-200% deviation from the initial calibration.
The following compounds had % Deviations >20%: Acrolein, Tetrahydrofuran (THF), 2-Hexanone, 1,2,3-Trichloropropane

Printed Name Johanna Harrington
Position: Chemist
Date: 3/3/2013

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March 15, 2013

SDG I.D.: GBD41558

Instrument: Chem15 03/06/13-1 (BD41563, BD41564, BD41565, BD41566, BD41567)

Initial Calibration Verification (CHEM15/RCPS_0306):
>90% of target compounds met criteria.
The following compounds had %RSDs >20%: Chloroethane and Acetone

Continuing Calibration Verification:
>80% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration.
The following compounds had % Deviations >20%: Tetrahydrofuran (THF)

Printed Name Johanna Harrington
Position: Chemist
Date: 3/6/2013

Instrument: Chem15 03/07/13-2 (BD41567)

Initial Calibration Verification (CHEM15/RCPS_0306):
>90% of target compounds met criteria.
The following compounds had %RSDs >20%: Chloroethane and Acetone

Continuing Calibration Verification:
>80% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration.
The following compounds had % Deviations >20%: Acetone, Methyl Ethyl Ketone, 2-Hexanone, n-Butylbenzene, 1,2,4-Trichlorobenzene

Printed Name Johanna Harrington
Position: Chemist
Date: 3/7/2013

Instrument: Chem18 03/05/13-1 (BD41561, BD41562)

Initial Calibration Verification (CHEM18/RCPS_0305#1):
>90% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone, Carbon Tetrachloride, Trans-1,4-dichloro-2-butene

Continuing Calibration Verification:
>80% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration.
The following compounds had % Deviations >20%: Dichlorodifluoromethane, Tetrahydrofuran (THF)

Printed Name Johanna Harrington
Position: Chemist
Date: 3/5/2013

Instrument: Chem18 03/14/13-1 (BD41560)

Initial Calibration Verification (CHEM18/RCPS_0311#1):
>90% of target compounds met criteria.
The following compounds had %RSDs >20%: Methyl Ethyl Ketone, 2-hexanone

Continuing Calibration Verification:

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March 15, 2013

SDG I.D.: GBD41558

>80% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration.
The following compounds had % Deviations >20%: Tetrahydrofuran (THF)

Printed Name	Johanna Harrington
Position:	Chemist
Date:	3/14/2013

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SDG I.D.: GBD41558

QC (Site Specific)

---------- Sample No: BD41563, QA/QC Batch: 222871 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(62%), Methyl ethyl ketone(67%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(50%), Methyl ethyl ketone(65%)

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

All MS recoveries were within 70 - 130 with the following exceptions: 1,1-Dichloroethene(57%), 2-Hexanone(52%), Acetone(<40%), Bromomethane(46%), Carbon Disulfide(56%), Chloroethane(<40%), Methyl ethyl ketone(45%), Trichlorofluoromethane(<40%)

All MSD recoveries were within 70 - 130 with the following exceptions: 1,1-Dichloroethene(53%), 2-Hexanone(55%), Acetone(<40%), Bromomethane(46%), Carbon Disulfide(53%), Chloroethane(<40%), Methyl ethyl ketone(46%), Trichlorofluoromethane(<40%), Trichlorotrifluoroethane(69%)

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

---------- Sample No: BD41567, QA/QC Batch: 222968 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(69%), Acetone(47%), Methyl ethyl ketone(52%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(55%), Methyl ethyl ketone(59%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: cis-1,2-Dichloroethene(33.8%)

All MS recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(54%), Acetone(<40%), Bromomethane(53%), Carbon Disulfide(65%), Chloroethane(<40%), Methyl ethyl ketone(41%), Trichlorofluoromethane(<40%)

All MSD recoveries were within 70 - 130 with the following exceptions: 2-Hexanone(51%), Acetone(<40%), Bromomethane(57%), Carbon Disulfide(65%), Chloroethane(<40%), Methyl ethyl ketone(<40%), Trichlorofluoromethane(<40%)

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: BD41889, QA/QC Batch: 223559 ----------

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: BD42394, QA/QC Batch: 222746 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(143%), Methyl ethyl ketone(66%)

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March 15, 2013

SDG I.D.: GBD41558

All LCSD recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(150%), Methyl ethyl ketone(67%)

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

---------- Sample No: BD45837, QA/QC Batch: 223554 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(>150%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Bromomethane(131%), Chloromethane(133%), Dichlorodifluoromethane(>150%), Trichlorofluoromethane(132%)

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

Temperature Narration

The samples were received at 1C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes ☒ No ☐
Coolant: IPK ☐ ICE ☒ N ☐

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Temp 1 °C Pg 1 of 1

Data Delivery:
☐ Fax #:
☒ Email: jwitherell@CDRMaguire.com

Customer: CDR Maguire
Address: 2080 Silas Deane Highway
Rocky Hill CT 06067

Project: Middletown Pump Station
Report to: Jane Witherell
Invoice to: CDR Maguire-Bid Prices

Project P.O: 147120 A300
Phone #: 860-563-3158
Fax #: 860-563-3188

Client Sample - Information - Identification

Sampler's Signature: Joseph Buehler
Date: 3/1/13

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
SE=Sediment **SL**=Sludge **S**=Soil/Solid **W**=Wipe **O**=Other

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC's	PAH's	ETPH	PCB's	Total RCRA Metals	SPLP Metals RCRA	Soil VOA Vials ( ) methanol ( ) H2O	GL Soil container ( ) 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
41558	PSGP-20	S	3/1/13	7:00	X	X	X	X	X	X	3	2								
41559	PSGP-21			7:06	X	X	X	X	X	X	3	2								
41560	PSGP-22			7:15	X	X	X	X	X	X	3	2								
41561	PSGP-23			7:40	X	X	X	X	X	X	3	2								
41562	PSGP-24			8:00	X	X	X	X	X	X	3	2								
41563	PSGP-29			8:40	X	X	X	X	X	X	3	2								
41564	PSGP-31			9:00	X	X	X	X	X	X	3	2								
41565	PSGP-30			9:15	X	X	X	X	X	X	3	2								
*41566	PSGP-32			9:50	X	X	X	X	X	X	3	2								
41567	PSGP-33			10:00	X	X	X	X	X	X	3	2								

Relinquished by:	Accepted by:	Date:	Time:
	Paradise	3/1/13	1200

Comments, Special Requirements or Regulations:

20 3-5
21 3-5
22 7-9
23 8-10
24 8-10
29 3-5
31 - 8-10
30 3-5
32 0-2
33 0-2

20&21 refusal @ 5'
29 refusal @ 5' limited Recovery

*High level voa labeled PSGP-26, date + time match

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☒ 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
☐ Excel
☒ PDF
☐ GIS/Key
☐ EQuIS
☐ Other

Data Package
☐ Tier II Checklist
☐ Full Data Package*
☒ Phoenix Std Report
☐ Other

* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

Wednesday, March 06, 2013

Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Project ID: MIDDLETOWN PUMP STATION
Sample ID#s: BD41136 - BD41137

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

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Environmental Laboratories, Inc.
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Analysis Report

March 06, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	02/28/13	8:15
Location Code:	MAGU-DAS	Received by:	SW	02/28/13	13:41
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD41136
Phoenix ID: BD41136

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-18

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.40	0.40	mg/Kg	03/01/13	EK	SW6010
Arsenic	2.2	0.7	mg/Kg	03/01/13	EK	SW6010
Barium	49.5	0.35	mg/Kg	03/01/13	EK	SW6010
Cadmium	< 0.35	0.35	mg/Kg	03/01/13	EK	SW6010
Chromium	11.6	0.35	mg/Kg	03/01/13	EK	SW6010
Mercury	0.19	0.06	mg/Kg	03/01/13	RS	SW-7471
Lead	47.3	0.35	mg/Kg	03/01/13	EK	SW6010
Selenium	< 1.4	1.4	mg/Kg	03/01/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/02/13	LK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/02/13	LK	SW6010
SPLP Barium	0.058	0.010	mg/L	03/02/13	LK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/02/13	LK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/02/13	LK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/01/13	RS	1312/SW7470
SPLP Lead	0.015	0.010	mg/L	03/02/13	LK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/02/13	LK	SW6010
SPLP Metals Digestion	Completed			03/01/13	X/X	SW846-3005
Percent Solid	87		%	02/28/13	JL	E160.3
Soil Extraction for PCB	Completed			02/28/13	BB/V	SW3545
Soil Extraction SVOA BN	Completed			02/28/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			02/28/13	BJ/V	3545
Mercury Digestion	Completed			03/01/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/01/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			02/28/13	X	EPA 1312
Total Metals Digest	Completed			02/28/13	AG	SW846 - 3050
Field Extraction	Completed			02/28/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	110	56	mg/Kg	03/01/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-18

Phoenix I.D.: BD41136

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/01/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	88		%	03/01/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	380	ug/Kg	03/01/13	AW	SW 8082
PCB-1221	ND	380	ug/Kg	03/01/13	AW	SW 8082
PCB-1232	ND	380	ug/Kg	03/01/13	AW	SW 8082
PCB-1242	ND	380	ug/Kg	03/01/13	AW	SW 8082
PCB-1248	ND	380	ug/Kg	03/01/13	AW	SW 8082
PCB-1254	ND	380	ug/Kg	03/01/13	AW	SW 8082
PCB-1260	ND	380	ug/Kg	03/01/13	AW	SW 8082
PCB-1262	ND	380	ug/Kg	03/01/13	AW	SW 8082
PCB-1268	ND	380	ug/Kg	03/01/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	97		%	03/01/13	AW	30 - 150 %
% TCMX	87		%	03/01/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,1,1-Trichloroethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	2.8	ug/Kg	03/04/13	R/J	SW8260
1,1,2-Trichloroethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloroethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloroethene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloropropene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,2,3-Trichloropropane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,2-Dibromoethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichlorobenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichloroethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichloropropane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,3-Dichlorobenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,3-Dichloropropane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
1,4-Dichlorobenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
2,2-Dichloropropane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
2-Chlorotoluene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
2-Hexanone	ND	23	ug/Kg	03/04/13	R/J	SW8260
2-Isopropyltoluene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
4-Chlorotoluene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
4-Methyl-2-pentanone	ND	23	ug/Kg	03/04/13	R/J	SW8260
Acetone	ND	93	ug/Kg	03/04/13	R/J	SW8260
Acrylonitrile	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Benzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Bromobenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Bromochloromethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-18

Phoenix I.D.: BD41136

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Bromoform	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Bromomethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Carbon Disulfide	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Carbon tetrachloride	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Chlorobenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Chloroethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Chloroform	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Chloromethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Dibromochloromethane	ND	2.8	ug/Kg	03/04/13	R/J	SW8260
Dibromomethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Dichlorodifluoromethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Ethylbenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Hexachlorobutadiene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Isopropylbenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
m&p-Xylene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Methyl Ethyl Ketone	ND	28	ug/Kg	03/04/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	9.3	ug/Kg	03/04/13	R/J	SW8260
Methylene chloride	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Naphthalene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
n-Butylbenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
n-Propylbenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
o-Xylene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
p-Isopropyltoluene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
sec-Butylbenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Styrene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
tert-Butylbenzene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Tetrachloroethene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	9.3	ug/Kg	03/04/13	R/J	SW8260
Toluene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Total Xylenes	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	9.3	ug/Kg	03/04/13	R/J	SW8260
Trichloroethene	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Trichlorofluoromethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Trichlorotrifluoroethane	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
Vinyl chloride	ND	4.7	ug/Kg	03/04/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	102		%	03/04/13	R/J	70 - 130 %
% Bromofluorobenzene	95		%	03/04/13	R/J	70 - 130 %
% Dibromofluoromethane	101		%	03/04/13	R/J	70 - 130 %
% Toluene-d8	98		%	03/04/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	02/28/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	02/28/13	DD	SW 8270
Acenaphthylene	1900	260	ug/Kg	02/28/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-18

Phoenix I.D.: BD41136

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	1100	260	ug/Kg	02/28/13	DD	SW 8270
Benz(a)anthracene	4800	260	ug/Kg	02/28/13	DD	SW 8270
Benzo(a)pyrene	4800	260	ug/Kg	02/28/13	DD	SW 8270
Benzo(b)fluoranthene	7400	260	ug/Kg	02/28/13	DD	SW 8270
Benzo(ghi)perylene	2600	260	ug/Kg	02/28/13	DD	SW 8270
Benzo(k)fluoranthene	2000	260	ug/Kg	02/28/13	DD	SW 8270
Chrysene	6300	260	ug/Kg	02/28/13	DD	SW 8270
Dibenz(a,h)anthracene	790	260	ug/Kg	02/28/13	DD	SW 8270
Fluoranthene	8100	260	ug/Kg	02/28/13	DD	SW 8270
Fluorene	340	260	ug/Kg	02/28/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	2300	260	ug/Kg	02/28/13	DD	SW 8270
Naphthalene	310	260	ug/Kg	02/28/13	DD	SW 8270
Phenanthrene	3700	260	ug/Kg	02/28/13	DD	SW 8270
Pyrene	9000	260	ug/Kg	02/28/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	78		%	02/28/13	DD	30 - 130 %
% Nitrobenzene-d5	82		%	02/28/13	DD	30 - 130 %
% Terphenyl-d14	81		%	02/28/13	DD	30 - 130 %

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

Comments:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C12 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
March 06, 2013
Reviewed and Released by: Maryam Taylor, Project Manager

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

Analysis Report

March 06, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	JB	02/28/13	8:50
Location Code:	MAGU-DAS	Received by:	SW	02/28/13	13:41
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD41136
Phoenix ID: BD41137

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-19

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	03/01/13	LK	SW6010
Arsenic	1.5	0.8	mg/Kg	03/01/13	LK	SW6010
Barium	61.6	0.39	mg/Kg	03/01/13	LK	SW6010
Cadmium	0.41	0.39	mg/Kg	03/01/13	LK	SW6010
Chromium	10.7	0.39	mg/Kg	03/01/13	LK	SW6010
Mercury	0.15	0.07	mg/Kg	03/01/13	RS	SW-7471
Lead	206	3.9	mg/Kg	03/01/13	EK	SW6010
Selenium	< 1.6	1.6	mg/Kg	03/01/13	LK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/02/13	LK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/02/13	LK	SW6010
SPLP Barium	0.028	0.010	mg/L	03/02/13	LK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/02/13	LK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/02/13	LK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/01/13	RS	1312/SW7470
SPLP Lead	< 0.010	0.010	mg/L	03/02/13	LK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/02/13	LK	SW6010
SPLP Metals Digestion	Completed			03/01/13	X/X	SW846-3005
Percent Solid	87		%	02/28/13	JL	E160.3
Soil Extraction for PCB	Completed			02/28/13	BB/V	SW3545
Soil Extraction SVOA BN	Completed			02/28/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			02/28/13	BJ/V	3545
Mercury Digestion	Completed			03/01/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/01/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			02/28/13	X	EPA 1312
Total Metals Digest	Completed			02/28/13	AG	SW846 - 3050
Field Extraction	Completed			02/28/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	110	56	mg/Kg	03/01/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-19

Phoenix I.D.: BD41137

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/01/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	113		%	03/01/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	370	ug/Kg	03/01/13	AW	SW 8082
PCB-1221	ND	370	ug/Kg	03/01/13	AW	SW 8082
PCB-1232	ND	370	ug/Kg	03/01/13	AW	SW 8082
PCB-1242	ND	370	ug/Kg	03/01/13	AW	SW 8082
PCB-1248	ND	370	ug/Kg	03/01/13	AW	SW 8082
PCB-1254	ND	370	ug/Kg	03/01/13	AW	SW 8082
PCB-1260	ND	370	ug/Kg	03/01/13	AW	SW 8082
PCB-1262	ND	370	ug/Kg	03/01/13	AW	SW 8082
PCB-1268	ND	370	ug/Kg	03/01/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	96		%	03/01/13	AW	30 - 150 %
% TCMX	76		%	03/01/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,1,1-Trichloroethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	03/04/13	R/J	SW8260
1,1,2-Trichloroethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloroethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloroethene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,1-Dichloropropene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,2,3-Trichloropropane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,2,4-Trimethylbenzene	2700	270	ug/Kg	03/04/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,2-Dibromoethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichlorobenzene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichloroethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,2-Dichloropropane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,3,5-Trimethylbenzene	150	5.2	ug/Kg	03/04/13	R/J	SW8260
1,3-Dichlorobenzene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,3-Dichloropropane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
1,4-Dichlorobenzene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
2,2-Dichloropropane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
2-Chlorotoluene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
2-Hexanone	ND	26	ug/Kg	03/04/13	R/J	SW8260
2-Isopropyltoluene	9.6	5.2	ug/Kg	03/04/13	R/J	SW8260
4-Chlorotoluene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	03/04/13	R/J	SW8260
Acetone	ND	100	ug/Kg	03/04/13	R/J	SW8260
Acrylonitrile	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Benzene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Bromobenzene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Bromochloromethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-19

Phoenix I.D.: BD41137

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Bromoform	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Bromomethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Carbon Disulfide	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Carbon tetrachloride	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Chlorobenzene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Chloroethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Chloroform	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Chloromethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Dibromochloromethane	ND	3.1	ug/Kg	03/04/13	R/J	SW8260
Dibromomethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Dichlorodifluoromethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Ethylbenzene	89	5.2	ug/Kg	03/04/13	R/J	SW8260
Hexachlorobutadiene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Isopropylbenzene	46	5.2	ug/Kg	03/04/13	R/J	SW8260
m&p-Xylene	320	5.2	ug/Kg	03/04/13	R/J	SW8260
Methyl Ethyl Ketone	ND	31	ug/Kg	03/04/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	03/04/13	R/J	SW8260
Methylene chloride	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Naphthalene	550	270	ug/Kg	03/04/13	R/J	SW8260
n-Butylbenzene	24	5.2	ug/Kg	03/04/13	R/J	SW8260
n-Propylbenzene	70	5.2	ug/Kg	03/04/13	R/J	SW8260
o-Xylene	200	5.2	ug/Kg	03/04/13	R/J	SW8260
p-Isopropyltoluene	37	5.2	ug/Kg	03/04/13	R/J	SW8260
sec-Butylbenzene	24	5.2	ug/Kg	03/04/13	R/J	SW8260
Styrene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
tert-Butylbenzene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Tetrachloroethene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	03/04/13	R/J	SW8260
Toluene	21	5.2	ug/Kg	03/04/13	R/J	SW8260
Total Xylenes	520	5.2	ug/Kg	03/04/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	03/04/13	R/J	SW8260
Trichloroethene	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Trichlorofluoromethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Trichlorotrifluoroethane	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
Vinyl chloride	ND	5.2	ug/Kg	03/04/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	104		%	03/04/13	R/J	70 - 130 %
% Bromofluorobenzene	130		%	03/04/13	R/J	70 - 130 %
% Dibromofluoromethane	102		%	03/04/13	R/J	70 - 130 %
% Toluene-d8	123		%	03/04/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	02/28/13	DD	SW 8270
Acenaphthene	ND	260	ug/Kg	02/28/13	DD	SW 8270
Acenaphthylene	440	260	ug/Kg	02/28/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-19

Phoenix I.D.: BD41137

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	270	260	ug/Kg	02/28/13	DD	SW 8270
Benz(a)anthracene	1300	260	ug/Kg	02/28/13	DD	SW 8270
Benzo(a)pyrene	1400	260	ug/Kg	02/28/13	DD	SW 8270
Benzo(b)fluoranthene	1800	260	ug/Kg	02/28/13	DD	SW 8270
Benzo(ghi)perylene	760	260	ug/Kg	02/28/13	DD	SW 8270
Benzo(k)fluoranthene	560	260	ug/Kg	02/28/13	DD	SW 8270
Chrysene	1500	260	ug/Kg	02/28/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	260	ug/Kg	02/28/13	DD	SW 8270
Fluoranthene	2100	260	ug/Kg	02/28/13	DD	SW 8270
Fluorene	ND	260	ug/Kg	02/28/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	640	260	ug/Kg	02/28/13	DD	SW 8270
Naphthalene	ND	260	ug/Kg	02/28/13	DD	SW 8270
Phenanthrene	870	260	ug/Kg	02/28/13	DD	SW 8270
Pyrene	2300	260	ug/Kg	02/28/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	79		%	02/28/13	DD	30 - 130 %
% Nitrobenzene-d5	83		%	02/28/13	DD	30 - 130 %
% Terphenyl-d14	83		%	02/28/13	DD	30 - 130 %

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

Comments:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C12 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
March 06, 2013
Reviewed and Released by: Maryam Taylor, Project Manager

PHOENIX

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

QA/QC Report

March 06, 2013

QA/QC Data

SDG I.D.: GBD41136

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 221964, QC Sample No: BD39023 (BD41136, BD41137)													
ICP Metals - SPLP Extraction													
Arsenic	BRL	0.006	0.005	NC	99.1	98.2	0.9	102	101	1.0	75 - 125	20	
Barium	BRL	0.064	0.064	0	100	102	2.0	100	98.8	1.2	75 - 125	20	
Cadmium	BRL	<0.005	<0.005	NC	102	101	1.0	102	100	2.0	75 - 125	20	
Chromium	BRL	<0.010	<0.010	NC	98.6	97.6	1.0	100	99.3	0.7	75 - 125	20	
Lead	BRL	<0.010	<0.010	NC	100	99.5	0.5	101	100	1.0	75 - 125	20	
Selenium	BRL	<0.020	<0.020	NC	100	99.9	0.1	103	102	1.0	75 - 125	20	
Silver	BRL	<0.010	<0.010	NC	96.6	96.7	0.1	99.4	98.2	1.2	75 - 125	20	
QA/QC Batch 222380, QC Sample No: BD41136 (BD41136)													
ICP Metals - Soil													
Arsenic	BRL	2.2	2.28	NC	88.8	90.1	1.5	87.5	88.2	0.8	75 - 125	30	
Barium	BRL	49.5	53.3	7.40	91.9	95.5	3.8	66.2	68.7	3.7	75 - 125	30	m
Cadmium	BRL	<0.35	<0.36	NC	93.8	97.2	3.6	92.9	93.6	0.8	75 - 125	30	
Chromium	BRL	11.6	12.2	5.00	96.2	97.9	1.8	96.3	96.9	0.6	75 - 125	30	
Lead	BRL	47.3	50.7	6.90	95.0	94.1	1.0	86.4	91.5	5.7	75 - 125	30	
Selenium	BRL	<1.4	<1.4	NC	90.0	92.2	2.4	73.1	74.2	1.5	75 - 125	30	m
Silver	BRL	0.35	0.52	NC	89.5	91.7	2.4	92.1	92.4	0.3	75 - 125	30	
QA/QC Batch 222374, QC Sample No: BD41137 (BD41137)													
ICP Metals - Soil													
Arsenic	BRL	1.5	1.98	NC	83.5	89.3	6.7	87.7	88.6	1.0	75 - 125	30	
Barium	BRL	61.6	41.0	40.2	91.5	95.9	4.7	92.5	61.7	39.9	75 - 125	30	m,r
Cadmium	BRL	0.41	<0.35	NC	91.5	97.4	6.2	92.2	93.4	1.3	75 - 125	30	
Chromium	BRL	10.7	13.3	21.7	93.0	98.3	5.5	98.3	99.1	0.8	75 - 125	30	
Lead	BRL	206	228	10.1	89.7	93.5	4.1	87.2	86.7	0.6	75 - 125	30	
Selenium	BRL	<1.6	<1.4	NC	88.2	91.1	3.2	73.3	74.1	1.1	75 - 125	30	m
Silver	BRL	<0.39	<0.35	NC	89.9	91.3	1.5	92.9	93.0	0.1	75 - 125	30	
QA/QC Batch 222435, QC Sample No: BD41137 (BD41136, BD41137)													
Mercury - Soil	BRL	0.15	0.14	NC	102	98.5	3.5	104	119	13.5	70 - 130	30	
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 222434, QC Sample No: BD41462 (BD41136, BD41137)													
Mercury - Water	BRL	<0.0002	<0.0002	NC	96.8	96.2	0.6	95.6	94.8	0.8	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.

