

**TASK 210  
SUBSURFACE SITE INVESTIGATION  
REPORT  
CENTRAL WAREHOUSE  
ROCKY HILL, CONNECTICUT  
ConnDOT Project Number: 170-3476**

*Prepared for*

State of Connecticut Department of Transportation  
Division of Environmental Compliance

Newington, Connecticut

*Prepared by*

TRC

Windsor, Connecticut

January 2019

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**TRC**  
Windsor, Connecticut

TRC Project No. 237612.005738.000210

January 2019

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## **1.0 INTRODUCTION**

### **1.1 Overview**

Pursuant to TRC's Connecticut Department of Transportation (ConnDOT) Contract for On-Call Environmental Services, TRC performed a Task 210 Subsurface Site Investigation at their Central Warehouse facility located at 660 Brook Street (referred to as the "Site") in Rocky Hill, Connecticut (Figure 1). The Site is developed with several buildings with multi-use purposes. Specifically, this investigation was conducted to assess the subsurface conditions surrounding the 2,500-gallon diesel fuel underground storage tank (UST) associated with the emergency generator servicing the Central Warehouse building. The generator and associated UST will be removed and replaced with a new generator and diesel fuel aboveground storage tank (AST).

### **1.2 Objectives**

The primary objectives of this Task 210 site investigation were to:

- Determine soil quality in the area of the facility's diesel fuel UST; and
- Utilize the gathered data to determine how best to manage soil during the tank removal activities, and whether Plans and Specifications are required for the impending construction activities.

The analytical results of the soil sampling conducted as part of this Task 210 have been compared to the numerical criteria set forth in Connecticut's Remediation Standard Regulations (RSRs) in order to determine the relative magnitude of potential impacts and aid in managing the materials encountered during the construction activities.

### **1.3 Background**

Based on limited discussions with ConnDOT personnel, it is TRC's understanding that ConnDOT is closing a 2,500-gallon diesel fuel UST that is currently installed at their Central Warehouse facility located in Rocky Hill. The UST is located adjacent to the northwest corner of Central Warehouse building. The tank location is depicted on Figures 2 and 3.

#### 1.4 Geologic/Physical Setting

As indicated on the Surficial Materials Map of Connecticut (Stone et al, 1992), the site is located in an area of sand and gravel overlying sand. The area consists of sand and gravel up to 20 feet thick, horizontally bedded, and overlies thicker, inclined layers of sand (interpreted to be deltaic deposits). The subsurface conditions encountered during the investigation generally consisted of brown fine to medium sand with varying amounts of silt, coarse sand, and gravel. TRC identified asphalt millings in the subsurface soils at depths ranging from approximately 1.5 to 10 feet below grade (ftbg) within the area of the UST, indicating the presence of fill material.

As indicated by the Geological Map of Connecticut (Rogers, 1985), the site is located within the Hartford Basin of the Newark (Rift Valley) Terrane. The layered sand and gravel overlying sand deposits are underlain by Portland Arkose, which is characterized as reddish-brown arkose (brownstone). Bedrock was not encountered during this investigation.

The topography in the immediate project area can be characterized as sloping from north to south/southwest. Groundwater generally flows from high topographic points to low topographic points, but can also be heavily influenced by aquifer type, depth to bedrock, nearby watercourses, groundwater use (withdrawal wells) and subsurface structures. Based on the local topography and features, groundwater is anticipated to flow to the southwest toward a nearby unnamed pond. During this investigation, groundwater was generally encountered in the soil borings at a depth of approximately six to 10 feet below grade (ftbg).

According to the Connecticut Department of Energy and Environmental Protection (CTDEEP) groundwater classification maps reviewed by TRC, groundwater beneath the northern-most portion of the site is classified as “GA”. The remainder of the site, including the project area, is classified as “GA-Impaired”, which means it currently may not be meeting the GA or GAA standards. Class GA designated uses are existing private and potential public or private supplies of water suitable for drinking without treatment and as baseflow for hydraulically-connected surface water bodies.

## 2.0 TECHNICAL APPROACH

This section of the report summarizes the soil sampling methods employed during the Task 210 field investigation. Observations made in the field are also summarized in this section. The Task 210 work performed at this site was completed in accordance with the *TRC Work Request for Task 210 Subsurface Site Investigation: Central Warehouse – UST Removal, Rocky Hill, CT*, completed by TRC in November 2018. Any exceptions to the proposed plan are noted in the following sub-sections.

As indicated above, the focus of the Task 210 Subsurface Site Investigation was to characterize soil at the site in the area of the existing diesel fuel oil UST. Six borings were advanced around the concrete pad covering the UST (see Figure 3). Soil borings were not advanced directly east of the UST, specifically in-between the concrete pad and the building, due to the presence of buried electrical lines and/or the fuel oil supply and return lines. Instead, soil borings were slightly off-set from the corners of the concrete pad. In addition, soil borings located to the west of the UST were also off-set from the corners of the concrete pad due to the presence of the riprap covered slope directly west of the UST.

A total of seven soil samples (including one duplicate sample) were collected from the six soil borings for submission to the laboratory for analysis (one sample per boring). No groundwater samples were collected as part of this investigation.

The seven soil samples were submitted to the laboratory for the analysis of the following:

- Volatile Organic Compounds (VOCs) by EPA Method 8260 (with Method 5035 field preservation);
- Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270; and
- Extractable Total Petroleum Hydrocarbons (ETPH) by Connecticut Department of Public Health Method.

All samples were analyzed by Phoenix Environmental Laboratories (Phoenix) of Manchester, Connecticut in accordance with Connecticut's Reasonable Confidence Protocols (RCPs).

### 2.1 Preliminary Activities

Prior to beginning the investigation, TRC marked the proposed boring locations at the site with white paint. "Call Before You Dig" (CBYD) was contacted by Cisco Geotechnical,

LLC (Cisco) of Glastonbury, Connecticut to mark the locations of buried utilities in the proposed work areas. In addition, TRC contracted Underground Surveying, LLC of Brookfield, Connecticut, a private utility locating service, to conduct a more detailed on-site mark-out given the presence of several utilities within the investigation area. Preliminary activities also included the preparation of a Health and Safety Plan (HASP) to address the field work to be completed as part of this Task 210.

## 2.2 Soil Boring Program

### *Methodology*

A total of six soil borings were advanced on December 13, 2018 by Cisco under the direct supervision of TRC personnel. These borings were advanced utilizing a truck-mounted GeoProbe™ direct-push drill rig. Soil cores were collected continuously from the ground surface to depths ranging from eight to 12 ftbg.

Each four-foot soil core, collected in an acetate Macro-Core® liner, was logged with respect to soil characteristics (i.e., grain size, moisture content and any other physical characteristics) and indications of potential impacts (e.g., stains and odors). In addition, each core was field-screened using a photoionization detector (PID) prior to the collection of soil samples for laboratory analysis. Soil boring logs are presented in Appendix A. The soil boring/sampling locations are shown on Figure 3.

The initial criteria for selecting a sample interval for laboratory analysis were visual and olfactory observations and/or PID screening results. In the absence of obvious evidence of impacts, the soil sample intervals were chosen based on the most-likely interval for impacts, that typically being a depth corresponding with bottom of the tank and/or directly at or above the groundwater interface. TRC presumes the tank is six-feet in diameter with three to four feet of cover material. Therefore the bottom of the tank (estimated at nine to 10 ftbg) and the observed water table depths are in close proximity to one another.

Soil samples submitted to the laboratory for VOC analysis were collected in accordance with EPA Method 5035. This method outlines the collection of soil samples, without homogenization and with minimal disturbance, and direct transfer into extraction solvents. The remaining soil was then homogenized and placed in the appropriate laboratory-supplied sample containers and then placed in a cooler with ice, for delivery to the laboratory. The remaining

soils and drill cuttings were returned to their respective boreholes. Final borehole locations were documented by measuring from two or more fixed locations and recording those measurements in the project field notebook.

The probe tip and Macro-Core<sup>®</sup> sampler were decontaminated between uses to minimize the potential for cross-contamination. The decontamination was completed by washing with an Alconox and tap water mixture, followed by a tap water rinse and a final deionized water rinse.

### ***Field Observations***

Based on the descriptions of the soil cores, the area of the diesel fuel UST is primarily underlain by brown fine to medium sand with varying amounts of silt, coarse sand, and gravel. As discussed above, TRC identified asphalt millings in the soil at depths ranging from approximately 1.5 to 10 feet below grade (ftbg) within the area of the UST, indicating the presence of fill material.

Each soil core was screened with a PID for volatile organic vapors. One low-level PID measurement of 3.5 parts per million (ppm) was observed at a depth of 9.5 ftbg in soil boring CW-B4, which is located to the south of the UST. No significant PID measurements, odors, or staining were observed in any of the remaining soil borings. Neither bedrock nor boring refusal was encountered in any boring drilled as part of this investigation.

As discussed above, no soil borings were advanced directly the east of the UST, specifically in-between the concrete pad covering the UST and the building, due to the potential of striking buried electrical lines and/or the fuel oil supply and return lines. Instead, the two soil borings on eastern side of the UST were slightly off-set from the corners of the concrete pad. In addition, soil borings located to the west of the UST were also off-set from the corners of the concrete pad due to the riprap covered slope directly along the western side of the UST.

### **2.3 Quality Assurance/Quality Control Samples**

Quality assurance/quality control (QA/QC) samples were collected as part of the Task 210 subsurface investigation.

In order to determine the effectiveness of the decontamination of the sampling equipment, a field rinsate blank was collected and analyzed for the same analyses as the primary samples submitted on the day of the sampling. The field equipment rinsate blank was collected



by pouring laboratory-supplied de-ionized water over and/or through the sampling equipment (acetate liner, sampling tubing, etc.) used in the collection of the samples. The rinsate water was then collected into the appropriate laboratory-supplied sample containers. The field rinsate blank associated with the sampling program was designated as “FB20181213.”

In addition, solvent blanks were submitted to evaluate the effect of sample storage and shipment on sample integrity for the soil samples collected for VOC analysis. Furthermore, solvent blanks are used to ensure that proper sample container preparation and handling procedures were utilized following EPA 5035 Method protocols for field preservation of VOC soil samples. Vials of methanol and de-ionized water to be used for VOC soil sampling were prepared by the laboratory. The solvent blanks associated with the soil sampling program were designated as “SB20181213-H” and “SB20181213-L”.

Duplicate samples are two separate samples collected from the same source. The procedure for collecting a duplicate sample consists of alternating the collection of the sample media between the primary sample container and the duplicate sample container. The duplicate soil sample collected as part of this soil sampling program was labeled as CW-B100(8-10) and was a duplicate of soil sample CW-B4(8-10).

### **3.0 INVESTIGATION RESULTS**

The following section provides a summary of the analytical results for the soil sampling conducted at the site. Seven soil samples (including a duplicate soil sample) were collected and analyzed for VOCs, PAHs, and ETPH. The soil analytical results are summarized in Table 1. A copy of the laboratory report is provided in Appendix B.

Although the project site is not subject to the Transfer Act, the Voluntary Cleanup Program, nor the requirements of a Consent Order, the soil analytical results were compared to the Connecticut RSRs to evaluate the levels of any detected contaminants within the investigated area. This allows for management of any contaminated media encountered during the impending construction activities in a manner consistent with applicable regulations.

The reported concentrations for soils were compared to the Residential Direct Exposure Criteria (RES DEC) and the GA Pollutant Mobility Criteria (GA PMC) under the RSRs. The Industrial/Commercial (I/C) Criteria are not technically applicable at a site unless an Environmental Land Use Restriction (ELUR) is implemented, therefore, those criteria are not presented herein.

#### **3.1 Soil Sample Results**

As indicated above, a summary of the soil sample analytical results is presented in Table 1. A copy of the laboratory analytical report for soil samples is included in Appendix B.

##### ***VOCs***

No VOCs were detected at concentrations above the laboratory reporting limits in any of the soil samples collected as part of this investigation.

##### ***PAHs***

Several PAHs were reported at a concentrations above the laboratory reporting limits in all seven soil samples submitted for analysis. The reported concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, and pyrene were above the RES DEC and/or GA PMC in soil samples CW-B1(6-8), CW-B3(8-10), CW-B4(8-10), CW-B100(8-10) and CW-B6(4-6). The remaining reported concentrations of PAH compounds were below their respective RSR criteria.

### ***ETPH***

ETPH was not detected above laboratory reporting limits in any of the soil samples collected as part of this investigation.

### 3.2 Quality Assurance / Quality Control Sample Results

As indicated in Section 2.3, a field equipment rinsate blank, soil duplicate sample, and soil solvent blank were submitted to the laboratory as part of the sampling program for QA/QC purposes. The field rinsate blank did not exhibit detectable concentrations of any constituents, indicating that the field equipment used for the sampling had been adequately decontaminated and had no influence on the soil analytical results.

The concentration of detected PAHs in the duplicate sample CW-B100(8-10) varied slightly from those detected in the primary sample CW-B4(8-10). The minimal variation in the reported PAH compounds indicates that the samples were adequately homogenized in the field and the laboratory's processing of the samples was consistent.

VOCs were not detected in the soil solvent blank associated with this investigation.

#### **4.0 CONCLUSIONS AND RECOMMENDATIONS**

This section briefly summarizes the findings of the Task 210 exploratory site investigation activities conducted at the site on December 13, 2018. Also included are recommendations based on these findings/conclusions.

##### **4.1 Soil**

1. The soil borings drilled in the planned UST removal area were advanced to a maximum depth of 12 ftbg. In general, the site is primarily underlain by brown fine to medium sand with varying amounts of silt, coarse sand, and gravel. Asphalt millings were observed in the soils at depths ranging from 1.5 to 10 ftbg in all but one soil boring, indicating the presence of fill material surrounding the UST. In addition, one low-level PID measurements was detected in the soil from boring CW-B4 at a depth of 9.5 ftbg. No field evidence of contamination (i.e., elevated PID measurements, odors and/or staining) were observed in any of the remaining soil borings.
2. No VOCs or ETPH were detected in any of the soil samples collected as part of this investigation.

Several PAH compounds were detected at concentrations above the RES DEC and/or GA PMC in soil samples CW-B1(6-8), CW-B3(8-10), CW-B4(8-10), CW-B100(8-10) and CW-B6(4-6).

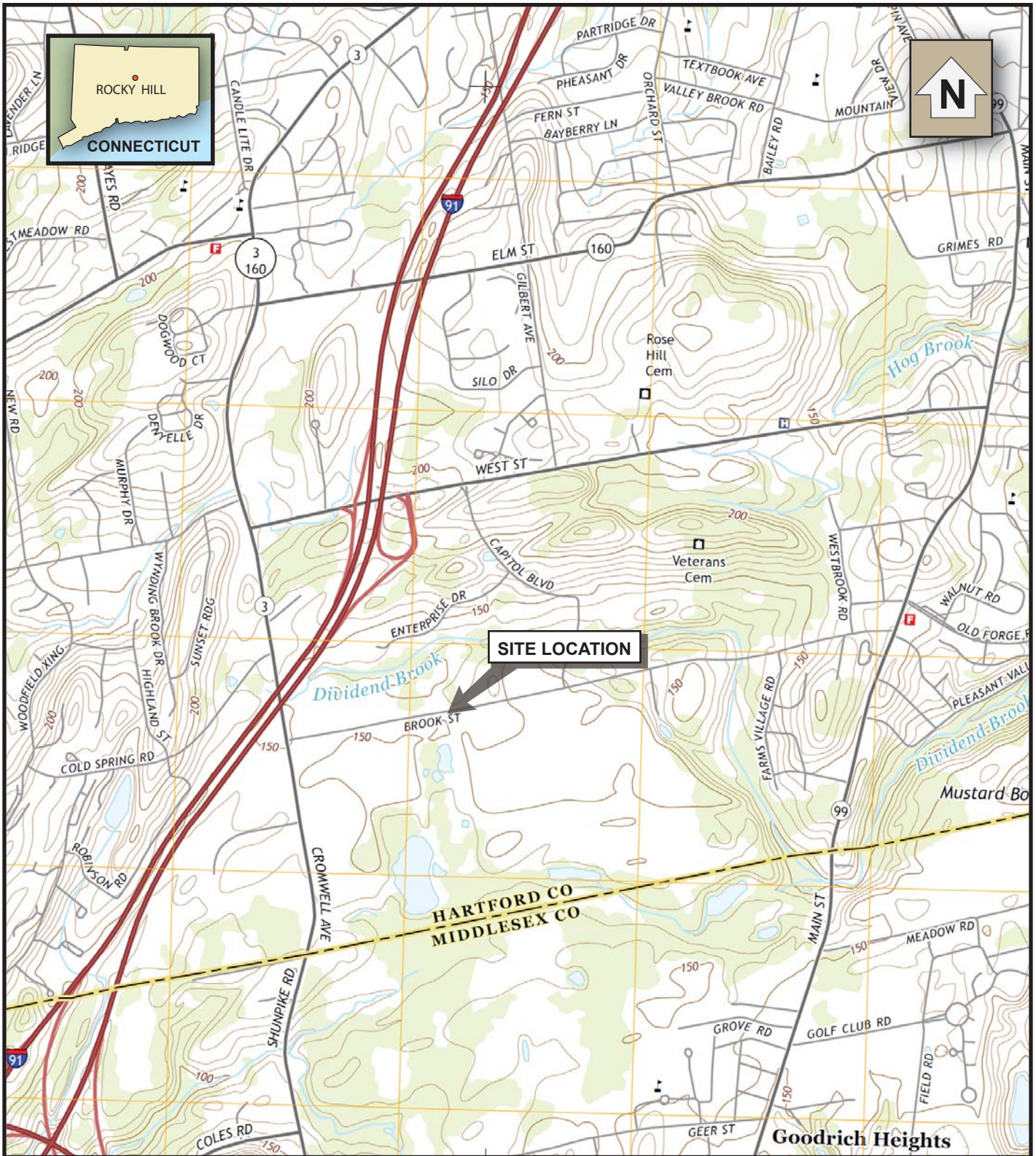
**Recommendation:** It is recommended that a Notice To Contractor be prepared to notify the tank replacement contractor of the results of the investigation. In addition, a health and safety specification is warranted for the removal of the UST.