PHOENIX

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QA/QC Report

March 06, 2013

QA/QC Data

SDG I.D.: GBD41136

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 222228, QC Sample No: BD40886 (BD41136, BD41137)										
Polynuclear Aromatic HC - Soil										
2-Methylnaphthalene	ND	80	77	3.8	83	85	2.4	30 - 130	30	
Acenaphthene	ND	74	71	4.1	77	77	0.0	30 - 130	30	
Acenaphthylene	ND	84	81	3.6	87	87	0.0	30 - 130	30	
Anthracene	ND	80	77	3.8	82	81	1.2	30 - 130	30	
Benz(a)anthracene	ND	87	83	4.7	88	88	0.0	30 - 130	30	
Benzo(a)pyrene	ND	77	73	5.3	78	78	0.0	30 - 130	30	
Benzo(b)fluoranthene	ND	84	79	6.1	87	88	1.1	30 - 130	30	
Benzo(ghi)perylene	ND	94	86	8.9	85	85	0.0	30 - 130	30	
Benzo(k)fluoranthene	ND	80	75	6.5	83	81	2.4	30 - 130	30	
Chrysene	ND	89	85	4.6	90	91	1.1	30 - 130	30	
Dibenz(a,h)anthracene	ND	82	76	7.6	76	79	3.9	30 - 130	30	
Fluoranthene	ND	81	78	3.8	84	83	1.2	30 - 130	30	
Fluorene	ND	76	74	2.7	79	79	0.0	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	80	84	4.9	85	85	0.0	30 - 130	30	
Naphthalene	ND	73	70	4.2	75	76	1.3	30 - 130	30	
Phenanthrene	ND	80	77	3.8	83	83	0.0	30 - 130	30	
Pyrene	ND	79	76	3.9	83	81	2.4	30 - 130	30	
% 2-Fluorobiphenyl	78	76	75	1.3	82	81	1.2	30 - 130	30	
% Nitrobenzene-d5	70	63	62	1.6	68	68	0.0	30 - 130	30	
% Terphenyl-d14	83	80	79	1.3	87	84	3.5	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 222230, QC Sample No: BD40970 (BD41136, BD41137)										
Polychlorinated Biphenyls - Soil										
PCB-1016	ND	81	78	3.8	76	87	13.5	40 - 140	30	
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	69	67	2.9	68	74	8.5	40 - 140	30	
PCB-1262	ND							40 - 140	30	
PCB-1268	ND							40 - 140	30	
% DCBP (Surrogate Rec)	67	81	81	0.0	78	83	6.2	30 - 150	30	
% TCMX (Surrogate Rec)	74	82	78	5.0	75	85	12.5	30 - 150	30	
QA/QC Batch 222365, QC Sample No: BD41361 (BD41136, BD41137)										
TPH by GC (Extractable Products) - Soil										
Ext. Petroleum HC	ND	75	53	34.4	70	79	12.1	60 - 120	30	l,r
% n-Pentacosane	78	96	59	47.7	86	98	13.0	50 - 150	30	r

QA/QC Data

SDG I.D.: GBD41136

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 222654, QC Sample No: BD41806 (BD41137 (50X))									
Volatiles - Soil									
1,2,4-Trimethylbenzene	ND	96	93	3.2	119	92	25.6	70 - 130	30
Naphthalene	ND	114	85	29.1	101	113	11.2	70 - 130	30
Comment:									
Additional 8260 criteria: 10% of compounds can be outside of acceptance criteria as long as recovery is 40-160%.									
QA/QC Batch , QC Sample No: BD41889 (BD41136, BD41137)									
Volatiles - Soil									
1,1,1,2-Tetrachloroethane	ND	97	110	12.6				70 - 130	30
1,1,1-Trichloroethane	ND	96	108	11.8				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	89	95	6.5				70 - 130	30
1,1,2-Trichloroethane	ND	102	107	4.8				70 - 130	30
1,1-Dichloroethane	ND	98	115	16.0				70 - 130	30
1,1-Dichloroethene	ND	102	119	15.4				70 - 130	30
1,1-Dichloropropene	ND	96	107	10.8				70 - 130	30
1,2,3-Trichlorobenzene	ND	104	96	8.0				70 - 130	30
1,2,3-Trichloropropane	ND	80	101	23.2				70 - 130	30
1,2,4-Trichlorobenzene	ND	98	96	2.1				70 - 130	30
1,2,4-Trimethylbenzene	ND	88	101	13.8				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	97	96	1.0				70 - 130	30
1,2-Dibromoethane	ND	103	103	0.0				70 - 130	30
1,2-Dichlorobenzene	ND	92	102	10.3				70 - 130	30
1,2-Dichloroethane	ND	96	100	4.1				70 - 130	30
1,2-Dichloropropane	ND	94	103	9.1				70 - 130	30
1,3,5-Trimethylbenzene	ND	86	100	15.1				70 - 130	30
1,3-Dichlorobenzene	ND	92	103	11.3				70 - 130	30
1,3-Dichloropropane	ND	92	98	6.3				70 - 130	30
1,4-Dichlorobenzene	ND	93	103	10.2				70 - 130	30
2,2-Dichloropropane	ND	99	109	9.6				70 - 130	30
2-Chlorotoluene	ND	87	100	13.9				70 - 130	30
2-Hexanone	ND	77	78	1.3				70 - 130	30
2-Isopropyltoluene	ND	87	100	13.9				70 - 130	30
4-Chlorotoluene	ND	87	100	13.9				70 - 130	30
4-Methyl-2-pentanone	ND	95	93	2.1				70 - 130	30
Acetone	ND	94	93	1.1				70 - 130	30
Acrylonitrile	ND	106	115	8.1				70 - 130	30
Benzene	ND	94	103	9.1				70 - 130	30
Bromobenzene	ND	90	102	12.5				70 - 130	30
Bromochloromethane	ND	107	114	6.3				70 - 130	30
Bromodichloromethane	ND	98	107	8.8				70 - 130	30
Bromoform	ND	108	113	4.5				70 - 130	30
Bromomethane	ND	118	124	5.0				70 - 130	30
Carbon Disulfide	ND	96	112	15.4				70 - 130	30
Carbon tetrachloride	ND	99	112	12.3				70 - 130	30
Chlorobenzene	ND	93	105	12.1				70 - 130	30
Chloroethane	ND	109	126	14.5				70 - 130	30
Chloroform	ND	99	107	7.8				70 - 130	30
Chloromethane	ND	91	97	6.4				70 - 130	30
cis-1,2-Dichloroethene	ND	112	119	6.1				70 - 130	30
cis-1,3-Dichloropropene	ND	96	103	7.0				70 - 130	30
Dibromochloromethane	ND	100	109	8.6				70 - 130	30

QA/QC Data

SDG I.D.: GBD41136

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Dibromomethane	ND	104	106	1.9				70 - 130	30
Dichlorodifluoromethane	ND	91	102	11.4				70 - 130	30
Ethylbenzene	ND	90	101	11.5				70 - 130	30
Hexachlorobutadiene	ND	91	95	4.3				70 - 130	30
Isopropylbenzene	ND	87	103	16.8				70 - 130	30
m&p-Xylene	ND	92	104	12.2				70 - 130	30
Methyl ethyl ketone	ND	82	77	6.3				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	94	100	6.2				70 - 130	30
Methylene chloride	ND	103	117	12.7				70 - 130	30
Naphthalene	ND	109	88	21.3				70 - 130	30
n-Butylbenzene	ND	88	98	10.8				70 - 130	30
n-Propylbenzene	ND	90	105	15.4				70 - 130	30
o-Xylene	ND	96	111	14.5				70 - 130	30
p-Isopropyltoluene	ND	89	101	12.6				70 - 130	30
sec-Butylbenzene	ND	85	99	15.2				70 - 130	30
Styrene	ND	96	107	10.8				70 - 130	30
tert-Butylbenzene	ND	87	100	13.9				70 - 130	30
Tetrachloroethene	ND	94	108	13.9				70 - 130	30
Tetrahydrofuran (THF)	ND	97	95	2.1				70 - 130	30
Toluene	ND	94	104	10.1				70 - 130	30
trans-1,2-Dichloroethene	ND	97	120	21.2				70 - 130	30
trans-1,3-Dichloropropene	ND	99	102	3.0				70 - 130	30
trans-1,4-dichloro-2-butene	ND	101	97	4.0				70 - 130	30
Trichloroethene	ND	101	111	9.4				70 - 130	30
Trichlorofluoromethane	ND	109	121	10.4				70 - 130	30
Trichlorotrifluoroethane	ND	106	121	13.2				70 - 130	30
Vinyl chloride	ND	92	102	10.3				70 - 130	30
% 1,2-dichlorobenzene-d4	99	100	100	0.0				70 - 130	30
% Bromofluorobenzene	94	98	96	2.1				70 - 130	30
% Dibromofluoromethane	100	106	101	4.8				70 - 130	30
% Toluene-d8	98	99	97	2.0				70 - 130	30

Comment:

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

l = This parameter is outside laboratory lcs/lcsd specified recovery limits.
r = This parameter is outside laboratory rpd specified recovery limits.

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

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

Phyllis Shiller, Laboratory Director
March 06, 2013

Wednesday, March 06, 2013

Requested Criteria: GBM, RC

State: CT

Sample Criteria Exceedences Report

GBD41136 - MAGU-DAS

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BD41136	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	4800	260	1000	1000	ug/Kg
BD41136	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	4800	260	1000	1000	ug/Kg
BD41136	$8100SMR	Chrysene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	6300	260	1000	1000	ug/Kg
BD41136	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	7400	260	1000	1000	ug/Kg
BD41136	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	7400	260	1000	1000	ug/Kg
BD41136	$8100SMR	Benzo(k)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	2000	260	1000	1000	ug/Kg
BD41136	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	4800	260	1000	1000	ug/Kg
BD41136	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	4800	260	1000	1000	ug/Kg
BD41136	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	2300	260	1000	1000	ug/Kg
BD41136	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	2300	260	1000	1000	ug/Kg
BD41137	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1300	260	1000	1000	ug/Kg
BD41137	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1300	260	1000	1000	ug/Kg
BD41137	$8100SMR	Chrysene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1500	260	1000	1000	ug/Kg
BD41137	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1800	260	1000	1000	ug/Kg
BD41137	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1800	260	1000	1000	ug/Kg
BD41137	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1400	260	1000	1000	ug/Kg
BD41137	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1400	260	1000	1000	ug/Kg

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:** MAGU-DAS

Project Location: MIDDLETOWN PUMP STATION **Project Number:**

Laboratory Sample ID(s): BD41136, BD41137

Sampling Date(s): 2/28/2013

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.	☐ 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.

Authorized Signature: _____

Date: Wednesday, March 06, 2013

Printed Name: Maryam Taylor

Position: Project Manager

Environmental Laboratories, Inc.
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RCP Certification Report

March 06, 2013

SDG I.D.: GBD41136

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

8270 Semi-volatile Organics:
Only the PAH constituents are reported as requested on the chain-of-custody.

ETPH Narration

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

QC Batch 222365

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. (Ext. Petroleum HC)

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. Both recoveries were within limits. No significant bias is suspected. (% n-Pentacosane)

Instrument: Au-fid84 03/01/13-2 (BD41136, BD41137)

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

The daily continuing calibration standard was within method criteria of +/- 30 %D.

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: 3/1/2013

QC (Batch Specific)

---------- Sample No: BD41361, QA/QC Batch: 222365 ----------

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

All LCSD recoveries were within 60 - 120 with the following exceptions: Ext. Petroleum HC(53%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: % n-Pentacosane(47.7%), Ext. Petroleum HC(34.4%)

Mercury Narration

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

Instrument: Merlin 03/01/13-1 (BD41136, BD41137)

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RCP Certification Report

March 06, 2013

SDG I.D.: GBD41136

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: 3/1/2013

QC (Site Specific)

---------- Sample No: BD41137, QA/QC Batch: 222435 ----------

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.

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: BD41462, QA/QC Batch: 222434 ----------

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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RCP Certification Report

March 06, 2013

SDG I.D.: GBD41136

ICP Narration

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

QC Batch 222374 (Samples: BD41137)----

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

QC Batch 222380 (Samples: BD41136)----

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

Instrument: Arcos 03/01/13-1 (BD41136, BD41137)

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: 3/1/2013

Instrument: Arcos 03/02/13-1 (BD41136, BD41137)

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: 3/2/2013

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SDG I.D.: GBD41136

QC (Site Specific)

---------- Sample No: BD41136, QA/QC Batch: 222380 ----------

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(66.2%), Selenium(73.1%)

All MSD recoveries were within 75 - 125 with the following exceptions: Barium(68.7%), Selenium(74.2%)

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

---------- Sample No: BD41137, QA/QC Batch: 222374 ----------

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: Selenium(73.3%)

All MSD recoveries were within 75 - 125 with the following exceptions: Barium(61.7%), Selenium(74.1%)

All MS/MSD RPDs were less than 30% with the following exceptions: Barium(39.9%)

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: BD39023, QA/QC Batch: 221964 ----------

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.

PAH Narration

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

Instrument: Chem07 02/28/13-1 (BD41136, BD41137)

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

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

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RCP Certification Report

March 06, 2013

SDG I.D.: GBD41136

non-applicable.

Initial Calibration (Chem07/BN_0222):
Greater than 90% of the target compounds met calibration criteria with a RSD <20% or >0.99 correlation coefficient. The following compounds had RSDs >20% and <0.99 correlation coefficient: None

The following compounds failed to meet the minimum required response factor: None

Continuing Calibration:
Greater than 80% of target compounds met continuing calibration criteria with a %D <20. The following compunds had >20% difference from the initial calibration: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 2/28/2013

QC (Batch Specific)

---------- Sample No: BD40886, QA/QC Batch: 222228 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

PCB Narration

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

Instrument: Au-ecd24 03/01/13-1 (BD41136, BD41137)

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: 3/1/2013

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RCP Certification Report

March 06, 2013

SDG I.D.: GBD41136

QC (Batch Specific)

---------- Sample No: BD40970, QA/QC Batch: 222230 ----------

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

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

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

SVOA Narration

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

Instrument: Chem06 03/01/13-1 (BD41136)

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

Initial Calibration (Chem06/SV_0227)
Greater than 90% of the target compounds met calibration criteria with a RSD <20% or >0.99 correlation coefficient. The following compounds had RSDs >20% and <0.99 correlation coefficient: Benzaldehyde, 2,4-dinitrophenol, Atrazine

The following compounds failed to meet the minimum required response factor: 2-nitrophenol, Hexachlorobenzene, % 2,4,6-tribromophenol

Continuing Calibration:
Greater than 80% of target compounds met continuing calibration criteria with a %D <20. The following compounds had >20% difference from the initial calibration:

Printed Name Damien Drobinski
Position: Chemist
Date: 3/1/2013

QC (Batch Specific)

---------- Sample No: BD40886, QA/QC Batch: 222228 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

VOA Narration

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

Instrument: Chem03 03/03/13-2 (BD41136, BD41137)

Initial Calibration Verification (RCPS_0227):
>90% of target compounds met method criteria.

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SDG I.D.: GBD41136

The following compounds had %RSDs >20%: Acetone

Continuing Calibration Verification:
>80% of target compounds met method criteria. Internal standards were within the 50%-200% deviation from the initial calibration.
The following compounds had % Deviations >20%: Acrolein, Tetrahydrofuran (THF), 2-Hexanone, 1,2,3-Trichloropropane

Printed Name Johanna Harrington
Position: Chemist
Date: 3/3/2013

Instrument: Chem03 03/04/13-1 (BD41137)

Initial Calibration Verification (RCPS_0227):
>90% of target compounds met method criteria.
The following compounds had %RSDs >20%: Acetone

Continuing Calibration Verification:
>80% of target compounds met method criteria. Internal standards were within the 50%-200% deviation from the initial calibration.
The following compounds had % Deviations >20%: Acrolein, Tetrahydrofuran (THF), 2-Hexanone

Printed Name Johanna Harrington
Position: Chemist
Date: 3/4/2013

QC (Batch Specific)

---------- Sample No: BD41806, QA/QC Batch: 222654 ----------

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: BD41889, QA/QC Batch: ----------

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.

Temperature Narration

The samples in this delivery group were received at 1°C.
(Note acceptance criteria is above freezing up to 6°C)

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RCP Certification Report

March 06, 2013

SDG I.D.: GBD41136

Cooler: Yes ☑ No ☐
Coolant: IPK ☐ ICE ☑ N ☐

PHOENIX Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Temp 1 °C Pg 1 of 1

Data Delivery:
☐ Fax #:
☒ Email: JWitherell@CDRMaguire.com

Customer: CDR Maguire
Address: 2080 Silas Deane Highway
Rocky Hill, CT 06067

Project: Middletown Pump Station
Report to: Jane Witherell
Invoice to: CDR Maguire-Bid Prices

Project P.O: 14712.02 A300
Phone #: 860-563-3158
Fax #: 860-563-3188

Client Sample - Information - Identification

Sampler's Signature: Joseph Buehler Date: 2/28/13

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
SE=Sediment **SL**=Sludge **S**=Soil/Solid **W**=Wipe **O**=Other

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs	PAHs	ETPH	RCBs	Total RCRA Metals	SPLP RCRA metals							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
41136	PSGP-18	S	2/28	8:15	X	X	X	X	X	X							3	2								
41137	PSGP-19	S	2/28	8:50	X	X	X	X	X	X							3	2								

Relinquished by:	Accepted by:	Date:	Time:
	Monica J Pelle	2/28/13	13:41

Comments, Special Requirements or Regulations:
PSGP-18 8-10
PSGP-19 3-5

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☒ 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
☐ Excel
☒ 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

PHOENIX
Environmental Laboratories, Inc.

Friday, July 19, 2013

Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Project ID: MIDDLETOWN SEWER PROJECT
Sample ID#s: BF05840 - BF05848

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

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Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

July 19, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	CK	07/15/13	5:10
Location Code:	MAGU-DAS	Received by:	LB	07/15/13	10:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBF05840
Phoenix ID: BF05840

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-59 1-4 FT

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.39	0.39	mg/Kg	07/16/13	EK	SW6010
Arsenic	2.4	0.8	mg/Kg	07/16/13	EK	SW6010
Barium	90.3	0.39	mg/Kg	07/16/13	EK	SW6010
Cadmium	0.45	0.39	mg/Kg	07/16/13	EK	SW6010
Chromium	11.4	0.39	mg/Kg	07/16/13	EK	SW6010
Mercury	0.70	0.08	mg/Kg	07/17/13	RS	SW-7471
Lead	259	3.9	mg/Kg	07/16/13	EK	SW6010
Selenium	< 1.6	1.6	mg/Kg	07/16/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Arsenic	0.007	0.004	mg/L	07/16/13	EK	SW6010
SPLP Barium	0.116	0.010	mg/L	07/16/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	07/16/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Mercury	0.0005	0.0004	mg/L	07/16/13	RS	1312/SW7470
SPLP Lead	0.233	0.010	mg/L	07/16/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	07/16/13	EK	SW6010
SPLP Metals Digestion	Completed			07/16/13	X/X	SW846-3005
Percent Solid	86		%	07/15/13	JL	E160.3
Soil Extraction for PCB	Completed			07/15/13	BB/V	SW3545
Soil Extraction SVOA PAH	Completed			07/15/13	BJ/FV	SW3545
Extraction of CT ETPH	Completed			07/15/13	BS/F	3545
Mercury Digestion	Completed			07/17/13	X/X	SW7471
SPLP Digestion Mercury	Completed			07/16/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			07/15/13	X	EPA 1312
Total Metals Digest	Completed			07/15/13	Z/AG	SW846 - 3050
Field Extraction	Completed			07/15/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	470	280	mg/Kg	07/16/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-59 1-4 FT

Phoenix I.D.: BF05840

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	07/16/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	Diluted Out		%	07/16/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	380	ug/Kg	07/16/13	AW	SW 8082
PCB-1221	ND	380	ug/Kg	07/16/13	AW	SW 8082
PCB-1232	ND	380	ug/Kg	07/16/13	AW	SW 8082
PCB-1242	ND	380	ug/Kg	07/16/13	AW	SW 8082
PCB-1248	ND	380	ug/Kg	07/16/13	AW	SW 8082
PCB-1254	ND	380	ug/Kg	07/16/13	AW	SW 8082
PCB-1260	ND	380	ug/Kg	07/16/13	AW	SW 8082
PCB-1262	ND	380	ug/Kg	07/16/13	AW	SW 8082
PCB-1268	ND	380	ug/Kg	07/16/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	51		%	07/16/13	AW	30 - 150 %
% TCMX	45		%	07/16/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,1,1-Trichloroethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.9	ug/Kg	07/15/13	H/J	SW8260
1,1,2-Trichloroethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloropropene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichloropropane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromoethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichlorobenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloroethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloropropane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichlorobenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichloropropane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
1,4-Dichlorobenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
2,2-Dichloropropane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
2-Chlorotoluene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
2-Hexanone	ND	32	ug/Kg	07/15/13	H/J	SW8260
2-Isopropyltoluene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
4-Chlorotoluene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
4-Methyl-2-pentanone	ND	32	ug/Kg	07/15/13	H/J	SW8260
Acetone	ND	39	ug/Kg	07/15/13	H/J	SW8260
Acrylonitrile	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Benzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Bromobenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Bromochloromethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-59 1-4 FT

Phoenix I.D.: BF05840

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Bromoform	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Bromomethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Carbon Disulfide	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Carbon tetrachloride	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Chlorobenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Chloroethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Chloroform	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Chloromethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Dibromochloromethane	ND	3.9	ug/Kg	07/15/13	H/J	SW8260
Dibromomethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Dichlorodifluoromethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Ethylbenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Hexachlorobutadiene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Isopropylbenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
m&p-Xylene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Methyl Ethyl Ketone	ND	39	ug/Kg	07/15/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	07/15/13	H/J	SW8260
Methylene chloride	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Naphthalene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
n-Butylbenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
n-Propylbenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
o-Xylene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
p-Isopropyltoluene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
sec-Butylbenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Styrene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
tert-Butylbenzene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Tetrachloroethene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	13	ug/Kg	07/15/13	H/J	SW8260
Toluene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Total Xylenes	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	07/15/13	H/J	SW8260
Trichloroethene	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Trichlorofluoromethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Trichlorotrifluoroethane	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
Vinyl chloride	ND	6.5	ug/Kg	07/15/13	H/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	103		%	07/15/13	H/J	70 - 130 %
% Bromofluorobenzene	80		%	07/15/13	H/J	70 - 130 %
% Dibromofluoromethane	100		%	07/15/13	H/J	70 - 130 %
% Toluene-d8	91		%	07/15/13	H/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	260	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthene	ND	260	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthylene	1200	260	ug/Kg	07/15/13	KCA	SW 8270

Project ID: MIDDLETOWN SEWER PROJECT

Client ID: PSGP-59 1-4 FT

Phoenix I.D.: BF05840

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	590	260	ug/Kg	07/15/13	KCA	SW 8270
Benz(a)anthracene	3400	260	ug/Kg	07/15/13	KCA	SW 8270
Benzo(a)pyrene	3800	260	ug/Kg	07/15/13	KCA	SW 8270
Benzo(b)fluoranthene	4500	260	ug/Kg	07/15/13	KCA	SW 8270
Benzo(ghi)perylene	1800	260	ug/Kg	07/15/13	KCA	SW 8270
Benzo(k)fluoranthene	1000	260	ug/Kg	07/15/13	KCA	SW 8270
Chrysene	4300	260	ug/Kg	07/15/13	KCA	SW 8270
Dibenz(a,h)anthracene	570	260	ug/Kg	07/15/13	KCA	SW 8270
Fluoranthene	6100	260	ug/Kg	07/15/13	KCA	SW 8270
Fluorene	ND	260	ug/Kg	07/15/13	KCA	SW 8270
Indeno(1,2,3-cd)pyrene	1500	260	ug/Kg	07/15/13	KCA	SW 8270
Naphthalene	310	260	ug/Kg	07/15/13	KCA	SW 8270
Phenanthrene	3100	260	ug/Kg	07/15/13	KCA	SW 8270
Pyrene	8100	260	ug/Kg	07/15/13	KCA	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	94		%	07/15/13	KCA	30 - 130 %
% Nitrobenzene-d5	86		%	07/15/13	KCA	30 - 130 %
% Terphenyl-d14	97		%	07/15/13	KCA	30 - 130 %

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

Comments:

**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

July 19, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
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Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

July 19, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	CK	07/15/13	5:55
Location Code:	MAGU-DAS	Received by:	LB	07/15/13	10:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBF05840
Phoenix ID: BF05841

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-60 5-10 FT

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.43	0.43	mg/Kg	07/16/13	EK	SW6010
Arsenic	2.5	0.9	mg/Kg	07/16/13	EK	SW6010
Barium	65.4	0.43	mg/Kg	07/16/13	EK	SW6010
Cadmium	< 0.43	0.43	mg/Kg	07/16/13	EK	SW6010
Chromium	13.4	0.43	mg/Kg	07/16/13	EK	SW6010
Mercury	0.10	0.07	mg/Kg	07/17/13	RS	SW-7471
Lead	249	4.3	mg/Kg	07/16/13	EK	SW6010
Selenium	< 1.7	1.7	mg/Kg	07/16/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	07/16/13	EK	SW6010
SPLP Barium	0.034	0.010	mg/L	07/16/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	07/16/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	07/16/13	RS	1312/SW7470
SPLP Lead	0.020	0.010	mg/L	07/16/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	07/16/13	EK	SW6010
SPLP Metals Digestion	Completed			07/16/13	X/X	SW846-3005
Percent Solid	82		%	07/15/13	JL	E160.3
Soil Extraction for PCB	Completed			07/15/13	BB/V	SW3545
Soil Extraction SVOA PAH	Completed			07/15/13	BJ/FV	SW3545
Extraction of CT ETPH	Completed			07/15/13	BS/F	3545
Mercury Digestion	Completed			07/17/13	X/X	SW7471
SPLP Digestion Mercury	Completed			07/16/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			07/15/13	X	EPA 1312
Total Metals Digest	Completed			07/15/13	Z/AG	SW846 - 3050
Field Extraction	Completed			07/15/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	59	mg/Kg	07/16/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-60 5-10 FT

Phoenix I.D.: BF05841

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	07/16/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	80		%	07/16/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	400	ug/Kg	07/16/13	AW	SW 8082
PCB-1221	ND	400	ug/Kg	07/16/13	AW	SW 8082
PCB-1232	ND	400	ug/Kg	07/16/13	AW	SW 8082
PCB-1242	ND	400	ug/Kg	07/16/13	AW	SW 8082
PCB-1248	ND	400	ug/Kg	07/16/13	AW	SW 8082
PCB-1254	ND	400	ug/Kg	07/16/13	AW	SW 8082
PCB-1260	ND	400	ug/Kg	07/16/13	AW	SW 8082
PCB-1262	ND	400	ug/Kg	07/16/13	AW	SW 8082
PCB-1268	ND	400	ug/Kg	07/16/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	72		%	07/16/13	AW	30 - 150 %
% TCMX	70		%	07/16/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,1,1-Trichloroethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.8	ug/Kg	07/15/13	H/J	SW8260
1,1,2-Trichloroethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloropropene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichloropropane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromoethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichlorobenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloroethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloropropane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichlorobenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichloropropane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
1,4-Dichlorobenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
2,2-Dichloropropane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
2-Chlorotoluene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
2-Hexanone	ND	32	ug/Kg	07/15/13	H/J	SW8260
2-Isopropyltoluene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
4-Chlorotoluene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
4-Methyl-2-pentanone	ND	32	ug/Kg	07/15/13	H/J	SW8260
Acetone	ND	38	ug/Kg	07/15/13	H/J	SW8260
Acrylonitrile	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Benzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Bromobenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Bromochloromethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-60 5-10 FT

Phoenix I.D.: BF05841

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Bromoform	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Bromomethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Carbon Disulfide	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Carbon tetrachloride	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Chlorobenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Chloroethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Chloroform	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Chloromethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Dibromochloromethane	ND	3.8	ug/Kg	07/15/13	H/J	SW8260
Dibromomethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Dichlorodifluoromethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Ethylbenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Hexachlorobutadiene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Isopropylbenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
m&p-Xylene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Methyl Ethyl Ketone	ND	38	ug/Kg	07/15/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	13	ug/Kg	07/15/13	H/J	SW8260
Methylene chloride	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Naphthalene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
n-Butylbenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
n-Propylbenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
o-Xylene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
p-Isopropyltoluene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
sec-Butylbenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Styrene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
tert-Butylbenzene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Tetrachloroethene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	13	ug/Kg	07/15/13	H/J	SW8260
Toluene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Total Xylenes	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	13	ug/Kg	07/15/13	H/J	SW8260
Trichloroethene	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Trichlorofluoromethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Trichlorotrifluoroethane	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
Vinyl chloride	ND	6.4	ug/Kg	07/15/13	H/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	106		%	07/15/13	H/J	70 - 130 %
% Bromofluorobenzene	86		%	07/15/13	H/J	70 - 130 %
% Dibromofluoromethane	100		%	07/15/13	H/J	70 - 130 %
% Toluene-d8	96		%	07/15/13	H/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthylene	ND	280	ug/Kg	07/15/13	KCA	SW 8270

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-60 5-10 FT

Phoenix I.D.: BF05841

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Benz(a)anthracene	380	280	ug/Kg	07/15/13	KCA	SW 8270
Benzo(a)pyrene	310	280	ug/Kg	07/15/13	KCA	SW 8270
Benzo(b)fluoranthene	370	280	ug/Kg	07/15/13	KCA	SW 8270
Benzo(ghi)perylene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Benzo(k)fluoranthene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Chrysene	320	280	ug/Kg	07/15/13	KCA	SW 8270
Dibenz(a,h)anthracene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Fluoranthene	340	280	ug/Kg	07/15/13	KCA	SW 8270
Fluorene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Naphthalene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Phenanthrene	ND	280	ug/Kg	07/15/13	KCA	SW 8270
Pyrene	340	280	ug/Kg	07/15/13	KCA	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	87		%	07/15/13	KCA	30 - 130 %
% Nitrobenzene-d5	84		%	07/15/13	KCA	30 - 130 %
% Terphenyl-d14	84		%	07/15/13	KCA	30 - 130 %

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

Comments:

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
July 19, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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Analysis Report

July 19, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	CK	07/15/13	6:20
Location Code:	MAGU-DAS	Received by:	LB	07/15/13	10:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBF05840
Phoenix ID: BF05842

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-61 1-5 FT

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.36	0.36	mg/Kg	07/16/13	EK	SW6010
Arsenic	2.2	0.7	mg/Kg	07/16/13	EK	SW6010
Barium	23.5	0.36	mg/Kg	07/16/13	EK	SW6010
Cadmium	< 0.36	0.36	mg/Kg	07/16/13	EK	SW6010
Chromium	8.35	0.36	mg/Kg	07/16/13	EK	SW6010
Mercury	< 0.08	0.08	mg/Kg	07/17/13	RS	SW-7471
Lead	9.57	0.36	mg/Kg	07/16/13	EK	SW6010
Selenium	< 1.4	1.4	mg/Kg	07/16/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	07/16/13	EK	SW6010
SPLP Barium	0.075	0.010	mg/L	07/16/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	07/16/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	07/16/13	RS	1312/SW7470
SPLP Lead	0.021	0.010	mg/L	07/16/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	07/16/13	EK	SW6010
SPLP Metals Digestion	Completed			07/16/13	X/X	SW846-3005
Percent Solid	94		%	07/15/13	JL	E160.3
Soil Extraction for PCB	Completed			07/15/13	BB/V	SW3545
Soil Extraction SVOA PAH	Completed			07/15/13	BJ/FV	SW3545
Extraction of CT ETPH	Completed			07/15/13	BS/F	3545
Mercury Digestion	Completed			07/17/13	X/X	SW7471
SPLP Digestion Mercury	Completed			07/16/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			07/15/13	X	EPA 1312
Total Metals Digest	Completed			07/15/13	Z/AG	SW846 - 3050
Field Extraction	Completed			07/15/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	53	mg/Kg	07/16/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-61 1-5 FT