## **5.0 REFERENCES**

Rogers, J. 1985. Bedrock Geological Map of Connecticut. State Geological and Natural History of Connecticut. Scale 1:125,000.

Stone, J.R. 1992. Surficial Materials Map of Connecticut. U.S. Department of the Interior, U.S. Geological Survey. Scale 1:125,000.

## **FIGURES**



**SITE LOCATION**

**HARTFORD CO  
MIDDLESEX CO**

**Goodrich Heights**



1:24000

BASE CREATED WITH 7.5' USGS TOPOGRAPHIC MAPS  
HARTFORD SOUTH, CT 2015 QUADRANGLE



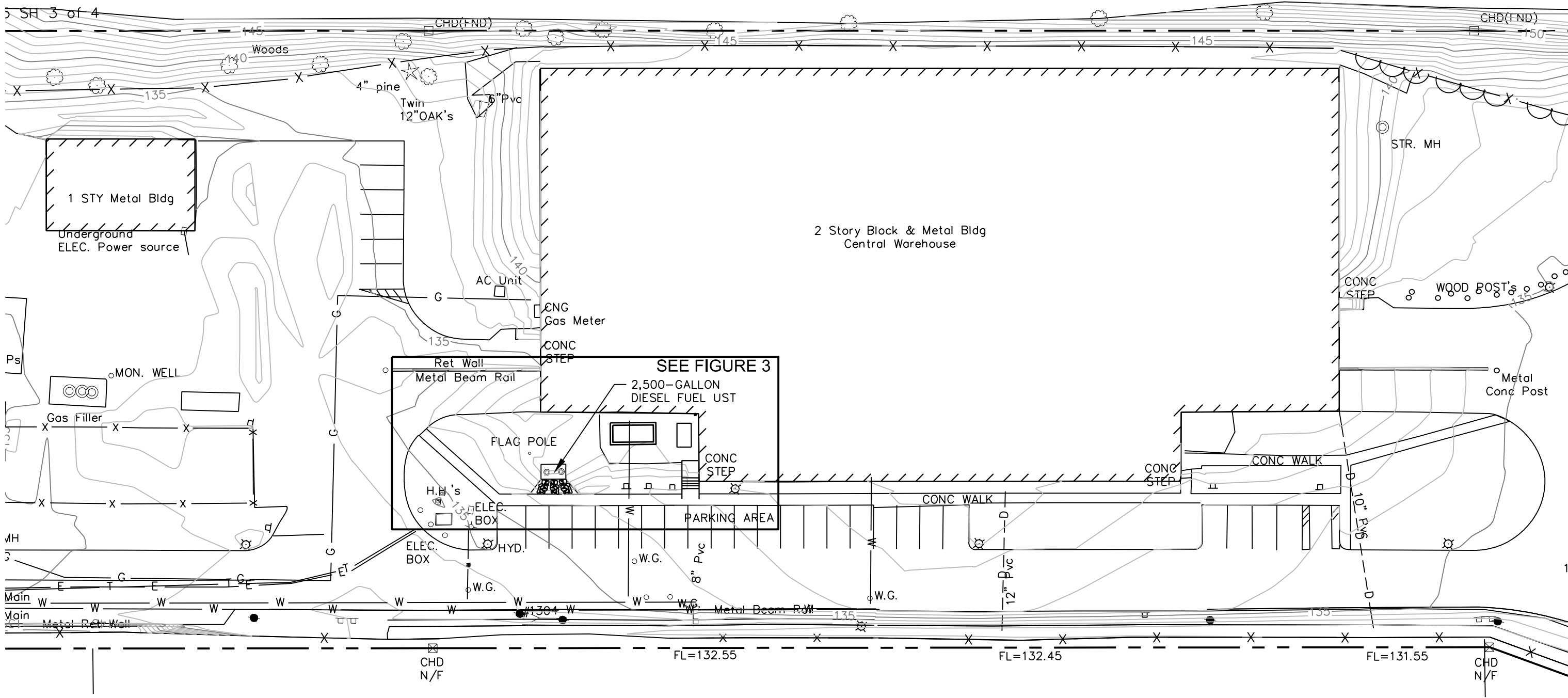
21 Griffin Road North  
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Phone: 860.298.9692

**CONNDOT CENTRAL WAREHOUSE**  
660 BROOK STREET, ROCKY HILL, CONNECTICUT

**FIGURE 1  
SITE LOCATION MAP**

DATE: 01/2019

PROJECT NO. 237612.5738.0210

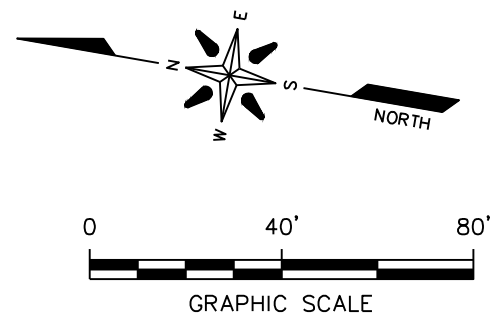


11x17 - USER: Kollenbeck - ATTACHED XREFS: - ATACHED IMAGES: - PLOT DATE: January 11, 2019 - 9:37AM - LAYOUT: Figure 2  
 DRAWING NAME: J:\CAD\DOT\Rocky Hill Central Warehouse\Site Investigation-237612-005738\0002\01 Figure 2 & 3.dwg

**LEGEND**

|  |                     |  |                          |
|--|---------------------|--|--------------------------|
|  | BUILDING            |  | PROPERTY LINE            |
|  | EDGE OF PAVEMENT    |  | TREE LINE                |
|  | EDGE OF GRAVEL AREA |  | PARKING LOT LIGHT        |
|  | GUIDE RAIL          |  | TREE                     |
|  | FENCE               |  | UNDERGROUND TV CABLE     |
|  | CATCH BASIN         |  | UNDERGROUND ELECTRIC     |
|  | STORM DRAIN PIPE    |  | WATER LINE               |
|  | SANITARY SEWER PIPE |  | UNDERGROUND TELEPHONE    |
|  | MANHOLE             |  | MONITORING WELL LOCATION |

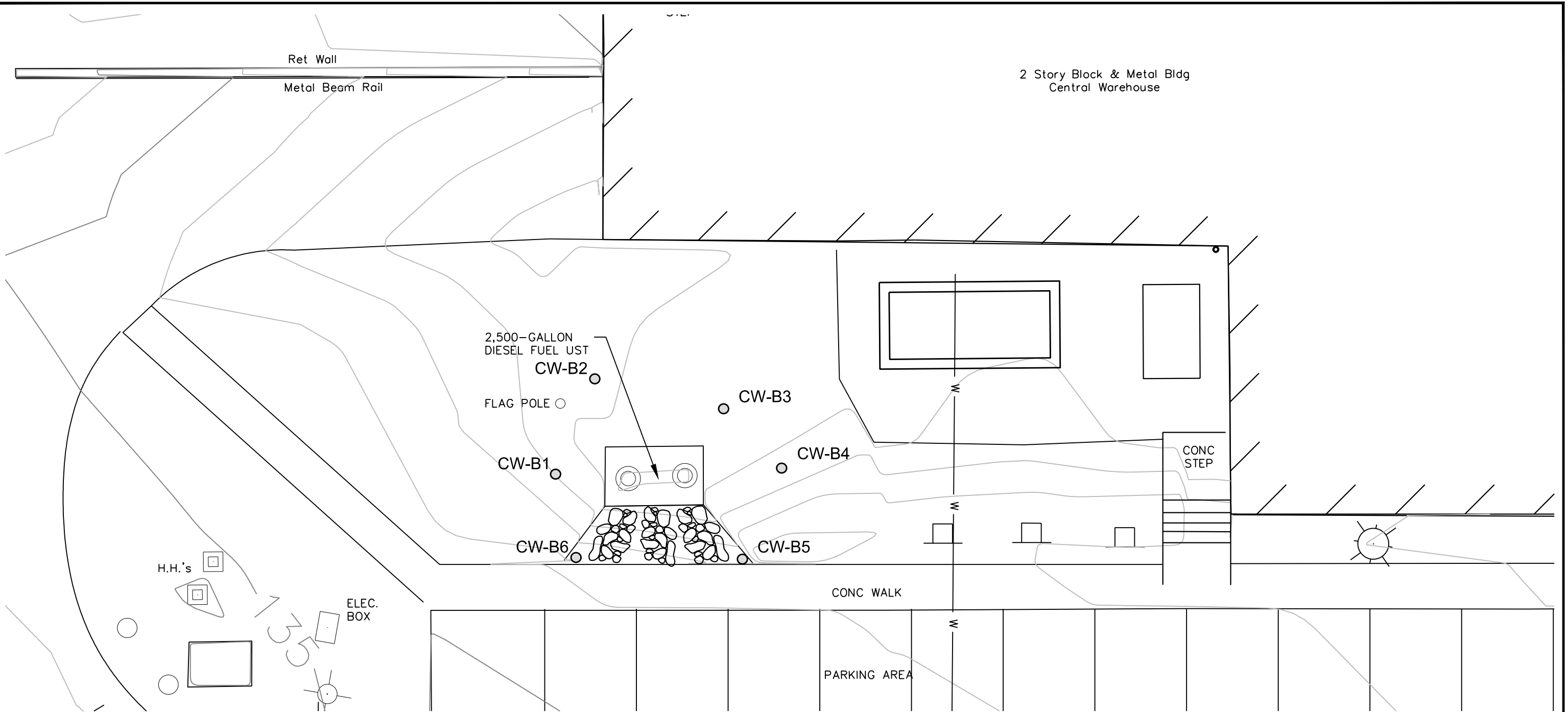
REFERENCE:  
 MAP TITLED "STATE OF CONNECTICUT, DEPARTMENT OF TRANSPORTATION, BUILDING SURVEY, BROOK STREET FACILITY IN THE TOWN OF ROCKY HILL, PROJECT No. 118-167", SCALE: 1"=40', DATED: 12/30/14.



|   |   |
|---|---|
| <b>CONNECTICUT DEPARTMENT OF TRANSPORTATION<br/>         CENTRAL WAREHOUSE<br/>         660 Brook Street<br/>         Rocky Hill, Connecticut</b> |   |
| <b>TITLE:<br/>         SITE PLAN</b>  |   |
| DRAWN BY: K. HOLLENBECK<br>CHECKED BY: L. BANE<br>APPROVED BY: L. BANE<br>DATE: 01/07/2019  | PROJ NO.: 237612-005738-000210<br><b>FIGURE 2</b> |
|   |   |
| 21 Griffin Road North<br>Windsor, CT 06095<br>Phone: 860.298.9692<br>www.trcsolutions.com   | FILE NO.: Figure 2 & 3.dwg                        |



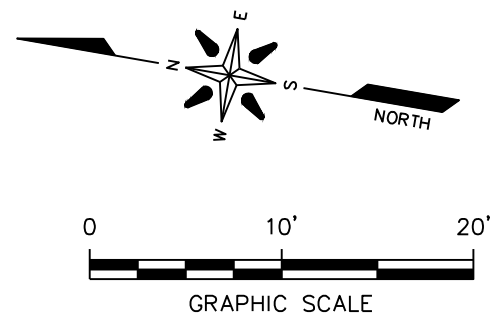
11x17 - USER: Kholtenbeck - ATTACHED XREFS: - ATACHED IMAGES: - DRAWING NAME: J:\CAD\ICTDOT\Rocky Hill Central Warehouse\Site Investigation-237612-005738\0002\01 Figure 2 & 3.dwg - PLOT DATE: January 11, 2019 - 9:39AM - LAYOUT: Figure 3  
 Version: 2017-10-21



**LEGEND**

|  |                     |  |                          |
|--|---------------------|--|--------------------------|
|  | BUILDING            |  | PROPERTY LINE            |
|  | EDGE OF PAVEMENT    |  | TREE LINE                |
|  | EDGE OF GRAVEL AREA |  | PARKING LOT LIGHT        |
|  | GUIDE RAIL          |  | TREE                     |
|  | FENCE               |  | UNDERGROUND TV CABLE     |
|  | CATCH BASIN         |  | UNDERGROUND ELECTRIC     |
|  | STORM DRAIN PIPE    |  | WATER LINE               |
|  | SANITARY SEWER PIPE |  | UNDERGROUND TELEPHONE    |
|  | MANHOLE             |  | MONITORING WELL LOCATION |
|  |                     |  | SOIL BORING LOCATION     |

REFERENCE:  
 MAP TITLED "STATE OF CONNECTICUT, DEPARTMENT OF TRANSPORTATION, BUILDING SURVEY, BROOK STREET FACILITY IN THE TOWN OF ROCKY HILL, PROJECT No. 118-167", SCALE: 1"=40', DATED: 12/30/14.



|   |                                |
|---|--------------------------------|
| <b>CONNECTICUT DEPARTMENT OF TRANSPORTATION<br/>         CENTRAL WAREHOUSE<br/>         660 Brook Street<br/>         Rocky Hill, Connecticut</b> |                                |
| TITLE:  |                                |
| <b>SAMPLE LOCATION PLAN</b>   |                                |
| DRAWN BY: K. HOLLENBECK   | PROJ NO.: 237612-005738-000210 |
| CHECKED BY: L. BANE   | <b>FIGURE 3</b>                |
| APPROVED BY: L. BANE  |                                |
| DATE: 01/07/2019  |                                |
|   |                                |
| 21 Griffin Road North<br>Windsor, CT 06095<br>Phone: 860.298.9692<br>www.trcsolutions.com   |                                |
| FILE NO.:   | Figure 2 & 3.dwg               |

## **TABLES**

**Table 1**  
**Soil Sample Analytical Results**  
**Task 210 Subsurface Investigation**  
**Central Warehouse, Rocky Hill, Connecticut**  
**TRC Project No. 237612.005738.000210**  
**ConnDOT Project No. 170-3476**

| Boring No.<br>Sample Interval (ftbg):<br>Sample Date:<br>Notes:                 | CW-B1(6-8)<br>6-8<br>12/13/2018 | CW-B2(6-8)<br>6-8<br>12/13/2018 | CW-B3(8-10)<br>8-10<br>12/13/2018 | CW-B4(8-10)<br>8-10<br>12/13/2018 | CW-B100(8-10)<br>8-10<br>12/13/2018<br>Duplicate of<br>CW-B4(8-10) | CW-B5(4-6)<br>4-6<br>12/13/2018 | CW-B6(4-6)<br>4-6<br>12/13/2018 | SB20181213-L<br>SB-Low<br>12/13/2018<br>Solvent Blank | SB20181213-H<br>SB-High<br>12/13/2018<br>Solvent Blank | FB20181213<br>12/13/2018<br>Field Blank | CT RSRs |        |
|---|---------------------------------|---------------------------------|-----------------------------------|-----------------------------------|--|---------------------------------|---------------------------------|---|--|---|---------|--------|
|   |                                 |                                 |                                   |                                   |  |                                 |                                 |   |  |   | RES DEC | GA PMC |
| <b><u>Volatile Organic Compounds - mg/kg</u></b><br>Method 8260                 | ND                              | ND                              | ND                                | ND                                | ND   | ND                              | ND                              | ND  | ND   | ND                                      | --      | --     |
| <b><u>Polycyclic Aromatic Hydrocarbons - mg/kg</u></b><br>Method 8270           |                                 |                                 |                                   |                                   |  |                                 |                                 | NA  | NA   | ND                                      |         |        |
| Acenaphthylene  | 0.95                            |                                 | 0.7                               | 1.1                               | 0.9  |                                 | 1.3                             |   |  |   | 1,000   | 8.4    |
| Anthracene  | 0.58                            |                                 | 0.49                              | 0.92                              | 0.75   |                                 | 0.88                            |   |  |   | 1,000   | 40     |
| Benzo(a)anthracene  | <b>2.8</b>                      | 0.63                            | <b>1.8</b>                        | <b>3.3</b>                        | <b>3.3</b>   | 0.43                            | <b>3.6</b>                      |   |  |   | 1       | 1      |
| Benzo(a)pyrene  | <b>3.2</b>                      | 0.75                            | <b>2.1</b>                        | <b>3.8</b>                        | <b>3.5</b>   | 0.52                            | <b>4</b>                        |   |  |   | 1       | 1      |
| Benzo(b)fluoranthene  | <b>2.8</b>                      | 0.6                             | <b>1.9</b>                        | <b>3.3</b>                        | <b>3.2</b>   | 0.51                            | <b>3.7</b>                      |   |  |   | 1       | 1      |
| Benzo(ghi)perylene  | 1.6                             | 0.37                            | 1                                 | 1.9                               | 1.6  | 0.52                            | 2                               |   |  |   | NE      | NE     |
| Benzo(k)fluoranthene  | <b>2.7</b>                      | 0.58                            | <b>1.7</b>                        | <b>2.9</b>                        | <b>2.9</b>   | 0.46                            | <b>3.1</b>                      |   |  |   | 8.4     | 1      |
| Chrysene  | 2.8                             | 0.69                            | 1.9                               | 3.3                               | 3.3  | 0.46                            | 3.7                             |   |  |   | NE      | NE     |
| Dibenz(a,h)anthracene   | 0.44                            |                                 | 0.26                              | 0.5                               | 0.47   | 0.25                            | 0.55                            |   |  |   | NE      | NE     |
| Fluoranthene  | 3.7                             | 0.94                            | 3                                 | 4.6                               | 4.6  | 0.64                            | 5.2                             |   |  |   | 1,000   | 5.6    |
| Fluorene  |                                 |                                 |                                   | 0.26                              |  |                                 | 0.36                            |   |  |   | 1,000   | 5.6    |
| Indeno(1,2,3-cd)pyrene  | 1.8                             | 0.45                            | 1.2                               | 2.2                               | 2  | 0.51                            | 2.4                             |   |  |   | NE      | NE     |
| Phenanthrene  | 1.1                             | 0.36                            | 1.2                               | 1.9                               | 1.6  |                                 | 2.2                             |   |  |   | 1,000   | 4      |
| Pyrene  | 3.7                             | 0.87                            | 2.8                               | <b>4.4</b>                        | <b>4.4</b>   | 0.64                            | <b>4.9</b>                      |   |  |   | 1,000   | 4      |
| <b><u>Extractable Total Petroleum Hydrocarbons - mg/kg</u></b><br>CT DPH Method | ND                              | ND                              | ND                                | ND                                | ND   | ND                              | ND                              | NA  | NA   | ND                                      | 500     | 500    |

NOTES:  
CT RSRs - State of Connecticut Remediation Standard Regulations (CT RSRs) per RCSA 22a-133k-1 through 22a-133k-3, adopted January 1, 1996 and revised on June 27, 2013.  
RES DEC - Residential Direct Exposure Criteria  
GA PMC - GA Pollutant Mobility Criteria  
ftbg - feet below grade  
ND - Not detected above laboratory detection limits (all checked to be in compliance with established RSR criteria)  
NA - Not analyzed  
mg/kg - milligrams per kilogram  
Bold value indicates an exceedance of the RES DEC  
Shaded value indicates an exceedance of the GA PMC.