Phoenix I.D.: BF05842

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	07/16/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	92		%	07/16/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	350	ug/Kg	07/16/13	AW	SW 8082
PCB-1221	ND	350	ug/Kg	07/16/13	AW	SW 8082
PCB-1232	ND	350	ug/Kg	07/16/13	AW	SW 8082
PCB-1242	ND	350	ug/Kg	07/16/13	AW	SW 8082
PCB-1248	ND	350	ug/Kg	07/16/13	AW	SW 8082
PCB-1254	ND	350	ug/Kg	07/16/13	AW	SW 8082
PCB-1260	ND	350	ug/Kg	07/16/13	AW	SW 8082
PCB-1262	ND	350	ug/Kg	07/16/13	AW	SW 8082
PCB-1268	ND	350	ug/Kg	07/16/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	78		%	07/16/13	AW	30 - 150 %
% TCMX	82		%	07/16/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,1,1-Trichloroethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.2	ug/Kg	07/15/13	H/J	SW8260
1,1,2-Trichloroethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloropropene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichloropropane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromoethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichlorobenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloroethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloropropane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichlorobenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichloropropane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
1,4-Dichlorobenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
2,2-Dichloropropane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
2-Chlorotoluene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
2-Hexanone	ND	27	ug/Kg	07/15/13	H/J	SW8260
2-Isopropyltoluene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
4-Chlorotoluene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
4-Methyl-2-pentanone	ND	27	ug/Kg	07/15/13	H/J	SW8260
Acetone	ND	32	ug/Kg	07/15/13	H/J	SW8260
Acrylonitrile	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Benzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Bromobenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Bromochloromethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-61 1-5 FT

Phoenix I.D.: BF05842

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Bromoform	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Bromomethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Carbon Disulfide	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Carbon tetrachloride	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Chlorobenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Chloroethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Chloroform	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Chloromethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Dibromochloromethane	ND	3.2	ug/Kg	07/15/13	H/J	SW8260
Dibromomethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Dichlorodifluoromethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Ethylbenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Hexachlorobutadiene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Isopropylbenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
m&p-Xylene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Methyl Ethyl Ketone	ND	32	ug/Kg	07/15/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	07/15/13	H/J	SW8260
Methylene chloride	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Naphthalene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
n-Butylbenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
n-Propylbenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
o-Xylene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
p-Isopropyltoluene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
sec-Butylbenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Styrene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
tert-Butylbenzene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Tetrachloroethene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	07/15/13	H/J	SW8260
Toluene	8.3	5.4	ug/Kg	07/15/13	H/J	SW8260
Total Xylenes	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	07/15/13	H/J	SW8260
Trichloroethene	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Trichlorofluoromethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Trichlorotrifluoroethane	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
Vinyl chloride	ND	5.4	ug/Kg	07/15/13	H/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	104		%	07/15/13	H/J	70 - 130 %
% Bromofluorobenzene	89		%	07/15/13	H/J	70 - 130 %
% Dibromofluoromethane	102		%	07/15/13	H/J	70 - 130 %
% Toluene-d8	96		%	07/15/13	H/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthylene	ND	240	ug/Kg	07/15/13	KCA	SW 8270

Project ID: MIDDLETOWN SEWER PROJECT

Phoenix I.D.: BF05842

Client ID: PSGP-61 1-5 FT

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benz(a)anthracene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benzo(a)pyrene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benzo(b)fluoranthene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benzo(ghi)perylene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benzo(k)fluoranthene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Chrysene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Dibenz(a,h)anthracene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Fluoranthene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Fluorene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Naphthalene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Phenanthrene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Pyrene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	84		%	07/15/13	KCA	30 - 130 %
% Nitrobenzene-d5	78		%	07/15/13	KCA	30 - 130 %
% Terphenyl-d14	83		%	07/15/13	KCA	30 - 130 %

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

Comments:

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

July 19, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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

Analysis Report

July 19, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	CK	07/15/13	7:00
Location Code:	MAGU-DAS	Received by:	LB	07/15/13	10:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBF05840
Phoenix ID: BF05843

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-62 1-5 FT

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.34	0.34	mg/Kg	07/16/13	EK	SW6010
Arsenic	1.4	0.7	mg/Kg	07/16/13	EK	SW6010
Barium	19.7	0.34	mg/Kg	07/16/13	EK	SW6010
Cadmium	< 0.34	0.34	mg/Kg	07/16/13	EK	SW6010
Chromium	8.58	0.34	mg/Kg	07/16/13	EK	SW6010
Mercury	< 0.07	0.07	mg/Kg	07/17/13	RS	SW-7471
Lead	5.42	0.34	mg/Kg	07/16/13	EK	SW6010
Selenium	< 1.4	1.4	mg/Kg	07/16/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	07/16/13	EK	SW6010
SPLP Barium	0.020	0.010	mg/L	07/16/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	07/16/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	07/16/13	RS	1312/SW7470
SPLP Lead	0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	07/16/13	EK	SW6010
SPLP Metals Digestion	Completed			07/16/13	X/X	SW846-3005
Percent Solid	96		%	07/15/13	JL	E160.3
Soil Extraction for PCB	Completed			07/15/13	BB/V	SW3545
Soil Extraction SVOA PAH	Completed			07/15/13	BJ/FV	SW3545
Extraction of CT ETPH	Completed			07/15/13	BS/F	3545
Mercury Digestion	Completed			07/17/13	X/X	SW7471
SPLP Digestion Mercury	Completed			07/16/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			07/15/13	X	EPA 1312
Total Metals Digest	Completed			07/15/13	Z/AG	SW846 - 3050
Field Extraction	Completed			07/15/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	52	mg/Kg	07/16/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-62 1-5 FT

Phoenix I.D.: BF05843

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	07/16/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	92		%	07/16/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	340	ug/Kg	07/16/13	AW	SW 8082
PCB-1221	ND	340	ug/Kg	07/16/13	AW	SW 8082
PCB-1232	ND	340	ug/Kg	07/16/13	AW	SW 8082
PCB-1242	ND	340	ug/Kg	07/16/13	AW	SW 8082
PCB-1248	ND	340	ug/Kg	07/16/13	AW	SW 8082
PCB-1254	ND	340	ug/Kg	07/16/13	AW	SW 8082
PCB-1260	ND	340	ug/Kg	07/16/13	AW	SW 8082
PCB-1262	ND	340	ug/Kg	07/16/13	AW	SW 8082
PCB-1268	ND	340	ug/Kg	07/16/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	85		%	07/16/13	AW	30 - 150 %
% TCMX	77		%	07/16/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,1,1-Trichloroethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.4	ug/Kg	07/15/13	H/J	SW8260
1,1,2-Trichloroethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloropropene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichloropropane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromoethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichlorobenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloroethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloropropane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichlorobenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichloropropane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
1,4-Dichlorobenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
2,2-Dichloropropane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
2-Chlorotoluene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
2-Hexanone	ND	29	ug/Kg	07/15/13	H/J	SW8260
2-Isopropyltoluene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
4-Chlorotoluene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
4-Methyl-2-pentanone	ND	29	ug/Kg	07/15/13	H/J	SW8260
Acetone	ND	34	ug/Kg	07/15/13	H/J	SW8260
Acrylonitrile	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Benzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Bromobenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Bromochloromethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-62 1-5 FT

Phoenix I.D.: BF05843

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Bromoform	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Bromomethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Carbon Disulfide	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Carbon tetrachloride	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Chlorobenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Chloroethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Chloroform	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Chloromethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Dibromochloromethane	ND	3.4	ug/Kg	07/15/13	H/J	SW8260
Dibromomethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Dichlorodifluoromethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Ethylbenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Hexachlorobutadiene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Isopropylbenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
m&p-Xylene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Methyl Ethyl Ketone	ND	34	ug/Kg	07/15/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	11	ug/Kg	07/15/13	H/J	SW8260
Methylene chloride	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Naphthalene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
n-Butylbenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
n-Propylbenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
o-Xylene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
p-Isopropyltoluene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
sec-Butylbenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Styrene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
tert-Butylbenzene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Tetrachloroethene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	11	ug/Kg	07/15/13	H/J	SW8260
Toluene	9.4	5.7	ug/Kg	07/15/13	H/J	SW8260
Total Xylenes	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	11	ug/Kg	07/15/13	H/J	SW8260
Trichloroethene	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Trichlorofluoromethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Trichlorotrifluoroethane	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
Vinyl chloride	ND	5.7	ug/Kg	07/15/13	H/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	98		%	07/15/13	H/J	70 - 130 %
% Bromofluorobenzene	93		%	07/15/13	H/J	70 - 130 %
% Dibromofluoromethane	96		%	07/15/13	H/J	70 - 130 %
% Toluene-d8	97		%	07/15/13	H/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthylene	ND	240	ug/Kg	07/15/13	KCA	SW 8270

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-62 1-5 FT

Phoenix I.D.: BF05843

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benz(a)anthracene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benzo(a)pyrene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benzo(b)fluoranthene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benzo(ghi)perylene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Benzo(k)fluoranthene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Chrysene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Dibenz(a,h)anthracene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Fluoranthene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Fluorene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Indeno(1,2,3-cd)pyrene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Naphthalene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Phenanthrene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
Pyrene	ND	240	ug/Kg	07/15/13	KCA	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	82		%	07/15/13	KCA	30 - 130 %
% Nitrobenzene-d5	79		%	07/15/13	KCA	30 - 130 %
% Terphenyl-d14	73		%	07/15/13	KCA	30 - 130 %

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

Comments:

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
July 19, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

Analysis Report

July 19, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:	CK	07/15/13	8:40
Location Code:	MAGU-DAS	Received by:	LB	07/15/13	10:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBF05840
Phoenix ID: BF05844

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-63 1-5 FTR

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.38	0.38	mg/Kg	07/16/13	EK	SW6010
Arsenic	1.2	0.8	mg/Kg	07/16/13	EK	SW6010
Barium	41.7	0.38	mg/Kg	07/16/13	EK	SW6010
Cadmium	< 0.38	0.38	mg/Kg	07/16/13	EK	SW6010
Chromium	9.30	0.38	mg/Kg	07/16/13	EK	SW6010
Mercury	< 0.07	0.07	mg/Kg	07/17/13	RS	SW-7471
Lead	8.82	0.38	mg/Kg	07/16/13	EK	SW6010
Selenium	< 1.5	1.5	mg/Kg	07/16/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	07/16/13	EK	SW6010
SPLP Barium	0.063	0.010	mg/L	07/16/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	07/16/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	07/16/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	07/16/13	RS	1312/SW7470
SPLP Lead	0.020	0.010	mg/L	07/16/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	07/16/13	EK	SW6010
SPLP Metals Digestion	Completed			07/16/13	X/X	SW846-3005
Percent Solid	91		%	07/15/13	JL	E160.3
Soil Extraction for PCB	Completed			07/15/13	BB/V	SW3545
Soil Extraction SVOA PAH	Completed			07/15/13	BJ/FV	SW3545
Extraction of CT ETPH	Completed			07/15/13	BS/F	3545
Mercury Digestion	Completed			07/17/13	X/X	SW7471
SPLP Digestion Mercury	Completed			07/16/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			07/15/13	X	EPA 1312
Total Metals Digest	Completed			07/15/13	Z/AG	SW846 - 3050
Field Extraction	Completed			07/15/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	130	53	mg/Kg	07/16/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-63 1-5 FTR

Phoenix I.D.: BF05844

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	07/16/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	150		%	07/16/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	360	ug/Kg	07/16/13	AW	SW 8082
PCB-1221	ND	360	ug/Kg	07/16/13	AW	SW 8082
PCB-1232	ND	360	ug/Kg	07/16/13	AW	SW 8082
PCB-1242	ND	360	ug/Kg	07/16/13	AW	SW 8082
PCB-1248	ND	360	ug/Kg	07/16/13	AW	SW 8082
PCB-1254	ND	360	ug/Kg	07/16/13	AW	SW 8082
PCB-1260	ND	360	ug/Kg	07/16/13	AW	SW 8082
PCB-1262	ND	360	ug/Kg	07/16/13	AW	SW 8082
PCB-1268	ND	360	ug/Kg	07/16/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	79		%	07/16/13	AW	30 - 150 %
% TCMX	79		%	07/16/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,1,1-Trichloroethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.5	ug/Kg	07/15/13	H/J	SW8260
1,1,2-Trichloroethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloroethene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,1-Dichloropropene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichlorobenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,2,3-Trichloropropane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trichlorobenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,2,4-Trimethylbenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,2-Dibromoethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichlorobenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloroethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,2-Dichloropropane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,3,5-Trimethylbenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichlorobenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,3-Dichloropropane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
1,4-Dichlorobenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
2,2-Dichloropropane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
2-Chlorotoluene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
2-Hexanone	ND	29	ug/Kg	07/15/13	H/J	SW8260
2-Isopropyltoluene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
4-Chlorotoluene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
4-Methyl-2-pentanone	ND	29	ug/Kg	07/15/13	H/J	SW8260
Acetone	ND	35	ug/Kg	07/15/13	H/J	SW8260
Acrylonitrile	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Benzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Bromobenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Bromochloromethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Bromoform	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Bromomethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Carbon Disulfide	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Carbon tetrachloride	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Chlorobenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Chloroethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Chloroform	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Chloromethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
cis-1,2-Dichloroethene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
cis-1,3-Dichloropropene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Dibromochloromethane	ND	3.5	ug/Kg	07/15/13	H/J	SW8260
Dibromomethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Dichlorodifluoromethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Ethylbenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Hexachlorobutadiene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Isopropylbenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
m&p-Xylene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Methyl Ethyl Ketone	ND	35	ug/Kg	07/15/13	H/J	SW8260
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	07/15/13	H/J	SW8260
Methylene chloride	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Naphthalene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
n-Butylbenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
n-Propylbenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
o-Xylene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
p-Isopropyltoluene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
sec-Butylbenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Styrene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
tert-Butylbenzene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Tetrachloroethene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Tetrahydrofuran (THF)	ND	12	ug/Kg	07/15/13	H/J	SW8260
Toluene	6.7	5.9	ug/Kg	07/15/13	H/J	SW8260
Total Xylenes	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
trans-1,2-Dichloroethene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
trans-1,3-Dichloropropene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	07/15/13	H/J	SW8260
Trichloroethene	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Trichlorofluoromethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Trichlorotrifluoroethane	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
Vinyl chloride	ND	5.9	ug/Kg	07/15/13	H/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	103		%	07/15/13	H/J	70 - 130 %
% Bromofluorobenzene	87		%	07/15/13	H/J	70 - 130 %
% Dibromofluoromethane	100		%	07/15/13	H/J	70 - 130 %
% Toluene-d8	95		%	07/15/13	H/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthene	ND	250	ug/Kg	07/15/13	KCA	SW 8270
Acenaphthylene	ND	250	ug/Kg	07/15/13	KCA	SW 8270

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-63 1-5 FTR

Phoenix I.D.: BF05844

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	780	250	ug/Kg	07/15/13	KCA	SW 8270
Benz(a)anthracene	1400	250	ug/Kg	07/15/13	KCA	SW 8270
Benzo(a)pyrene	820	250	ug/Kg	07/15/13	KCA	SW 8270
Benzo(b)fluoranthene	1300	250	ug/Kg	07/15/13	KCA	SW 8270
Benzo(ghi)perylene	480	250	ug/Kg	07/15/13	KCA	SW 8270
Benzo(k)fluoranthene	300	250	ug/Kg	07/15/13	KCA	SW 8270
Chrysene	1100	250	ug/Kg	07/15/13	KCA	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	07/15/13	KCA	SW 8270
Fluoranthene	3600	250	ug/Kg	07/15/13	KCA	SW 8270
Fluorene	ND	250	ug/Kg	07/15/13	KCA	SW 8270
Indeno(1,2,3-cd)pyrene	410	250	ug/Kg	07/15/13	KCA	SW 8270
Naphthalene	ND	250	ug/Kg	07/15/13	KCA	SW 8270
Phenanthrene	3800	250	ug/Kg	07/15/13	KCA	SW 8270
Pyrene	2600	250	ug/Kg	07/15/13	KCA	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	96		%	07/15/13	KCA	30 - 130 %
% Nitrobenzene-d5	88		%	07/15/13	KCA	30 - 130 %
% Terphenyl-d14	92		%	07/15/13	KCA	30 - 130 %

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

Comments:

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

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

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
July 19, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

Analysis Report

July 19, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	CK	07/15/13	8:05
Location Code:	MAGU-DAS	Received by:	LB	07/15/13	10:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBF05840
Phoenix ID: BF05845

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-61 GW

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	07/16/13	LK	SW6010
Arsenic	< 0.004	0.004	mg/L	07/16/13	LK	SW6010
Barium	0.236	0.002	mg/L	07/16/13	LK	SW6010
Cadmium	0.001	0.001	mg/L	07/16/13	LK	SW6010
Chromium	0.035	0.001	mg/L	07/16/13	LK	SW6010
Silver (Dissolved)	< 0.001	0.001	mg/L	07/16/13	EK	SW6010
Arsenic (Dissolved)	< 0.004	0.004	mg/L	07/16/13	LK	SW6010
Barium (Dissolved)	0.063	0.002	mg/L	07/16/13	LK	SW6010
Cadmium (Dissolved)	< 0.001	0.001	mg/L	07/16/13	LK	SW6010
Chromium (Dissolved)	< 0.001	0.001	mg/L	07/16/13	LK	SW6010
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	07/16/13	RS	SW7470
Lead (Dissolved)	< 0.002	0.002	mg/L	07/16/13	LK	SW6010
Selenium (Dissolved)	< 0.011	0.011	mg/L	07/16/13	LK	SW6010
Mercury	< 0.0002	0.0002	mg/L	07/16/13	RS	SW7470
Lead	0.064	0.002	mg/L	07/16/13	LK	SW6010
Selenium	< 0.010	0.010	mg/L	07/16/13	LK	SW6010
Extraction of CT ETPH	Completed			07/15/13	I/D	3510/3520
Dissolved Mercury Digestion	Completed			07/16/13	X/X	SW7470
Mercury Digestion	Completed			07/16/13	X/X	SW7470
PCB Extraction	Completed			07/15/13	L	SW3510C
Semi-Volatile Extraction	Completed			07/15/13	I/D	SW3520
Dissolved Metals Preparation	Completed			07/15/13	Z/AG/Z/AG	SW846-3005
Total Metals Digestion	Completed			07/15/13	AG	SW846 - 3050
TPH by GC (Extractable Products)						
Ext. Petroleum HC	ND	0.070	mg/L	07/16/13	JRB	CTETPH/8015D
Identification	ND		mg/L	07/16/13	JRB	CTETPH/8015D
QA/QC Surrogates						
% n-Pentacosane	121		%	07/16/13	JRB	50 - 150 %

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-61 GW

Phoenix I.D.: BF05845

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Polychlorinated Biphenyls						
PCB-1016	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1221	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1232	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1242	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1248	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1254	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1260	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1262	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1268	ND	0.50	ug/L	07/16/13	AW	8082
QA/QC Surrogates						
% DCBP	113		%	07/16/13	AW	30 - 150 %
% TCMX	96		%	07/16/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	07/15/13	R/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
2-Hexanone	ND	5.0	ug/L	07/15/13	R/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	07/15/13	R/T	SW8260
Acetone	ND	25	ug/L	07/15/13	R/T	SW8260
Acrylonitrile	ND	5.0	ug/L	07/15/13	R/T	SW8260
Benzene	ND	0.70	ug/L	07/15/13	R/T	SW8260
Bromobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromochloromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
Bromoform	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromomethane	ND	1.0	ug/L	07/15/13	R/T	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Carbon Disulfide	ND	5.0	ug/L	07/15/13	R/T	SW8260	
Carbon tetrachloride	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Chlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Chloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Chloroform	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Chloromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
cis-1,2-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
cis-1,3-Dichloropropene	ND	0.50	ug/L	07/15/13	R/T	SW8260	
Dibromochloromethane	ND	0.50	ug/L	07/15/13	R/T	SW8260	
Dibromomethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Dichlorodifluoromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Ethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Hexachlorobutadiene	ND	0.40	ug/L	07/15/13	R/T	SW8260	
Isopropylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
m&p-Xylene	2.3	1.0	ug/L	07/15/13	R/T	SW8260	
Methyl ethyl ketone	ND	7.0	ug/L	07/15/13	R/T	SW8260	
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Methylene chloride	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Naphthalene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
n-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
n-Propylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
o-Xylene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
p-Isopropyltoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
sec-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Styrene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
tert-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Tetrachloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Tetrahydrofuran (THF)	ND	2.5	ug/L	07/15/13	R/T	SW8260	
Toluene	5.1	1.0	ug/L	07/15/13	R/T	SW8260	
Total Xylenes	2.3	1.0	ug/L	07/15/13	R/T	SW8260	
trans-1,2-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
trans-1,3-Dichloropropene	ND	0.50	ug/L	07/15/13	R/T	SW8260	
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	07/15/13	R/T	SW8260	
Trichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Trichlorofluoromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Trichlorotrifluoroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Vinyl chloride	ND	1.0	ug/L	07/15/13	R/T	SW8260	
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	101		%	07/15/13	R/T	70 - 130 %	
% Bromofluorobenzene	100		%	07/15/13	R/T	70 - 130 %	
% Dibromofluoromethane	99		%	07/15/13	R/T	70 - 130 %	
% Toluene-d8	103		%	07/15/13	R/T	70 - 130 %	

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Acenaphthene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Acenaphthylene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Anthracene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Benz(a)anthracene	0.03	0.020	ug/L	07/17/13	KCA	8270(SIM)	B*
Benzo(a)pyrene	0.03	0.020	ug/L	07/17/13	KCA	8270(SIM)	

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-61 GW

Phoenix I.D.: BF05845

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Benzo(b)fluoranthene	0.04	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Benzo(ghi)perylene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Benzo(k)fluoranthene	ND	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Chrysene	0.02	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Dibenz(a,h)anthracene	0.01	0.010	ug/L	07/17/13	KCA	8270(SIM)	
Fluoranthene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Fluorene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Naphthalene	0.16	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Phenanthrene	ND	0.070	ug/L	07/17/13	KCA	8270(SIM)	
Pyrene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
QA/QC Surrogates							
% 2-Fluorobiphenyl	88		%	07/17/13	KCA	30 - 130 %	
% Nitrobenzene-d5	124		%	07/17/13	KCA	30 - 130 %	
% Terphenyl-d14	>160		%	07/17/13	KCA	30 - 130 %	3

3 = This parameter exceeds laboratory specified limits.
B* = Present in blank, a bias is possible.

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

Comments:

* One of the surrogate recoveries was above the upper range due to sample matrix interference for the semivolatile analysis. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
July 19, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
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Analysis Report

July 19, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:	CK	07/15/13	9:50
Location Code:	MAGU-DAS	Received by:	LB	07/15/13	10:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBF05840
Phoenix ID: BF05846

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-43 GW

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Lead (Dissolved)	< 0.002	0.002	mg/L	07/16/13	LK	SW6010
Lead	< 0.002	0.002	mg/L	07/16/13	LK	SW6010
Extraction of CT ETPH	Completed			07/15/13	I/D	3510/3520
Semi-Volatile Extraction	Completed			07/15/13	I/D	SW3520
Dissolved Metals Preparation	Completed			07/15/13	Z/AG/Z/AC	SW846-3005
Total Metals Digestion	Completed			07/15/13	AG	SW846 - 3050
TPH by GC (Extractable Products)						
Ext. Petroleum HC	0.60	0.070	mg/L	07/16/13	JRB	CTETPH/8015D
Identification	**		mg/L	07/16/13	JRB	CTETPH/8015D
QA/QC Surrogates						
% n-Pentacosane	126		%	07/16/13	JRB	50 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,4-Trimethylbenzene	22	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	07/15/13	R/T	SW8260

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: PSGP-43 GW

Phoenix I.D.: BF05846

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
1,2-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3,5-Trimethylbenzene	8.4	1.0	ug/L	07/15/13	R/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
2-Hexanone	ND	5.0	ug/L	07/15/13	R/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	07/15/13	R/T	SW8260
Acetone	ND	25	ug/L	07/15/13	R/T	SW8260
Acrylonitrile	ND	5.0	ug/L	07/15/13	R/T	SW8260
Benzene	ND	0.70	ug/L	07/15/13	R/T	SW8260
Bromobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromochloromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
Bromoform	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromomethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Carbon Disulfide	ND	5.0	ug/L	07/15/13	R/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	07/15/13	R/T	SW8260
Chlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Chloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Chloroform	ND	1.0	ug/L	07/15/13	R/T	SW8260
Chloromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	07/15/13	R/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
Dibromomethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Ethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	07/15/13	R/T	SW8260
Isopropylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
m&p-Xylene	2.6	1.0	ug/L	07/15/13	R/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	07/15/13	R/T	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	07/15/13	R/T	SW8260
Methylene chloride	ND	1.0	ug/L	07/15/13	R/T	SW8260
Naphthalene	5.2	1.0	ug/L	07/15/13	R/T	SW8260
n-Butylbenzene	3.6	1.0	ug/L	07/15/13	R/T	SW8260
n-Propylbenzene	4.7	1.0	ug/L	07/15/13	R/T	SW8260
o-Xylene	1.1	1.0	ug/L	07/15/13	R/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
sec-Butylbenzene	1.8	1.0	ug/L	07/15/13	R/T	SW8260
Styrene	ND	1.0	ug/L	07/15/13	R/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Tetrachloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	07/15/13	R/T	SW8260
Toluene	3.8	1.0	ug/L	07/15/13	R/T	SW8260
Total Xylenes	3.7	1.0	ug/L	07/15/13	R/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
trans-1,3-Dichloropropene	ND	0.50	ug/L	07/15/13	R/T	SW8260	
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	07/15/13	R/T	SW8260	
Trichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Trichlorofluoromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Trichlorotrifluoroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Vinyl chloride	ND	1.0	ug/L	07/15/13	R/T	SW8260	
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	104		%	07/15/13	R/T	70 - 130 %	
% Bromofluorobenzene	104		%	07/15/13	R/T	70 - 130 %	
% Dibromofluoromethane	99		%	07/15/13	R/T	70 - 130 %	
% Toluene-d8	106		%	07/15/13	R/T	70 - 130 %	
Semivolatiles by SIM							
2-Methylnaphthalene	8.4	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Acenaphthene	5.5	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Acenaphthylene	1	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Anthracene	9.1	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Benz(a)anthracene	18	0.020	ug/L	07/17/13	KCA	8270(SIM)	B
Benzo(a)pyrene	14	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Benzo(b)fluoranthene	20	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Benzo(ghi)perylene	8	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Benzo(k)fluoranthene	7	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Chrysene	17	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Dibenz(a,h)anthracene	2.4	0.010	ug/L	07/17/13	KCA	8270(SIM)	
Fluoranthene	41	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Fluorene	7.7	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Indeno(1,2,3-cd)pyrene	6.9	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Naphthalene	5.5	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Phenanthrene	45	0.070	ug/L	07/17/13	KCA	8270(SIM)	
Pyrene	32	0.10	ug/L	07/17/13	KCA	8270(SIM)	
QA/QC Surrogates							
% 2-Fluorobiphenyl	74		%	07/17/13	KCA	30 - 130 %	
% Nitrobenzene-d5	111		%	07/17/13	KCA	30 - 130 %	
% Terphenyl-d14	27		%	07/17/13	KCA	30 - 130 %	3