**APPENDIX A**  
**SOIL BORING LOGS**



| PROJECT INFORMATION                                     |  | BORING INFORMATION                    |                           |
|---|--|---------------------------------------|---------------------------|
| Project Name: <b>Central Warehouse</b>                  | Boring Depth (ft): <b>12</b>                       | Hole Diameter (in): _____             |                           |
| Project Location: <b>660 Brook St, Rocky Hill, CT</b>   | Date Started: <b>12/13/18</b>                      | Date Completed: <b>12/13/18</b>       |                           |
| Project Number: <b>237612.005738.000210</b>             | Coordinate System: _____                           | North: <b>Not Surveyed</b>            | East: <b>Not Surveyed</b> |
| Client: <b>Connecticut Department of Transportation</b> | Vertical Datum: _____                              | Ground Elevation: <b>Not Surveyed</b> |                           |
| TRC Eng./Geol: <b>Ashley Wright</b>                     | Well Elevation (Top of Casing) <b>Not Surveyed</b> |                                       |                           |
| Checked By: <b>Liam Bane</b>                            |  |                                       |                           |

| DRILLING INFORMATION                                |                 | GROUND WATER OBSERVATIONS |                      |                  |  |
|---|-----------------|---------------------------|----------------------|------------------|--|
| Drilling Contractor: <b>Cisco Geotechnical, LLC</b> | MEASUREMENT     | ∇ At Time of Drilling     | ∇ At End of Drilling | ∇ After Drilling |  |
| Driller(s): <b>Jim &amp; Pat</b>                    | DATE            | <b>12/13/2018</b>         |                      |                  |  |
| Drilling Method: <b>Direct-Push</b>                 | DEPTH (ft.bgs.) | <b>8</b>                  |                      |                  |  |
| Equipment/Model: <b>Geoprobe 54DT</b>               | REFERENCE       |                           |                      |                  |  |
| Sampler: <b>48-inch Macrocore</b>                   | STABILIZATION   | <b>None</b>               |                      |                  |  |

| DEPTH (FT.)                      | SAMPLE NUMBER | SAMPLE TYPE | PENETRATION (FT.) | RECOVERY (FT.) | LITHOLOGY | MATERIAL DESCRIPTION   | ◆ VOC SCREENING RESULTS (ppm) |    |    |    |
|----------------------------------|---------------|-------------|-------------------|----------------|-----------|--|-------------------------------|----|----|----|
|                                  |               |             |                   |                |           |  | 20                            | 40 | 60 | 80 |
|                                  |               |             |                   |                |           | 0'- 1' Medium Brown F-SAND & SILT, some roots, trace gravel, dry, no odor, no staining (liner stuck in the macrocore, logged the loose material) |                               |    |    |    |
|                                  | MAC-0-4       |             | 4.0               | 1.0            |           |  |                               |    |    |    |
| 5                                |               |             |                   |                |           | 4'- 4.6' Fall-in material  |                               |    |    |    |
|                                  |               |             |                   |                |           | 4.6'- 5.3' Medium Brown F-M SAND, trace silt and c-gravel, moist, no odor, no staining   |                               |    |    |    |
|                                  |               |             |                   |                |           | 5.3'- 5.4' Black ASPHALT MILLINGS  |                               |    |    |    |
|                                  | MAC-4-8       |             | 4.0               | 2.3            |           | 5.4'- 6.1' Medium Brown F-M SAND, little silt, c-sand and F-c gravel, very moist, no odor, no staining   |                               |    |    |    |
|                                  |               |             |                   |                |           | 6.1'- 6.3' Medium Brown F-M SAND, trace c-sand, very moist, no odor, no staining   |                               |    |    |    |
|                                  |               |             |                   |                |           | 8'- 8.9' Medium Brown F-M SAND, trace silt, c-sand, and gravel, moist to very moist, no odor, no staining  |                               |    |    |    |
|                                  |               |             |                   |                |           | 8.9'- 9' Medium Brown F-M SAND & GRAVEL, saturated, no odor, no staining   |                               |    |    |    |
| 10                               | MAC-8-12      |             | 4.0               | 1.0            |           |  |                               |    |    |    |
| Bottom of borehole at 12.0 feet. |               |             |                   |                |           |  |                               |    |    |    |

**Notes:** Soil sample CW-B1(6-8) collected from 6-8 ftbg and analyzed for VOCs, PAHs, and CT ETPH.

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| PROJECT INFORMATION |   | BORING INFORMATION              |                     |
|---------------------|---|---------------------------------|---------------------|
| Project Name:       | <b>Central Warehouse</b>                        | Boring Depth (ft):              | <b>12</b>           |
| Project Location:   | <b>660 Brook St, Rocky Hill, CT</b>             | Hole Diameter (in):             |                     |
| Project Number:     | <b>237612.005738.000210</b>                     | Date Started:                   | <b>12/13/18</b>     |
| Client:             | <b>Connecticut Department of Transportation</b> | Date Completed:                 | <b>12/13/18</b>     |
| TRC Eng./Geol.:     | <b>Ashley Wright</b>                            | Coordinate System:              |                     |
| Checked By:         | <b>Liam Bane</b>                                | North:                          | <b>Not Surveyed</b> |
|                     |   | East:                           | <b>Not Surveyed</b> |
|                     |   | Vertical Datum:                 |                     |
|                     |   | Ground Elevation:               | <b>Not Surveyed</b> |
|                     |   | Well Elevation (Top of Casing): | <b>Not Surveyed</b> |

| DRILLING INFORMATION |                                | GROUND WATER OBSERVATIONS |                       |                      |                  |
|----------------------|--------------------------------|---------------------------|-----------------------|----------------------|------------------|
| Drilling Contractor: | <b>Cisco Geotechnical, LLC</b> | MEASUREMENT               | ∇ At Time of Drilling | ∇ At End of Drilling | ∇ After Drilling |
| Driller(s):          | <b>Jim &amp; Pat</b>           | DATE                      | <b>12/13/2018</b>     |                      |                  |
| Drilling Method:     | <b>Direct-Push</b>             | DEPTH (ft.bgs.)           | <b>8</b>              |                      |                  |
| Equipment/Model:     | <b>Geoprobe 54DT</b>           | REFERENCE                 |                       |                      |                  |
| Sampler:             | <b>48-inch Macrocore</b>       | STABILIZATION             | <b>None</b>           |                      |                  |

| DEPTH (FT.)                      | SAMPLE NUMBER | SAMPLE TYPE | PENETRATION (FT.) | RECOVERY (FT.) | LITHOLOGY | MATERIAL DESCRIPTION  | VOC SCREENING RESULTS (ppm) |
|----------------------------------|---------------|-------------|-------------------|----------------|-----------|---|-----------------------------|
|                                  |               |             |                   |                |           | 0'- 0.8' Medium Brown TOPSOIL, f-m sand and silt, trace gravel, slightly moist, no odor, no staining            |                             |
|                                  |               |             |                   |                |           | 0.8'- 2.2' Medium Brown F-M Sand, little c-sand and silt, trace f-gravel, slightly moist, no odor, no staining  |                             |
|                                  | MAC-0-4       |             | 4.0               | 2.2            |           |   |                             |
|                                  |               |             |                   |                |           | 4'- 4.6' Fall-in material   |                             |
| 5                                |               |             |                   |                |           | 4.6'- 4.7' Black ASPHALT MILLINGS   |                             |
|                                  |               |             |                   |                |           | 4.7'- 5.6' Medium Brown F-M SAND, little silt, trace f-c gravel, moist, no odor, no staining                    |                             |
|                                  | MAC-4-8       |             | 4.0               | 2.8            |           | 5.6'- 6.8' Orangish Medium Brown F-M SAND, trace c-sand and f-gravel, moist to very moist, no odor, no staining |                             |
|                                  |               |             |                   |                |           | 8'- 8.2' Fall-in material   |                             |
|                                  |               |             |                   |                |           | 8.2'- 8.5' Orangish Medium Brown F-M SAND, trace c-sand and f-gravel, moist to very moist, no odor, no staining |                             |
|                                  |               |             |                   |                |           | 8.5'- 8.9' Medium Brown F-M SAND, some silt, trace c-gravel, very moist, no odor, no staining                   |                             |
| 10                               | MAC-8-12      |             | 4.0               | 3.0            |           | 8.9'- 9.6' Black ASPHALT MILLINGS, some medium brown f-m sand, little c-gravel, no odor, no staining            |                             |
|                                  |               |             |                   |                |           | 9.6'- 9.9' Medium Brown F-M SAND & GRAVEL, saturated, no odor, no staining                                      |                             |
|                                  |               |             |                   |                |           | 9.9'- 11' Reddish Brown F-M SAND, trace f-gravel, saturated, no odor, no staining                               |                             |
| Bottom of borehole at 12.0 feet. |               |             |                   |                |           |   |                             |

**Notes:** Soil sample CW-B2(6-8) collected from 6-8 ftbg and analyzed for VOCs, PAHs, and CT ETPH.

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| PROJECT INFORMATION                                     |   | BORING INFORMATION                    |                           |
|---|---|---------------------------------------|---------------------------|
| Project Name: <b>Central Warehouse</b>                  | Boring Depth (ft): <b>12</b>                        | Hole Diameter (in):                   |                           |
| Project Location: <b>660 Brook St, Rocky Hill, CT</b>   | Date Started: <b>12/13/18</b>                       | Date Completed: <b>12/13/18</b>       |                           |
| Project Number: <b>237612.005738.000210</b>             | Coordinate System:                                  | North: <b>Not Surveyed</b>            | East: <b>Not Surveyed</b> |
| Client: <b>Connecticut Department of Transportation</b> | Vertical Datum:                                     | Ground Elevation: <b>Not Surveyed</b> |                           |
| TRC Eng./Geol: <b>Ashley Wright</b>                     | Well Elevation (Top of Casing): <b>Not Surveyed</b> |                                       |                           |
| Checked By: <b>Liam Bane</b>                            |   |                                       |                           |

| DRILLING INFORMATION                                |                 | GROUND WATER OBSERVATIONS |                      |                  |
|---|-----------------|---------------------------|----------------------|------------------|
| Drilling Contractor: <b>Cisco Geotechnical, LLC</b> | MEASUREMENT     | ∇ At Time of Drilling     | ▼ At End of Drilling | ▼ After Drilling |
| Driller(s): <b>Jim &amp; Pat</b>                    | DATE            | <b>12/13/2018</b>         |                      |                  |
| Drilling Method: <b>Direct-Push</b>                 | DEPTH (ft.bgs.) | <b>10</b>                 |                      |                  |
| Equipment/Model: <b>Geoprobe 54DT</b>               | REFERENCE       |                           |                      |                  |
| Sampler: <b>48-inch Macrocore</b>                   | STABILIZATION   | <b>None</b>               |                      |                  |

| DEPTH (FT.) | SAMPLE NUMBER | SAMPLE TYPE | PENETRATION (FT.) | RECOVERY (FT.) | LITHOLOGY | MATERIAL DESCRIPTION   | VOC SCREENING RESULTS (ppm) |
|-------------|---------------|-------------|-------------------|----------------|-----------|--|-----------------------------|
|             |               |             |                   |                |           |  | 20 40 60 80                 |
|             |               |             |                   |                |           | 0'- 0.5' Medium Brown TOPSOIL (f-sand & silt, some root material, frozen, no odor, no staining)                  |                             |
|             |               |             |                   |                |           | 0.5'- 1.9' Medium Brown F-SAND & SILT, little c-sand and f-gravel, loose, slightly moist, no odor, no staining   |                             |
|             | MAC-0-4       |             | 4.0               | 2.8            |           | 1.9'- 2.8' Medium Brown F-M SAND, little c-sand, trace f-c gravel, no odor, no staining                          | ◆                           |
|             |               |             |                   |                |           |  |                             |
| 5           |               |             |                   |                |           | 4'- 5.1' Medium Brown F-M SAND, little f-gravel, trace silt, c-sand, and c-gravel, moist, no odor, no staining   |                             |
|             |               |             |                   |                |           | 5.1'- 5.2' PULVERIZED ROCK   |                             |
|             | MAC-4-8       |             | 4.0               | 2.5            |           | 5.2'- 6.5' Medium Brown F-M SAND, little f-gravel, trace silt, c-sand, and f-gravel, moist, no odor, no staining | ◆                           |
|             |               |             |                   |                |           |  |                             |
|             |               |             |                   |                |           | 8'- 9.6' Medium Brown F-M SAND, trace c-sand and f-gravel, moist, no odor, no staining                           | ◆                           |
| 10          | MAC-8-12      |             | 4.0               | 2.0            |           | 9.6'- 10' Gray PEA-STONE, saturated, no odor, no staining  | ▼                           |

Bottom of borehole at 12.0 feet.

**Notes:** Soil sample CW-B3(8-10) collected from 8-10 ftbg and analyzed for VOCs, PAHs, and CT ETPH.

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| PROJECT INFORMATION                                     |   | BORING INFORMATION                    |                           |
|---|---|---------------------------------------|---------------------------|
| Project Name: <b>Central Warehouse</b>                  | Boring Depth (ft): <b>12</b>                        | Hole Diameter (in):                   |                           |
| Project Location: <b>660 Brook St, Rocky Hill, CT</b>   | Date Started: <b>12/13/18</b>                       | Date Completed: <b>12/13/18</b>       |                           |
| Project Number: <b>237612.005738.000210</b>             | Coordinate System:                                  | North: <b>Not Surveyed</b>            | East: <b>Not Surveyed</b> |
| Client: <b>Connecticut Department of Transportation</b> | Vertical Datum:                                     | Ground Elevation: <b>Not Surveyed</b> |                           |
| TRC Eng./Geol: <b>Ashley Wright</b>                     | Well Elevation (Top of Casing): <b>Not Surveyed</b> |                                       |                           |
| Checked By: <b>Liam Bane</b>                            |   |                                       |                           |

| DRILLING INFORMATION                                |                 | GROUND WATER OBSERVATIONS |                    |                |  |
|---|-----------------|---------------------------|--------------------|----------------|--|
| Drilling Contractor: <b>Cisco Geotechnical, LLC</b> | MEASUREMENT     | At Time of Drilling       | At End of Drilling | After Drilling |  |
| Driller(s): <b>Jim &amp; Pat</b>                    | DATE            | <b>12/13/2018</b>         |                    |                |  |
| Drilling Method: <b>Direct-Push</b>                 | DEPTH (ft.bgs.) | <b>10</b>                 |                    |                |  |
| Equipment/Model: <b>Geoprobe 54DT</b>               | REFERENCE       |                           |                    |                |  |
| Sampler: <b>48-inch Macrocore</b>                   | STABILIZATION   | <b>None</b>               |                    |                |  |

| DEPTH (FT.) | SAMPLE NUMBER | SAMPLE TYPE | PENETRATION (FT.) | RECOVERY (FT.) | LITHOLOGY | MATERIAL DESCRIPTION  | VOC SCREENING RESULTS (ppm) |
|-------------|---------------|-------------|-------------------|----------------|-----------|---|-----------------------------|
|             |               |             |                   |                |           | 0'- 0.4' Medium Brown TOPSOIL (f-m sand, some root material, frozen, no odor, no staining)  |                             |
|             |               |             |                   |                |           | 0.4'- 1.7' Medium Brown F-SAND & SILT, some root material, little m-c sand, trace f-gravel, slightly moist, no odor, no staining    |                             |
|             | MAC-0-4       |             | 4.0               | 2.4            |           | 1.7'- 2.3' Medium Brown F-M SAND, trace silt, c-sand, and f-gravel, slightly moist, no odor, no staining                            |                             |
|             |               |             |                   |                |           | 2.3'- 2.4' Medium Brown F-M SAND & GRAVEL, little silt, moist, no odor, no staining   |                             |
| 5           |               |             |                   |                |           | 4'- 4.3' Fall-in material   |                             |
|             |               |             |                   |                |           | 4.3'- 4.6' Medium Brown F-SAND, some silt, little c-sand and f-gravel, trace asphalt millings, slightly moist, no odor, no staining |                             |
|             | MAC-4-8       |             | 4.0               | 2.9            |           | 4.6'- 6.8' Medium Brown F-M SAND, little c-sand and f-gravel, trace silt and c-gravel, slightly moist, no odor, no staining         |                             |
|             |               |             |                   |                |           | 6.8'- 6.9' Black ASPHALT MILLINGS   |                             |
|             |               |             |                   |                |           | 8'- 8.2' Fall-in material   |                             |
|             |               |             |                   |                |           | 8.2'- 9.5' Medium Brown F-M SAND, little silt, c-sand, and f-c gravel, moist, no odor, no staining                                  |                             |
| 10          |               |             |                   |                |           | 9.5'- 9.7' Medium Brown SILT & GRAVEL, saturated, no odor, no staining  |                             |
|             | MAC-8-12      |             | 4.0               | 2.1            |           | 9.7'- 10.1' Medium Brown M-SAND, little f-sand, asphalt millings at 9.9 ftbg, saturated, no odor, no staining                       |                             |

Bottom of borehole at 12.0 feet.

**Notes:** Soil sample CW-B4(8-10)(and duplicate sample CW-B100(8-10)) collected from 8-10 ftbg and analyzed for VOCs, PAHs, and CT ETPH.