Project ID: MIDDLETOWN SEWER PROJECT

Client ID: PSGP-43 GW

Phoenix I.D.: BF05846

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:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C24. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

* Poor surrogate recovery was observed for semivolatiles. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

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

July 19, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

Analysis Report

July 19, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:	CK	07/15/13	10:05
Location Code:	MAGU-DAS	Received by:	LB	07/15/13	10:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBF05840
Phoenix ID: BF05847

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: FB-2

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	07/16/13	LK	SW6010/E200.7
Arsenic	< 0.004	0.004	mg/L	07/16/13	LK	SW6010/E200.7
Barium	< 0.002	0.002	mg/L	07/16/13	LK	SW6010/E200.7
Cadmium	< 0.001	0.001	mg/L	07/16/13	LK	SW6010/E200.7
Chromium	< 0.001	0.001	mg/L	07/16/13	LK	SW6010/E200.7
Silver (Dissolved)	< 0.001	0.001	mg/L	07/16/13	EK	SW6010/E200.7
Arsenic (Dissolved)	< 0.004	0.004	mg/L	07/16/13	LK	SW6010/E200.7
Barium (Dissolved)	< 0.002	0.002	mg/L	07/16/13	LK	SW6010/E200.7
Cadmium (Dissolved)	< 0.001	0.001	mg/L	07/16/13	LK	SW6010/E200.7
Chromium (Dissolved)	< 0.001	0.001	mg/L	07/16/13	LK	SW6010/E200.7
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	07/16/13	RS	SW7470/E245.1
Lead (Dissolved)	< 0.002	0.002	mg/L	07/16/13	LK	SW6010/E200.7
Selenium (Dissolved)	< 0.011	0.011	mg/L	07/16/13	LK	SW6010/E200.7
Mercury	< 0.0002	0.0002	mg/L	07/16/13	RS	SW7470/245.1
Lead	< 0.002	0.002	mg/L	07/16/13	LK	SW6010/E200.7
Selenium	< 0.010	0.010	mg/L	07/16/13	LK	SW6010/E200.7
Extraction of CT ETPH	Completed			07/15/13	I/D	3510/3520
Dissolved Mercury Digestion	Completed			07/16/13	X/X	SW7470/245.1
Mercury Digestion	Completed			07/16/13	X/X	SW7470/245.1
PCB Extraction	Completed			07/15/13	L	SW3510C
Semi-Volatile Extraction	Completed			07/15/13	I/D	SW3520
Dissolved Metals Preparation	Completed			07/15/13	Z/AG/Z/AG	SW846-3005
Total Metals Digestion	Completed			07/15/13	AG	SW846 - 3050
TPH by GC (Extractable Products)						
Ext. Petroleum HC	ND	0.070	mg/L	07/16/13	JRB	CTETPH/8015D
Identification	ND		mg/L	07/16/13	JRB	CTETPH/8015D
QA/QC Surrogates						
% n-Pentacosane	79		%	07/16/13	JRB	50 - 150 %

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: FB-2

Phoenix I.D.: BF05847

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Polychlorinated Biphenyls						
PCB-1016	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1221	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1232	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1242	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1248	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1254	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1260	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1262	ND	0.50	ug/L	07/16/13	AW	8082
PCB-1268	ND	0.50	ug/L	07/16/13	AW	8082
QA/QC Surrogates						
% DCBP	109		%	07/16/13	AW	30 - 150 %
% TCMX	87		%	07/16/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	07/15/13	R/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
2-Hexanone	ND	5.0	ug/L	07/15/13	R/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	07/15/13	R/T	SW8260
Acetone	ND	25	ug/L	07/15/13	R/T	SW8260
Acrylonitrile	ND	5.0	ug/L	07/15/13	R/T	SW8260
Benzene	ND	0.70	ug/L	07/15/13	R/T	SW8260
Bromobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromochloromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
Bromoform	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromomethane	ND	1.0	ug/L	07/15/13	R/T	SW8260

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: FB-2

Phoenix I.D.: BF05847

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Carbon Disulfide	ND	5.0	ug/L	07/15/13	R/T	SW8260	
Carbon tetrachloride	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Chlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Chloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Chloroform	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Chloromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
cis-1,2-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
cis-1,3-Dichloropropene	ND	0.50	ug/L	07/15/13	R/T	SW8260	
Dibromochloromethane	ND	0.50	ug/L	07/15/13	R/T	SW8260	
Dibromomethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Dichlorodifluoromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Ethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Hexachlorobutadiene	ND	0.40	ug/L	07/15/13	R/T	SW8260	
Isopropylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
m&p-Xylene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Methyl ethyl ketone	ND	5.0	ug/L	07/15/13	R/T	SW8260	
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Methylene chloride	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Naphthalene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
n-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
n-Propylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
o-Xylene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
p-Isopropyltoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
sec-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Styrene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
tert-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Tetrachloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Tetrahydrofuran (THF)	ND	2.5	ug/L	07/15/13	R/T	SW8260	
Toluene	2.7	1.0	ug/L	07/15/13	R/T	SW8260	
Total Xylenes	ND	1.0	ug/L	07/15/13	R/T	SW8260	
trans-1,2-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
trans-1,3-Dichloropropene	ND	0.50	ug/L	07/15/13	R/T	SW8260	
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	07/15/13	R/T	SW8260	
Trichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Trichlorofluoromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Trichlorotrifluoroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260	
Vinyl chloride	ND	1.0	ug/L	07/15/13	R/T	SW8260	
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	99		%	07/15/13	R/T	70 - 130 %	
% Bromofluorobenzene	96		%	07/15/13	R/T	70 - 130 %	
% Dibromofluoromethane	104		%	07/15/13	R/T	70 - 130 %	
% Toluene-d8	106		%	07/15/13	R/T	70 - 130 %	
Semivolatiles by SIM							
2-Methylnaphthalene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Acenaphthene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Acenaphthylene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Anthracene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Benz(a)anthracene	ND	0.020	ug/L	07/17/13	KCA	8270(SIM)	B
Benzo(a)pyrene	ND	0.020	ug/L	07/17/13	KCA	8270(SIM)	

Project ID: MIDDLETOWN SEWER PROJECT

Client ID: FB-2

Phoenix I.D.: BF05847

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Benzo(b)fluoranthene	ND	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Benzo(ghi)perylene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Benzo(k)fluoranthene	ND	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Chrysene	ND	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Dibenz(a,h)anthracene	ND	0.010	ug/L	07/17/13	KCA	8270(SIM)	
Fluoranthene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Fluorene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Indeno(1,2,3-cd)pyrene	ND	0.020	ug/L	07/17/13	KCA	8270(SIM)	
Naphthalene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
Phenanthrene	ND	0.070	ug/L	07/17/13	KCA	8270(SIM)	
Pyrene	ND	0.10	ug/L	07/17/13	KCA	8270(SIM)	
QA/QC Surrogates							
% 2-Fluorobiphenyl	86		%	07/17/13	KCA	30 - 130 %	
% Nitrobenzene-d5	121		%	07/17/13	KCA	30 - 130 %	
% Terphenyl-d14	>160		%	07/17/13	KCA	30 - 130 %	3

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:

* One of the surrogate recoveries was above the upper range due to sample matrix interference for the semivolatile analysis. The other surrogates associated with this sample were within QA/QC criteria. No significant bias is suspected.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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Phyllis Shiller, Laboratory Director
July 19, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

Analysis Report

July 19, 2013

FOR: Attn: Ms. Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill, CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	WATER	Collected by:	CK	07/15/13	0:00
Location Code:	MAGU-DAS	Received by:	LB	07/15/13	10:40
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBF05840
Phoenix ID: BF05848

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: TB-4

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Volatiles						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	07/15/13	R/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	07/15/13	R/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
2-Hexanone	ND	5.0	ug/L	07/15/13	R/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	07/15/13	R/T	SW8260
Acetone	ND	25	ug/L	07/15/13	R/T	SW8260

Project ID: MIDDLETOWN SEWER PROJECT
Client ID: TB-4

Phoenix I.D.: BF05848

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Acrylonitrile	ND	5.0	ug/L	07/15/13	R/T	SW8260
Benzene	ND	0.70	ug/L	07/15/13	R/T	SW8260
Bromobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromochloromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
Bromoform	ND	1.0	ug/L	07/15/13	R/T	SW8260
Bromomethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Carbon Disulfide	ND	5.0	ug/L	07/15/13	R/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	07/15/13	R/T	SW8260
Chlorobenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Chloroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Chloroform	ND	1.0	ug/L	07/15/13	R/T	SW8260
Chloromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	07/15/13	R/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	07/15/13	R/T	SW8260
Dibromomethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Ethylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	07/15/13	R/T	SW8260
Isopropylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
m&p-Xylene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	07/15/13	R/T	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	07/15/13	R/T	SW8260
Methylene chloride	ND	1.0	ug/L	07/15/13	R/T	SW8260
Naphthalene	ND	1.0	ug/L	07/15/13	R/T	SW8260
n-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
n-Propylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
o-Xylene	ND	1.0	ug/L	07/15/13	R/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
sec-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Styrene	ND	1.0	ug/L	07/15/13	R/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Tetrachloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	07/15/13	R/T	SW8260
Toluene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Total Xylenes	ND	1.0	ug/L	07/15/13	R/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
trans-1,3-Dichloropropene	ND	0.50	ug/L	07/15/13	R/T	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	07/15/13	R/T	SW8260
Trichloroethene	ND	1.0	ug/L	07/15/13	R/T	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	07/15/13	R/T	SW8260
Vinyl chloride	ND	1.0	ug/L	07/15/13	R/T	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	102		%	07/15/13	R/T	70 - 130 %
% Bromofluorobenzene	96		%	07/15/13	R/T	70 - 130 %
% Dibromofluoromethane	109		%	07/15/13	R/T	70 - 130 %
% Toluene-d8	106		%	07/15/13	R/T	70 - 130 %

Project ID: MIDDLETOWN SEWER PROJECT

Phoenix I.D.: BF05848

Client ID: TB-4

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

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

Comments:

TRIP BLANK INCLUDED

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Phyllis Shiller, Laboratory Director

July 19, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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

QA/QC Report

July 19, 2013

QA/QC Data

SDG I.D.: GBF05840

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 240312, QC Sample No: BF05109 (BF05840, BF05841, BF05842, BF05843, BF05844)													
ICP Metals - SPLP Extraction													
Arsenic	BRL	0.007	0.006	NC	90.5	89.5	1.1	93.9	96.2	2.4	75 - 125	20	
Barium	BRL	0.082	0.082	0	89.8	88.9	1.0	93.4	95.5	2.2	75 - 125	20	
Cadmium	BRL	<0.005	<0.005	NC	90.6	89.4	1.3	93.3	95.4	2.2	75 - 125	20	
Chromium	BRL	<0.010	0.012	NC	89.5	88.6	1.0	93.9	96.1	2.3	75 - 125	20	
Lead	BRL	<0.010	<0.010	NC	90.0	88.9	1.2	93.9	96.1	2.3	75 - 125	20	
Selenium	BRL	<0.020	<0.020	NC	92.1	90.5	1.8	96.1	98.3	2.3	75 - 125	20	
Silver	BRL	<0.010	<0.010	NC	87.4	86.6	0.9	91.3	93.3	2.2	75 - 125	20	
QA/QC Batch 240519, QC Sample No: BF05754 (BF05840, BF05841, BF05842, BF05843, BF05844)													
ICP Metals - Soil													
Arsenic	BRL	1.1	0.88	NC	89.4	85.6	4.3	81.5	83.4	2.3	75 - 125	30	
Barium	BRL	19.4	28.9 *	39.3	97.1	94.8	2.4	90.1	89.8	0.3	75 - 125	30	r
Cadmium	BRL	0.17	0.34 B	NC	92.1	90.0	2.3	86.4	88.5	2.4	75 - 125	30	
Chromium	BRL	8.43	11.2	28.2	98.8	96.2	2.7	89.6	92.3	3.0	75 - 125	30	
Lead	BRL	3.70	4.12	10.7	95.1	93.8	1.4	84.4	89.1	5.4	75 - 125	30	
Selenium	BRL	<1.6	<1.5	NC	75.0	74.1	1.2	66.9	68.5	2.4	75 - 125	30	l,m
Silver	BRL	<0.40	<0.37	NC	93.6	91.5	2.3	87.8	89.5	1.9	75 - 125	30	
QA/QC Batch 240876, QC Sample No: BF05842 (BF05840, BF05841, BF05842, BF05843, BF05844)													
Mercury - Soil	BRL	<0.08	<0.07	NC	87.8	87.8	0.0	91.0	88.6	2.7	70 - 130	30	
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 240568, QC Sample No: BF05847 (BF05845, BF05846, BF05847)													
ICP Metals - Aqueous													
Arsenic	BRL	<0.004	<0.004	NC	98.9	99.1	0.2	96.0	98.1	2.2	75 - 125	20	
Barium	BRL	<0.002	<0.002	NC	106	106	0.0	103	105	1.9	75 - 125	20	
Cadmium	BRL	<0.001	<0.001	NC	101	100	1.0	96.4	97.6	1.2	75 - 125	20	
Chromium	BRL	<0.001	<0.001	NC	98.2	97.9	0.3	95.3	96.7	1.5	75 - 125	20	
Lead	BRL	<0.002	<0.002	NC	97.5	97.4	0.1	94.5	95.5	1.1	75 - 125	20	
Selenium	BRL	<0.010	<0.010	NC	97.4	97.8	0.4	94.9	96.7	1.9	75 - 125	20	
Silver	BRL	<0.001	<0.001	NC	93.2	94.0	0.9	93.0	94.9	2.0	75 - 125	20	
QA/QC Batch 240633, QC Sample No: BF05847 (BF05840, BF05841, BF05842, BF05843, BF05844, BF05845, BF05847)													
Mercury - Water	BRL	<0.0002	<0.0002	NC	99.8	97.8	2.0	96.9	99.2	2.3	70 - 130	20	
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 240606, QC Sample No: BF06123 (BF05845, BF05846, BF05847)													
ICP Metals - Dissolved													
Arsenic	BRL	0.004	0.004	NC	84.3	88.2	4.5	91.9	90.5	1.5	75 - 125	20	
Barium	BRL	0.042	0.042	0	88.0	91.6	4.0	92.5	90.9	1.7	75 - 125	20	
Cadmium	BRL	<0.001	<0.001	NC	82.5	86.7	5.0	92.2	90.9	1.4	75 - 125	20	
Chromium	BRL	<0.001	<0.001	NC	79.6	83.6	4.9	89.5	87.7	2.0	75 - 125	20	

QA/QC Data

SDG I.D.: GBF05840

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Lead	BRL	<0.002	<0.002	NC	79.6	84.0	5.4	88.7	87.2	1.7	75 - 125	20	
Selenium	BRL	<0.011	<0.011	NC	82.4	86.5	4.9	89.2	87.0	2.5	75 - 125	20	
Silver	BRL	<0.001	<0.001	NC	84.9	83.9	1.2	70.5	67.6	4.2	75 - 125	20	m

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.

PHOENIX

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

QA/QC Report

July 19, 2013

QA/QC Data

SDG I.D.: GBF05840

QA/QC Batch 240801, QC Sample No: BF04362 (BF05845, BF05846, BF05847, BF05848)

Volatiles - Ground Water

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,1,2-Tetrachloroethane	ND	93	98	5.2	98	94	4.2	70 - 130	30	
1,1,1-Trichloroethane	ND	103	102	1.0	112	109	2.7	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	89	92	3.3	95	94	1.1	70 - 130	30	
1,1,2-Trichloroethane	ND	96	104	8.0	104	98	5.9	70 - 130	30	
1,1-Dichloroethane	ND	101	99	2.0	106	109	2.8	70 - 130	30	
1,1-Dichloroethene	ND	108	104	3.8	116	119	2.6	70 - 130	30	
1,1-Dichloropropene	ND	98	98	0.0	103	100	3.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	78	84	7.4	79	75	5.2	70 - 130	30	
1,2,3-Trichloropropane	ND	89	90	1.1	92	97	5.3	70 - 130	30	
1,2,4-Trichlorobenzene	ND	78	85	8.6	80	77	3.8	70 - 130	30	
1,2,4-Trimethylbenzene	ND	93	97	4.2	97	94	3.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	82	88	7.1	79	80	1.3	70 - 130	30	
1,2-Dibromoethane	ND	95	103	8.1	102	97	5.0	70 - 130	30	
1,2-Dichlorobenzene	ND	87	93	6.7	93	90	3.3	70 - 130	30	
1,2-Dichloroethane	ND	97	99	2.0	101	100	1.0	70 - 130	30	
1,2-Dichloropropane	ND	98	99	1.0	104	103	1.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	93	95	2.1	97	94	3.1	70 - 130	30	
1,3-Dichlorobenzene	ND	89	94	5.5	93	90	3.3	70 - 130	30	
1,3-Dichloropropane	ND	92	97	5.3	97	96	1.0	70 - 130	30	
1,4-Dichlorobenzene	ND	87	94	7.7	93	90	3.3	70 - 130	30	
2,2-Dichloropropane	ND	99	98	1.0	83	84	1.2	70 - 130	30	
2-Chlorotoluene	ND	94	96	2.1	95	92	3.2	70 - 130	30	
2-Hexanone	ND	88	95	7.7	85	89	4.6	70 - 130	30	
2-Isopropyltoluene	ND	90	93	3.3	95	92	3.2	70 - 130	30	
4-Chlorotoluene	ND	94	96	2.1	95	92	3.2	70 - 130	30	
4-Methyl-2-pentanone	ND	97	101	4.0	98	98	0.0	70 - 130	30	
Acetone	ND	100	109	8.6	90	97	7.5	70 - 130	30	
Acrylonitrile	ND	89	97	8.6	94	100	6.2	70 - 130	30	
Benzene	ND	99	100	1.0	109	106	2.8	70 - 130	30	
Bromobenzene	ND	87	91	4.5	92	88	4.4	70 - 130	30	
Bromochloromethane	ND	97	101	4.0	106	106	0.0	70 - 130	30	
Bromodichloromethane	ND	99	101	2.0	104	102	1.9	70 - 130	30	
Bromoform	ND	92	102	10.3	98	97	1.0	70 - 130	30	
Bromomethane	ND	111	114	2.7	65	88	30.1	70 - 130	30	m
Carbon Disulfide	ND	104	102	1.9	111	118	6.1	70 - 130	30	
Carbon tetrachloride	ND	98	101	3.0	105	102	2.9	70 - 130	30	
Chlorobenzene	ND	93	97	4.2	100	96	4.1	70 - 130	30	
Chloroethane	ND	116	113	2.6	112	122	8.5	70 - 130	30	
Chloroform	ND	102	103	1.0	110	109	0.9	70 - 130	30	
Chloromethane	ND	107	105	1.9	95	102	7.1	70 - 130	30	
cis-1,2-Dichloroethene	ND	103	104	1.0	108	108	0.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBF05840

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	95	98	3.1	97	95	2.1	70 - 130	30	
Dibromochloromethane	ND	92	99	7.3	95	93	2.1	70 - 130	30	
Dibromomethane	ND	94	100	6.2	104	100	3.9	70 - 130	30	
Dichlorodifluoromethane	ND	133	127	4.6	126	130	3.1	70 - 130	30	l
Ethylbenzene	ND	92	96	4.3	103	97	6.0	70 - 130	30	
Hexachlorobutadiene	ND	77	81	5.1	81	74	9.0	70 - 130	30	
Isopropylbenzene	ND	94	96	2.1	97	94	3.1	70 - 130	30	
m&p-Xylene	ND	93	97	4.2	102	97	5.0	70 - 130	30	
Methyl ethyl ketone	ND	97	99	2.0	107	109	1.9	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	89	94	5.5	96	99	3.1	70 - 130	30	
Methylene chloride	ND	88	91	3.4	97	99	2.0	70 - 130	30	
Naphthalene	ND	81	88	8.3	80	80	0.0	70 - 130	30	
n-Butylbenzene	ND	94	96	2.1	95	92	3.2	70 - 130	30	
n-Propylbenzene	ND	93	95	2.1	96	93	3.2	70 - 130	30	
o-Xylene	ND	92	96	4.3	101	97	4.0	70 - 130	30	
p-Isopropyltoluene	ND	92	95	3.2	95	92	3.2	70 - 130	30	
sec-Butylbenzene	ND	92	93	1.1	96	94	2.1	70 - 130	30	
Styrene	ND	88	93	5.5	103	98	5.0	70 - 130	30	
tert-Butylbenzene	ND	94	96	2.1	96	93	3.2	70 - 130	30	
Tetrachloroethene	ND	89	95	6.5	96	90	6.5	70 - 130	30	
Tetrahydrofuran (THF)	ND	97	102	5.0	97	106	8.9	70 - 130	30	
Toluene	ND	98	100	2.0	108	103	4.7	70 - 130	30	
trans-1,2-Dichloroethene	ND	106	104	1.9	111	115	3.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	97	101	4.0	99	98	1.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	94	103	9.1	79	79	0.0	70 - 130	30	
Trichloroethene	ND	97	100	3.0	101	97	4.0	70 - 130	30	
Trichlorofluoromethane	ND	113	111	1.8	114	119	4.3	70 - 130	30	
Trichlorotrifluoroethane	ND	103	104	1.0	106	113	6.4	70 - 130	30	
Vinyl chloride	ND	119	113	5.2	104	112	7.4	70 - 130	30	
% 1,2-dichlorobenzene-d4	102	99	99	0.0	100	99	1.0	70 - 130	30	
% Bromofluorobenzene	96	104	103	1.0	105	106	0.9	70 - 130	30	
% Dibromofluoromethane	103	100	99	1.0	105	105	0.0	70 - 130	30	
% Toluene-d8	103	103	101	2.0	102	103	1.0	70 - 130	30	

Comment:

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

QA/QC Batch 240559, QC Sample No: BF05401 (BF05845, BF05846, BF05847)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum HC	ND	72	116	46.8				60 - 120	30	r
% n-Pentacosane	76	83	130	44.1				50 - 150	20	r

QA/QC Batch 240228, QC Sample No: BF05510 (BF05840, BF05841)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	79	84	6.1	97	100	3.0	30 - 130	30	
Acenaphthene	ND	77	80	3.8	80	84	4.9	30 - 130	30	
Acenaphthylene	ND	77	81	5.1	82	84	2.4	30 - 130	30	
Anthracene	ND	77	80	3.8	83	85	2.4	30 - 130	30	
Benz(a)anthracene	ND	79	83	4.9	86	88	2.3	30 - 130	30	
Benzo(a)pyrene	ND	73	76	4.0	78	82	5.0	30 - 130	30	
Benzo(b)fluoranthene	ND	83	83	0.0	88	91	3.4	30 - 130	30	
Benzo(ghi)perylene	ND	73	78	6.6	60	68	12.5	30 - 130	30	
Benzo(k)fluoranthene	ND	85	90	5.7	95	98	3.1	30 - 130	30	
Chrysene	ND	81	85	4.8	85	88	3.5	30 - 130	30	

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Dibenz(a,h)anthracene	ND	78	83	6.2	74	79	6.5	30 - 130	30
Fluoranthene	ND	90	90	0.0	91	94	3.2	30 - 130	30
Fluorene	ND	87	92	5.6	94	97	3.1	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	78	83	6.2	71	77	8.1	30 - 130	30
Naphthalene	ND	75	78	3.9	77	81	5.1	30 - 130	30
Phenanthrene	ND	80	82	2.5	85	89	4.6	30 - 130	30
Pyrene	ND	89	91	2.2	88	91	3.4	30 - 130	30
% 2-Fluorobiphenyl	58	80	83	3.7	85	88	3.5	30 - 130	30
% Nitrobenzene-d5	53	70	72	2.8	73	78	6.6	30 - 130	30
% Terphenyl-d14	62	101	101	0.0	99	101	2.0	30 - 130	30

Comment:

Poor surrogate observed in the prep blank.