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| PROJECT INFORMATION                                     |  | BORING INFORMATION                    |                           |
|---|--|---------------------------------------|---------------------------|
| Project Name: <b>Central Warehouse</b>                  | Boring Depth (ft): <b>8</b>                        | Hole Diameter (in):                   |                           |
| Project Location: <b>660 Brook St, Rocky Hill, CT</b>   | Date Started: <b>12/13/18</b>                      | Date Completed: <b>12/13/18</b>       |                           |
| Project Number: <b>237612.005738.000210</b>             | Coordinate System:                                 | North: <b>Not Surveyed</b>            | East: <b>Not Surveyed</b> |
| Client: <b>Connecticut Department of Transportation</b> | Vertical Datum:                                    | Ground Elevation: <b>Not Surveyed</b> |                           |
| TRC Eng./Geol: <b>Ashley Wright</b>                     | Well Elevation (Top of Casing) <b>Not Surveyed</b> |                                       |                           |
| Checked By: <b>Liam Bane</b>                            |  |                                       |                           |

| DRILLING INFORMATION                                |                 | GROUND WATER OBSERVATIONS |                      |                  |  |
|---|-----------------|---------------------------|----------------------|------------------|--|
| Drilling Contractor: <b>Cisco Geotechnical, LLC</b> | MEASUREMENT     | ▼ At Time of Drilling     | ▼ At End of Drilling | ▼ After Drilling |  |
| Driller(s): <b>Jim &amp; Pat</b>                    | DATE            | <b>12/13/2018</b>         |                      |                  |  |
| Drilling Method: <b>Direct-Push</b>                 | DEPTH (ft.bgs.) | <b>6</b>                  |                      |                  |  |
| Equipment/Model: <b>Geoprobe 54DT</b>               | REFERENCE       |                           |                      |                  |  |
| Sampler: <b>48-inch Macrocore</b>                   | STABILIZATION   | <b>None</b>               |                      |                  |  |

| DEPTH (FT.) | SAMPLE NUMBER | SAMPLE TYPE | PENETRATION (FT.) | RECOVERY (FT.) | LITHOLOGY | MATERIAL DESCRIPTION  | VOC SCREENING RESULTS (ppm) |
|-------------|---------------|-------------|-------------------|----------------|-----------|---|-----------------------------|
|             |               |             |                   |                |           | 0'- 0.7' Medium Brown TOPSOIL (f-m sand, some root material, frozen, no odor, no staining)                          |                             |
|             |               |             |                   |                |           | 0.7'- 1.4' Medium Brown F-M SAND, trace silt and f-c gravel, dry, no odor, no staining                              |                             |
|             |               |             |                   |                |           | 1.4'- 1.6' Black ASPHALT MILLINGS   |                             |
|             | MAC-0-4       |             | 4.0               | 2.1            |           | 1.6'- 1.8' Medium Brown F-M SAND, some silt, slightly moist, no odor, no staining                                   | ◆                           |
|             |               |             |                   |                |           | 1.8'- 2.1' Medium Brown F-M SAND, trace silt and c-sand, moist, no odor, no staining                                |                             |
|             |               |             |                   |                |           | 4'- 4.3' Fall-in material   |                             |
| 5           |               |             |                   |                |           | 4.3'- 6' Medium Brown F-M SAND, little c-sand and f-c gravel, trace silt, moist to very moist, no odor, no staining |                             |
|             | MAC-4-8       |             | 4.0               | 2.2            |           | 6'- 6.2' Gray C-GRAVEL, saturated, no odor, no staining   | ◆                           |

Bottom of borehole at 8.0 feet.

**Notes:** Soil sample CW-B5(4-6) collected from 4-6 ftbg and analyzed for VOCs, PAHs, and CT ETPH.

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| PROJECT INFORMATION                                     |  | BORING INFORMATION                    |  |
|---|--|---------------------------------------|--|
| Project Name: <b>Central Warehouse</b>                  | Boring Depth (ft): <b>8</b>                        | Hole Diameter (in): _____             |  |
| Project Location: <b>660 Brook St, Rocky Hill, CT</b>   | Date Started: <b>12/13/18</b>                      | Date Completed: <b>12/13/18</b>       |  |
| Project Number: <b>237612.005738.000210</b>             | Coordinate System: _____                           |                                       |  |
| Client: <b>Connecticut Department of Transportation</b> | North: <b>Not Surveyed</b>                         | East: <b>Not Surveyed</b>             |  |
| TRC Eng./Geol: <b>Ashley Wright</b>                     | Vertical Datum: _____                              | Ground Elevation: <b>Not Surveyed</b> |  |
| Checked By: <b>Liam Bane</b>                            | Well Elevation (Top of Casing) <b>Not Surveyed</b> |                                       |  |

| DRILLING INFORMATION                                |  | GROUND WATER OBSERVATIONS |                       |                      |                  |
|---|--|---------------------------|-----------------------|----------------------|------------------|
| Drilling Contractor: <b>Cisco Geotechnical, LLC</b> |  | MEASUREMENT               | ∇ At Time of Drilling | ∇ At End of Drilling | ∇ After Drilling |
| Driller(s): <b>Jim &amp; Pat</b>                    |  | DATE                      | <b>12/13/2018</b>     |                      |                  |
| Drilling Method: <b>Direct-Push</b>                 |  | DEPTH (ft.bgs.)           | <b>6</b>              |                      |                  |
| Equipment/Model: <b>Geoprobe 54DT</b>               |  | REFERENCE                 |                       |                      |                  |
| Sampler: <b>48-inch Macrocore</b>                   |  | STABILIZATION             | <b>None</b>           |                      |                  |

| DEPTH (FT.) | SAMPLE NUMBER | SAMPLE TYPE | PENETRATION (FT.) | RECOVERY (FT.) | LITHOLOGY | MATERIAL DESCRIPTION   | VOC SCREENING RESULTS (ppm) |
|-------------|---------------|-------------|-------------------|----------------|-----------|--|-----------------------------|
|             |               |             |                   |                |           | 0'- 0.4' Medium Brown TOPSOIL (f-m sand, some root material, frozen, no odor, no staining)   |                             |
|             |               |             |                   |                |           | 0.4'- 0.9' Medium Brown F-SAND & SILT, some root material, little f-c gravel, slightly moist, no odor, no staining                                     |                             |
|             |               |             |                   |                |           | 0.9'- 1.3' Gray PEA-STONE, slightly moist, no odor, no staining  |                             |
|             | MAC-0-4       |             | 4.0               | 2.1            |           | 1.3'- 2.1' Medium Brown F-M SAND, little c-sand, trace silt and f-c gravel, band of asphalt millings at 1.9 ftbg, slightly moist, no odor, no staining |                             |
|             |               |             |                   |                |           | 4'- 4.8' Gray PEA-STONE, slightly moist, no odor, no staining  |                             |
| 5           |               |             |                   |                |           | 4.8'- 5.2' Medium Brown F-M SAND, little c-sand and f-gravel, trace silt, slightly moist, no odor, no staining   |                             |
|             | MAC-4-8       |             | 4.0               | 3.0            |           | 5.2'- 6.6' Medium Brown F-M SAND, some silt, little f-c gravel, moist to very moist at 6.2 ftbg, no odor, no staining                                  |                             |
|             |               |             |                   |                |           | 6.6'- 7' Medium Brown F-M SAND, trace c-sand and f-gravel, saturated, no odor, no staining   |                             |

Bottom of borehole at 8.0 feet.

**Notes:** Soil sample CW-B6(4-6) collected from 4-6 ftbg and analyzed for VOCs, PAHs, and CT ETPH.

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**APPENDIX B**  
**LABORATORY ANALYTICAL REPORTS**



Wednesday, December 19, 2018

Attn: Liam Bane  
TRC Environmental Corp.  
21 Griffin Rd North  
Windsor, CT 06095

Project ID: CONNDOT- CENTRAL WAREHOUSE  
Sample ID#s: CC14011 - CC14020

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

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

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

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

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

Sincerely yours,

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

Phyllis/Shiller  
Laboratory Director

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

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



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



## SDG Comments

December 19, 2018

SDG I.D.: GCC14011

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### 8270 Semi-volatile Organics:

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).



## Environmental Laboratories, Inc.

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

# Analysis Report

December 19, 2018

FOR: Attn: Liam Bane  
TRC Environmental Corp.  
21 Griffin Rd North  
Windsor, CT 06095

### Sample Information

Matrix: WATER  
Location Code: TRC-DOT  
Rush Request: 72 Hour  
P.O.#:

### Custody Information

Collected by: AW  
Received by: CP  
Analyzed by: see "By" below

### Date

12/13/18  
12/13/18

### Time

8:15  
16:20

## Laboratory Data

SDG ID: GCC14011  
Phoenix ID: CC14011

Project ID: CONNDOT- CENTRAL WAREHOUSE  
Client ID: SB20181213-H

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|-----|-----------|
| <b><u>Volatiles</u></b>     |        |            |       |          |           |     |           |
| 1,1,1,2-Tetrachloroethane   | ND     | 0.05       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,1,1-Trichloroethane       | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,1,2,2-Tetrachloroethane   | ND     | 0.05       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,1,2-Trichloroethane       | ND     | 0.1        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,1-Dichloroethane          | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,1-Dichloroethene          | ND     | 0.14       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,1-Dichloropropene         | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,2,3-Trichlorobenzene      | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,2,3-Trichloropropane      | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,2,4-Trichlorobenzene      | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,2,4-Trimethylbenzene      | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,2-Dibromo-3-chloropropane | ND     | 0.05       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,2-Dibromoethane           | ND     | 0.025      | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,2-Dichlorobenzene         | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,2-Dichloroethane          | ND     | 0.025      | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,2-Dichloropropane         | ND     | 0.1        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,3,5-Trimethylbenzene      | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichlorobenzene         | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichloropropane         | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 2,2-Dichloropropane         | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 2-Chlorotoluene             | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 2-Hexanone                  | ND     | 0.7        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 2-Isopropyltoluene          | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 4-Chlorotoluene             | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 1.3        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C   |

| Parameter                      | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|--------------------------------|--------|------------|-------|----------|-----------|-----|------------|
| Acetone                        | ND     | 5          | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Acrylonitrile                  | ND     | 0.025      | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Benzene                        | ND     | 0.025      | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Bromobenzene                   | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Bromochloromethane             | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Bromodichloromethane           | ND     | 0.05       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Bromoform                      | ND     | 0.08       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Bromomethane                   | ND     | 0.1        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Carbon Disulfide               | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Carbon tetrachloride           | ND     | 0.1        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Chlorobenzene                  | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Chloroethane                   | ND     | 0.15       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Chloroform                     | ND     | 0.12       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Chloromethane                  | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| cis-1,2-Dichloroethene         | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| cis-1,3-Dichloropropene        | ND     | 0.025      | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Dibromochloromethane           | ND     | 0.05       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Dibromomethane                 | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Dichlorodifluoromethane        | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Ethylbenzene                   | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Hexachlorobutadiene            | ND     | 0.2        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Isopropylbenzene               | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| m&p-Xylene                     | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Methyl Ethyl Ketone            | ND     | 3          | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Methyl t-butyl ether (MTBE)    | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Methylene chloride             | ND     | 0.1        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Naphthalene                    | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| n-Butylbenzene                 | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| n-Propylbenzene                | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| o-Xylene                       | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| p-Isopropyltoluene             | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| sec-Butylbenzene               | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Styrene                        | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| tert-Butylbenzene              | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Tetrachloroethene              | ND     | 0.1        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Tetrahydrofuran (THF)          | ND     | 0.13       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Toluene                        | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Total Xylenes                  | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| trans-1,2-Dichloroethene       | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| trans-1,3-Dichloropropene      | ND     | 0.025      | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| trans-1,4-dichloro-2-butene    | ND     | 0.5        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Trichloroethene                | ND     | 0.1        | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Trichlorofluoromethane         | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Trichlorotrifluoroethane       | ND     | 0.25       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| Vinyl chloride                 | ND     | 0.04       | mg/Kg | 50       | 12/14/18  | JLI | SW8260C    |
| <b><u>QA/QC Surrogates</u></b> |        |            |       |          |           |     |            |
| % 1,2-dichlorobenzene-d4       | 101    |            | %     | 50       | 12/14/18  | JLI | 70 - 130 % |
| % Bromofluorobenzene           | 98     |            | %     | 50       | 12/14/18  | JLI | 70 - 130 % |
| % Dibromofluoromethane         | 101    |            | %     | 50       | 12/14/18  | JLI | 70 - 130 % |

| Parameter        | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|------------------|-----------|------------|-------|----------|-----------|-----|------------|
| % Toluene-d8     | 99        |            | %     | 50       | 12/14/18  | JLI | 70 - 130 % |
| Field Extraction | Completed |            |       |          | 12/13/18  |     | SW5035A    |

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

**Comments:**

TRIP BLANK INCLUDED.

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

**Volatile Comment:**

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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.

This report must not be reproduced except in full as defined by the attached chain of custody.



**Phyllis Shiller, Laboratory Director**

**December 19, 2018**

**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**  
December 19, 2018

FOR: Attn: Liam Bane  
TRC Environmental Corp.  
21 Griffin Rd North  
Windsor, CT 06095

Sample Information

Matrix: WATER  
Location Code: TRC-DOT  
Rush Request: 72 Hour  
P.O.#:

Custody Information

Collected by: AW  
Received by: CP  
Analyzed by: see "By" below

Date

12/13/18  
12/13/18

Time

8:15  
16:20

Laboratory Data

SDG ID: GCC14011  
Phoenix ID: CC14012

Project ID: CONNDOT- CENTRAL WAREHOUSE  
Client ID: SB20181213-L

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|-----|-----------|
| <b><u>Volatiles</u></b>     |        |            |       |          |           |     |           |
| 1,1,1,2-Tetrachloroethane   | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,1,1-Trichloroethane       | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,1,2,2-Tetrachloroethane   | ND     | 0.003      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,1,2-Trichloroethane       | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,1-Dichloroethane          | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,1-Dichloroethene          | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,1-Dichloropropene         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,2,3-Trichlorobenzene      | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,2,3-Trichloropropane      | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,2,4-Trichlorobenzene      | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,2,4-Trimethylbenzene      | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,2-Dibromo-3-chloropropane | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,2-Dibromoethane           | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,2-Dichlorobenzene         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,2-Dichloroethane          | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,2-Dichloropropane         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3,5-Trimethylbenzene      | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichlorobenzene         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichloropropane         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2,2-Dichloropropane         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Chlorotoluene             | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Hexanone                  | ND     | 0.025      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Isopropyltoluene          | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Chlorotoluene             | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 0.025      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|-----------------------------|--------|------------|-------|----------|-----------|-----|------------|
| Acetone                     | ND     | 0.25       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Acrylonitrile               | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Benzene                     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Bromobenzene                | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Bromochloromethane          | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Bromodichloromethane        | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Bromoform                   | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Bromomethane                | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Carbon Disulfide            | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Carbon tetrachloride        | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Chlorobenzene               | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Chloroethane                | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Chloroform                  | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Chloromethane               | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| cis-1,2-Dichloroethene      | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| cis-1,3-Dichloropropene     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Dibromochloromethane        | ND     | 0.003      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Dibromomethane              | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Dichlorodifluoromethane     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Ethylbenzene                | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Hexachlorobutadiene         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Isopropylbenzene            | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| m&p-Xylene                  | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Methyl Ethyl Ketone         | ND     | 0.03       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Methyl t-butyl ether (MTBE) | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Methylene chloride          | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Naphthalene                 | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| n-Butylbenzene              | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| n-Propylbenzene             | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| o-Xylene                    | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| p-Isopropyltoluene          | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| sec-Butylbenzene            | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Styrene                     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| tert-Butylbenzene           | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Tetrachloroethene           | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Tetrahydrofuran (THF)       | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Toluene                     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Total Xylenes               | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| trans-1,2-Dichloroethene    | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| trans-1,3-Dichloropropene   | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| trans-1,4-dichloro-2-butene | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichloroethene             | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorofluoromethane      | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorotrifluoroethane    | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Vinyl chloride              | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| <b>QA/QC Surrogates</b>     |        |            |       |          |           |     |            |
| % 1,2-dichlorobenzene-d4    | 99     |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Bromofluorobenzene        | 93     |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Dibromofluoromethane      | 100    |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |

| Parameter        | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|------------------|-----------|------------|-------|----------|-----------|-----|------------|
| % Toluene-d8     | 99        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| Field Extraction | Completed |            |       |          | 12/13/18  |     | SW5035A    |

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

**Comments:**

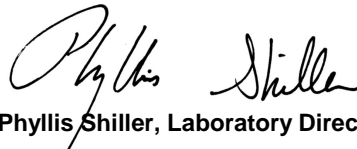
TRIP BLANK INCLUDED.

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

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

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

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**Phyllis Shiller, Laboratory Director**

**December 19, 2018**

**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

December 19, 2018

FOR: Attn: Liam Bane  
TRC Environmental Corp.  
21 Griffin Rd North  
Windsor, CT 06095

## Sample Information

Matrix: WATER  
Location Code: TRC-DOT  
Rush Request: 72 Hour  
P.O.#:

## Custody Information

Collected by: AW  
Received by: CP  
Analyzed by: see "By" below

Date Time  
12/13/18 8:25  
12/13/18 16:20

## Laboratory Data

SDG ID: GCC14011  
Phoenix ID: CC14013

Project ID: CONNDOT- CENTRAL WAREHOUSE  
Client ID: FB20181213

| Parameter                | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference       |
|--------------------------|-----------|------------|-------|----------|-----------|-----|-----------------|
| Extraction of CT ETPH    | Completed |            |       |          | 12/13/18  | P/R | SW3510C/SW3520C |
| Semi-Volatile Extraction | Completed |            |       |          | 12/14/18  | P/D | SW3520C         |

## TPH by GC (Extractable Products)

|                              |    |       |      |   |          |     |              |
|------------------------------|----|-------|------|---|----------|-----|--------------|
| Ext. Petroleum H.C. (C9-C36) | ND | 0.066 | mg/L | 1 | 12/15/18 | JRB | CTETPH 8015D |
| Identification               | ND |       | mg/L | 1 | 12/15/18 | JRB | CTETPH 8015D |

## QA/QC Surrogates

|                 |    |  |   |   |          |     |            |
|-----------------|----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 67 |  | % | 1 | 12/15/18 | JRB | 50 - 150 % |
|-----------------|----|--|---|---|----------|-----|------------|

## Volatiles

|                             |    |      |      |   |          |    |         |
|-----------------------------|----|------|------|---|----------|----|---------|
| 1,1,1,2-Tetrachloroethane   | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,1,1-Trichloroethane       | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,1,2,2-Tetrachloroethane   | ND | 0.50 | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,1,2-Trichloroethane       | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,1-Dichloroethane          | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,1-Dichloroethene          | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,1-Dichloropropene         | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,2,3-Trichlorobenzene      | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,2,3-Trichloropropane      | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,2,4-Trichlorobenzene      | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,2,4-Trimethylbenzene      | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,2-Dibromoethane           | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,2-Dichlorobenzene         | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,2-Dichloroethane          | ND | 0.60 | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,2-Dichloropropane         | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,3,5-Trimethylbenzene      | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |
| 1,3-Dichlorobenzene         | ND | 1.0  | ug/L | 1 | 12/13/18 | MH | SW8260C |

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|----|-----------|
| 1,3-Dichloropropane         | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| 2,2-Dichloropropane         | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| 2-Chlorotoluene             | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| 2-Hexanone                  | ND     | 5.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| 2-Isopropyltoluene          | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| 4-Chlorotoluene             | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 5.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Acetone                     | ND     | 25         | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Acrylonitrile               | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Benzene                     | ND     | 0.70       | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Bromobenzene                | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Bromochloromethane          | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Bromodichloromethane        | ND     | 0.50       | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Bromoform                   | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Bromomethane                | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Carbon Disulfide            | ND     | 5.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Carbon tetrachloride        | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Chlorobenzene               | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Chloroethane                | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Chloroform                  | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Chloromethane               | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| cis-1,2-Dichloroethene      | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| cis-1,3-Dichloropropene     | ND     | 0.40       | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Dibromochloromethane        | ND     | 0.50       | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Dibromomethane              | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Dichlorodifluoromethane     | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Ethylbenzene                | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Hexachlorobutadiene         | ND     | 0.40       | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Isopropylbenzene            | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| m&p-Xylene                  | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Methyl ethyl ketone         | ND     | 5.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Methyl t-butyl ether (MTBE) | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Methylene chloride          | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Naphthalene                 | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| n-Butylbenzene              | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| n-Propylbenzene             | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| o-Xylene                    | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| p-Isopropyltoluene          | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| sec-Butylbenzene            | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Styrene                     | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| tert-Butylbenzene           | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Tetrachloroethene           | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Tetrahydrofuran (THF)       | ND     | 2.5        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Toluene                     | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| Total Xylenes               | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| trans-1,2-Dichloroethene    | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| trans-1,3-Dichloropropene   | ND     | 0.40       | ug/L  | 1        | 12/13/18  | MH | SW8260C   |
| trans-1,4-dichloro-2-butene | ND     | 5.0        | ug/L  | 1        | 12/13/18  | MH | SW8260C   |

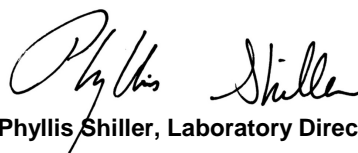
| Parameter                               | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference     |
|---|--------|------------|-------|----------|-----------|-----|---------------|
| Trichloroethene                         | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH  | SW8260C       |
| Trichlorofluoromethane                  | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH  | SW8260C       |
| Trichlorotrifluoroethane                | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH  | SW8260C       |
| Vinyl chloride                          | ND     | 1.0        | ug/L  | 1        | 12/13/18  | MH  | SW8260C       |
| <b><u>QA/QC Surrogates</u></b>          |        |            |       |          |           |     |               |
| % 1,2-dichlorobenzene-d4                | 97     |            | %     | 1        | 12/13/18  | MH  | 70 - 130 %    |
| % Bromofluorobenzene                    | 99     |            | %     | 1        | 12/13/18  | MH  | 70 - 130 %    |
| % Dibromofluoromethane                  | 104    |            | %     | 1        | 12/13/18  | MH  | 70 - 130 %    |
| % Toluene-d8                            | 89     |            | %     | 1        | 12/13/18  | MH  | 70 - 130 %    |
| <b><u>Semivolatiles by SIM, PAH</u></b> |        |            |       |          |           |     |               |
| 2-Methylnaphthalene                     | ND     | 0.47       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Acenaphthene                            | ND     | 0.47       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Acenaphthylene                          | ND     | 0.28       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Anthracene                              | ND     | 0.47       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Benz(a)anthracene                       | ND     | 0.06       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Benzo(a)pyrene                          | ND     | 0.19       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Benzo(b)fluoranthene                    | ND     | 0.08       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Benzo(ghi)perylene                      | ND     | 0.45       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Benzo(k)fluoranthene                    | ND     | 0.28       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Chrysene                                | ND     | 0.47       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Dibenz(a,h)anthracene                   | ND     | 0.09       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Fluoranthene                            | ND     | 0.47       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Fluorene                                | ND     | 0.47       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene                  | ND     | 0.09       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Naphthalene                             | ND     | 0.47       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Phenanthrene                            | ND     | 0.07       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| Pyrene                                  | ND     | 0.47       | ug/L  | 1        | 12/16/18  | KCA | SW8270D (SIM) |
| <b><u>QA/QC Surrogates</u></b>          |        |            |       |          |           |     |               |
| % 2-Fluorobiphenyl                      | 51     |            | %     | 1        | 12/16/18  | KCA | 30 - 130 %    |
| % Nitrobenzene-d5                       | 58     |            | %     | 1        | 12/16/18  | KCA | 30 - 130 %    |
| % Terphenyl-d14                         | 74     |            | %     | 1        | 12/16/18  | KCA | 30 - 130 %    |

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

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

**Comments:**

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

**December 19, 2018**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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

**Analysis Report**  
 December 19, 2018

FOR: Attn: Liam Bane  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC-DOT  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by: AW  
 Received by: CP  
 Analyzed by: see "By" below

Date

12/13/18  
 12/13/18

Time

9:15  
 16:20

Laboratory Data

SDG ID: GCC14011  
 Phoenix ID: CC14014

Project ID: CONNDOT- CENTRAL WAREHOUSE  
 Client ID: CW-B2 (6-8)

| Parameter                | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By     | Reference    |
|--------------------------|-----------|------------|-------|----------|-----------|--------|--------------|
| Percent Solid            | 93        |            | %     |          | 12/13/18  | AK     | SW846-%Solid |
| Soil Extraction SVOA PAH | Completed |            |       |          | 12/14/18  | MJ/CKV | SW3545A      |
| Extraction of CT ETPH    | Completed |            |       |          | 12/13/18  | JJ/UCK | SW3545A      |

**TPH by GC (Extractable Products)**

|                              |    |    |       |   |          |     |              |
|------------------------------|----|----|-------|---|----------|-----|--------------|
| Ext. Petroleum H.C. (C9-C36) | ND | 52 | mg/Kg | 1 | 12/14/18 | JRB | CTETPH 8015D |
| Identification               | ND |    | mg/Kg | 1 | 12/14/18 | JRB | CTETPH 8015D |

**QA/QC Surrogates**

|                 |    |  |   |   |          |     |            |
|-----------------|----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 99 |  | % | 1 | 12/14/18 | JRB | 50 - 150 % |
|-----------------|----|--|---|---|----------|-----|------------|

**Volatiles**

|                             |    |        |       |   |          |     |         |
|-----------------------------|----|--------|-------|---|----------|-----|---------|
| 1,1,1,2-Tetrachloroethane   | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane       | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane   | ND | 0.0028 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane       | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethane          | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethene          | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloropropene         | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene      | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane      | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene      | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene      | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromoethane           | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene         | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloroethane          | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloropropane         | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene      | ND | 0.0047 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|-----|-----------|
| 1,3-Dichlorobenzene         | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichloropropane         | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2,2-Dichloropropane         | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Chlorotoluene             | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Hexanone                  | ND     | 0.024      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Isopropyltoluene          | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Chlorotoluene             | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 0.024      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acetone                     | ND     | 0.24       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acrylonitrile               | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Benzene                     | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromobenzene                | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromochloromethane          | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromodichloromethane        | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromoform                   | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromomethane                | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon Disulfide            | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon tetrachloride        | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chlorobenzene               | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroethane                | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroform                  | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloromethane               | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,2-Dichloroethene      | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,3-Dichloropropene     | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromochloromethane        | ND     | 0.0028     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromomethane              | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dichlorodifluoromethane     | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Ethylbenzene                | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Hexachlorobutadiene         | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Isopropylbenzene            | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| m&p-Xylene                  | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl Ethyl Ketone         | ND     | 0.028      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl t-butyl ether (MTBE) | ND     | 0.0095     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methylene chloride          | ND     | 0.0095     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Naphthalene                 | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Butylbenzene              | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Propylbenzene             | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| o-Xylene                    | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| p-Isopropyltoluene          | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| sec-Butylbenzene            | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Styrene                     | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| tert-Butylbenzene           | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrachloroethene           | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrahydrofuran (THF)       | ND     | 0.0095     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Toluene                     | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Total Xylenes               | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,2-Dichloroethene    | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,3-Dichloropropene   | ND     | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |



| Parameter                             | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|---------------------------------------|-----------|------------|-------|----------|-----------|-----|------------|
| trans-1,4-dichloro-2-butene           | ND        | 0.0095     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichloroethene                       | ND        | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorofluoromethane                | ND        | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorotrifluoroethane              | ND        | 0.0095     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Vinyl chloride                        | ND        | 0.0047     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 1,2-dichlorobenzene-d4              | 99        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Bromofluorobenzene                  | 90        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Dibromofluoromethane                | 102       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Toluene-d8                          | 97        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| <b><u>Polynuclear Aromatic HC</u></b> |           |            |       |          |           |     |            |
| 2-Methylnaphthalene                   | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthene                          | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthylene                        | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Anthracene                            | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benz(a)anthracene                     | 0.63      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(a)pyrene                        | 0.75      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(b)fluoranthene                  | 0.6       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(ghi)perylene                    | 0.37      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(k)fluoranthene                  | 0.58      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Chrysene                              | 0.69      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Dibenz(a,h)anthracene                 | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluoranthene                          | 0.94      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluorene                              | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Indeno(1,2,3-cd)pyrene                | 0.45      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Naphthalene                           | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Phenanthrene                          | 0.36      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Pyrene                                | 0.87      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 2-Fluorobiphenyl                    | 66        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Nitrobenzene-d5                     | 65        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Terphenyl-d14                       | 50        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| Field Extraction                      | Completed |            |       |          | 12/13/18  |     | SW5035A    |

| Parameter | Result | RL/<br>PQL | Units | Dilution | Date/Time | By | Reference |
|-----------|--------|------------|-------|----------|-----------|----|-----------|
|-----------|--------|------------|-------|----------|-----------|----|-----------|

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

**Comments:**

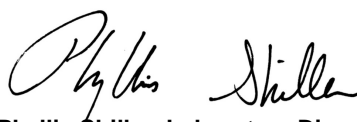
**Volatile Comment:**

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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.

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**Phyllis Shiller, Laboratory Director**

**December 19, 2018**

**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**  
 December 19, 2018

FOR: Attn: Liam Bane  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC-DOT  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by: AW  
 Received by: CP  
 Analyzed by: see "By" below

Date                      Time  
 12/13/18                      9:50  
 12/13/18                      16:20

Laboratory Data

SDG ID: GCC14011  
 Phoenix ID: CC14015

Project ID: CONNDOT- CENTRAL WAREHOUSE  
 Client ID: CW-B1 (6-8)

| Parameter                | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By     | Reference    |
|--------------------------|-----------|------------|-------|----------|-----------|--------|--------------|
| Percent Solid            | 92        |            | %     |          | 12/13/18  | AK     | SW846-%Solid |
| Soil Extraction SVOA PAH | Completed |            |       |          | 12/14/18  | MJ/CKV | SW3545A      |
| Extraction of CT ETPH    | Completed |            |       |          | 12/13/18  | JJ/UCK | SW3545A      |

**TPH by GC (Extractable Products)**

|                              |    |     |       |   |          |     |              |
|------------------------------|----|-----|-------|---|----------|-----|--------------|
| Ext. Petroleum H.C. (C9-C36) | ND | 270 | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |
| Identification               | ND |     | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |

**QA/QC Surrogates**

|                 |     |  |   |   |          |     |            |
|-----------------|-----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 106 |  | % | 5 | 12/14/18 | JRB | 50 - 150 % |
|-----------------|-----|--|---|---|----------|-----|------------|

**Volatiles**

|                             |    |        |       |   |          |     |         |
|-----------------------------|----|--------|-------|---|----------|-----|---------|
| 1,1,1,2-Tetrachloroethane   | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane       | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane   | ND | 0.0027 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane       | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethane          | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethene          | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloropropene         | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene      | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane      | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene      | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene      | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromoethane           | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene         | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloroethane          | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloropropane         | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene      | ND | 0.0045 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|-----|-----------|
| 1,3-Dichlorobenzene         | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichloropropane         | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2,2-Dichloropropane         | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Chlorotoluene             | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Hexanone                  | ND     | 0.023      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Isopropyltoluene          | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Chlorotoluene             | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 0.023      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acetone                     | ND     | 0.23       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acrylonitrile               | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Benzene                     | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromobenzene                | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromochloromethane          | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromodichloromethane        | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromoform                   | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromomethane                | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon Disulfide            | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon tetrachloride        | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chlorobenzene               | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroethane                | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroform                  | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloromethane               | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,2-Dichloroethene      | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,3-Dichloropropene     | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromochloromethane        | ND     | 0.0027     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromomethane              | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dichlorodifluoromethane     | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Ethylbenzene                | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Hexachlorobutadiene         | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Isopropylbenzene            | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| m&p-Xylene                  | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl Ethyl Ketone         | ND     | 0.027      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl t-butyl ether (MTBE) | ND     | 0.009      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methylene chloride          | ND     | 0.009      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Naphthalene                 | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Butylbenzene              | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Propylbenzene             | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| o-Xylene                    | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| p-Isopropyltoluene          | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| sec-Butylbenzene            | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Styrene                     | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| tert-Butylbenzene           | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrachloroethene           | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrahydrofuran (THF)       | ND     | 0.009      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Toluene                     | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Total Xylenes               | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,2-Dichloroethene    | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,3-Dichloropropene   | ND     | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |

| Parameter                             | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|---------------------------------------|-----------|------------|-------|----------|-----------|-----|------------|
| trans-1,4-dichloro-2-butene           | ND        | 0.009      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichloroethene                       | ND        | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorofluoromethane                | ND        | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorotrifluoroethane              | ND        | 0.009      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Vinyl chloride                        | ND        | 0.0045     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 1,2-dichlorobenzene-d4              | 99        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Bromofluorobenzene                  | 88        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Dibromofluoromethane                | 104       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Toluene-d8                          | 97        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| <b><u>Polynuclear Aromatic HC</u></b> |           |            |       |          |           |     |            |
| 2-Methylnaphthalene                   | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthene                          | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthylene                        | 0.95      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Anthracene                            | 0.58      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benz(a)anthracene                     | 2.8       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(a)pyrene                        | 3.2       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(b)fluoranthene                  | 2.8       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(ghi)perylene                    | 1.6       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(k)fluoranthene                  | 2.7       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Chrysene                              | 2.8       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Dibenz(a,h)anthracene                 | 0.44      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluoranthene                          | 3.7       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluorene                              | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Indeno(1,2,3-cd)pyrene                | 1.8       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Naphthalene                           | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Phenanthrene                          | 1.1       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Pyrene                                | 3.7       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 2-Fluorobiphenyl                    | 57        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Nitrobenzene-d5                     | 58        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Terphenyl-d14                       | 41        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| Field Extraction                      | Completed |            |       |          | 12/13/18  |     | SW5035A    |

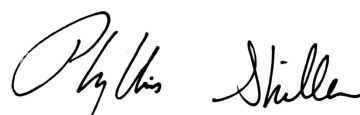
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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**Phyllis Shiller, Laboratory Director**

**December 19, 2018**

**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**  
 December 19, 2018

FOR: Attn: Liam Bane  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC-DOT  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by: AW  
 Received by: CP  
 Analyzed by: see "By" below

Date                      Time  
 12/13/18                      10:25  
 12/13/18                      16:20

Laboratory Data

SDG ID: GCC14011  
 Phoenix ID: CC14016

Project ID: CONNDOT- CENTRAL WAREHOUSE  
 Client ID: CW-B3 (8-10)

| Parameter                | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By     | Reference    |
|--------------------------|-----------|------------|-------|----------|-----------|--------|--------------|
| Percent Solid            | 94        |            | %     |          | 12/13/18  | AK     | SW846-%Solid |
| Soil Extraction SVOA PAH | Completed |            |       |          | 12/14/18  | MJ/CKV | SW3545A      |
| Extraction of CT ETPH    | Completed |            |       |          | 12/13/18  | JJ/UCK | SW3545A      |

**TPH by GC (Extractable Products)**

|                              |    |     |       |   |          |     |              |
|------------------------------|----|-----|-------|---|----------|-----|--------------|
| Ext. Petroleum H.C. (C9-C36) | ND | 260 | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |
| Identification               | ND |     | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |

**QA/QC Surrogates**

|                 |     |  |   |   |          |     |            |
|-----------------|-----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 103 |  | % | 5 | 12/14/18 | JRB | 50 - 150 % |
|-----------------|-----|--|---|---|----------|-----|------------|