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 240230, QC Sample No: BF05514 (BF05840, BF05841, BF05842, BF05843, BF05844)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	92	92	0.0	98	98	0.0	40 - 140	30
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	91	96	5.3	101	100	1.0	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	90	88	92	4.4	110	108	1.8	30 - 150	30
% TCMX (Surrogate Rec)	94	102	105	2.9	99	98	1.0	30 - 150	30

QA/QC Batch 240515, QC Sample No: BF05696 (BF05845, BF05846, BF05847)

Semivolatiles - Ground Water

2-Methylnaphthalene	ND	96	93	3.2				30 - 130	20
Acenaphthene	ND	96	93	3.2				30 - 130	20
Acenaphthylene	ND	98	95	3.1				30 - 130	20
Anthracene	ND	96	93	3.2				30 - 130	20
Benz(a)anthracene	0.090	99	96	3.1				30 - 130	20
Benzo(a)pyrene	ND	91	89	2.2				30 - 130	20
Benzo(b)fluoranthene	ND	102	101	1.0				30 - 130	20
Benzo(ghi)perylene	ND	111	105	5.6				30 - 130	20
Benzo(k)fluoranthene	ND	97	96	1.0				30 - 130	20
Chrysene	ND	102	97	5.0				30 - 130	20
Dibenz(a,h)anthracene	ND	106	100	5.8				30 - 130	20
Fluoranthene	ND	104	101	2.9				30 - 130	20
Fluorene	ND	99	97	2.0				30 - 130	20
Indeno(1,2,3-cd)pyrene	ND	111	105	5.6				30 - 130	20
Naphthalene	ND	91	89	2.2				30 - 130	20
Phenanthrene	ND	98	95	3.1				30 - 130	20
Pyrene	ND	102	99	3.0				30 - 130	20
% 2-Fluorobiphenyl	87	93	93	0.0				30 - 130	20
% Nitrobenzene-d5	117	80	78	2.5				30 - 130	20
% Terphenyl-d14	109	109	112	2.7				30 - 130	20

QA/QC Data

SDG I.D.: GBF05840

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

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 240483, QC Sample No: BF05844 (BF05840, BF05841, BF05842, BF05843, BF05844)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum HC	ND	64	78	19.7	71	41	53.6	60 - 120	30	m,r
% n-Pentacosane	53	95	97	2.1	92	57	47.0	50 - 150	30	r

QA/QC Batch 240652, QC Sample No: BF05844 (BF05840, BF05841, BF05842, BF05843, BF05844)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	107	108	0.9	104	102	1.9	70 - 130	30	
1,1,1-Trichloroethane	ND	93	94	1.1	94	94	0.0	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	105	102	2.9	101	103	2.0	70 - 130	30	
1,1,2-Trichloroethane	ND	100	100	0.0	95	96	1.0	70 - 130	30	
1,1-Dichloroethane	ND	99	97	2.0	97	98	1.0	70 - 130	30	
1,1-Dichloroethene	ND	95	97	2.1	77	77	0.0	70 - 130	30	
1,1-Dichloropropene	ND	92	96	4.3	97	99	2.0	70 - 130	30	
1,2,3-Trichlorobenzene	ND	104	109	4.7	109	109	0.0	70 - 130	30	
1,2,3-Trichloropropane	ND	106	104	1.9	103	103	0.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	98	104	5.9	107	109	1.9	70 - 130	30	
1,2,4-Trimethylbenzene	ND	106	108	1.9	109	109	0.0	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	120	112	6.9	104	111	6.5	70 - 130	30	
1,2-Dibromoethane	ND	100	99	1.0	94	98	4.2	70 - 130	30	
1,2-Dichlorobenzene	ND	106	106	0.0	106	108	1.9	70 - 130	30	
1,2-Dichloroethane	ND	94	96	2.1	90	92	2.2	70 - 130	30	
1,2-Dichloropropane	ND	100	100	0.0	98	101	3.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	104	106	1.9	110	109	0.9	70 - 130	30	
1,3-Dichlorobenzene	ND	104	107	2.8	108	108	0.0	70 - 130	30	
1,3-Dichloropropane	ND	104	102	1.9	103	102	1.0	70 - 130	30	
1,4-Dichlorobenzene	ND	105	108	2.8	108	110	1.8	70 - 130	30	
2,2-Dichloropropane	ND	95	95	0.0	93	93	0.0	70 - 130	30	
2-Chlorotoluene	ND	109	108	0.9	108	109	0.9	70 - 130	30	
2-Hexanone	ND	92	91	1.1	79	81	2.5	70 - 130	30	
2-Isopropyltoluene	ND	106	109	2.8	110	110	0.0	70 - 130	30	
4-Chlorotoluene	ND	102	104	1.9	110	108	1.8	70 - 130	30	
4-Methyl-2-pentanone	ND	97	98	1.0	89	92	3.3	70 - 130	30	
Acetone	ND	54	51	5.7	41	45	9.3	70 - 130	30	l,m
Acrylonitrile	ND	94	93	1.1	89	91	2.2	70 - 130	30	
Benzene	ND	96	97	1.0	97	98	1.0	70 - 130	30	
Bromobenzene	ND	107	106	0.9	108	107	0.9	70 - 130	30	
Bromochloromethane	ND	98	94	4.2	93	94	1.1	70 - 130	30	
Bromodichloromethane	ND	100	100	0.0	94	98	4.2	70 - 130	30	
Bromoform	ND	111	109	1.8	94	97	3.1	70 - 130	30	
Bromomethane	ND	105	100	4.9	60	64	6.5	70 - 130	30	m
Carbon Disulfide	ND	93	93	0.0	79	78	1.3	70 - 130	30	
Carbon tetrachloride	ND	98	98	0.0	95	96	1.0	70 - 130	30	
Chlorobenzene	ND	103	104	1.0	104	106	1.9	70 - 130	30	
Chloroethane	ND	102	100	2.0	<40	<40	NC	70 - 130	30	m
Chloroform	ND	98	91	7.4	93	92	1.1	70 - 130	30	
Chloromethane	ND	95	93	2.1	90	94	4.3	70 - 130	30	
cis-1,2-Dichloroethene	ND	97	96	1.0	95	98	3.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	99	100	1.0	97	99	2.0	70 - 130	30	
Dibromochloromethane	ND	109	107	1.9	100	102	2.0	70 - 130	30	

QA/QC Data

SDG I.D.: GBF05840

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Dibromomethane	ND	96	97	1.0	93	95	2.1	70 - 130	30	
Dichlorodifluoromethane	ND	89	93	4.4	89	91	2.2	70 - 130	30	
Ethylbenzene	ND	98	101	3.0	104	103	1.0	70 - 130	30	
Hexachlorobutadiene	ND	93	105	12.1	109	110	0.9	70 - 130	30	
Isopropylbenzene	ND	109	109	0.0	109	109	0.0	70 - 130	30	
m&p-Xylene	ND	98	101	3.0	103	102	1.0	70 - 130	30	
Methyl ethyl ketone	ND	71	72	1.4	68	71	4.3	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	94	94	0.0	95	96	1.0	70 - 130	30	
Methylene chloride	ND	90	89	1.1	85	87	2.3	70 - 130	30	
Naphthalene	ND	111	109	1.8	107	108	0.9	70 - 130	30	
n-Butylbenzene	ND	96	109	12.7	111	111	0.0	70 - 130	30	
n-Propylbenzene	ND	104	108	3.8	110	108	1.8	70 - 130	30	
o-Xylene	ND	106	110	3.7	105	106	0.9	70 - 130	30	
p-Isopropyltoluene	ND	100	107	6.8	110	109	0.9	70 - 130	30	
sec-Butylbenzene	ND	101	106	4.8	110	109	0.9	70 - 130	30	
Styrene	ND	104	105	1.0	103	104	1.0	70 - 130	30	
tert-Butylbenzene	ND	110	110	0.0	110	109	0.9	70 - 130	30	
Tetrachloroethene	ND	95	101	6.1	106	104	1.9	70 - 130	30	
Tetrahydrofuran (THF)	ND	92	91	1.1	92	93	1.1	70 - 130	30	
Toluene	ND	96	97	1.0	98	100	2.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	94	95	1.1	94	92	2.2	70 - 130	30	
trans-1,3-Dichloropropene	ND	98	97	1.0	94	95	1.1	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	115	110	4.4	98	101	3.0	70 - 130	30	
Trichloroethene	ND	97	99	2.0	97	97	0.0	70 - 130	30	
Trichlorofluoromethane	ND	95	96	1.0	47	48	2.1	70 - 130	30	m
Trichlorotrifluoroethane	ND	87	93	6.7	77	74	4.0	70 - 130	30	
Vinyl chloride	ND	104	103	1.0	96	98	2.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	96	103	101	2.0	101	101	0.0	70 - 130	30	
% Bromofluorobenzene	96	97	98	1.0	99	100	1.0	70 - 130	30	
% Dibromofluoromethane	94	98	100	2.0	99	99	0.0	70 - 130	30	
% Toluene-d8	98	100	102	2.0	101	102	1.0	70 - 130	30	

Comment:

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

QA/QC Batch 240477, QC Sample No: BF05844 (BF05842, BF05843, BF05844)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	81	78	3.8	79	78	1.3	30 - 130	30	
Acenaphthene	ND	88	84	4.7	85	82	3.6	30 - 130	30	
Acenaphthylene	ND	81	82	1.2	85	82	3.6	30 - 130	30	
Anthracene	ND	83	82	1.2	63	60	4.9	30 - 130	30	
Benz(a)anthracene	ND	91	84	8.0	55	52	5.6	30 - 130	30	
Benzo(a)pyrene	ND	77	74	4.0	56	53	5.5	30 - 130	30	
Benzo(b)fluoranthene	ND	87	77	12.2	57	54	5.4	30 - 130	30	
Benzo(ghi)perylene	ND	86	84	2.4	69	72	4.3	30 - 130	30	
Benzo(k)fluoranthene	ND	82	80	2.5	84	84	0.0	30 - 130	30	
Chrysene	ND	90	88	2.2	61	58	5.0	30 - 130	30	
Dibenz(a,h)anthracene	ND	86	84	2.4	82	84	2.4	30 - 130	30	
Fluoranthene	ND	88	88	0.0	NC	NC	NC	30 - 130	30	
Fluorene	ND	85	89	4.6	88	86	2.3	30 - 130	30	
Indeno(1,2,3-cd)pyrene	ND	87	84	3.5	70	73	4.2	30 - 130	30	
Naphthalene	ND	82	84	2.4	81	80	1.2	30 - 130	30	
Phenanthrene	ND	87	85	2.3	NC	NC	NC	30 - 130	30	
Pyrene	ND	88	86	2.3	21	16	27.0	30 - 130	30	m

QA/QC Data

SDG I.D.: GBF05840

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
% 2-Fluorobiphenyl	73	84	85	1.2	83	78	6.2	30 - 130	30
% Nitrobenzene-d5	80	82	79	3.7	77	77	0.0	30 - 130	30
% Terphenyl-d14	83	96	99	3.1	97	88	9.7	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 240601, QC Sample No: BF06321 (BF05845, BF05847)

Polychlorinated Biphenyls - Ground Water

PCB-1016	ND	87	88	1.1				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	88	96	8.7				40 - 140	20
PCB-1262	ND							40 - 140	20
PCB-1268	ND							40 - 140	20
% DCBP (Surrogate Rec)	93	91	93	2.2				30 - 150	20
% TCMX (Surrogate Rec)	75	85	81	4.8				30 - 150	20

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

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
July 19, 2013

Sample Criteria Exceedences Report

GBF05840 - MAGU-DAS

Requested Criteria: GBM, RC, SWP

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BF05840	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	3400	260	1000	1000	ug/Kg
BF05840	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	3400	260	1000	1000	ug/Kg
BF05840	$8100SMR	Chrysene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	4300	260	1000	1000	ug/Kg
BF05840	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	4500	260	1000	1000	ug/Kg
BF05840	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	4500	260	1000	1000	ug/Kg
BF05840	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	3800	260	1000	1000	ug/Kg
BF05840	$8100SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	3800	260	1000	1000	ug/Kg
BF05840	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1500	260	1000	1000	ug/Kg
BF05840	$8100SMR	Indeno(1,2,3-cd)pyrene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1500	260	1000	1000	ug/Kg
BF05840	SPLP-PB	SPLP Lead	CT / INORGANIC SUBSTANCES / GB PMC (mg/l)**	0.233	0.010	0.15	0.15	mg/L
BF05844	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1400	250	1000	1000	ug/Kg
BF05844	$8100SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1400	250	1000	1000	ug/Kg
BF05844	$8100SMR	Chrysene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1100	250	1000	1000	ug/Kg
BF05844	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg)	1300	250	1000	1000	ug/Kg
BF05844	$8100SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/kg	1300	250	1000	1000	ug/Kg
BF05845	PB-WM	Lead	CT / INORGANIC SUBSTANCES / SWPC (µg/L)	0.064	0.002	0.013	0.013	mg/L
BF05846	$8100SIMR	Acenaphthylene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	1	0.10	0.3	0.3	ug/L
BF05846	$8100SIMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	18	0.020	0.3	0.3	ug/L
BF05846	$8100SIMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	20	0.020	0.3	0.3	ug/L
BF05846	$8100SIMR	Benzo(k)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	7	0.020	0.3	0.3	ug/L
BF05846	$8100SIMR	Benzo(ghi)perylene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	8	0.10	4.92	4.92	ug/L
BF05846	$8100SIMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	14	0.020	0.3	0.3	ug/L
BF05846	$8100SIMR	Dibenz(a,h)anthracene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	2.4	0.010	0.01	0.01	ug/L
BF05846	$8100SIMR	Phenanthrene	CT / SEMIVOLATILE ORGANIC COMP / SWPC (µg/L)	45	0.070	0.077	0.077	ug/L

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:** MAGU-DAS

Project Location: MIDDLETOWN SEWER PROJE **Project Number:**

Laboratory Sample ID(s): BF05840, BF05841, BF05842, BF05843, BF05844, BF05845, BF05846, BF05847, BF05848

Sampling Date(s): 7/15/2013

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.

Authorized Signature: _____

Date: Friday, July 19, 2013

Printed Name: Maryam Taylor

Position: Project Manager

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

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

8270 Semi-volatile Organics:
Only the PAH constituents are reported as requested on the chain-of-custody.

8270 Semi-volatile Organics:(Waters)
Only the PAH constituents are reported as requested on the chain-of-custody. In order to achieve the requested reporting levels for the target compounds, the sample was extracted and analyzed via 8270 selective ion monitoring (SIM).

ETPH Narration

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

QC Batch 240483 (Samples: BF05840, BF05841, BF05842, BF05843, BF05844): -----

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

QC Batch 240559 (Samples: BF05845, BF05846, BF05847): -----

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. Both revoveries were within limits. No significant bias is suspected. (% n-Pentacosane)

Instrument: Au-fid1 07/16/13-2 (BF05841, BF05842, BF05843, BF05844)

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: 7/16/2013

Instrument: Au-fid84 07/16/13-2 (BF05840, BF05844)

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: 7/16/2013

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

Instrument: Au-fid84 07/17/13-2 (BF05844)

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: 7/17/2013

Instrument: Au-xl1 07/16/13-2 (BF05845, BF05846, BF05847)

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: 7/16/2013

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

QC (Site Specific)

---------- Sample No: BF05844, QA/QC Batch: 240483 ----------

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: Ext. Petroleum HC(41%)

All MS/MSD RPDs were less than 30% with the following exceptions: % n-Pentacosane(47.0%), Ext. Petroleum HC(53.6%)

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: BF05401, QA/QC Batch: 240559 ----------

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(44.1%), Ext. Petroleum HC(46.8%)

Mercury Narration

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

Instrument: Merlin 07/16/13-1 (BF05840, BF05841, BF05842, BF05843, BF05844, BF05845, BF05847)

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: 7/16/2013

Instrument: Merlin 07/17/13-1 (BF05840, BF05841, BF05842, BF05843, BF05844)

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.

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

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: 7/17/2013

QC (Site Specific)

---------- Sample No: BF05842, QA/QC Batch: 240876 ----------

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: BF05847, QA/QC Batch: 240633 ----------

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.

ICP Narration

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

QC Batch 240519 (Samples: BF05840, BF05841, BF05842, BF05843, BF05844): -----

The LCS and/or LCSD recovery is below range. A low bias is possible. (Selenium)

Instrument: Arcos 07/16/13-1 (BF05840, BF05841, BF05842, BF05843, BF05844)

The initial calibration met criteria.

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RCP Certification Report

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SDG I.D.: GBF05840

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: 7/16/2013

Instrument: Blue 07/15/13-1 (BF05845, BF05846, BF05847)

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: 7/15/2013

Instrument: Blue 07/16/13-1 (BF05840, BF05841, BF05842, BF05843, BF05844, BF05845, BF05846, BF05847)

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: 7/16/2013

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

QC (Site Specific)

---------- Sample No: BF05847, QA/QC Batch: 240568 ----------

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.

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: BF05109, QA/QC Batch: 240312 ----------

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: BF05754, QA/QC Batch: 240519 ----------

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

All LCSD recoveries were within 75 - 125 with the following exceptions: Selenium(74.1%)

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

---------- Sample No: BF06123, QA/QC Batch: 240606 ----------

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.

PAH Narration

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

Instrument: Chem07 07/15/13-1 (BF05844)

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

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

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 (CHEM07/BN_0703):
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 (CHEM07/0715_06-BN_0703):
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: None.
The following compounds did not meet minimum response factors: None.

Printed Name Keith Aloisa
Position: Chemist
Date: 7/15/2013

Instrument: Chem09 07/15/13-1 (BF05840, BF05841, BF05842, BF05843, BF05844)

The DDT breakdown and benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.Initial Calibration Verification (CHEM09/SV_0701):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Benzaldehyde (32%), Chrysene (21%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM09/0715_04-SV_0701):
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-nitroaniline (35%)[30%], 3,3'-dichlorobenzidine (-54%)[30%], Aniline (34%)[30%], Atrazine (63%)[30%], Benzaldehyde (75%)[30%], Indeno(1,2,3-cd)pyrene (32%)[30%], Parathion (-36%)[30%]
The following compounds did not meet maximum % deviations: 3,3'-dichlorobenzidine (-54%)[40%], Atrazine (63%)[40%], Benzaldehyde (75%)[40%]
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

Printed Name Keith Aloisa
Position: Chemist
Date: 7/15/2013

Instrument: Chem19 07/16/13-1 (BF05840)

Initial Calibration Verification (CHEM19/BN_0715):
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 (CHEM19/0716_26-BN_0715):
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.

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

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 Keith Aloisa
Position: Chemist
Date: 7/16/2013

QC (Site Specific)

---------- Sample No: BF05844, QA/QC Batch: 240477 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

All MS recoveries were within 30 - 130 with the following exceptions: Pyrene(21%)

All MSD recoveries were within 30 - 130 with the following exceptions: Pyrene(16%)

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: BF05510, QA/QC Batch: 240228 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

---------- Sample No: BF05696, QA/QC Batch: 240515 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

PAHSIM Narration

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

Instrument: Chem04 07/17/13-1 (BF05845, BF05846, BF05847)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were not evaluated in the DFTPP tune.

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

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.
In the event that lower detection levels were requested, the samples may have been analyzed by selective ion monitoring (SIM) mode.Initial Calibration Verification (CHEM04/BNSIM_0714):
89% of target compounds met criteria.
The following compounds had %RSDs >20%: % 2,4,6-Tribromophenol (23%), Bis(2-ethylhexyl)phthalate (26%), Pentachloronitrobenzene (45%), Pentachlorophenol (46%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM04/0717_02-BNSIM_0714):
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: None.
The following compounds did not meet minimum response factors: None.

Printed Name Keith Aloisa
Position: Chemist
Date: 7/17/2013

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

QC (Site Specific)

---------- Sample No: BF05844, QA/QC Batch: 240477 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

All MS recoveries were within 30 - 130 with the following exceptions: Pyrene(21%)

All MSD recoveries were within 30 - 130 with the following exceptions: Pyrene(16%)

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: BF05510, QA/QC Batch: 240228 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

---------- Sample No: BF05696, QA/QC Batch: 240515 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

PCB Narration

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

Instrument: Au-ecd24 07/16/13-1 (BF05845, BF05847)

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: 7/16/2013

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

July 19, 2013

SDG I.D.: GBF05840

Instrument: Au-ecd7 07/16/13-1 (BF05840, BF05841, BF05842, BF05843, BF05844)

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: 7/16/2013

QC Comments: QC Batch 240601 07/15/13 (BF05845, BF05847)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QC (Batch Specific)

---------- Sample No: BF05514, QA/QC Batch: 240230 ----------

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

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

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

---------- Sample No: BF06321, QA/QC Batch: 240601 ----------

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.

SVOA Narration

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

QC Batch 240477 (Samples: BF05842, BF05843, BF05844): -----

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the lower range, therefore a slight low bias is possible. (Pyrene)

QC Batch 240515 (Samples: BF05845, BF05846, BF05847): -----

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. (Benz(a)anthracene(BF05846))

Analyte was found in blank. A high bias is suspected. (Benz(a)anthracene(BF05845))

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

QC Comments: QC Batch 240228 07/12/13 (BF05840, BF05841)

Poor surrogate observed in the prep blank.

QC (Site Specific)

---------- Sample No: BF05844, QA/QC Batch: 240477 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

All MS recoveries were within 30 - 130 with the following exceptions: Pyrene(21%)

All MSD recoveries were within 30 - 130 with the following exceptions: Pyrene(16%)

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: BF05510, QA/QC Batch: 240228 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

---------- Sample No: BF05696, QA/QC Batch: 240515 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

VOA Narration

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

QC Batch 240652 (Samples: BF05840, BF05841, BF05842, BF05843, BF05844): -----

The LCS/LCSD recovery is acceptable. One or more analytes in the site specific matrix spike recovery is below the lower range, therefore a slight low bias is possible. (Bromomethane, Chloroethane, Methyl ethyl ketone, Trichlorofluoromethane)

The QC recoveries for one or more analytes is below the lower range, but within the method criteria. A slight low bias is likely. (Acetone)

QC Batch 240801 (Samples: BF05845, BF05846, BF05847, BF05848): -----

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. (Dichlorodifluoromethane)

Instrument: Chem02 07/15/13-1 (BF05845, BF05846, BF05847, BF05848)

Initial Calibration Verification (CHEM02/RPP_0708):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: Bromoform (23%), Methylene Chloride (24%), trans-1,4-Dichloro-2-butene (21%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM02/0715P02-RPP_0708):
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: Methyl Ethyl Ketone (-34%)[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 Veronica Widener
Position: Chemist
Date: 7/15/2013

Instrument: Chem18 07/15/13-1 (BF05840, BF05841, BF05842, BF05843, BF05844)

Initial Calibration Verification (CHEM18/RCPS_0712N2):
99% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone (28%)
The following compounds did not meet a minimum response factor of 0.01: None.

Continuing Calibration Verification (CHEM18/0715M02-RCPS_0712N2):
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: None.
The following compounds did not meet minimum response factors: None.

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RCP Certification Report

July 19, 2013

SDG I.D.: GBF05840

Printed Name	Caleb Githinji
Position:	Chemist
Date:	7/15/2013

QC (Site Specific)

---------- Sample No: BF05844, QA/QC Batch: 240652 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Acetone(54%)

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

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

All MS recoveries were within 70 - 130 with the following exceptions: Acetone(41%), Bromomethane(60%), Chloroethane(<40%), Methyl ethyl ketone(68%), Trichlorofluoromethane(47%)

All MSD recoveries were within 70 - 130 with the following exceptions: Acetone(45%), Bromomethane(64%), Chloroethane(<40%), Trichlorofluoromethane(48%)

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: BF04362, QA/QC Batch: 240801 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(133%)

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.

Temperature Narration

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

Cooler: Yes [✓] No [ ]
Coolant: IPK [ ] ICE [✓] N [ ]

PHOENIX Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Temp 0°C Pg 1 of 1

Data Delivery:
[ ] Fax #:
[✓] Email: jane.witherell@cdrmaguire.com

Customer: CDR Maguire Inc.
Address: 2080 Silas Deane Hwy
Rocky Hill CT 06067

Project: Middletown Sewer Project
Report to: Jane Witherell - CDR
Invoice to: DAS Contract - City of Middletown c/o CDR

Project P.O:
Phone #: 8605633158
Fax #:

Client Sample - Information - Identification

Sampler's Signature: Cindy Gj Date: 7-15-13

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
SE=Sediment **SL**=Sludge **S**=Soil/Solid **W**=Wipe **O**=Other

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs - 8260	PAHs - 8270	CT ETPH	Total RCRA 8 Metals	SPLP RCRA 8 Metals	Total LEAD	Dissolved RCRA 8 Metals	Dissolved LEAD	PCBs - 8082				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 [1] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 1250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
05840	PSGP-59 1'-4'	S	7/15/13	5:10am	X	X	X	X	X				X				1/2	2								
05841	PSGP-60 5'-10'	↓	↓	5:55am	↓	↓	↓	X	X				X				↓	↓								
05842	PSGP-61 1'-5'	↓	↓	6:20am	↓	↓	↓	X	X				X				↓	↓								
05843	PSGP-62 1'-5'	↓	↓	7:00am	↓	↓	↓	X	X				X				↓	↓								
05844	PSGP-63 1'-5'	↓	↓	8:40am	↓	↓	↓	X	X				X				↓	↓								
05845	PSGP-61 GW	GW	↓	8:05am	↓	↓	↓	X			X		X							3	4			2		
05846	PSGP-43 GW	GW	↓	9:50am	↓	↓	↓			X		X								3	3			2		
05847	FB-2	↓	↓	10:05am	↓	↓	↓	X			X		X							3	4			2		
05848	TB-4	↓	↓	-	↓															2						

Relinquished by:	Accepted by:	Date:	Time:
Cindy Gj	[signature]	7/15/13	10:40

Comments, Special Requirements or Regulations:

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

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

CT
[✓] 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
[ ] Excel
[✓] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

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

PHOENIX
Environmental Laboratories, Inc.

Monday, March 18, 2013

Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Project ID: MIDDLETOWN PUMP STATION
Sample ID#s: BD42842 - BD42851

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

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PHOENIX

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/05/13	12:10
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42842

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-35

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	03/06/13	EK	SW6010
Arsenic	1.4	0.9	mg/Kg	03/06/13	EK	SW6010
Barium	40.4	0.43	mg/Kg	03/06/13	EK	SW6010
Cadmium	< 0.43	0.43	mg/Kg	03/06/13	EK	SW6010
Chromium	9.70	0.43	mg/Kg	03/06/13	EK	SW6010
Mercury	< 0.09	0.09	mg/Kg	03/07/13	RS/LK	SW-7471
Lead	26.1	0.43	mg/Kg	03/06/13	EK	SW6010
Selenium	< 1.7	1.7	mg/Kg	03/06/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/06/13	EK	SW6010
SPLP Barium	0.069	0.010	mg/L	03/06/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/06/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/07/13	RS	1312/SW7470
SPLP Lead	0.015	0.010	mg/L	03/06/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/06/13	EK	SW6010
SPLP Metals Digestion	Completed			03/06/13	X/X	SW846-3005
Percent Solid	84		%	03/05/13	JL	E160.3
Soil Extraction for PCB	Completed			03/05/13	BB/V	SW3545
Soil Extraction SVOA BN	Completed			03/05/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/05/13	BS/V	3545
Mercury Digestion	Completed			03/07/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/07/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/05/13	X	EPA 1312
Total Metals Digest	Completed			03/05/13	AG	SW846 - 3050
Field Extraction	Completed			03/05/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	59	mg/Kg	03/06/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-35

Phoenix I.D.: BD42842

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	ND		mg/Kg	03/06/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	87		%	03/06/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1221	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1232	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1242	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1248	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1254	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1260	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1262	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1268	ND	390	ug/Kg	03/06/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	98		%	03/06/13	AW	30 - 150 %
% TCMX	96		%	03/06/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	2.5	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	21	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
4-Methyl-2-pentanone	ND	21	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	83	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-35

Phoenix I.D.: BD42842

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	2.5	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	25	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	8.3	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	8.3	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	8.3	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	4.2	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	101		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	100		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	100		%	03/07/13	R/J	70 - 130 %
% Toluene-d8	100		%	03/07/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Acenaphthene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Acenaphthylene	ND	270	ug/Kg	03/06/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-35

Phoenix I.D.: BD42842

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Benz(a)anthracene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Benzo(a)pyrene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Benzo(b)fluoranthene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Benzo(ghi)perylene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Benzo(k)fluoranthene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Chrysene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Fluoranthene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Fluorene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Naphthalene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Phenanthrene	ND	270	ug/Kg	03/06/13	DD	SW 8270
Pyrene	ND	270	ug/Kg	03/06/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	89		%	03/06/13	DD	30 - 130 %
% Nitrobenzene-d5	88		%	03/06/13	DD	30 - 130 %
% Terphenyl-d14	97		%	03/06/13	DD	30 - 130 %

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

Comments:

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
March 18, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/05/13	12:20
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42843

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-34

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	03/06/13	EK	SW6010
Arsenic	7.3	0.8	mg/Kg	03/06/13	EK	SW6010
Barium	238	0.41	mg/Kg	03/06/13	EK	SW6010
Cadmium	2.08	0.41	mg/Kg	03/06/13	EK	SW6010
Chromium	28.3	0.41	mg/Kg	03/06/13	EK	SW6010
Mercury	0.38	0.08	mg/Kg	03/11/13	RS	SW-7471
Lead	354	4.1	mg/Kg	03/07/13	EK	SW6010
Selenium	< 1.6	1.6	mg/Kg	03/06/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Arsenic	0.006	0.004	mg/L	03/07/13	EK	SW6010
SPLP Barium	0.174	0.010	mg/L	03/06/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/06/13	EK	SW6010
SPLP Chromium	0.013	0.010	mg/L	03/06/13	EK	SW6010
SPLP Mercury	0.0006	0.0004	mg/L	03/07/13	RS	1312/SW7470
SPLP Lead	0.272	0.010	mg/L	03/06/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/06/13	EK	SW6010
SPLP Metals Digestion	Completed			03/06/13	X/X	SW846-3005
Percent Solid	82		%	03/05/13	JL	E160.3
Soil Extraction for PCB	Completed			03/05/13	BB/V	SW3545
Soil Extraction SVOA BN	Completed			03/05/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/05/13	BS/V	3545
Mercury Digestion	Completed			03/11/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/07/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/05/13	X	EPA 1312
Total Metals Digest	Completed			03/05/13	AG	SW846 - 3050
Field Extraction	Completed			03/05/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	100	60	mg/Kg	03/06/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-34

Phoenix I.D.: BD42843

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/06/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	89		%	03/06/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1221	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1232	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1242	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1248	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1254	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1260	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1262	ND	390	ug/Kg	03/06/13	AW	SW 8082
PCB-1268	ND	390	ug/Kg	03/06/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	94		%	03/06/13	AW	30 - 150 %
% TCMX	94		%	03/06/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	26	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	100	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-34

Phoenix I.D.: BD42843

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	3.1	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	31	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	103		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	82		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	105		%	03/07/13	R/J	70 - 130 %
% Toluene-d8	96		%	03/07/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Acenaphthene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Acenaphthylene	ND	280	ug/Kg	03/06/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-34

Phoenix I.D.: BD42843

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference	
Anthracene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Benz(a)anthracene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Benzo(a)pyrene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Benzo(b)fluoranthene	290	280	ug/Kg	03/06/13	DD	SW 8270	
Benzo(ghi)perylene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Benzo(k)fluoranthene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Chrysene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Dibenz(a,h)anthracene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Fluoranthene	450	280	ug/Kg	03/06/13	DD	SW 8270	
Fluorene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Naphthalene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Phenanthrene	ND	280	ug/Kg	03/06/13	DD	SW 8270	
Pyrene	460	280	ug/Kg	03/06/13	DD	SW 8270	
QA/QC Surrogates							
% 2-Fluorobiphenyl	104		%	03/06/13	DD	30 - 130 %	
% Nitrobenzene-d5	87		%	03/06/13	DD	30 - 130 %	
% Terphenyl-d14	138		%	03/06/13	DD	30 - 130 %	3

3 = This parameter exceeds laboratory specified limits.