**Volatiles**

|                             |    |        |       |   |          |     |         |
|-----------------------------|----|--------|-------|---|----------|-----|---------|
| 1,1,1,2-Tetrachloroethane   | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane       | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane   | ND | 0.0034 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane       | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethane          | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethene          | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloropropene         | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene      | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane      | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene      | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene      | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 0.005  | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromoethane           | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene         | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloroethane          | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloropropane         | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene      | ND | 0.0056 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|-----|-----------|
| 1,3-Dichlorobenzene         | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichloropropane         | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2,2-Dichloropropane         | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Chlorotoluene             | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Hexanone                  | ND     | 0.028      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Isopropyltoluene          | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Chlorotoluene             | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 0.028      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acetone                     | ND     | 0.28       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acrylonitrile               | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Benzene                     | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromobenzene                | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromochloromethane          | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromodichloromethane        | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromoform                   | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromomethane                | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon Disulfide            | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon tetrachloride        | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chlorobenzene               | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroethane                | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroform                  | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloromethane               | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,2-Dichloroethene      | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,3-Dichloropropene     | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromochloromethane        | ND     | 0.0034     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromomethane              | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dichlorodifluoromethane     | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Ethylbenzene                | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Hexachlorobutadiene         | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Isopropylbenzene            | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| m&p-Xylene                  | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl Ethyl Ketone         | ND     | 0.034      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl t-butyl ether (MTBE) | ND     | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methylene chloride          | ND     | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Naphthalene                 | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Butylbenzene              | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Propylbenzene             | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| o-Xylene                    | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| p-Isopropyltoluene          | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| sec-Butylbenzene            | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Styrene                     | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| tert-Butylbenzene           | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrachloroethene           | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrahydrofuran (THF)       | ND     | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Toluene                     | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Total Xylenes               | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,2-Dichloroethene    | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,3-Dichloropropene   | ND     | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |

| Parameter                             | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|---------------------------------------|-----------|------------|-------|----------|-----------|-----|------------|
| trans-1,4-dichloro-2-butene           | ND        | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichloroethene                       | ND        | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorofluoromethane                | ND        | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorotrifluoroethane              | ND        | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Vinyl chloride                        | ND        | 0.0056     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 1,2-dichlorobenzene-d4              | 101       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Bromofluorobenzene                  | 92        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Dibromofluoromethane                | 107       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Toluene-d8                          | 99        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| <b><u>Polynuclear Aromatic HC</u></b> |           |            |       |          |           |     |            |
| 2-Methylnaphthalene                   | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthene                          | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthylene                        | 0.7       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Anthracene                            | 0.49      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benz(a)anthracene                     | 1.8       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(a)pyrene                        | 2.1       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(b)fluoranthene                  | 1.9       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(ghi)perylene                    | 1         | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(k)fluoranthene                  | 1.7       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Chrysene                              | 1.9       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Dibenz(a,h)anthracene                 | 0.26      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluoranthene                          | 3         | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluorene                              | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Indeno(1,2,3-cd)pyrene                | 1.2       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Naphthalene                           | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Phenanthrene                          | 1.2       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Pyrene                                | 2.8       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 2-Fluorobiphenyl                    | 63        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Nitrobenzene-d5                     | 59        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Terphenyl-d14                       | 49        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| Field Extraction                      | Completed |            |       |          | 12/13/18  |     | SW5035A    |



| Parameter | Result | RL/<br>PQL | Units | Dilution | Date/Time | By | Reference |
|-----------|--------|------------|-------|----------|-----------|----|-----------|
|-----------|--------|------------|-------|----------|-----------|----|-----------|

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

**Comments:**

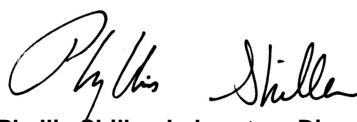
**Volatile Comment:**

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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.

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**Phyllis Shiller, Laboratory Director**

**December 19, 2018**

**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**  
 December 19, 2018

FOR: Attn: Liam Bane  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC-DOT  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by: AW  
 Received by: CP  
 Analyzed by: see "By" below

Date

12/13/18  
 12/13/18

Time

11:15  
 16:20

Laboratory Data

SDG ID: GCC14011  
 Phoenix ID: CC14017

Project ID: CONNDOT- CENTRAL WAREHOUSE  
 Client ID: CW-B4 (8-10)

| Parameter                | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By     | Reference    |
|--------------------------|-----------|------------|-------|----------|-----------|--------|--------------|
| Percent Solid            | 91        |            | %     |          | 12/13/18  | AK     | SW846-%Solid |
| Soil Extraction SVOA PAH | Completed |            |       |          | 12/14/18  | MJ/CKV | SW3545A      |
| Extraction of CT ETPH    | Completed |            |       |          | 12/13/18  | JJ/U   | SW3545A      |

**TPH by GC (Extractable Products)**

|                              |    |     |       |   |          |     |              |
|------------------------------|----|-----|-------|---|----------|-----|--------------|
| Ext. Petroleum H.C. (C9-C36) | ND | 270 | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |
| Identification               | ND |     | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |

**QA/QC Surrogates**

|                 |    |  |   |   |          |     |            |
|-----------------|----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 72 |  | % | 5 | 12/14/18 | JRB | 50 - 150 % |
|-----------------|----|--|---|---|----------|-----|------------|

**Volatiles**

|                             |    |        |       |   |          |     |         |
|-----------------------------|----|--------|-------|---|----------|-----|---------|
| 1,1,1,2-Tetrachloroethane   | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane       | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane   | ND | 0.0031 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane       | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethane          | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethene          | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloropropene         | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene      | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane      | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene      | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene      | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 0.005  | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromoethane           | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene         | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloroethane          | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloropropane         | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene      | ND | 0.0052 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|-----|-----------|
| 1,3-Dichlorobenzene         | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichloropropane         | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2,2-Dichloropropane         | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Chlorotoluene             | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Hexanone                  | ND     | 0.026      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Isopropyltoluene          | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Chlorotoluene             | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 0.026      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acetone                     | ND     | 0.26       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acrylonitrile               | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Benzene                     | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromobenzene                | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromochloromethane          | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromodichloromethane        | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromoform                   | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromomethane                | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon Disulfide            | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon tetrachloride        | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chlorobenzene               | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroethane                | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroform                  | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloromethane               | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,2-Dichloroethene      | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,3-Dichloropropene     | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromochloromethane        | ND     | 0.0031     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromomethane              | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dichlorodifluoromethane     | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Ethylbenzene                | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Hexachlorobutadiene         | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Isopropylbenzene            | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| m&p-Xylene                  | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl Ethyl Ketone         | ND     | 0.031      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl t-butyl ether (MTBE) | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methylene chloride          | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Naphthalene                 | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Butylbenzene              | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Propylbenzene             | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| o-Xylene                    | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| p-Isopropyltoluene          | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| sec-Butylbenzene            | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Styrene                     | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| tert-Butylbenzene           | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrachloroethene           | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrahydrofuran (THF)       | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Toluene                     | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Total Xylenes               | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,2-Dichloroethene    | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,3-Dichloropropene   | ND     | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |

| Parameter                             | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|---------------------------------------|-----------|------------|-------|----------|-----------|-----|------------|
| trans-1,4-dichloro-2-butene           | ND        | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichloroethene                       | ND        | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorofluoromethane                | ND        | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorotrifluoroethane              | ND        | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Vinyl chloride                        | ND        | 0.0052     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 1,2-dichlorobenzene-d4              | 101       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Bromofluorobenzene                  | 91        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Dibromofluoromethane                | 102       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Toluene-d8                          | 98        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| <b><u>Polynuclear Aromatic HC</u></b> |           |            |       |          |           |     |            |
| 2-Methylnaphthalene                   | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthene                          | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthylene                        | 1.1       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Anthracene                            | 0.92      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benz(a)anthracene                     | 3.3       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(a)pyrene                        | 3.8       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(b)fluoranthene                  | 3.3       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(ghi)perylene                    | 1.9       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(k)fluoranthene                  | 2.9       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Chrysene                              | 3.3       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Dibenz(a,h)anthracene                 | 0.5       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluoranthene                          | 4.6       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluorene                              | 0.26      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Indeno(1,2,3-cd)pyrene                | 2.2       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Naphthalene                           | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Phenanthrene                          | 1.9       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Pyrene                                | 4.4       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 2-Fluorobiphenyl                    | 62        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Nitrobenzene-d5                     | 59        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Terphenyl-d14                       | 44        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| Field Extraction                      | Completed |            |       |          | 12/13/18  |     | SW5035A    |

| Parameter | Result | RL/<br>PQL | Units | Dilution | Date/Time | By | Reference |
|-----------|--------|------------|-------|----------|-----------|----|-----------|
|-----------|--------|------------|-------|----------|-----------|----|-----------|

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

**Comments:**

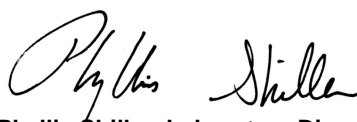
**Volatile Comment:**

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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.

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**Phyllis Shiller, Laboratory Director**

**December 19, 2018**

**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**  
 December 19, 2018

FOR: Attn: Liam Bane  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC-DOT  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by: AW  
 Received by: CP  
 Analyzed by: see "By" below

Date

12/13/18  
 12/13/18

Time

11:20  
 16:20

Laboratory Data

SDG ID: GCC14011  
 Phoenix ID: CC14018

Project ID: CONNDOT- CENTRAL WAREHOUSE  
 Client ID: CW-B100 (8-10)

| Parameter                | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By     | Reference    |
|--------------------------|-----------|------------|-------|----------|-----------|--------|--------------|
| Percent Solid            | 92        |            | %     |          | 12/13/18  | AK     | SW846-%Solid |
| Soil Extraction SVOA PAH | Completed |            |       |          | 12/14/18  | MJ/CKV | SW3545A      |
| Extraction of CT ETPH    | Completed |            |       |          | 12/13/18  | JJ/U   | SW3545A      |

**TPH by GC (Extractable Products)**

|                              |    |     |       |   |          |     |              |
|------------------------------|----|-----|-------|---|----------|-----|--------------|
| Ext. Petroleum H.C. (C9-C36) | ND | 270 | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |
| Identification               | ND |     | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |

**QA/QC Surrogates**

|                 |    |  |   |   |          |     |            |
|-----------------|----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 68 |  | % | 5 | 12/14/18 | JRB | 50 - 150 % |
|-----------------|----|--|---|---|----------|-----|------------|

**Volatiles**

|                             |    |        |       |   |          |     |         |
|-----------------------------|----|--------|-------|---|----------|-----|---------|
| 1,1,1,2-Tetrachloroethane   | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane       | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane   | ND | 0.0029 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane       | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethane          | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethene          | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloropropene         | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene      | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane      | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene      | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene      | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromoethane           | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene         | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloroethane          | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloropropane         | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene      | ND | 0.0048 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|-----|-----------|
| 1,3-Dichlorobenzene         | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichloropropane         | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2,2-Dichloropropane         | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Chlorotoluene             | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Hexanone                  | ND     | 0.024      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Isopropyltoluene          | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Chlorotoluene             | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 0.024      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acetone                     | ND     | 0.24       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acrylonitrile               | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Benzene                     | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromobenzene                | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromochloromethane          | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromodichloromethane        | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromoform                   | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromomethane                | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon Disulfide            | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon tetrachloride        | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chlorobenzene               | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroethane                | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroform                  | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloromethane               | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,2-Dichloroethene      | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,3-Dichloropropene     | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromochloromethane        | ND     | 0.0029     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromomethane              | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dichlorodifluoromethane     | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Ethylbenzene                | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Hexachlorobutadiene         | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Isopropylbenzene            | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| m&p-Xylene                  | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl Ethyl Ketone         | ND     | 0.029      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl t-butyl ether (MTBE) | ND     | 0.0097     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methylene chloride          | ND     | 0.0097     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Naphthalene                 | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Butylbenzene              | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Propylbenzene             | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| o-Xylene                    | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| p-Isopropyltoluene          | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| sec-Butylbenzene            | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Styrene                     | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| tert-Butylbenzene           | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrachloroethene           | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrahydrofuran (THF)       | ND     | 0.0097     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Toluene                     | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Total Xylenes               | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,2-Dichloroethene    | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,3-Dichloropropene   | ND     | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |

| Parameter                             | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|---------------------------------------|-----------|------------|-------|----------|-----------|-----|------------|
| trans-1,4-dichloro-2-butene           | ND        | 0.0097     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichloroethene                       | ND        | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorofluoromethane                | ND        | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorotrifluoroethane              | ND        | 0.0097     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Vinyl chloride                        | ND        | 0.0048     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 1,2-dichlorobenzene-d4              | 100       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Bromofluorobenzene                  | 90        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Dibromofluoromethane                | 102       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Toluene-d8                          | 97        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| <b><u>Polynuclear Aromatic HC</u></b> |           |            |       |          |           |     |            |
| 2-Methylnaphthalene                   | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthene                          | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthylene                        | 0.9       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Anthracene                            | 0.75      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benz(a)anthracene                     | 3.3       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(a)pyrene                        | 3.5       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(b)fluoranthene                  | 3.2       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(ghi)perylene                    | 1.6       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(k)fluoranthene                  | 2.9       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Chrysene                              | 3.3       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Dibenz(a,h)anthracene                 | 0.47      | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluoranthene                          | 4.6       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluorene                              | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Indeno(1,2,3-cd)pyrene                | 2         | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Naphthalene                           | ND        | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Phenanthrene                          | 1.6       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Pyrene                                | 4.4       | 0.25       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 2-Fluorobiphenyl                    | 53        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Nitrobenzene-d5                     | 54        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Terphenyl-d14                       | 39        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| Field Extraction                      | Completed |            |       |          | 12/13/18  |     | SW5035A    |

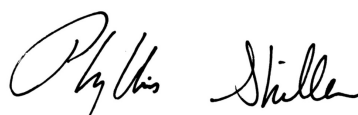
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level  
 QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

**Comments:**

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.

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**Phyllis Shiller, Laboratory Director**

**December 19, 2018**

**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**  
 December 19, 2018

FOR: Attn: Liam Bane  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC-DOT  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by: AW  
 Received by: CP  
 Analyzed by: see "By" below

Date                      Time  
 12/13/18                      11:45  
 12/13/18                      16:20

Laboratory Data

SDG ID: GCC14011  
 Phoenix ID: CC14019

Project ID: CONNDOT- CENTRAL WAREHOUSE  
 Client ID: CW-B6 (4-6)

| Parameter                | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By     | Reference    |
|--------------------------|-----------|------------|-------|----------|-----------|--------|--------------|
| Percent Solid            | 91        |            | %     |          | 12/13/18  | AK     | SW846-%Solid |
| Soil Extraction SVOA PAH | Completed |            |       |          | 12/14/18  | MJ/CKV | SW3545A      |
| Extraction of CT ETPH    | Completed |            |       |          | 12/13/18  | JJ/U   | SW3545A      |

**TPH by GC (Extractable Products)**

|                              |    |     |       |   |          |     |              |
|------------------------------|----|-----|-------|---|----------|-----|--------------|
| Ext. Petroleum H.C. (C9-C36) | ND | 270 | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |
| Identification               | ND |     | mg/Kg | 5 | 12/14/18 | JRB | CTETPH 8015D |

**QA/QC Surrogates**

|                 |    |  |   |   |          |     |            |
|-----------------|----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 66 |  | % | 5 | 12/14/18 | JRB | 50 - 150 % |
|-----------------|----|--|---|---|----------|-----|------------|

**Volatiles**

|                             |    |        |       |   |          |     |         |
|-----------------------------|----|--------|-------|---|----------|-----|---------|
| 1,1,1,2-Tetrachloroethane   | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane       | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane   | ND | 0.0032 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane       | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethane          | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethene          | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloropropene         | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene      | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane      | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene      | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene      | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 0.005  | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromoethane           | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene         | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloroethane          | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloropropane         | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene      | ND | 0.0053 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|-----|-----------|
| 1,3-Dichlorobenzene         | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichloropropane         | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2,2-Dichloropropane         | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Chlorotoluene             | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Hexanone                  | ND     | 0.026      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Isopropyltoluene          | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Chlorotoluene             | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 0.026      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acetone                     | ND     | 0.26       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acrylonitrile               | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Benzene                     | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromobenzene                | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromochloromethane          | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromodichloromethane        | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromoform                   | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromomethane                | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon Disulfide            | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon tetrachloride        | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chlorobenzene               | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroethane                | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroform                  | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloromethane               | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,2-Dichloroethene      | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,3-Dichloropropene     | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromochloromethane        | ND     | 0.0032     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromomethane              | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dichlorodifluoromethane     | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Ethylbenzene                | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Hexachlorobutadiene         | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Isopropylbenzene            | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| m&p-Xylene                  | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl Ethyl Ketone         | ND     | 0.032      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl t-butyl ether (MTBE) | ND     | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methylene chloride          | ND     | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Naphthalene                 | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Butylbenzene              | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Propylbenzene             | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| o-Xylene                    | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| p-Isopropyltoluene          | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| sec-Butylbenzene            | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Styrene                     | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| tert-Butylbenzene           | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrachloroethene           | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrahydrofuran (THF)       | ND     | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Toluene                     | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Total Xylenes               | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,2-Dichloroethene    | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,3-Dichloropropene   | ND     | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |

| Parameter                             | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|---------------------------------------|-----------|------------|-------|----------|-----------|-----|------------|
| trans-1,4-dichloro-2-butene           | ND        | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichloroethene                       | ND        | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorofluoromethane                | ND        | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorotrifluoroethane              | ND        | 0.011      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Vinyl chloride                        | ND        | 0.0053     | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 1,2-dichlorobenzene-d4              | 102       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Bromofluorobenzene                  | 90        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Dibromofluoromethane                | 100       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Toluene-d8                          | 99        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| <b><u>Polynuclear Aromatic HC</u></b> |           |            |       |          |           |     |            |
| 2-Methylnaphthalene                   | ND        | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthene                          | ND        | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Acenaphthylene                        | 1.3       | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Anthracene                            | 0.88      | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benz(a)anthracene                     | 3.6       | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(a)pyrene                        | 4         | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(b)fluoranthene                  | 3.7       | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(ghi)perylene                    | 2         | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Benzo(k)fluoranthene                  | 3.1       | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Chrysene                              | 3.7       | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Dibenz(a,h)anthracene                 | 0.55      | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluoranthene                          | 5.2       | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Fluorene                              | 0.36      | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Indeno(1,2,3-cd)pyrene                | 2.4       | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Naphthalene                           | ND        | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Phenanthrene                          | 2.2       | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| Pyrene                                | 4.9       | 0.26       | mg/Kg | 1        | 12/16/18  | AW  | SW8270D    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 2-Fluorobiphenyl                    | 61        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Nitrobenzene-d5                     | 61        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| % Terphenyl-d14                       | 44        |            | %     | 1        | 12/16/18  | AW  | 30 - 130 % |
| Field Extraction                      | Completed |            |       |          | 12/13/18  |     | SW5035A    |

| Parameter | Result | RL/<br>PQL | Units | Dilution | Date/Time | By | Reference |
|-----------|--------|------------|-------|----------|-----------|----|-----------|
|-----------|--------|------------|-------|----------|-----------|----|-----------|

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

**Comments:**

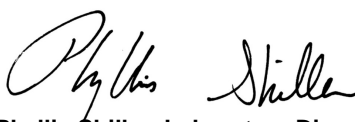
**Volatile Comment:**

Where the LOD justifies lowering the RL/PQL, the RL/PQL of some compounds are evaluated below the lowest calibration standard in order to meet criteria.