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

Comments:

* The surrogate failed method criteria due to sample matrix interference for the semivolatile analysis. The other surrogates associated with this sample were within QA/QC criteria.

**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
March 18, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/05/13	12:50
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42844

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-25

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	03/06/13	EK	SW6010
Arsenic	2.3	0.8	mg/Kg	03/06/13	EK	SW6010
Barium	117	0.42	mg/Kg	03/06/13	EK	SW6010
Cadmium	< 0.42	0.42	mg/Kg	03/06/13	EK	SW6010
Chromium	34.5	0.42	mg/Kg	03/06/13	EK	SW6010
Mercury	< 0.10	0.10	mg/Kg	03/11/13	RS	SW-7471
Lead	14.2	0.42	mg/Kg	03/06/13	EK	SW6010
Selenium	< 1.7	1.7	mg/Kg	03/06/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Arsenic	0.007	0.004	mg/L	03/07/13	EK	SW6010
SPLP Barium	0.091	0.010	mg/L	03/06/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/06/13	EK	SW6010
SPLP Chromium	0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/07/13	RS	1312/SW7470
SPLP Lead	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/06/13	EK	SW6010
SPLP Metals Digestion	Completed			03/06/13	X/X	SW846-3005
Percent Solid	75		%	03/05/13	JL	E160.3
Soil Extraction for PCB	Completed			03/05/13	BB/V	SW3545
Soil Extraction SVOA BN	Completed			03/05/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/05/13	BS/V	3545
Mercury Digestion	Completed			03/11/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/07/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/05/13	X	EPA 1312
Total Metals Digest	Completed			03/05/13	AG	SW846 - 3050
Field Extraction	Completed			03/05/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	100	65	mg/Kg	03/06/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-25

Phoenix I.D.: BD42844

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/06/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	87		%	03/06/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	430	ug/Kg	03/06/13	AW	SW 8082
PCB-1221	ND	430	ug/Kg	03/06/13	AW	SW 8082
PCB-1232	ND	430	ug/Kg	03/06/13	AW	SW 8082
PCB-1242	ND	430	ug/Kg	03/06/13	AW	SW 8082
PCB-1248	ND	430	ug/Kg	03/06/13	AW	SW 8082
PCB-1254	ND	430	ug/Kg	03/06/13	AW	SW 8082
PCB-1260	ND	430	ug/Kg	03/06/13	AW	SW 8082
PCB-1262	ND	430	ug/Kg	03/06/13	AW	SW 8082
PCB-1268	ND	430	ug/Kg	03/06/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	97		%	03/06/13	AW	30 - 150 %
% TCMX	78		%	03/06/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.6	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	30	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
4-Methyl-2-pentanone	ND	30	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	120	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-25

Phoenix I.D.: BD42844

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	3.6	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	36	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	12	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	12	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	12	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	6.0	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	102		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	100		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	102		%	03/07/13	R/J	70 - 130 %
% Toluene-d8	100		%	03/07/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Acenaphthene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Acenaphthylene	ND	300	ug/Kg	03/06/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-25

Phoenix I.D.: BD42844

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Benz(a)anthracene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Benzo(a)pyrene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Benzo(b)fluoranthene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Benzo(ghi)perylene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Benzo(k)fluoranthene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Chrysene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Fluoranthene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Fluorene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Naphthalene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Phenanthrene	ND	300	ug/Kg	03/06/13	DD	SW 8270
Pyrene	ND	300	ug/Kg	03/06/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	81		%	03/06/13	DD	30 - 130 %
% Nitrobenzene-d5	82		%	03/06/13	DD	30 - 130 %
% Terphenyl-d14	104		%	03/06/13	DD	30 - 130 %

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

Comments:

**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
March 18, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/05/13	13:05
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42845

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-26

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	03/06/13	EK	SW6010
Arsenic	2.8	0.8	mg/Kg	03/06/13	EK	SW6010
Barium	27.8	0.42	mg/Kg	03/06/13	EK	SW6010
Cadmium	< 0.42	0.42	mg/Kg	03/06/13	EK	SW6010
Chromium	15.4	0.42	mg/Kg	03/06/13	EK	SW6010
Mercury	< 0.10	0.10	mg/Kg	03/11/13	RS	SW-7471
Lead	7.86	0.42	mg/Kg	03/06/13	EK	SW6010
Selenium	< 1.7	1.7	mg/Kg	03/06/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/06/13	EK	SW6010
SPLP Barium	0.089	0.010	mg/L	03/06/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/06/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/07/13	RS	1312/SW7470
SPLP Lead	0.014	0.010	mg/L	03/06/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/06/13	EK	SW6010
SPLP Metals Digestion	Completed			03/06/13	X/X	SW846-3005
Percent Solid	81		%	03/05/13	JL	E160.3
Soil Extraction for PCB	Completed			03/05/13	BB/V	SW3545
Soil Extraction SVOA BN	Completed			03/05/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/05/13	BS/V	3545
Mercury Digestion	Completed			03/11/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/07/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/05/13	X	EPA 1312
Total Metals Digest	Completed			03/05/13	AG	SW846 - 3050
Field Extraction	Completed			03/05/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	100	62	mg/Kg	03/06/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-26

Phoenix I.D.: BD42845

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/06/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	85		%	03/06/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	410	ug/Kg	03/06/13	AW	SW 8082
PCB-1221	ND	410	ug/Kg	03/06/13	AW	SW 8082
PCB-1232	ND	410	ug/Kg	03/06/13	AW	SW 8082
PCB-1242	ND	410	ug/Kg	03/06/13	AW	SW 8082
PCB-1248	ND	410	ug/Kg	03/06/13	AW	SW 8082
PCB-1254	ND	410	ug/Kg	03/06/13	AW	SW 8082
PCB-1260	ND	410	ug/Kg	03/06/13	AW	SW 8082
PCB-1262	ND	410	ug/Kg	03/06/13	AW	SW 8082
PCB-1268	ND	410	ug/Kg	03/06/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	109		%	03/06/13	AW	30 - 150 %
% TCMX	74		%	03/06/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.1	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	26	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
4-Methyl-2-pentanone	ND	26	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	100	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-26

Phoenix I.D.: BD42845

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	3.1	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	31	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	5.2	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	100		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	99		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	99		%	03/07/13	R/J	70 - 130 %
% Toluene-d8	99		%	03/07/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Acenaphthene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Acenaphthylene	ND	290	ug/Kg	03/06/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-26

Phoenix I.D.: BD42845

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Benz(a)anthracene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Benzo(a)pyrene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Benzo(b)fluoranthene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Benzo(ghi)perylene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Benzo(k)fluoranthene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Chrysene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Fluoranthene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Fluorene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Naphthalene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Phenanthrene	ND	290	ug/Kg	03/06/13	DD	SW 8270
Pyrene	ND	290	ug/Kg	03/06/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	81		%	03/06/13	DD	30 - 130 %
% Nitrobenzene-d5	93		%	03/06/13	DD	30 - 130 %
% Terphenyl-d14	92		%	03/06/13	DD	30 - 130 %

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

Comments:

**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
March 18, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/05/13	13:30
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42846

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-27

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	03/06/13	EK	SW6010
Arsenic	1.9	0.8	mg/Kg	03/06/13	EK	SW6010
Barium	17.0	0.38	mg/Kg	03/06/13	EK	SW6010
Cadmium	< 0.38	0.38	mg/Kg	03/06/13	EK	SW6010
Chromium	10.1	0.38	mg/Kg	03/06/13	EK	SW6010
Mercury	< 0.10	0.10	mg/Kg	03/11/13	RS	SW-7471
Lead	4.99	0.38	mg/Kg	03/06/13	EK	SW6010
Selenium	< 1.5	1.5	mg/Kg	03/06/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/06/13	EK	SW6010
SPLP Barium	0.067	0.010	mg/L	03/06/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/06/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/07/13	RS	1312/SW7470
SPLP Lead	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/06/13	EK	SW6010
SPLP Metals Digestion	Completed			03/06/13	X/X	SW846-3005
Percent Solid	83		%	03/05/13	JL	E160.3
Soil Extraction for PCB	Completed			03/05/13	BB/V	SW3545
Soil Extraction SVOA BN	Completed			03/05/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/05/13	BS/V	3545
Mercury Digestion	Completed			03/11/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/07/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/05/13	X	EPA 1312
Total Metals Digest	Completed			03/05/13	AG	SW846 - 3050
Field Extraction	Completed			03/05/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	94	59	mg/Kg	03/06/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-27

Phoenix I.D.: BD42846

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/06/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	81		%	03/06/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	400	ug/Kg	03/06/13	AW	SW 8082
PCB-1221	ND	400	ug/Kg	03/06/13	AW	SW 8082
PCB-1232	ND	400	ug/Kg	03/06/13	AW	SW 8082
PCB-1242	ND	400	ug/Kg	03/06/13	AW	SW 8082
PCB-1248	ND	400	ug/Kg	03/06/13	AW	SW 8082
PCB-1254	ND	400	ug/Kg	03/06/13	AW	SW 8082
PCB-1260	ND	400	ug/Kg	03/06/13	AW	SW 8082
PCB-1262	ND	400	ug/Kg	03/06/13	AW	SW 8082
PCB-1268	ND	400	ug/Kg	03/06/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	101		%	03/06/13	AW	30 - 150 %
% TCMX	46		%	03/06/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	2.9	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	24	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
4-Methyl-2-pentanone	ND	24	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	98	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-27

Phoenix I.D.: BD42846

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	2.9	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	29	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	9.8	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	9.8	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	9.8	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	4.9	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	100		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	101		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	103		%	03/07/13	R/J	70 - 130 %
% Toluene-d8	100		%	03/07/13	R/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Acenaphthene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Acenaphthylene	ND	280	ug/Kg	03/06/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-27

Phoenix I.D.: BD42846

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Benz(a)anthracene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Benzo(a)pyrene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Benzo(b)fluoranthene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Benzo(ghi)perylene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Benzo(k)fluoranthene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Chrysene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Fluoranthene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Fluorene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Naphthalene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Phenanthrene	ND	280	ug/Kg	03/06/13	DD	SW 8270
Pyrene	ND	280	ug/Kg	03/06/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	94		%	03/06/13	DD	30 - 130 %
% Nitrobenzene-d5	81		%	03/06/13	DD	30 - 130 %
% Terphenyl-d14	124		%	03/06/13	DD	30 - 130 %

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

Comments:

**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
March 18, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/05/13	13:45
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42847

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-28

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 2.0	2.0	mg/Kg	03/06/13	EK	SW6010
Arsenic	2.2	0.7	mg/Kg	03/06/13	EK	SW6010
Barium	33.9	0.37	mg/Kg	03/06/13	EK	SW6010
Cadmium	< 0.37	0.37	mg/Kg	03/06/13	EK	SW6010
Chromium	7.80	0.37	mg/Kg	03/06/13	EK	SW6010
Mercury	< 0.07	0.07	mg/Kg	03/11/13	RS	SW-7471
Lead	44.8	0.37	mg/Kg	03/06/13	EK	SW6010
Selenium	< 1.5	1.5	mg/Kg	03/07/13	EK	SW6010
SPLP Silver	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Arsenic	< 0.004	0.004	mg/L	03/06/13	EK	SW6010
SPLP Barium	0.059	0.010	mg/L	03/06/13	EK	SW6010
SPLP Cadmium	< 0.005	0.005	mg/L	03/06/13	EK	SW6010
SPLP Chromium	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Mercury	< 0.0004	0.0004	mg/L	03/07/13	RS	1312/SW7470
SPLP Lead	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
SPLP Selenium	< 0.020	0.020	mg/L	03/06/13	EK	SW6010
SPLP Metals Digestion	Completed			03/06/13	X/X	SW846-3005
Percent Solid	92		%	03/05/13	JL	E160.3
Soil Extraction for PCB	Completed			03/05/13	BB/V	SW3545
Soil Extraction SVOA BN	Completed			03/05/13	BJ/V	SW3545
Extraction of CT ETPH	Completed			03/05/13	BS/V	3545
Mercury Digestion	Completed			03/11/13	X/X	SW7471
SPLP Digestion Mercury	Completed			03/07/13	X/X	E1312/SW7470
SPLP Extraction for Metals	Completed			03/05/13	X	EPA 1312
Total Metals Digest	Completed			03/05/13	AG	SW846 - 3050
Field Extraction	Completed			03/05/13		SW5035

TPH by GC (Extractable Products)

Ext. Petroleum HC	68	54	mg/Kg	03/06/13	JRB	CT ETPH/8015

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-28

Phoenix I.D.: BD42847

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Identification	**		mg/Kg	03/06/13	JRB	CT ETPH/8015
QA/QC Surrogates						
% n-Pentacosane	84		%	03/06/13	JRB	50 - 150 %
Polychlorinated Biphenyls						
PCB-1016	ND	360	ug/Kg	03/06/13	AW	SW 8082
PCB-1221	ND	360	ug/Kg	03/06/13	AW	SW 8082
PCB-1232	ND	360	ug/Kg	03/06/13	AW	SW 8082
PCB-1242	ND	360	ug/Kg	03/06/13	AW	SW 8082
PCB-1248	ND	360	ug/Kg	03/06/13	AW	SW 8082
PCB-1254	ND	360	ug/Kg	03/06/13	AW	SW 8082
PCB-1260	ND	360	ug/Kg	03/06/13	AW	SW 8082
PCB-1262	ND	360	ug/Kg	03/06/13	AW	SW 8082
PCB-1268	ND	360	ug/Kg	03/06/13	AW	SW 8082
QA/QC Surrogates						
% DCBP	98		%	03/06/13	AW	30 - 150 %
% TCMX	40		%	03/06/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,1,1-Trichloroethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	03/12/13	K/J	SW8260
1,1,2-Trichloroethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,1-Dichloroethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,1-Dichloroethene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,1-Dichloropropene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,2,3-Trichlorobenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,2,3-Trichloropropane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,2,4-Trichlorobenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,2,4-Trimethylbenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,2-Dibromo-3-chloropropane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,2-Dibromoethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,2-Dichlorobenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,2-Dichloroethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,2-Dichloropropane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,3,5-Trimethylbenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,3-Dichlorobenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,3-Dichloropropane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
1,4-Dichlorobenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
2,2-Dichloropropane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
2-Chlorotoluene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
2-Hexanone	ND	23	ug/Kg	03/12/13	K/J	SW8260
2-Isopropyltoluene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
4-Chlorotoluene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
4-Methyl-2-pentanone	ND	23	ug/Kg	03/12/13	K/J	SW8260
Acetone	ND	90	ug/Kg	03/12/13	K/J	SW8260
Acrylonitrile	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Benzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Bromobenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Bromochloromethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-28

Phoenix I.D.: BD42847

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Bromodichloromethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Bromoform	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Bromomethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Carbon Disulfide	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Carbon tetrachloride	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Chlorobenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Chloroethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Chloroform	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Chloromethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
cis-1,2-Dichloroethene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
cis-1,3-Dichloropropene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Dibromochloromethane	ND	2.7	ug/Kg	03/12/13	K/J	SW8260
Dibromomethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Dichlorodifluoromethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Ethylbenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Hexachlorobutadiene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Isopropylbenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
m&p-Xylene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Methyl Ethyl Ketone	ND	27	ug/Kg	03/12/13	K/J	SW8260
Methyl t-butyl ether (MTBE)	ND	9.0	ug/Kg	03/12/13	K/J	SW8260
Methylene chloride	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Naphthalene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
n-Butylbenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
n-Propylbenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
o-Xylene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
p-Isopropyltoluene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
sec-Butylbenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Styrene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
tert-Butylbenzene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Tetrachloroethene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Tetrahydrofuran (THF)	ND	9.0	ug/Kg	03/12/13	K/J	SW8260
Toluene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Total Xylenes	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
trans-1,2-Dichloroethene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
trans-1,3-Dichloropropene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
trans-1,4-dichloro-2-butene	ND	9.0	ug/Kg	03/12/13	K/J	SW8260
Trichloroethene	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Trichlorofluoromethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Trichlorotrifluoroethane	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
Vinyl chloride	ND	4.5	ug/Kg	03/12/13	K/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	98		%	03/12/13	K/J	70 - 130 %
% Bromofluorobenzene	94		%	03/12/13	K/J	70 - 130 %
% Dibromofluoromethane	100		%	03/12/13	K/J	70 - 130 %
% Toluene-d8	97		%	03/12/13	K/J	70 - 130 %

Polynuclear Aromatic HC

2-Methylnaphthalene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Acenaphthene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Acenaphthylene	ND	250	ug/Kg	03/06/13	DD	SW 8270

Project ID: MIDDLETOWN PUMP STATION
Client ID: PSGP-28

Phoenix I.D.: BD42847

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Anthracene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Benz(a)anthracene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Benzo(a)pyrene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Benzo(b)fluoranthene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Benzo(ghi)perylene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Benzo(k)fluoranthene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Chrysene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Dibenz(a,h)anthracene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Fluoranthene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Fluorene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Indeno(1,2,3-cd)pyrene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Naphthalene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Phenanthrene	ND	250	ug/Kg	03/06/13	DD	SW 8270
Pyrene	ND	250	ug/Kg	03/06/13	DD	SW 8270
QA/QC Surrogates						
% 2-Fluorobiphenyl	70		%	03/06/13	DD	30 - 130 %
% Nitrobenzene-d5	83		%	03/06/13	DD	30 - 130 %
% Terphenyl-d14	97		%	03/06/13	DD	30 - 130 %

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

Comments:

**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
March 18, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		03/05/13	0:00
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42848

Project ID: MIDDLETOWN PUMP STATION
Client ID: FB-1

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Silver	< 0.001	0.001	mg/L	03/06/13	EK	SW6010
Arsenic	< 0.004	0.004	mg/L	03/06/13	EK	SW6010
Barium	< 0.002	0.002	mg/L	03/06/13	EK	SW6010
Cadmium	< 0.001	0.001	mg/L	03/06/13	EK	SW6010
Chromium	< 0.001	0.001	mg/L	03/06/13	EK	SW6010
Silver (Dissolved)	< 0.001	0.001	mg/L	03/06/13	EK	SW6010
Arsenic (Dissolved)	< 0.004	0.004	mg/L	03/06/13	EK	SW6010
Barium (Dissolved)	< 0.002	0.002	mg/L	03/06/13	EK	SW6010
Cadmium (Dissolved)	< 0.001	0.001	mg/L	03/06/13	EK	SW6010
Chromium (Dissolved)	< 0.001	0.001	mg/L	03/06/13	EK	SW6010
Mercury (Dissolved)	< 0.0002	0.0002	mg/L	03/07/13	RS	SW7470
Lead (Dissolved)	< 0.002	0.002	mg/L	03/06/13	EK	SW6010
Selenium (Dissolved)	< 0.011	0.011	mg/L	03/06/13	EK	SW6010
Mercury	< 0.0002	0.0002	mg/L	03/07/13	RS	SW7470
Lead	< 0.002	0.002	mg/L	03/06/13	EK	SW6010
Selenium	< 0.010	0.010	mg/L	03/06/13	EK	SW6010
Extraction of CT ETPH	Completed			03/05/13	I/K/D	3510/3520
Dissolved Mercury Digestion	Completed			03/07/13	X/X	SW7470
Mercury Digestion	Completed			03/07/13	X/X	SW7470
PCB Extraction	Completed			03/05/13	L/T	SW3510C
Semi-Volatile Extraction	Completed			03/05/13	I/D	SW3520
Dissolved Metals Preparation	Completed			03/05/13	AG	SW846-3005
Total Metals Digestion	Completed			03/05/13	AG	
TPH by GC (Extractable Products)						
Ext. Petroleum HC	0.13	0.070	mg/L	03/06/13	JRB	CTETPH/8015D
Identification	**		mg/L	03/06/13	JRB	CTETPH/8015D
QA/QC Surrogates						
% n-Pentacosane	93		%	03/06/13	JRB	50 - 150 %

Project ID: MIDDLETOWN PUMP STATION
Client ID: FB-1

Phoenix I.D.: BD42848

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Polychlorinated Biphenyls						
PCB-1016	ND	0.50	ug/L	03/06/13	AW	8082
PCB-1221	ND	0.50	ug/L	03/06/13	AW	8082
PCB-1232	ND	0.50	ug/L	03/06/13	AW	8082
PCB-1242	ND	0.50	ug/L	03/06/13	AW	8082
PCB-1248	ND	0.50	ug/L	03/06/13	AW	8082
PCB-1254	ND	0.50	ug/L	03/06/13	AW	8082
PCB-1260	ND	0.50	ug/L	03/06/13	AW	8082
PCB-1262	ND	0.50	ug/L	03/06/13	AW	8082
PCB-1268	ND	0.50	ug/L	03/06/13	AW	8082
QA/QC Surrogates						
% DCBP	86		%	03/06/13	AW	30 - 150 %
% TCMX	90		%	03/06/13	AW	30 - 150 %
Volatiles						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	03/08/13	H/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	03/08/13	H/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
2-Hexanone	ND	5.0	ug/L	03/08/13	H/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	03/08/13	H/T	SW8260
Acetone	ND	25	ug/L	03/08/13	H/T	SW8260
Acrylonitrile	ND	5.0	ug/L	03/08/13	H/T	SW8260
Benzene	ND	0.70	ug/L	03/08/13	H/T	SW8260
Bromobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Bromochloromethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	03/08/13	H/T	SW8260
Bromoform	ND	1.0	ug/L	03/08/13	H/T	SW8260
Bromomethane	ND	1.0	ug/L	03/08/13	H/T	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: FB-1

Phoenix I.D.: BD42848

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Carbon Disulfide	ND	5.0	ug/L	03/08/13	H/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	03/08/13	H/T	SW8260
Chlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Chloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Chloroform	ND	1.0	ug/L	03/08/13	H/T	SW8260
Chloromethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	03/08/13	H/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	03/08/13	H/T	SW8260
Dibromomethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Ethylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	03/08/13	H/T	SW8260
Isopropylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
m&p-Xylene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	03/08/13	H/T	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	03/08/13	H/T	SW8260
Methylene chloride	ND	1.0	ug/L	03/08/13	H/T	SW8260
Naphthalene	ND	1.0	ug/L	03/08/13	H/T	SW8260
n-Butylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
n-Propylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
o-Xylene	ND	1.0	ug/L	03/08/13	H/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
sec-Butylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Styrene	ND	1.0	ug/L	03/08/13	H/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Tetrachloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	03/08/13	H/T	SW8260
Toluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Total Xylenes	ND	1.0	ug/L	03/08/13	H/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
trans-1,3-Dichloropropene	ND	0.50	ug/L	03/08/13	H/T	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	03/08/13	H/T	SW8260
Trichloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Vinyl chloride	ND	1.0	ug/L	03/08/13	H/T	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	100		%	03/08/13	H/T	70 - 130 %
% Bromofluorobenzene	88		%	03/08/13	H/T	70 - 130 %
% Dibromofluoromethane	104		%	03/08/13	H/T	70 - 130 %
% Toluene-d8	100		%	03/08/13	H/T	70 - 130 %

Semivolatiles by SIM

2-Methylnaphthalene	ND	0.10	ug/L	03/06/13	DD	8270(SIM)
Acenaphthene	ND	0.10	ug/L	03/06/13	DD	8270(SIM)
Acenaphthylene	ND	0.10	ug/L	03/06/13	DD	8270(SIM)
Anthracene	ND	0.10	ug/L	03/06/13	DD	8270(SIM)
Benz(a)anthracene	ND	0.020	ug/L	03/06/13	DD	8270(SIM)
Benzo(a)pyrene	ND	0.020	ug/L	03/06/13	DD	8270(SIM)

Project ID: MIDDLETOWN PUMP STATION

Client ID: FB-1

Phoenix I.D.: BD42848

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Benzo(b)fluoranthene	ND	0.020	ug/L	03/06/13	DD	8270(SIM)
Benzo(ghi)perylene	ND	0.10	ug/L	03/06/13	DD	8270(SIM)
Benzo(k)fluoranthene	ND	0.020	ug/L	03/06/13	DD	8270(SIM)
Chrysene	ND	0.020	ug/L	03/06/13	DD	8270(SIM)
Dibenz(a,h)anthracene	ND	0.010	ug/L	03/06/13	DD	8270(SIM)
Fluoranthene	ND	0.10	ug/L	03/06/13	DD	8270(SIM)
Fluorene	ND	0.10	ug/L	03/06/13	DD	8270(SIM)
Indeno(1,2,3-cd)pyrene	ND	0.020	ug/L	03/06/13	DD	8270(SIM)
Naphthalene	ND	0.10	ug/L	03/06/13	DD	8270(SIM)
Phenanthrene	ND	0.070	ug/L	03/06/13	DD	8270(SIM)
Pyrene	ND	0.10	ug/L	03/06/13	DD	8270(SIM)
QA/QC Surrogates						
% 2-Fluorobiphenyl	79		%	03/06/13	DD	30 - 130 %
% Nitrobenzene-d5	97		%	03/06/13	DD	30 - 130 %
% Terphenyl-d14	98		%	03/06/13	DD	30 - 130 %

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

Comments:

**Petroleum hydrocarbon chromatogram contains a multicomponent hydrocarbon distribution in the range of C9 to C20. The sample was quantitated against a C9-C36 alkane hydrocarbon standard.

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

March 18, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	GROUND WATER	Collected by:		03/05/13	0:00
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42849

Project ID: MIDDLETOWN PUMP STATION
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Volatiles						
1,1,1,2-Tetrachloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1,1-Trichloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	03/08/13	H/T	SW8260
1,1,2-Trichloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1-Dichloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1-Dichloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,1-Dichloropropene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2,3-Trichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2,3-Trichloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2,4-Trichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2,4-Trimethylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2-Dibromo-3-chloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2-Dibromoethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2-Dichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,2-Dichloroethane	ND	0.60	ug/L	03/08/13	H/T	SW8260
1,2-Dichloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,3,5-Trimethylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,3-Dichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,3-Dichloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
1,4-Dichlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
2,2-Dichloropropane	ND	1.0	ug/L	03/08/13	H/T	SW8260
2-Chlorotoluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
2-Hexanone	ND	5.0	ug/L	03/08/13	H/T	SW8260
2-Isopropyltoluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
4-Chlorotoluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
4-Methyl-2-pentanone	ND	5.0	ug/L	03/08/13	H/T	SW8260
Acetone	ND	25	ug/L	03/08/13	H/T	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: TRIP BLANK

Phoenix I.D.: BD42849

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Acrylonitrile	ND	5.0	ug/L	03/08/13	H/T	SW8260
Benzene	ND	0.70	ug/L	03/08/13	H/T	SW8260
Bromobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Bromochloromethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Bromodichloromethane	ND	0.50	ug/L	03/08/13	H/T	SW8260
Bromoform	ND	1.0	ug/L	03/08/13	H/T	SW8260
Bromomethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Carbon Disulfide	ND	5.0	ug/L	03/08/13	H/T	SW8260
Carbon tetrachloride	ND	1.0	ug/L	03/08/13	H/T	SW8260
Chlorobenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Chloroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Chloroform	ND	1.0	ug/L	03/08/13	H/T	SW8260
Chloromethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
cis-1,2-Dichloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
cis-1,3-Dichloropropene	ND	0.50	ug/L	03/08/13	H/T	SW8260
Dibromochloromethane	ND	0.50	ug/L	03/08/13	H/T	SW8260
Dibromomethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Dichlorodifluoromethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Ethylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Hexachlorobutadiene	ND	0.40	ug/L	03/08/13	H/T	SW8260
Isopropylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
m&p-Xylene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Methyl ethyl ketone	ND	5.0	ug/L	03/08/13	H/T	SW8260
Methyl t-butyl ether (MTBE)	ND	1.0	ug/L	03/08/13	H/T	SW8260
Methylene chloride	ND	1.0	ug/L	03/08/13	H/T	SW8260
Naphthalene	ND	1.0	ug/L	03/08/13	H/T	SW8260
n-Butylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
n-Propylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
o-Xylene	ND	1.0	ug/L	03/08/13	H/T	SW8260
p-Isopropyltoluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
sec-Butylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Styrene	ND	1.0	ug/L	03/08/13	H/T	SW8260
tert-Butylbenzene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Tetrachloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Tetrahydrofuran (THF)	ND	2.5	ug/L	03/08/13	H/T	SW8260
Toluene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Total Xylenes	ND	1.0	ug/L	03/08/13	H/T	SW8260
trans-1,2-Dichloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
trans-1,3-Dichloropropene	ND	0.50	ug/L	03/08/13	H/T	SW8260
trans-1,4-dichloro-2-butene	ND	5.0	ug/L	03/08/13	H/T	SW8260
Trichloroethene	ND	1.0	ug/L	03/08/13	H/T	SW8260
Trichlorofluoromethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Trichlorotrifluoroethane	ND	1.0	ug/L	03/08/13	H/T	SW8260
Vinyl chloride	ND	1.0	ug/L	03/08/13	H/T	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	102		%	03/08/13	H/T	70 - 130 %
% Bromofluorobenzene	91		%	03/08/13	H/T	70 - 130 %
% Dibromofluoromethane	101		%	03/08/13	H/T	70 - 130 %
% Toluene-d8	99		%	03/08/13	H/T	70 - 130 %

Project ID: MIDDLETOWN PUMP STATION

Phoenix I.D.: BD42849

Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference

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

Comments:

TRIP BLANK INCLUDED.

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

March 18, 2013

Reviewed and Released by: Bobbi Aloisa, Vice President

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/05/13	0:00
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42850

Project ID: MIDDLETOWN PUMP STATION
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%			E160.3
Field Extraction	Completed			03/05/13		SW5035
Volatiles						
1,1,1,2-Tetrachloroethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	3.0	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	25	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: TRIP BLANK

Phoenix I.D.: BD42850

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	25	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	100	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Bromodichloromethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	3.0	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	30	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	10	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	10	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	10	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	5.0	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	99		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	101		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	99		%	03/07/13	R/J	70 - 130 %

Project ID: MIDDLETOWN PUMP STATION
Client ID: TRIP BLANK

Phoenix I.D.: BD42850

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% Toluene-d8	100		%	03/07/13	R/J	70 - 130 %

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.

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Phyllis Shiller, Laboratory Director
March 18, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

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

Analysis Report

March 18, 2013

FOR: Attn: Ms Jane Witherell
CDR Maguire Group
2080 Silas Deane Highway
Rocky Hill. CT 06067

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		03/05/13	0:00
Location Code:	MAGUIRE	Received by:	SW	03/05/13	15:07
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:	14712.02 A300				

Laboratory Data

SDG ID: GBD42842
Phoenix ID: BD42851

Project ID: MIDDLETOWN PUMP STATION
Client ID: TRIP BLANK

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
Percent Solid	100	1	%			E160.3
Field Extraction	Completed			03/05/13		SW5035
Volatiles						
1,1,1,2-Tetrachloroethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,1,1-Trichloroethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,1,2,2-Tetrachloroethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,1,2-Trichloroethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloroethene	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,1-Dichloropropene	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichlorobenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,2,3-Trichloropropane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trichlorobenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,2,4-Trimethylbenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromo-3-chloropropane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,2-Dibromoethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichlorobenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloroethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,2-Dichloropropane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,3,5-Trimethylbenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichlorobenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,3-Dichloropropane	ND	250	ug/Kg	03/07/13	R/J	SW8260
1,4-Dichlorobenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
2,2-Dichloropropane	ND	250	ug/Kg	03/07/13	R/J	SW8260
2-Chlorotoluene	ND	250	ug/Kg	03/07/13	R/J	SW8260
2-Hexanone	ND	1300	ug/Kg	03/07/13	R/J	SW8260
2-Isopropyltoluene	ND	250	ug/Kg	03/07/13	R/J	SW8260
4-Chlorotoluene	ND	250	ug/Kg	03/07/13	R/J	SW8260

Project ID: MIDDLETOWN PUMP STATION
Client ID: TRIP BLANK

Phoenix I.D.: BD42851

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
4-Methyl-2-pentanone	ND	1300	ug/Kg	03/07/13	R/J	SW8260
Acetone	ND	5000	ug/Kg	03/07/13	R/J	SW8260
Acrylonitrile	ND	250	ug/Kg	03/07/13	R/J	SW8260
Benzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Bromobenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Bromochloromethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
Bromodichloromethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
Bromoform	ND	250	ug/Kg	03/07/13	R/J	SW8260
Bromomethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
Carbon Disulfide	ND	250	ug/Kg	03/07/13	R/J	SW8260
Carbon tetrachloride	ND	250	ug/Kg	03/07/13	R/J	SW8260
Chlorobenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Chloroethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
Chloroform	ND	250	ug/Kg	03/07/13	R/J	SW8260
Chloromethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
cis-1,2-Dichloroethene	ND	250	ug/Kg	03/07/13	R/J	SW8260
cis-1,3-Dichloropropene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Dibromochloromethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
Dibromomethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
Dichlorodifluoromethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
Ethylbenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Hexachlorobutadiene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Isopropylbenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
m&p-Xylene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Methyl Ethyl Ketone	ND	3000	ug/Kg	03/07/13	R/J	SW8260
Methyl t-butyl ether (MTBE)	ND	250	ug/Kg	03/07/13	R/J	SW8260
Methylene chloride	ND	500	ug/Kg	03/07/13	R/J	SW8260
Naphthalene	ND	250	ug/Kg	03/07/13	R/J	SW8260
n-Butylbenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
n-Propylbenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
o-Xylene	ND	250	ug/Kg	03/07/13	R/J	SW8260
p-Isopropyltoluene	ND	250	ug/Kg	03/07/13	R/J	SW8260
sec-Butylbenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Styrene	ND	250	ug/Kg	03/07/13	R/J	SW8260
tert-Butylbenzene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Tetrachloroethene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Tetrahydrofuran (THF)	ND	500	ug/Kg	03/07/13	R/J	SW8260
Toluene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Total Xylenes	ND	250	ug/Kg	03/07/13	R/J	SW8260
trans-1,2-Dichloroethene	ND	250	ug/Kg	03/07/13	R/J	SW8260
trans-1,3-Dichloropropene	ND	250	ug/Kg	03/07/13	R/J	SW8260
trans-1,4-dichloro-2-butene	ND	500	ug/Kg	03/07/13	R/J	SW8260
Trichloroethene	ND	250	ug/Kg	03/07/13	R/J	SW8260
Trichlorofluoromethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
Trichlorotrifluoroethane	ND	250	ug/Kg	03/07/13	R/J	SW8260
Vinyl chloride	ND	250	ug/Kg	03/07/13	R/J	SW8260
QA/QC Surrogates						
% 1,2-dichlorobenzene-d4	99		%	03/07/13	R/J	70 - 130 %
% Bromofluorobenzene	101		%	03/07/13	R/J	70 - 130 %
% Dibromofluoromethane	96		%	03/07/13	R/J	70 - 130 %

Project ID: MIDDLETOWN PUMP STATION
Client ID: TRIP BLANK

Phoenix I.D.: BD42851

Parameter	Result	RL/ PQL	Units	Date/Time	By	Reference
% Toluene-d8	100		%	03/07/13	R/J	70 - 130 %

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
March 18, 2013
Reviewed and Released by: Bobbi Aloisa, Vice President

PHOENIX

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

QA/QC Report

March 18, 2013

QA/QC Data

SDG I.D.: GBD42842

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 222612, QC Sample No: BD41880 (BD42848)													
ICP Metals - Aqueous													
Arsenic	BRL	<0.004	<0.004	NC	94.1	95.9	1.9	98.5	99.0	0.5	75 - 125	20	
Barium	BRL	0.021	0.020	4.90	102	105	2.9	104	105	1.0	75 - 125	20	
Cadmium	BRL	<0.001	<0.001	NC	95.8	98.3	2.6	97.2	98.1	0.9	75 - 125	20	
Chromium	BRL	<0.001	0.001	NC	95.0	98.1	3.2	97.7	98.6	0.9	75 - 125	20	
Lead	BRL	0.004	0.004	NC	94.7	98.0	3.4	97.1	97.8	0.7	75 - 125	20	
Selenium	BRL	<0.010	<0.010	NC	88.3	90.9	2.9	92.5	92.8	0.3	75 - 125	20	
Silver	BRL	0.003	0.003	NC	92.1	95.2	3.3	96.1	96.1	0.0	75 - 125	20	
QA/QC Batch 222565, QC Sample No: BD41971 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)													
ICP Metals - SPLP Extraction													
Arsenic	BRL	0.004	<0.004	NC	97.5	97.6	0.1	98.0	97.7	0.3	75 - 125	20	
Barium	BRL	0.052	0.049	NC	97.2	96.1	1.1	97.0	94.7	2.4	75 - 125	20	
Cadmium	BRL	<0.005	<0.005	NC	104	105	1.0	104	104	0.0	75 - 125	20	
Chromium	BRL	<0.010	<0.010	NC	98.9	99.1	0.2	99.8	98.5	1.3	75 - 125	20	
Lead	BRL	<0.010	<0.010	NC	99.9	101	1.1	101	100	1.0	75 - 125	20	
Selenium	BRL	<0.020	<0.020	NC	96.8	96.8	0.0	96.0	95.7	0.3	75 - 125	20	
Silver	BRL	<0.010	<0.010	NC	94.9	94.1	0.8	95.5	93.6	2.0	75 - 125	20	
QA/QC Batch 222827, QC Sample No: BD42027 (BD42842)													
Mercury - Soil	BRL	<0.07	<0.07	NC	107	114	6.3	111	114	2.7	70 - 130	30	
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 222676, QC Sample No: BD42842 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)													
ICP Metals - Soil													
Arsenic	BRL	1.4	1.90	NC	90.9	89.2	1.9	85.6	87.3	2.0	75 - 125	30	
Barium	BRL	40.4	42.4	4.80	96.5	91.9	4.9	85.1	73.9	14.1	75 - 125	30	m
Cadmium	BRL	<0.43	<0.41	NC	96.0	95.0	1.0	87.6	88.7	1.2	75 - 125	30	
Chromium	BRL	9.70	9.92	2.20	96.5	95.2	1.4	93.4	92.5	1.0	75 - 125	30	
Lead	BRL	26.1	24.0	8.40	92.2	91.2	1.1	94.9	90.5	4.7	75 - 125	30	
Selenium	BRL	<1.7	<1.6	NC	99.6	98.2	1.4	75.6	75.8	0.3	75 - 125	30	
Silver	BRL	<0.43	<0.41	NC	87.2	86.3	1.0	88.4	89.9	1.7	75 - 125	30	
QA/QC Batch 223069, QC Sample No: BD42843 (BD42843, BD42844, BD42845, BD42846)													
Mercury - Soil	BRL	0.38	0.42	NC	102	107	4.8	78.3	>125	NC	70 - 130	30	m
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													
QA/QC Batch 222953, QC Sample No: BD42847 (BD42847)													
Mercury - Soil	BRL	<0.07	<0.07	NC	106	101	4.8	111	106	4.6	70 - 130	30	
Comment:													
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%.													

QA/QC Data

SDG I.D.: GBD42842

Parameter	Blank	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 222698, QC Sample No: BD42848 (BD42848)												
ICP Metals - Dissolved												
Arsenic	BRL	<0.004	<0.004	NC	96.4	92.4	4.2	92.9	95.7	3.0	75 - 125	20
Barium	BRL	<0.002	<0.002	NC	99.7	97.0	2.7	96.5	99.4	3.0	75 - 125	20
Cadmium	BRL	<0.001	<0.001	NC	104	99.4	4.5	99.4	102	2.6	75 - 125	20
Chromium	BRL	<0.001	<0.001	NC	98.3	94.1	4.4	94.2	97.4	3.3	75 - 125	20
Lead	BRL	<0.002	<0.002	NC	101	97.2	3.8	97.2	100	2.8	75 - 125	20
Selenium	BRL	<0.011	<0.011	NC	93.4	90.8	2.8	90.1	93.3	3.5	75 - 125	20
Silver	BRL	<0.001	<0.001	NC	92.8	89.4	3.7	88.4	91.5	3.4	75 - 125	20
QA/QC Batch 222830, QC Sample No: BD42848 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847, BD42848)												
Mercury - Water	BRL	<0.0002	<0.0002	NC	117	112	4.4	114	109	4.5	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.

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QA/QC Report

March 18, 2013

QA/QC Data

SDG I.D.: GBD42842

QA/QC Batch 222885, QC Sample No: BD41974 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42850, BD42851 (50X))

Volatiles - Soil

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,1,1,2-Tetrachloroethane	ND	107	98	8.8	94	90	4.3	70 - 130	30	
1,1,1-Trichloroethane	ND	104	97	7.0	96	94	2.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	100	93	7.3	94	96	2.1	70 - 130	30	
1,1,2-Trichloroethane	ND	111	98	12.4	91	96	5.3	70 - 130	30	
1,1-Dichloroethane	ND	102	97	5.0	98	90	8.5	70 - 130	30	
1,1-Dichloroethene	ND	100	94	6.2	92	90	2.2	70 - 130	30	
1,1-Dichloropropene	ND	100	95	5.1	95	93	2.1	70 - 130	30	
1,2,3-Trichlorobenzene	ND	108	86	22.7	76	93	20.1	70 - 130	30	
1,2,3-Trichloropropane	ND	94	103	9.1	103	96	7.0	70 - 130	30	
1,2,4-Trichlorobenzene	ND	96	80	18.2	74	86	15.0	70 - 130	30	
1,2,4-Trimethylbenzene	ND	101	95	6.1	96	94	2.1	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	117	105	10.8	96	100	4.1	70 - 130	30	
1,2-Dibromoethane	ND	111	96	14.5	92	98	6.3	70 - 130	30	
1,2-Dichlorobenzene	ND	100	91	9.4	89	90	1.1	70 - 130	30	
1,2-Dichloroethane	ND	104	93	11.2	92	96	4.3	70 - 130	30	
1,2-Dichloropropane	ND	105	95	10.0	97	97	0.0	70 - 130	30	
1,3,5-Trimethylbenzene	ND	99	94	5.2	95	92	3.2	70 - 130	30	
1,3-Dichlorobenzene	ND	97	90	7.5	87	89	2.3	70 - 130	30	
1,3-Dichloropropane	ND	107	96	10.8	95	96	1.0	70 - 130	30	
1,4-Dichlorobenzene	ND	96	88	8.7	85	88	3.5	70 - 130	30	
2,2-Dichloropropane	ND	106	97	8.9	90	91	1.1	70 - 130	30	
2-Chlorotoluene	ND	97	89	8.6	90	90	0.0	70 - 130	30	
2-Hexanone	ND	80	71	11.9	56	59	5.2	70 - 130	30	m
2-Isopropyltoluene	ND	100	94	6.2	96	95	1.0	70 - 130	30	
4-Chlorotoluene	ND	97	89	8.6	90	90	0.0	70 - 130	30	
4-Methyl-2-pentanone	ND	108	95	12.8	86	94	8.9	70 - 130	30	
Acetone	ND	77	60	24.8	56	58	3.5	70 - 130	30	l,m
Acrylonitrile	ND	107	102	4.8	95	91	4.3	70 - 130	30	
Benzene	ND	102	94	8.2	96	95	1.0	70 - 130	30	
Bromobenzene	ND	100	94	6.2	94	93	1.1	70 - 130	30	
Bromochloromethane	ND	105	100	4.9	98	95	3.1	70 - 130	30	
Bromodichloromethane	ND	108	98	9.7	92	93	1.1	70 - 130	30	
Bromoform	ND	115	103	11.0	89	92	3.3	70 - 130	30	
Bromomethane	ND	105	94	11.1	80	82	2.5	70 - 130	30	
Carbon Disulfide	ND	95	88	7.7	92	89	3.3	70 - 130	30	
Carbon tetrachloride	ND	104	100	3.9	90	91	1.1	70 - 130	30	
Chlorobenzene	ND	103	94	9.1	94	92	2.2	70 - 130	30	
Chloroethane	ND	104	96	8.0	94	91	3.2	70 - 130	30	
Chloroform	ND	103	96	7.0	95	94	1.1	70 - 130	30	
Chloromethane	ND	101	91	10.4	91	89	2.2	70 - 130	30	
cis-1,2-Dichloroethene	ND	104	99	4.9	97	89	8.6	70 - 130	30	

QA/QC Data

SDG I.D.: GBD42842

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,3-Dichloropropene	ND	105	95	10.0	94	96	2.1	70 - 130	30	
Dibromochloromethane	ND	112	101	10.3	92	92	0.0	70 - 130	30	
Dibromomethane	ND	108	96	11.8	91	96	5.3	70 - 130	30	
Dichlorodifluoromethane	ND	102	94	8.2	90	91	1.1	70 - 130	30	
Ethylbenzene	ND	98	92	6.3	96	93	3.2	70 - 130	30	
Hexachlorobutadiene	ND	96	83	14.5	82	90	9.3	70 - 130	30	
Isopropylbenzene	ND	102	99	3.0	98	95	3.1	70 - 130	30	
m&p-Xylene	ND	101	93	8.2	97	94	3.1	70 - 130	30	
Methyl ethyl ketone	ND	76	65	15.6	52	59	12.6	70 - 130	30	l,m
Methyl t-butyl ether (MTBE)	ND	103	92	11.3	102	100	2.0	70 - 130	30	
Methylene chloride	ND	98	89	9.6	90	86	4.5	70 - 130	30	
Naphthalene	ND	128	92	32.7	82	113	31.8	70 - 130	30	r
n-Butylbenzene	ND	95	87	8.8	85	88	3.5	70 - 130	30	
n-Propylbenzene	ND	101	96	5.1	94	92	2.2	70 - 130	30	
o-Xylene	ND	106	96	9.9	96	95	1.0	70 - 130	30	
p-Isopropyltoluene	ND	100	95	5.1	92	91	1.1	70 - 130	30	
sec-Butylbenzene	ND	99	95	4.1	95	92	3.2	70 - 130	30	
Styrene	ND	100	92	8.3	94	94	0.0	70 - 130	30	
tert-Butylbenzene	ND	103	99	4.0	99	96	3.1	70 - 130	30	
Tetrachloroethene	ND	97	93	4.2	92	90	2.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	109	93	15.8	88	98	10.8	70 - 130	30	
Toluene	ND	102	94	8.2	94	94	0.0	70 - 130	30	
trans-1,2-Dichloroethene	ND	100	95	5.1	96	86	11.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	107	94	12.9	89	94	5.5	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	111	96	14.5	81	87	7.1	70 - 130	30	
Trichloroethene	ND	107	102	4.8	94	93	1.1	70 - 130	30	
Trichlorofluoromethane	ND	106	100	5.8	91	88	3.4	70 - 130	30	
Trichlorotrifluoroethane	ND	99	93	6.3	89	88	1.1	70 - 130	30	
Vinyl chloride	ND	102	94	8.2	94	93	1.1	70 - 130	30	
% 1,2-dichlorobenzene-d4	103	100	102	2.0	99	101	2.0	70 - 130	30	
% Bromofluorobenzene	96	102	98	4.0	102	102	0.0	70 - 130	30	
% Dibromofluoromethane	99	100	102	2.0	98	100	2.0	70 - 130	30	
% Toluene-d8	99	100	100	0.0	100	100	0.0	70 - 130	30	

Comment:

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

QA/QC Batch 223561, QC Sample No: BD41992 (BD42847)

Volatiles - Soil

1,1,1,2-Tetrachloroethane	ND	108	109	0.9	91	79	14.1	70 - 130	30	
1,1,1-Trichloroethane	ND	109	112	2.7	93	69	29.6	70 - 130	30	m
1,1,2,2-Tetrachloroethane	ND	103	97	6.0	94	102	8.2	70 - 130	30	
1,1,2-Trichloroethane	ND	107	110	2.8	92	91	1.1	70 - 130	30	
1,1-Dichloroethane	ND	109	110	0.9	92	68	30.0	70 - 130	30	m
1,1-Dichloroethene	ND	106	106	0.0	87	60	36.7	70 - 130	30	m,r
1,1-Dichloropropene	ND	106	107	0.9	89	62	35.8	70 - 130	30	m,r
1,2,3-Trichlorobenzene	ND	109	95	13.7	83	81	2.4	70 - 130	30	
1,2,3-Trichloropropane	ND	102	104	1.9	88	99	11.8	70 - 130	30	
1,2,4-Trichlorobenzene	ND	105	83	23.4	77	75	2.6	70 - 130	30	
1,2,4-Trimethylbenzene	ND	105	99	5.9	83	66	22.8	70 - 130	30	m
1,2-Dibromo-3-chloropropane	ND	120	125	4.1	93	107	14.0	70 - 130	30	
1,2-Dibromoethane	ND	111	112	0.9	98	96	2.1	70 - 130	30	
1,2-Dichlorobenzene	ND	105	98	6.9	84	75	11.3	70 - 130	30	
1,2-Dichloroethane	ND	106	107	0.9	94	87	7.7	70 - 130	30	

QA/QC Data

SDG I.D.: GBD42842

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
1,2-Dichloropropane	ND	105	107	1.9	92	77	17.8	70 - 130	30	
1,3,5-Trimethylbenzene	ND	103	100	3.0	83	65	24.3	70 - 130	30	m
1,3-Dichlorobenzene	ND	103	94	9.1	81	67	18.9	70 - 130	30	m
1,3-Dichloropropane	ND	106	108	1.9	93	92	1.1	70 - 130	30	
1,4-Dichlorobenzene	ND	103	92	11.3	80	69	14.8	70 - 130	30	m
2,2-Dichloropropane	ND	125	121	3.3	89	63	34.2	70 - 130	30	m,r
2-Chlorotoluene	ND	104	101	2.9	84	65	25.5	70 - 130	30	m
2-Hexanone	ND	99	82	18.8	61	73	17.9	70 - 130	30	m
2-Isopropyltoluene	ND	100	102	2.0	86	66	26.3	70 - 130	30	m
4-Chlorotoluene	ND	101	94	7.2	81	64	23.4	70 - 130	30	m
4-Methyl-2-pentanone	ND	102	103	1.0	92	104	12.2	70 - 130	30	
Acetone	ND	88	69	24.2	<40	<40	NC	70 - 130	30	l,m
Acrylonitrile	ND	106	107	0.9	95	118	21.6	70 - 130	30	
Benzene	ND	105	106	0.9	91	68	28.9	70 - 130	30	m
Bromobenzene	ND	104	102	1.9	86	74	15.0	70 - 130	30	
Bromochloromethane	ND	108	109	0.9	93	85	9.0	70 - 130	30	
Bromodichloromethane	ND	108	113	4.5	93	77	18.8	70 - 130	30	
Bromoform	ND	117	121	3.4	92	96	4.3	70 - 130	30	
Bromomethane	ND	124	118	5.0	88	66	28.6	70 - 130	30	m
Carbon Disulfide	ND	113	104	8.3	90	61	38.4	70 - 130	30	m,r
Carbon tetrachloride	ND	114	118	3.4	93	65	35.4	70 - 130	30	m,r
Chlorobenzene	ND	105	103	1.9	88	72	20.0	70 - 130	30	
Chloroethane	ND	118	111	6.1	94	64	38.0	70 - 130	30	m,r
Chloroform	ND	107	111	3.7	93	73	24.1	70 - 130	30	
Chloromethane	ND	124	107	14.7	96	61	44.6	70 - 130	30	m,r
cis-1,2-Dichloroethene	ND	111	112	0.9	93	73	24.1	70 - 130	30	
cis-1,3-Dichloropropene	ND	109	107	1.9	91	75	19.3	70 - 130	30	
Dibromochloromethane	ND	113	117	3.5	92	83	10.3	70 - 130	30	
Dibromomethane	ND	107	110	2.8	93	91	2.2	70 - 130	30	
Dichlorodifluoromethane	ND	>150	113	NC	104	65	46.2	70 - 130	30	l,m,r
Ethylbenzene	ND	103	101	2.0	88	67	27.1	70 - 130	30	m
Hexachlorobutadiene	ND	95	94	1.1	79	62	24.1	70 - 130	30	m
Isopropylbenzene	ND	106	106	0.0	87	64	30.5	70 - 130	30	m
m&p-Xylene	ND	103	100	3.0	86	66	26.3	70 - 130	30	m
Methyl ethyl ketone	ND	97	76	24.3	54	71	27.2	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	114	121	6.0	87	109	22.4	70 - 130	30	
Methylene chloride	ND	101	103	2.0	87	75	14.8	70 - 130	30	
Naphthalene	ND	116	112	3.5	83	97	15.6	70 - 130	30	
n-Butylbenzene	ND	102	97	5.0	78	58	29.4	70 - 130	30	m
n-Propylbenzene	ND	107	104	2.8	82	61	29.4	70 - 130	30	m
o-Xylene	ND	118	111	6.1	88	70	22.8	70 - 130	30	
p-Isopropyltoluene	ND	104	101	2.9	82	61	29.4	70 - 130	30	m
sec-Butylbenzene	ND	100	101	1.0	83	62	29.0	70 - 130	30	m
Styrene	ND	114	103	10.1	85	70	19.4	70 - 130	30	
tert-Butylbenzene	ND	103	107	3.8	86	64	29.3	70 - 130	30	m
Tetrachloroethene	ND	106	104	1.9	86	62	32.4	70 - 130	30	m,r
Tetrahydrofuran (THF)	ND	107	106	0.9	97	128	27.6	70 - 130	30	
Toluene	ND	104	105	1.0	90	67	29.3	70 - 130	30	m
trans-1,2-Dichloroethene	ND	107	110	2.8	87	66	27.5	70 - 130	30	m
trans-1,3-Dichloropropene	ND	111	110	0.9	92	86	6.7	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	126	113	10.9	87	98	11.9	70 - 130	30	
Trichloroethene	ND	111	116	4.4	89	64	32.7	70 - 130	30	m,r
Trichlorofluoromethane	ND	118	116	1.7	91	64	34.8	70 - 130	30	m,r

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Trichlorotrifluoroethane	ND	103	108	4.7	84	59	35.0	70 - 130	30	m,r
Vinyl chloride	ND	121	108	11.4	90	58	43.2	70 - 130	30	m,r
% 1,2-dichlorobenzene-d4	96	102	101	1.0	101	101	0.0	70 - 130	30	
% Bromofluorobenzene	95	100	100	0.0	100	100	0.0	70 - 130	30	
% Dibromofluoromethane	98	102	100	2.0	103	108	4.7	70 - 130	30	
% Toluene-d8	94	98	101	3.0	100	98	2.0	70 - 130	30	

Comment:

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

QA/QC Batch 222677, QC Sample No: BD42134 (BD42848)

TPH by GC (Extractable Products) - Ground Water

Ext. Petroleum HC	ND	86	95	9.9	86	86	0.0	60 - 120	20
% n-Pentacosane	96	102	99	3.0	97	95	2.1	50 - 150	20

QA/QC Batch 222591, QC Sample No: BD42191 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)

TPH by GC (Extractable Products) - Soil

Ext. Petroleum HC	ND	81	81	0.0	75	84	11.3	60 - 120	30
% n-Pentacosane	82	80	83	3.7	81	93	13.8	50 - 150	30

QA/QC Batch 222613, QC Sample No: BD42390 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)