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.

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**Phyllis Shiller, Laboratory Director**

**December 19, 2018**

**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**  
 December 19, 2018

FOR: Attn: Liam Bane  
 TRC Environmental Corp.  
 21 Griffin Rd North  
 Windsor, CT 06095

Sample Information

Matrix: SOIL  
 Location Code: TRC-DOT  
 Rush Request: 72 Hour  
 P.O.#:

Custody Information

Collected by: AW  
 Received by: CP  
 Analyzed by: see "By" below

Date                      Time  
 12/13/18                      12:20  
 12/13/18                      16:20

Laboratory Data

SDG ID: GCC14011  
 Phoenix ID: CC14020

Project ID: CONNDOT- CENTRAL WAREHOUSE  
 Client ID: CW-B5 (4-6)

| Parameter                | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By     | Reference    |
|--------------------------|-----------|------------|-------|----------|-----------|--------|--------------|
| Percent Solid            | 92        |            | %     |          | 12/13/18  | AK     | SW846-%Solid |
| Soil Extraction SVOA PAH | Completed |            |       |          | 12/17/18  | JJ/CKV | SW3545A      |
| Extraction of CT ETPH    | Completed |            |       |          | 12/13/18  | JJ/U   | SW3545A      |

**TPH by GC (Extractable Products)**

|                              |    |    |       |   |          |     |              |
|------------------------------|----|----|-------|---|----------|-----|--------------|
| Ext. Petroleum H.C. (C9-C36) | ND | 54 | mg/Kg | 1 | 12/14/18 | JRB | CTETPH 8015D |
| Identification               | ND |    | mg/Kg | 1 | 12/14/18 | JRB | CTETPH 8015D |

**QA/QC Surrogates**

|                 |    |  |   |   |          |     |            |
|-----------------|----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 76 |  | % | 1 | 12/14/18 | JRB | 50 - 150 % |
|-----------------|----|--|---|---|----------|-----|------------|

**Volatiles**

|                             |    |       |       |   |          |     |         |
|-----------------------------|----|-------|-------|---|----------|-----|---------|
| 1,1,1,2-Tetrachloroethane   | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,1-Trichloroethane       | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2,2-Tetrachloroethane   | ND | 0.003 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1,2-Trichloroethane       | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethane          | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloroethene          | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,1-Dichloropropene         | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichlorobenzene      | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,3-Trichloropropane      | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trichlorobenzene      | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2,4-Trimethylbenzene      | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromo-3-chloropropane | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dibromoethane           | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichlorobenzene         | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloroethane          | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,2-Dichloropropane         | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |
| 1,3,5-Trimethylbenzene      | ND | 0.005 | mg/Kg | 1 | 12/14/18 | JLI | SW8260C |

| Parameter                   | Result | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference |
|-----------------------------|--------|------------|-------|----------|-----------|-----|-----------|
| 1,3-Dichlorobenzene         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,3-Dichloropropane         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 1,4-Dichlorobenzene         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2,2-Dichloropropane         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Chlorotoluene             | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Hexanone                  | ND     | 0.025      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 2-Isopropyltoluene          | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Chlorotoluene             | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| 4-Methyl-2-pentanone        | ND     | 0.025      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acetone                     | ND     | 0.25       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Acrylonitrile               | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Benzene                     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromobenzene                | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromochloromethane          | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromodichloromethane        | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromoform                   | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Bromomethane                | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon Disulfide            | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Carbon tetrachloride        | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chlorobenzene               | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroethane                | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloroform                  | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Chloromethane               | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,2-Dichloroethene      | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| cis-1,3-Dichloropropene     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromochloromethane        | ND     | 0.003      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dibromomethane              | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Dichlorodifluoromethane     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Ethylbenzene                | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Hexachlorobutadiene         | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Isopropylbenzene            | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| m&p-Xylene                  | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl Ethyl Ketone         | ND     | 0.03       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methyl t-butyl ether (MTBE) | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Methylene chloride          | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Naphthalene                 | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Butylbenzene              | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| n-Propylbenzene             | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| o-Xylene                    | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| p-Isopropyltoluene          | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| sec-Butylbenzene            | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Styrene                     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| tert-Butylbenzene           | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrachloroethene           | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Tetrahydrofuran (THF)       | ND     | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Toluene                     | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| Total Xylenes               | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,2-Dichloroethene    | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |
| trans-1,3-Dichloropropene   | ND     | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C   |

| Parameter                             | Result    | RL/<br>PQL | Units | Dilution | Date/Time | By  | Reference  |
|---------------------------------------|-----------|------------|-------|----------|-----------|-----|------------|
| trans-1,4-dichloro-2-butene           | ND        | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichloroethene                       | ND        | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorofluoromethane                | ND        | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Trichlorotrifluoroethane              | ND        | 0.01       | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| Vinyl chloride                        | ND        | 0.005      | mg/Kg | 1        | 12/14/18  | JLI | SW8260C    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 1,2-dichlorobenzene-d4              | 102       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Bromofluorobenzene                  | 93        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Dibromofluoromethane                | 102       |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| % Toluene-d8                          | 98        |            | %     | 1        | 12/14/18  | JLI | 70 - 130 % |
| <b><u>Polynuclear Aromatic HC</u></b> |           |            |       |          |           |     |            |
| 2-Methylnaphthalene                   | ND        | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Acenaphthene                          | ND        | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Acenaphthylene                        | ND        | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Anthracene                            | ND        | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Benz(a)anthracene                     | 0.43      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Benzo(a)pyrene                        | 0.52      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Benzo(b)fluoranthene                  | 0.51      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Benzo(ghi)perylene                    | 0.52      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Benzo(k)fluoranthene                  | 0.46      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Chrysene                              | 0.46      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Dibenz(a,h)anthracene                 | 0.25      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Fluoranthene                          | 0.64      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Fluorene                              | ND        | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Indeno(1,2,3-cd)pyrene                | 0.51      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Naphthalene                           | ND        | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Phenanthrene                          | ND        | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| Pyrene                                | 0.64      | 0.25       | mg/Kg | 1        | 12/17/18  | AW  | SW8270D    |
| <b><u>QA/QC Surrogates</u></b>        |           |            |       |          |           |     |            |
| % 2-Fluorobiphenyl                    | 57        |            | %     | 1        | 12/17/18  | AW  | 30 - 130 % |
| % Nitrobenzene-d5                     | 59        |            | %     | 1        | 12/17/18  | AW  | 30 - 130 % |
| % Terphenyl-d14                       | 45        |            | %     | 1        | 12/17/18  | AW  | 30 - 130 % |
| Field Extraction                      | Completed |            |       |          | 12/13/18  |     | SW5035A    |

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

**Comments:**

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.

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**Phyllis Shiller, Laboratory Director**

**December 19, 2018**

**Reviewed and Released by: Maryam Taylor, Project Manager**



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# QA/QC Report

December 19, 2018

## QA/QC Data

SDG I.D.: GCC14011

| Parameter | Blank | Blk<br>RL | LCS<br>% | LCSD<br>% | LCS<br>RPD | MS<br>% | MSD<br>% | MS<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |
|-----------|-------|-----------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|
|-----------|-------|-----------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|

QA/QC Batch 459843 (mg/L), QC Sample No: CC13609 (CC14013)

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

|                              |    |      |    |    |      |  |  |  |          |    |
|------------------------------|----|------|----|----|------|--|--|--|----------|----|
| Ext. Petroleum H.C. (C9-C36) | ND | 0.10 | 87 | 86 | 1.2  |  |  |  | 60 - 120 | 30 |
| % n-Pentacosane              | 61 | %    | 70 | 61 | 13.7 |  |  |  | 50 - 150 | 20 |

Comment:

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

QA/QC Batch 459888 (mg/Kg), QC Sample No: CC14036 (CC14014, CC14015, CC14016, CC14017, CC14018, CC14019, CC14020)

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

|                              |    |    |    |    |      |    |    |     |          |    |
|------------------------------|----|----|----|----|------|----|----|-----|----------|----|
| Ext. Petroleum H.C. (C9-C36) | ND | 50 | 85 | 72 | 16.6 | 96 | 93 | 3.2 | 60 - 120 | 30 |
| % n-Pentacosane              | 67 | %  | 77 | 68 | 12.4 | 98 | 91 | 7.4 | 50 - 150 | 30 |

Comment:

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

QA/QC Batch 460170 (mg/Kg), QC Sample No: CC14020 (CC14020)

### Polynuclear Aromatic HC - Soil

|                        |    |      |    |    |     |    |    |      |          |    |
|------------------------|----|------|----|----|-----|----|----|------|----------|----|
| 2-Methylnaphthalene    | ND | 0.23 | 57 | 59 | 3.4 | 56 | 59 | 5.2  | 30 - 130 | 30 |
| Acenaphthene           | ND | 0.23 | 68 | 70 | 2.9 | 61 | 66 | 7.9  | 30 - 130 | 30 |
| Acenaphthylene         | ND | 0.23 | 64 | 65 | 1.6 | 58 | 62 | 6.7  | 30 - 130 | 30 |
| Anthracene             | ND | 0.23 | 71 | 71 | 0.0 | 67 | 69 | 2.9  | 30 - 130 | 30 |
| Benz(a)anthracene      | ND | 0.23 | 74 | 76 | 2.7 | 85 | 72 | 16.6 | 30 - 130 | 30 |
| Benzo(a)pyrene         | ND | 0.23 | 71 | 74 | 4.1 | 76 | 67 | 12.6 | 30 - 130 | 30 |
| Benzo(b)fluoranthene   | ND | 0.23 | 72 | 78 | 8.0 | 82 | 76 | 7.6  | 30 - 130 | 30 |
| Benzo(ghi)perylene     | ND | 0.23 | 62 | 57 | 8.4 | 49 | 49 | 0.0  | 30 - 130 | 30 |
| Benzo(k)fluoranthene   | ND | 0.23 | 77 | 78 | 1.3 | 81 | 71 | 13.2 | 30 - 130 | 30 |
| Chrysene               | ND | 0.23 | 70 | 72 | 2.8 | 81 | 69 | 16.0 | 30 - 130 | 30 |
| Dibenz(a,h)anthracene  | ND | 0.23 | 70 | 64 | 9.0 | 46 | 60 | 26.4 | 30 - 130 | 30 |
| Fluoranthene           | ND | 0.23 | 68 | 71 | 4.3 | 96 | 72 | 28.6 | 30 - 130 | 30 |
| Fluorene               | ND | 0.23 | 79 | 81 | 2.5 | 69 | 75 | 8.3  | 30 - 130 | 30 |
| Indeno(1,2,3-cd)pyrene | ND | 0.23 | 69 | 64 | 7.5 | 54 | 54 | 0.0  | 30 - 130 | 30 |
| Naphthalene            | ND | 0.23 | 60 | 59 | 1.7 | 57 | 64 | 11.6 | 30 - 130 | 30 |
| Phenanthrene           | ND | 0.23 | 74 | 73 | 1.4 | 81 | 70 | 14.6 | 30 - 130 | 30 |
| Pyrene                 | ND | 0.23 | 70 | 71 | 1.4 | 93 | 73 | 24.1 | 30 - 130 | 30 |
| % 2-Fluorobiphenyl     | 56 | %    | 57 | 58 | 1.7 | 50 | 55 | 9.5  | 30 - 130 | 30 |
| % Nitrobenzene-d5      | 56 | %    | 58 | 58 | 0.0 | 52 | 60 | 14.3 | 30 - 130 | 30 |
| % Terphenyl-d14        | 50 | %    | 55 | 56 | 1.8 | 42 | 47 | 11.2 | 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 459995 (mg/Kg), QC Sample No: CC14036 (CC14014, CC14015, CC14016, CC14017, CC14018, CC14019)

### Polynuclear Aromatic HC - Soil

|                     |    |      |    |    |      |    |    |     |          |    |
|---------------------|----|------|----|----|------|----|----|-----|----------|----|
| 2-Methylnaphthalene | ND | 0.23 | 74 | 61 | 19.3 | 76 | 70 | 8.2 | 30 - 130 | 30 |
|---------------------|----|------|----|----|------|----|----|-----|----------|----|



QA/QC Data

SDG I.D.: GCC14011

| Parameter              | Blk   |      | LCS<br>% | LCSD<br>% | LCS<br>RPD | MS<br>% | MSD<br>% | MS<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |
|------------------------|-------|------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|
|                        | Blank | RL   |          |           |            |         |          |           |                    |                    |
| Acenaphthene           | ND    | 0.23 | 78       | 65        | 18.2       | 82      | 77       | 6.3       | 30 - 130           | 30                 |
| Acenaphthylene         | ND    | 0.23 | 73       | 61        | 17.9       | 77      | 71       | 8.1       | 30 - 130           | 30                 |
| Anthracene             | ND    | 0.23 | 78       | 67        | 15.2       | 83      | 77       | 7.5       | 30 - 130           | 30                 |
| Benz(a)anthracene      | ND    | 0.23 | 80       | 67        | 17.7       | 84      | 79       | 6.1       | 30 - 130           | 30                 |
| Benzo(a)pyrene         | ND    | 0.23 | 81       | 68        | 17.4       | 87      | 81       | 7.1       | 30 - 130           | 30                 |
| Benzo(b)fluoranthene   | ND    | 0.23 | 87       | 70        | 21.7       | 89      | 85       | 4.6       | 30 - 130           | 30                 |
| Benzo(ghi)perylene     | ND    | 0.23 | 72       | 60        | 18.2       | 73      | 67       | 8.6       | 30 - 130           | 30                 |
| Benzo(k)fluoranthene   | ND    | 0.23 | 81       | 71        | 13.2       | 91      | 84       | 8.0       | 30 - 130           | 30                 |
| Chrysene               | ND    | 0.23 | 80       | 68        | 16.2       | 83      | 80       | 3.7       | 30 - 130           | 30                 |
| Dibenz(a,h)anthracene  | ND    | 0.23 | 81       | 66        | 20.4       | 82      | 78       | 5.0       | 30 - 130           | 30                 |
| Fluoranthene           | ND    | 0.23 | 80       | 66        | 19.2       | 83      | 77       | 7.5       | 30 - 130           | 30                 |
| Fluorene               | ND    | 0.23 | 82       | 68        | 18.7       | 85      | 81       | 4.8       | 30 - 130           | 30                 |
| Indeno(1,2,3-cd)pyrene | ND    | 0.23 | 77       | 64        | 18.4       | 81      | 76       | 6.4       | 30 - 130           | 30                 |
| Naphthalene            | ND    | 0.23 | 69       | 56        | 20.8       | 72      | 67       | 7.2       | 30 - 130           | 30                 |
| Phenanthrene           | ND    | 0.23 | 76       | 66        | 14.1       | 80      | 75       | 6.5       | 30 - 130           | 30                 |
| Pyrene                 | ND    | 0.23 | 80       | 67        | 17.7       | 84      | 77       | 8.7       | 30 - 130           | 30                 |
| % 2-Fluorobiphenyl     | 71    | %    | 72       | 59        | 19.8       | 72      | 68       | 5.7       | 30 - 130           | 30                 |
| % Nitrobenzene-d5      | 68    | %    | 66       | 54        | 20.0       | 71      | 66       | 7.3       | 30 - 130           | 30                 |
| % Terphenyl-d14        | 67    | %    | 67       | 54        | 21.5       | 68      | 62       | 9.2       | 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 460021 (ug/L), QC Sample No: CC14406 (CC14013)

Semivolatiles by SIM, PAH - Water

|                        |    |      |    |  |  |    |    |      |          |    |
|------------------------|----|------|----|--|--|----|----|------|----------|----|
| 2-Methylnaphthalene    | ND | 0.50 | 51 |  |  | 52 | 61 | 15.9 | 30 - 130 | 20 |
| Acenaphthene           | ND | 0.50 | 57 |  |  | 64 | 72 | 11.8 | 30 - 130 | 20 |
| Acenaphthylene         | ND | 0.30 | 53 |  |  | 57 | 65 | 13.1 | 30 - 130 | 20 |
| Anthracene             | ND | 0.50 | 72 |  |  | 71 | 76 | 6.8  | 30 - 130 | 20 |
| Benz(a)anthracene      | ND | 0.06 | 80 |  |  | 72 | 71 | 1.4  | 30 - 130 | 20 |
| Benzo(a)pyrene         | ND | 0.10 | 79 |  |  | 65 | 57 | 13.1 | 30 - 130 | 20 |
| Benzo(b)fluoranthene   | ND | 0.08 | 75 |  |  | 61 | 54 | 12.2 | 30 - 130 | 20 |
| Benzo(ghi)perylene     | ND | 0.48 | 67 |  |  | 49 | 41 | 17.8 | 30 - 130 | 20 |
| Benzo(k)fluoranthene   | ND | 0.30 | 74 |  |  | 58 | 51 | 12.8 | 30 - 130 | 20 |
| Chrysene               | ND | 0.50 | 71 |  |  | 61 | 59 | 3.3  | 30 - 130 | 20 |
| Dibenz(a,h)anthracene  | ND | 0.10 | 83 |  |  | 61 | 49 | 21.8 | 30 - 130 | 20 |
| Fluoranthene           | ND | 0.50 | 73 |  |  | 70 | 72 | 2.8  | 30 - 130 | 20 |
| Fluorene               | ND | 0.50 | 62 |  |  | 67 | 74 | 9.9  | 30 - 130 | 20 |
| Indeno(1,2,3-cd)pyrene | ND | 0.10 | 80 |  |  | 60 | 51 | 16.2 | 30 - 130 | 20 |
| Naphthalene            | ND | 0.50 | 44 |  |  | 47 | 56 | 17.5 | 30 - 130 | 20 |
| Phenanthrene           | ND | 0.07 | 65 |  |  | 64 | 69 | 7.5  | 30 - 130 | 20 |
| Pyrene                 | ND | 0.50 | 75 |  |  | 74 | 77 | 4.0  | 30 - 130 | 20 |
| % 2-Fluorobiphenyl     | 58 | %    | 50 |  |  | 49 | 58 | 16.8 | 30 - 130 | 20 |
| % Nitrobenzene-d5      | 61 | %    | 53 |  |  | 52 | 65 | 22.2 | 30 - 130 | 20 |
| % Terphenyl-d14        | 77 | %    | 78 |  |  | 67 | 66 | 1.5  | 30 - 130 | 20 |

Comment:

This batch consists of a Blank, LCS, MS and MSD.