Polynuclear Aromatic HC - Soil

2-Methylnaphthalene	ND	97	85	13.2	82	75	8.9	30 - 130	30
Acenaphthene	ND	92	91	1.1	99	97	2.0	30 - 130	30
Acenaphthylene	ND	89	82	8.2	97	93	4.2	30 - 130	30
Anthracene	ND	94	93	1.1	103	108	4.7	30 - 130	30
Benz(a)anthracene	ND	88	91	3.4	98	98	0.0	30 - 130	30
Benzo(a)pyrene	ND	85	84	1.2	90	97	7.5	30 - 130	30
Benzo(b)fluoranthene	ND	86	87	1.2	98	107	8.8	30 - 130	30
Benzo(ghi)perylene	ND	81	82	1.2	66	83	22.8	30 - 130	30
Benzo(k)fluoranthene	ND	102	97	5.0	110	114	3.6	30 - 130	30
Chrysene	ND	98	94	4.2	98	100	2.0	30 - 130	30
Dibenz(a,h)anthracene	ND	82	87	5.9	72	93	25.5	30 - 130	30
Fluoranthene	ND	89	90	1.1	106	123	14.8	30 - 130	30
Fluorene	ND	81	93	13.8	96	108	11.8	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	81	86	6.0	71	92	25.8	30 - 130	30
Naphthalene	ND	85	82	3.6	87	90	3.4	30 - 130	30
Phenanthrene	ND	95	94	1.1	105	111	5.6	30 - 130	30
Pyrene	ND	90	90	0.0	110	128	15.1	30 - 130	30
% 2-Fluorobiphenyl	86	85	83	2.4	99	94	5.2	30 - 130	30
% Nitrobenzene-d5	88	98	93	5.2	96	94	2.1	30 - 130	30
% Terphenyl-d14	107	89	96	7.6	119	116	2.6	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 222669, QC Sample No: BD42613 (BD42848)

Polynuclear Aromatic HC - Ground Water

2-Methylnaphthalene	ND	64	64	0.0	77	72	6.7	30 - 130	20
Acenaphthene	ND	66	68	3.0	80	76	5.1	30 - 130	20
Acenaphthylene	ND	53	54	1.9	95	89	6.5	30 - 130	20
Anthracene	ND	79	80	1.3	94	91	3.2	30 - 130	20
Benz(a)anthracene	ND	82	83	1.2	86	85	1.2	30 - 130	20
Benzo(a)pyrene	ND	75	76	1.3	88	85	3.5	30 - 130	20
Benzo(b)fluoranthene	ND	97	101	4.0	99	97	2.0	30 - 130	20

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
Benzo(ghi)perylene	ND	95	90	5.4	95	98	3.1	30 - 130	20	
Benzo(k)fluoranthene	ND	98	101	3.0	99	99	0.0	30 - 130	20	
Chrysene	ND	74	76	2.7	77	75	2.6	30 - 130	20	
Dibenz(a,h)anthracene	ND	104	100	3.9	101	104	2.9	30 - 130	20	
Fluoranthene	ND	82	83	1.2	91	88	3.4	30 - 130	20	
Fluorene	ND	72	74	2.7	86	82	4.8	30 - 130	20	
Indeno(1,2,3-cd)pyrene	ND	83	81	2.4	85	86	1.2	30 - 130	20	
Naphthalene	ND	60	61	1.7	73	67	8.6	30 - 130	20	
Phenanthrene	ND	69	70	1.4	81	78	3.8	30 - 130	20	
Pyrene	ND	77	78	1.3	90	87	3.4	30 - 130	20	
% 2-Fluorobiphenyl	77	62	64	3.2	76	71	6.8	30 - 130	20	
% Nitrobenzene-d5	95	67	68	1.5	80	75	6.5	30 - 130	20	
% Terphenyl-d14	92	86	87	1.2	91	90	1.1	30 - 130	20	

QA/QC Batch 222696, QC Sample No: BD42802 (BD42848)

Polychlorinated Biphenyls - Ground Water

PCB-1016	ND	92	73	23.0				40 - 140	20	r
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	93	74	22.8				40 - 140	20	r
PCB-1262	ND							40 - 140	20	
PCB-1268	ND							40 - 140	20	
% DCBP (Surrogate Rec)	79	86	72	17.7				30 - 150	20	
% TCMX (Surrogate Rec)	81	84	60	33.3				30 - 150	20	r

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QA/QC Batch 222665, QC Sample No: BD42846 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	77	76	1.3	79	77	2.6	40 - 140	30
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	79	81	2.5	84	80	4.9	40 - 140	30
PCB-1262	ND							40 - 140	30
PCB-1268	ND							40 - 140	30
% DCBP (Surrogate Rec)	91	88	89	1.1	94	88	6.6	30 - 150	30
% TCMX (Surrogate Rec)	93	92	92	0.0	99	92	7.3	30 - 150	30

QA/QC Batch 222969, QC Sample No: BD43516 (BD42848, BD42849)

Volatiles - Ground Water

1,1,1,2-Tetrachloroethane	ND	103	108	4.7				70 - 130	30
1,1,1-Trichloroethane	ND	102	107	4.8				70 - 130	30
1,1,2,2-Tetrachloroethane	ND	95	98	3.1				70 - 130	30
1,1,2-Trichloroethane	ND	104	109	4.7				70 - 130	30
1,1-Dichloroethane	ND	107	110	2.8				70 - 130	30
1,1-Dichloroethene	ND	105	110	4.7				70 - 130	30
1,1-Dichloropropene	ND	96	104	8.0				70 - 130	30
1,2,3-Trichlorobenzene	ND	106	108	1.9				70 - 130	30

QA/QC Data

SDG I.D.: GBD42842

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
1,2,3-Trichloropropane	ND	101	103	2.0				70 - 130	30
1,2,4-Trichlorobenzene	ND	102	104	1.9				70 - 130	30
1,2,4-Trimethylbenzene	ND	105	107	1.9				70 - 130	30
1,2-Dibromo-3-chloropropane	ND	105	106	0.9				70 - 130	30
1,2-Dibromoethane	ND	103	108	4.7				70 - 130	30
1,2-Dichlorobenzene	ND	103	107	3.8				70 - 130	30
1,2-Dichloroethane	ND	101	104	2.9				70 - 130	30
1,2-Dichloropropane	ND	102	105	2.9				70 - 130	30
1,3,5-Trimethylbenzene	ND	103	105	1.9				70 - 130	30
1,3-Dichlorobenzene	ND	103	107	3.8				70 - 130	30
1,3-Dichloropropane	ND	103	109	5.7				70 - 130	30
1,4-Dichlorobenzene	ND	104	106	1.9				70 - 130	30
2,2-Dichloropropane	ND	52	53	1.9				70 - 130	30
2-Chlorotoluene	ND	103	105	1.9				70 - 130	30
2-Hexanone	ND	103	107	3.8				70 - 130	30
2-Isopropyltoluene	ND	102	105	2.9				70 - 130	30
4-Chlorotoluene	ND	100	103	3.0				70 - 130	30
4-Methyl-2-pentanone	ND	102	112	9.3				70 - 130	30
Acetone	ND	76	75	1.3				70 - 130	30
Acrylonitrile	ND	104	106	1.9				70 - 130	30
Benzene	ND	101	106	4.8				70 - 130	30
Bromobenzene	ND	99	104	4.9				70 - 130	30
Bromochloromethane	ND	109	111	1.8				70 - 130	30
Bromodichloromethane	ND	104	110	5.6				70 - 130	30
Bromoform	ND	108	111	2.7				70 - 130	30
Bromomethane	ND	107	120	11.5				70 - 130	30
Carbon Disulfide	ND	98	101	3.0				70 - 130	30
Carbon tetrachloride	ND	100	108	7.7				70 - 130	30
Chlorobenzene	ND	104	109	4.7				70 - 130	30
Chloroethane	ND	114	118	3.4				70 - 130	30
Chloroform	ND	106	109	2.8				70 - 130	30
Chloromethane	ND	110	111	0.9				70 - 130	30
cis-1,2-Dichloroethene	ND	109	113	3.6				70 - 130	30
cis-1,3-Dichloropropene	ND	95	101	6.1				70 - 130	30
Dibromochloromethane	ND	104	112	7.4				70 - 130	30
Dibromomethane	ND	104	109	4.7				70 - 130	30
Dichlorodifluoromethane	ND	109	115	5.4				70 - 130	30
Ethylbenzene	ND	101	106	4.8				70 - 130	30
Hexachlorobutadiene	ND	89	95	6.5				70 - 130	30
Isopropylbenzene	ND	100	105	4.9				70 - 130	30
m&p-Xylene	ND	102	106	3.8				70 - 130	30
Methyl ethyl ketone	ND	101	110	8.5				70 - 130	30
Methyl t-butyl ether (MTBE)	ND	101	107	5.8				70 - 130	30
Methylene chloride	ND	95	97	2.1				70 - 130	30
Naphthalene	ND	107	111	3.7				70 - 130	30
n-Butylbenzene	ND	99	101	2.0				70 - 130	30
n-Propylbenzene	ND	100	104	3.9				70 - 130	30
o-Xylene	ND	111	118	6.1				70 - 130	30
p-Isopropyltoluene	ND	103	106	2.9				70 - 130	30
sec-Butylbenzene	ND	99	103	4.0				70 - 130	30
Styrene	ND	109	115	5.4				70 - 130	30
tert-Butylbenzene	ND	100	105	4.9				70 - 130	30
Tetrachloroethene	ND	96	103	7.0				70 - 130	30

QA/QC Data

SDG I.D.: GBD42842

Parameter	Blank	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Tetrahydrofuran (THF)	ND	97	102	5.0				70 - 130	30
Toluene	ND	98	104	5.9				70 - 130	30
trans-1,2-Dichloroethene	ND	106	110	3.7				70 - 130	30
trans-1,3-Dichloropropene	ND	95	101	6.1				70 - 130	30
trans-1,4-dichloro-2-butene	ND	80	83	3.7				70 - 130	30
Trichloroethene	ND	103	108	4.7				70 - 130	30
Trichlorofluoromethane	ND	107	112	4.6				70 - 130	30
Trichlorotrifluoroethane	ND	98	104	5.9				70 - 130	30
Vinyl chloride	ND	108	111	2.7				70 - 130	30
% 1,2-dichlorobenzene-d4	102	101	100	1.0				70 - 130	30
% Bromofluorobenzene	90	102	102	0.0				70 - 130	30
% Dibromofluoromethane	103	105	101	3.9				70 - 130	30
% Toluene-d8	100	99	100	1.0				70 - 130	30

Comment:

The MS/MSD are not reported for this batch.

Additional 8260 criteria: 10% of 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
March 18, 2013

Monday, March 18, 2013

Requested Criteria: GBM, RC

State: CT

Sample Criteria Exceedences Report

GBD42842 - MAGUIRE

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BD42843	SPLP-PB	SPLP Lead	CT / INORGANIC SUBSTANCES / GB PMC (mg/l)**	0.272	0.010	0.15	0.15	mg/L

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:** MAGUIRE

Project Location: MIDDLETOWN PUMP STATION **Project Number:**

Laboratory Sample ID(s): BD42842, BD42843, BD42844, BD42845, BD42846, BD42847, BD42848, BD42849, BD42850, BD42851

Sampling Date(s): 3/5/2013

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: ICP Narration, Mercury Narration, PCB 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.

Authorized Signature: _____

Date: Monday, March 18, 2013

Printed Name: Maryam Taylor

Position: Project Manager

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

RCP Certification Report

March 18, 2013

SDG I.D.: GBD42842

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

8270 Semi-volatile Organics:
Only the PAH constituents are reported as requested on the chain-of-custody.

ETPH Narration

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

Instrument: Au-fid84 03/06/13-1 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)

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

The daily continuing calibration standard was within method criteria of +/- 30 %D.

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: 3/6/2013

Instrument: Au-xl1 03/06/13-2 (BD42848)

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

The daily continuing calibration standard was within method criteria of +/- 30 %D.

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: 3/6/2013

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March 18, 2013

SDG I.D.: GBD42842

QC (Batch Specific)

---------- Sample No: BD42134, QA/QC Batch: 222677 ----------

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 20% with the following exceptions: None.

---------- Sample No: BD42191, QA/QC Batch: 222591 ----------

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.

Mercury Narration

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

QC Batch 223069 (Samples: BD42843, BD42844, BD42845, BD42846): -----

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

Instrument: Merlin 03/07/13-1 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847, BD42848)

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: 3/7/2013

Instrument: Merlin 03/11/13-1 (BD42843, BD42844, BD42845, BD42846, BD42847)

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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March 18, 2013

SDG I.D.: GBD42842

Printed Name	Rick Schweitzer
Position:	Chemist
Date:	3/11/2013

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March 18, 2013

SDG I.D.: GBD42842

QC (Site Specific)

---------- Sample No: BD42843, QA/QC Batch: 223069 ----------

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: Mercury(>125%)

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

---------- Sample No: BD42847, QA/QC Batch: 222953 ----------

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: BD42848, QA/QC Batch: 222830 ----------

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: BD42027, QA/QC Batch: 222827 ----------

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

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RCP Certification Report

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SDG I.D.: GBD42842

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.

ICP Narration

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

QC Batch 222676 (Samples: BD42842, BD42843, BD42844, BD42845, BD42846, BD42847): -----

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

Instrument: Arcos 03/05/13-1 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)

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: 3/5/2013

Instrument: Arcos 03/06/13-1 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)

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: 3/6/2013

Instrument: Arcos 03/07/13-1 (BD42843, BD42847)

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: 3/7/2013

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RCP Certification Report

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SDG I.D.: GBD42842

Instrument: Blue 03/05/13-1 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847, BD42848)

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: 3/5/2013

Instrument: Blue 03/06/13-1 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847, BD42848)

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: 3/6/2013

Instrument: Blue 03/07/13-1 (BD42843, BD42844)

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: 3/7/2013

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RCP Certification Report

March 18, 2013

SDG I.D.: GBD42842

QC (Site Specific)

---------- Sample No: BD42842, QA/QC Batch: 222676 ----------

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: None.

All MSD recoveries were within 75 - 125 with the following exceptions: Barium(73.9%)

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

---------- Sample No: BD42848, QA/QC Batch: 222698 ----------

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.

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: BD41880, QA/QC Batch: 222612 ----------

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: BD41971, QA/QC Batch: 222565 ----------

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.

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RCP Certification Report

March 18, 2013

SDG I.D.: GBD42842

PAH Narration

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

Instrument: Chem06 03/05/13-2 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)

The DDT breakdown and pentachlorophenol & benzidine peak tailing were not evaluated in the DFTPP tune.

Initial Calibration (Chem06/BN_0304):
Greater than 90% of the target compounds met calibration criteria with a RSD <20% or >0.99 correlation coefficient. The following compounds had RSDs >20% and <0.99 correlation coefficient: None

The following compounds failed to meet the minimum required response factor: None

Continuing Calibration:
Greater than 80% of target compounds met continuing calibration criteria with a %D <20. The following compounds had >20% difference from the initial calibration: None.

Printed Name Damien Drobinski
Position: Chemist
Date: 3/5/2013

QC (Batch Specific)

---------- Sample No: BD42613, QA/QC Batch: 222669 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

PCB Narration

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

QC Batch 222696 (Samples: BD42848): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (PCB-1016, PCB-1260)

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates. Both recoveries were within limits. No significant bias is suspected. (% TCMX (Surrogate Rec))

Instrument: Au-ecd1 03/06/13-1 (BD42848)

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

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Tel. (860) 645-1102 Fax (860) 645-0823

RCP Certification Report

March 18, 2013

SDG I.D.: GBD42842

Printed Name Adam Werner
Position: Chemist
Date: 3/6/2013

Instrument: Au-ecd6 03/06/13-1 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42847)

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: 3/6/2013

QC Comments: QC Batch 222696 03/05/13 (BD42848)

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

QC (Site Specific)

---------- Sample No: BD42846, QA/QC Batch: 222665 ----------

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

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

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

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

All MSD recoveries were within 40 - 140 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: BD42802, QA/QC Batch: 222696 ----------

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: % TCMX (Surrogate Rec)(33.3%), PCB-1016(23.0%), PCB-1260(22.8%)

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SDG I.D.: GBD42842

SVOASIM Narration

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

Instrument: Chem04 03/06/13-1 (BD42848)

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 (Chem04/SIM_0301):
Greater than 90% of the target compounds met calibration criteria with a RSD <20% or >0.99 correlation coefficient. The following compounds had RSDs >20% and <0.99 correlation coefficient: Pentachlorophenol

The following compounds failed to meet the minimum required response factor: None

Continuing Calibration:
Greater than 80% of target compounds met continuing calibraion criteria with a %D <20. The following compunds had >20% difference from the initial calibration: Dibenz(a,h)anthracene, Benzo(ghi)perylene

Printed Name Damien Drobinski
Position: Chemist
Date: 3/6/2013

QC (Batch Specific)

---------- Sample No: BD42613, QA/QC Batch: 222669 ----------

All LCS recoveries were within 30 - 130 with the following exceptions: None.

All LCSD recoveries were within 30 - 130 with the following exceptions: None.

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

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RCP Certification Report

March 18, 2013

SDG I.D.: GBD42842

VOA Narration

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

QC Batch 222885 (Samples: BD42842, BD42843, BD42844, BD42845, BD42846, BD42850, BD42851): -----

Several QC recoveries are below the lower range, but within the method criteria. A slight low bias for these analytes is likely. (Acetone, Methyl ethyl ketone)

QC Batch 222969 (Samples: BD42848, BD42849): -----

The LCS/LCSD recoveries are below the lower range, but within the method criteria. A slight low bias for these analytes is possible. (2,2-Dichloropropane)

Instrument: Chem03 03/06/13-2 (BD42842, BD42843, BD42844, BD42845, BD42846, BD42850, BD42851)

Initial Calibration Verification (RCPS_0306):
>90% of target compounds met method criteria.
The following compounds had %RSDs >20%: Acetone

Continuing Calibration Verification:
>80% of target compounds met method criteria. Internal standards were within the 50%-200% deviation from the initial calibration.
The following compounds had % Deviations >20%: Tetrahydrofuran (THF)

Printed Name Johanna Harrington
Position: Chemist
Date: 3/6/2013

Instrument: Chem17 03/07/13-1 (BD42848, BD42849)

Initial Calibration (RCPS_0307):
All SPCCs, CCCs and >80% of target compounds met criteria except that the following compounds had %RSDs >20%: Bromomethane, Methylene Chloride

Continuing Calibration Verification:
The following compounds had % Deviations >30%: Acetone, 2,2-Dichloropropane, Tetrahydrofuran (THF)

Printed Name Tina Covensky
Position: Chemist
Date: 3/7/2013

Instrument: Chem18 03/11/13-2 (BD42847)

Initial Calibration Verification (CHEM18/RCPS_0311#1):
>90% of target compounds met criteria.
The following compounds had %RSDs >20%: Methyl Ethyl Ketone, 2-hexanone

Continuing Calibration Verification:

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March 18, 2013

SDG I.D.: GBD42842

>80% of target compounds met criteria. Internal standards were within the 50%-200% deviation from the initial calibration.
The following compounds had % Deviations >20%: Dichlorodifluoromethane, 2,2-Dichloropropane, Tetrahydrofuran (THF), trans-1,4-Dichloro-2-butene

Printed Name Johanna Harrington
Position: Chemist
Date: 3/11/2013

QC Comments: QC Batch 222969 03/07/13 (BD42848, BD42849)

The MS/MSD are not reported for this batch.

QC (Batch Specific)

---------- Sample No: BD41974, QA/QC Batch: 222885 ----------

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

All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(60%), Methyl ethyl ketone(65%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: Naphthalene(32.7%)

---------- Sample No: BD41992, QA/QC Batch: 223561 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(>150%)

All LCSD recoveries were within 70 - 130 with the following exceptions: Acetone(69%)

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

---------- Sample No: BD43516, QA/QC Batch: 222969 ----------

All LCS recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(52%)

All LCSD recoveries were within 70 - 130 with the following exceptions: 2,2-Dichloropropane(53%)

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)

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RCP Certification Report

March 18, 2013

SDG I.D.: GBD42842

Cooler: Yes ☒ No ☐
Coolant: IPK ☒ ICE ☐ N ☐

PHOENIX Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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

Temp 6 °C Pg 1 of 1

Data Delivery:
☐ Fax #:
☒ Email: JWitherell@CDRMaguire.com

Customer: CDR Maguire
Address: 2080 Silas Deane Highway
Rocky Hill, CT, 06067

Project: Middletown Pump Station
Report to: Jane Witherell
Invoice to: Maguire Bid Prices

Project P.O: 14712.02 A300
Phone #: 860-563-3158
Fax #: 860-563-3188

~~Client Sample - Information - Identification~~

Sampler's Signature: [signature] Date: 3/5/13

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
SE=Sediment **SL**=Sludge **S**=Soil/Solid **W**=Wipe **O**=Other

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOC's	PAH's	ETPH	PCB's	Total RCRA Metals	SPLP RCRA Metals	Dissolved RCRA Metals	Soil VOA Vials [1] methanol [2] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [3] HCl	GL Amber 1000ml [4] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 250ml [ ] 500ml	PL HNO3 250ml / FF	PL NaOH 250ml	Bacteria Bottle
42842	PSGP-35	S	3/5	12:10	X	X	X	X	X	X		3	2								
42843	PSGP-34	S		12:20	X	X	X	X	X	X		3	2								
42844	PSGP-25	S		12:50	X	X	X	X	X	X		3	2								
42845	PSGP-26	S		13:05	X	X	X	X	X	X		3	2								
42846	PSGP-27	S		13:30	X	X	X	X	X	X		3	2								
42847	PSGP-28	S		13:45	X	X	X	X	X	X		3	2								
42848	FB-1	GW			X	X	X	X	X		X				3	4			2		
42849	Trip Blank 2	S/GW													3						
42850	Trip Blank LL											2									
42851	Trip Blank HL											1									

Relinquished by:	Accepted by:	Date:	Time:
[signature]	CParadise	3/5/13	1507

Comments, Special Requirements or Regulations:
35 0-2
34 0-2
25 8-10
26 2-4 ← refusal 4'
27 3-5 ← refusal 5'
28 3-5 ← refusal 5'

Turnaround:
☐ 1 Day*
☐ 2 Days*
☐ 3 Days*
☒ Standard
☐ Other
* SURCHARGE APPLIES

RI
☐ Direct Exposure (Residential)
☐ GW
☐ Other

CT
☒ 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
☐ Excel
☒ 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

APPENDIX C
DQA & DUE Worksheets

DATA USABILITY EVALUATION WORKSHEET

Project Name: Phase II Environmental Site Assessment - Gravity Sewer and Force Main Extension, Middletown, CT

Laboratory: Phoenix Environmental Laboratories, Inc.

Laboratory Report: GBD39015, GBD39731, GBD41136, GBD41558, GBD42842, GBF05840

Date Samples Collected: February 20, 25 & 28, 2013 & March 1 & 5, 2013 & July 15, 2013

Describe the intended use of the data: To verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during demolition activities

Nonconformance DQA Review Elements	Briefly Summarize DQA Nonconformance
Standard RCP Deliverables	
Data Package Inspection	
Reasonable Confidence Evaluation	
Chain of Custody Evaluation	
Sample Result Evaluation	
Sample Preservation & Holding Time Evaluation	
Blank Evaluation	
Laboratory Control Samples	see DQA for details
Surrogates	
Site-Specific Matrix Spikes and Matrix Spike Duplicates	see DQA for details
Tentatively Identified Compounds	
Other QC Data	

DATA USABILITY EVALUATION WORKSHEET

Provide a summary statement describing how the analytical data set relied upon is of adequate quality and of sufficient accuracy, precision, and sensitivity for the intended purpose.

The results will be used to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during construction activities for the proposed gravity sewers and force main extension

A data quality assessment and data usability evaluation was performed for the data generated in accordance with the CTDEEP's "Laboratory Quality Assurance and Quality Control, Data Quality Assessment and Data Usability Evaluation Guidance Document".

Non-conformances related to LCS/LCSD, LCS/LCSD RPD, MS/MSD, MS/MSD RPD, detection limits, blanks, surrogate recoveries, CCVs, and ICAL responses do not have significant bearings on the accuracy and usability of the data for its intended purposes. In all cases the non-conformances have no impact to the data usability and is considered of sufficient quality and precision using multiple lines of evidence.

The data indicates that contaminants are present in the soil and groundwater at low to elevated concentrations that exceed applicable RSR criteria. Environmental Plans and Specifications will be prepared to address the soil, and groundwater contamination during the construction activities.

Based on the above findings from the DQA and DUE, the analytical data is of adequate and of sufficient accuracy, precision and sensitivity to identify areas requiring special treatment, handling, disposal and/or reuse during the construction.

RCP DATA QUALITY ASSESSMENT & DATA USABILITY EVALUATION WORKSHEET - SOIL SAMPLES

Gravity Sewer and Force Main Extension: Middletown, CT

Laboratory:	Phoenix Environmental Laboratories, Inc.
SDG:	GBD39015, GBD39731, GBD41136, GBD41558, GBD42842, GBF05840
Date Samples Collected:	February 20, 25 & 28, 2013 & March 1, 2013 & July 15, 2013
RCP Certification Form Included:	Yes
Lab Case Narrative Included:	Yes
Project Purpose:	Data will be used to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during construction
Notes:	

Sample ID	Sample Date	Compound(s)	QC OUTLIER	POTENTIAL BIAS	COMMENTS	PRELIMINARY DUE CONSIDERATIONS/NOTES
VOC Analysis - 8260						
PSGP-30 PSGP-31		Methyl ethyl ketone	LCS/LCSD	Low	Several QC recoveries below lower range but within criteria. Analyte not reported in sample	Multiple lines of evidence support data usability
ETPH Narration						
PSGP-59	7/15/2013	ETPH	LCS/LCSD	Low	One or more analytes in the site specific matrix spike recovery is below the method criteria.	Multiple lines of evidence support data uability

RCP DATA QUALITY ASSESSMENT & DATA USABILITY EVALUATION WORKSHEET - SOIL SAMPLES

Gravity Sewer and Force Main Extension: Middletown, CT

Laboratory:	Phoenix Environmental Laboratories, Inc.
SDG:	GBD39015, GBD39731, GBD41136, GBD41558, GBD42842, GBF05840
Date Samples Collected:	February 20, 28, 2013 & March 1 & 5, 2013 & July 15, 2013
RCP Certification Form Included:	Yes
Lab Case Narrative Included:	Yes
Project Purpose:	Data will be used to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during construction
Notes:	

Sample ID	Sample Date	Compound(s)	QC OUTLIER	POTENTIAL BIAS	COMMENTS	PRELIMINARY DUE CONSIDERATIONS/NOTES
RCRA 8 Metals						

RCP DATA QUALITY ASSESSMENT & DATA USABILITY EVALUATION WORKSHEET - AQUEOUS SAMPLES

Gravity Sewer and Force Main Extension: Middletown, CT

Laboratory:	Phoenix Environmental Laboratories, Inc.
SDG:	GBD39015, GBD39731, GBD41136, GBD41558, GBD42842, GBF05840
Date Samples Collected:	February 20, 25 & 28, 2013 & March 1 & 5, 2013 & July 15, 2013
RCP Certification Form Included:	Yes
Lab Case Narrative Included:	Yes
Project Purpose:	Data will be used to verify the absence or presence and location of subsurface contamination, and to assess the potential pollutant impacts that may be encountered during construction
Notes:	

Sample ID	Sample Date	Compound(s)	QC OUTLIER	POTENTIAL BIAS	COMMENTS	PRELIMINARY DUE CONSIDERATIONS/NOTES
VOC Analysis - 8260						
MW-40	2/25/2013	Acetone	MS/MSD	High	Less than 10% of 8260 compounds outside of acceptance criteria. Analyte exceeds method criteria, all other QC acceptable	Multiple lines of evidence support data usability
	3/5/2013	2,2-Dichloropropane	LCS/LCSD	Low	Less than 10% of 8260 compounds outside of acceptance criteria. Recovery within acceptable range.	