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 459963 (ug/L), QC Sample No: CC12830 (CC14013)

Volatiles - Water

|                           |    |     |     |    |     |  |  |  |          |    |
|---------------------------|----|-----|-----|----|-----|--|--|--|----------|----|
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | 100 | 94 | 6.2 |  |  |  | 70 - 130 | 30 |
|---------------------------|----|-----|-----|----|-----|--|--|--|----------|----|

## QA/QC Data

SDG I.D.: GCC14011

| Parameter                   | Blank | Blk<br>RL | LCS<br>% | LCSD<br>% | LCS<br>RPD | MS<br>% | MSD<br>% | MS<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |
|-----------------------------|-------|-----------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|
| 1,1,1-Trichloroethane       | ND    | 1.0       | 102      | 90        | 12.5       |         |          |           | 70 - 130           | 30                 |
| 1,1,2,2-Tetrachloroethane   | ND    | 0.50      | 105      | 100       | 4.9        |         |          |           | 70 - 130           | 30                 |
| 1,1,2-Trichloroethane       | ND    | 1.0       | 94       | 90        | 4.3        |         |          |           | 70 - 130           | 30                 |
| 1,1-Dichloroethane          | ND    | 1.0       | 105      | 96        | 9.0        |         |          |           | 70 - 130           | 30                 |
| 1,1-Dichloroethene          | ND    | 1.0       | 108      | 93        | 14.9       |         |          |           | 70 - 130           | 30                 |
| 1,1-Dichloropropene         | ND    | 1.0       | 103      | 87        | 16.8       |         |          |           | 70 - 130           | 30                 |
| 1,2,3-Trichlorobenzene      | ND    | 1.0       | 85       | 95        | 11.1       |         |          |           | 70 - 130           | 30                 |
| 1,2,3-Trichloropropane      | ND    | 1.0       | 97       | 92        | 5.3        |         |          |           | 70 - 130           | 30                 |
| 1,2,4-Trichlorobenzene      | ND    | 1.0       | 95       | 94        | 1.1        |         |          |           | 70 - 130           | 30                 |
| 1,2,4-Trimethylbenzene      | ND    | 1.0       | 101      | 91        | 10.4       |         |          |           | 70 - 130           | 30                 |
| 1,2-Dibromo-3-chloropropane | ND    | 1.0       | 98       | 96        | 2.1        |         |          |           | 70 - 130           | 30                 |
| 1,2-Dibromoethane           | ND    | 1.0       | 100      | 97        | 3.0        |         |          |           | 70 - 130           | 30                 |
| 1,2-Dichlorobenzene         | ND    | 1.0       | 101      | 94        | 7.2        |         |          |           | 70 - 130           | 30                 |
| 1,2-Dichloroethane          | ND    | 1.0       | 104      | 98        | 5.9        |         |          |           | 70 - 130           | 30                 |
| 1,2-Dichloropropane         | ND    | 1.0       | 97       | 92        | 5.3        |         |          |           | 70 - 130           | 30                 |
| 1,3,5-Trimethylbenzene      | ND    | 1.0       | 101      | 90        | 11.5       |         |          |           | 70 - 130           | 30                 |
| 1,3-Dichlorobenzene         | ND    | 1.0       | 102      | 94        | 8.2        |         |          |           | 70 - 130           | 30                 |
| 1,3-Dichloropropane         | ND    | 1.0       | 100      | 95        | 5.1        |         |          |           | 70 - 130           | 30                 |
| 1,4-Dichlorobenzene         | ND    | 1.0       | 101      | 92        | 9.3        |         |          |           | 70 - 130           | 30                 |
| 2,2-Dichloropropane         | ND    | 1.0       | 98       | 85        | 14.2       |         |          |           | 70 - 130           | 30                 |
| 2-Chlorotoluene             | ND    | 1.0       | 102      | 93        | 9.2        |         |          |           | 70 - 130           | 30                 |
| 2-Hexanone                  | ND    | 5.0       | 94       | 90        | 4.3        |         |          |           | 70 - 130           | 30                 |
| 2-Isopropyltoluene          | ND    | 1.0       | 104      | 92        | 12.2       |         |          |           | 70 - 130           | 30                 |
| 4-Chlorotoluene             | ND    | 1.0       | 103      | 93        | 10.2       |         |          |           | 70 - 130           | 30                 |
| 4-Methyl-2-pentanone        | ND    | 5.0       | 94       | 90        | 4.3        |         |          |           | 70 - 130           | 30                 |
| Acetone                     | ND    | 5.0       | 100      | 92        | 8.3        |         |          |           | 70 - 130           | 30                 |
| Acrylonitrile               | ND    | 5.0       | 98       | 96        | 2.1        |         |          |           | 70 - 130           | 30                 |
| Benzene                     | ND    | 0.70      | 100      | 91        | 9.4        |         |          |           | 70 - 130           | 30                 |
| Bromobenzene                | ND    | 1.0       | 102      | 95        | 7.1        |         |          |           | 70 - 130           | 30                 |
| Bromochloromethane          | ND    | 1.0       | 102      | 97        | 5.0        |         |          |           | 70 - 130           | 30                 |
| Bromodichloromethane        | ND    | 0.50      | 96       | 91        | 5.3        |         |          |           | 70 - 130           | 30                 |
| Bromoform                   | ND    | 1.0       | 93       | 90        | 3.3        |         |          |           | 70 - 130           | 30                 |
| Bromomethane                | ND    | 1.0       | 113      | 107       | 5.5        |         |          |           | 70 - 130           | 30                 |
| Carbon Disulfide            | ND    | 1.0       | 106      | 94        | 12.0       |         |          |           | 70 - 130           | 30                 |
| Carbon tetrachloride        | ND    | 1.0       | 100      | 86        | 15.1       |         |          |           | 70 - 130           | 30                 |
| Chlorobenzene               | ND    | 1.0       | 102      | 94        | 8.2        |         |          |           | 70 - 130           | 30                 |
| Chloroethane                | ND    | 1.0       | 106      | 94        | 12.0       |         |          |           | 70 - 130           | 30                 |
| Chloroform                  | ND    | 1.0       | 108      | 100       | 7.7        |         |          |           | 70 - 130           | 30                 |
| Chloromethane               | ND    | 1.0       | 95       | 84        | 12.3       |         |          |           | 70 - 130           | 30                 |
| cis-1,2-Dichloroethene      | ND    | 1.0       | 103      | 97        | 6.0        |         |          |           | 70 - 130           | 30                 |
| cis-1,3-Dichloropropene     | ND    | 0.40      | 93       | 89        | 4.4        |         |          |           | 70 - 130           | 30                 |
| Dibromochloromethane        | ND    | 0.50      | 102      | 98        | 4.0        |         |          |           | 70 - 130           | 30                 |
| Dibromomethane              | ND    | 1.0       | 99       | 102       | 3.0        |         |          |           | 70 - 130           | 30                 |
| Dichlorodifluoromethane     | ND    | 1.0       | 109      | 91        | 18.0       |         |          |           | 70 - 130           | 30                 |
| Ethylbenzene                | ND    | 1.0       | 102      | 90        | 12.5       |         |          |           | 70 - 130           | 30                 |
| Hexachlorobutadiene         | ND    | 0.40      | 100      | 96        | 4.1        |         |          |           | 70 - 130           | 30                 |
| Isopropylbenzene            | ND    | 1.0       | 103      | 89        | 14.6       |         |          |           | 70 - 130           | 30                 |
| m&p-Xylene                  | ND    | 1.0       | 100      | 90        | 10.5       |         |          |           | 70 - 130           | 30                 |
| Methyl ethyl ketone         | ND    | 5.0       | 108      | 106       | 1.9        |         |          |           | 70 - 130           | 30                 |
| Methyl t-butyl ether (MTBE) | ND    | 1.0       | 98       | 93        | 5.2        |         |          |           | 70 - 130           | 30                 |
| Methylene chloride          | ND    | 1.0       | 103      | 97        | 6.0        |         |          |           | 70 - 130           | 30                 |
| Naphthalene                 | ND    | 1.0       | 90       | 95        | 5.4        |         |          |           | 70 - 130           | 30                 |
| n-Butylbenzene              | ND    | 1.0       | 104      | 90        | 14.4       |         |          |           | 70 - 130           | 30                 |

## QA/QC Data

SDG I.D.: GCC14011

| Parameter                   | Blk   |      | LCS<br>% | LCSD<br>% | LCS<br>RPD | MS<br>% | MSD<br>% | MS<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |
|-----------------------------|-------|------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|
|                             | Blank | RL   |          |           |            |         |          |           |                    |                    |
| n-Propylbenzene             | ND    | 1.0  | 104      | 89        | 15.5       |         |          |           | 70 - 130           | 30                 |
| o-Xylene                    | ND    | 1.0  | 102      | 92        | 10.3       |         |          |           | 70 - 130           | 30                 |
| p-Isopropyltoluene          | ND    | 1.0  | 103      | 90        | 13.5       |         |          |           | 70 - 130           | 30                 |
| sec-Butylbenzene            | ND    | 1.0  | 105      | 90        | 15.4       |         |          |           | 70 - 130           | 30                 |
| Styrene                     | ND    | 1.0  | 100      | 92        | 8.3        |         |          |           | 70 - 130           | 30                 |
| tert-Butylbenzene           | ND    | 1.0  | 102      | 87        | 15.9       |         |          |           | 70 - 130           | 30                 |
| Tetrachloroethene           | ND    | 1.0  | 94       | 82        | 13.6       |         |          |           | 70 - 130           | 30                 |
| Tetrahydrofuran (THF)       | ND    | 2.5  | 97       | 95        | 2.1        |         |          |           | 70 - 130           | 30                 |
| Toluene                     | ND    | 1.0  | 96       | 87        | 9.8        |         |          |           | 70 - 130           | 30                 |
| trans-1,2-Dichloroethene    | ND    | 1.0  | 105      | 97        | 7.9        |         |          |           | 70 - 130           | 30                 |
| trans-1,3-Dichloropropene   | ND    | 0.40 | 91       | 88        | 3.4        |         |          |           | 70 - 130           | 30                 |
| trans-1,4-dichloro-2-butene | ND    | 5.0  | 100      | 96        | 4.1        |         |          |           | 70 - 130           | 30                 |
| Trichloroethene             | ND    | 1.0  | 104      | 93        | 11.2       |         |          |           | 70 - 130           | 30                 |
| Trichlorofluoromethane      | ND    | 1.0  | 104      | 86        | 18.9       |         |          |           | 70 - 130           | 30                 |
| Trichlorotrifluoroethane    | ND    | 1.0  | 106      | 84        | 23.2       |         |          |           | 70 - 130           | 30                 |
| Vinyl chloride              | ND    | 1.0  | 102      | 89        | 13.6       |         |          |           | 70 - 130           | 30                 |
| % 1,2-dichlorobenzene-d4    | 97    | %    | 101      | 101       | 0.0        |         |          |           | 70 - 130           | 30                 |
| % Bromofluorobenzene        | 99    | %    | 100      | 101       | 1.0        |         |          |           | 70 - 130           | 30                 |
| % Dibromofluoromethane      | 99    | %    | 100      | 103       | 3.0        |         |          |           | 70 - 130           | 30                 |
| % Toluene-d8                | 89    | %    | 95       | 95        | 0.0        |         |          |           | 70 - 130           | 30                 |

Comment:

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

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

QA/QC Batch 460186 (mg/Kg), QC Sample No: CC14014 (CC14011 (50X) , CC14012, CC14014, CC14015, CC14016, CC14017, CC14018, CC14019, CC14020)

### Volatiles - Soil

|                             |    |       |     |     |      |     |     |      |          |    |
|-----------------------------|----|-------|-----|-----|------|-----|-----|------|----------|----|
| 1,1,1,2-Tetrachloroethane   | ND | 0.005 | 106 | 110 | 3.7  | 108 | 110 | 1.8  | 70 - 130 | 30 |
| 1,1,1-Trichloroethane       | ND | 0.005 | 102 | 109 | 6.6  | 101 | 103 | 2.0  | 70 - 130 | 30 |
| 1,1,2,2-Tetrachloroethane   | ND | 0.003 | 108 | 115 | 6.3  | 119 | 117 | 1.7  | 70 - 130 | 30 |
| 1,1,2-Trichloroethane       | ND | 0.005 | 97  | 99  | 2.0  | 103 | 103 | 0.0  | 70 - 130 | 30 |
| 1,1-Dichloroethane          | ND | 0.005 | 102 | 109 | 6.6  | 103 | 105 | 1.9  | 70 - 130 | 30 |
| 1,1-Dichloroethene          | ND | 0.005 | 109 | 113 | 3.6  | 90  | 100 | 10.5 | 70 - 130 | 30 |
| 1,1-Dichloropropene         | ND | 0.005 | 107 | 109 | 1.9  | 107 | 111 | 3.7  | 70 - 130 | 30 |
| 1,2,3-Trichlorobenzene      | ND | 0.005 | 112 | 116 | 3.5  | 111 | 117 | 5.3  | 70 - 130 | 30 |
| 1,2,3-Trichloropropane      | ND | 0.005 | 101 | 107 | 5.8  | 108 | 109 | 0.9  | 70 - 130 | 30 |
| 1,2,4-Trichlorobenzene      | ND | 0.005 | 118 | 119 | 0.8  | 119 | 124 | 4.1  | 70 - 130 | 30 |
| 1,2,4-Trimethylbenzene      | ND | 0.001 | 109 | 114 | 4.5  | 112 | 113 | 0.9  | 70 - 130 | 30 |
| 1,2-Dibromo-3-chloropropane | ND | 0.005 | 112 | 118 | 5.2  | 115 | 119 | 3.4  | 70 - 130 | 30 |
| 1,2-Dibromoethane           | ND | 0.005 | 104 | 110 | 5.6  | 109 | 111 | 1.8  | 70 - 130 | 30 |
| 1,2-Dichlorobenzene         | ND | 0.005 | 105 | 112 | 6.5  | 112 | 114 | 1.8  | 70 - 130 | 30 |
| 1,2-Dichloroethane          | ND | 0.005 | 102 | 107 | 4.8  | 102 | 103 | 1.0  | 70 - 130 | 30 |
| 1,2-Dichloropropane         | ND | 0.005 | 94  | 104 | 10.1 | 103 | 103 | 0.0  | 70 - 130 | 30 |
| 1,3,5-Trimethylbenzene      | ND | 0.001 | 109 | 113 | 3.6  | 109 | 112 | 2.7  | 70 - 130 | 30 |
| 1,3-Dichlorobenzene         | ND | 0.005 | 108 | 111 | 2.7  | 113 | 115 | 1.8  | 70 - 130 | 30 |
| 1,3-Dichloropropane         | ND | 0.005 | 103 | 109 | 5.7  | 107 | 107 | 0.0  | 70 - 130 | 30 |
| 1,4-Dichlorobenzene         | ND | 0.005 | 106 | 111 | 4.6  | 110 | 114 | 3.6  | 70 - 130 | 30 |
| 2,2-Dichloropropane         | ND | 0.005 | 107 | 112 | 4.6  | 99  | 104 | 4.9  | 70 - 130 | 30 |
| 2-Chlorotoluene             | ND | 0.005 | 105 | 110 | 4.7  | 108 | 110 | 1.8  | 70 - 130 | 30 |
| 2-Hexanone                  | ND | 0.025 | 102 | 111 | 8.5  | 109 | 111 | 1.8  | 70 - 130 | 30 |
| 2-Isopropyltoluene          | ND | 0.005 | 110 | 115 | 4.4  | 111 | 115 | 3.5  | 70 - 130 | 30 |
| 4-Chlorotoluene             | ND | 0.005 | 107 | 110 | 2.8  | 110 | 113 | 2.7  | 70 - 130 | 30 |
| 4-Methyl-2-pentanone        | ND | 0.025 | 103 | 112 | 8.4  | 115 | 113 | 1.8  | 70 - 130 | 30 |

## QA/QC Data

SDG I.D.: GCC14011

| Parameter                   | Blank |           | LCS<br>% | LCSD<br>% | LCS<br>RPD | MS<br>% | MSD<br>% | MS<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |   |
|-----------------------------|-------|-----------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|---|
|                             | Blank | BLK<br>RL |          |           |            |         |          |           |                    |                    |   |
| Acetone                     | ND    | 0.01      | 72       | 76        | 5.4        | 58      | 63       | 8.3       | 70 - 130           | 30                 | m |
| Acrylonitrile               | ND    | 0.005     | 100      | 108       | 7.7        | 105     | 111      | 5.6       | 70 - 130           | 30                 |   |
| Benzene                     | ND    | 0.001     | 96       | 101       | 5.1        | 101     | 103      | 2.0       | 70 - 130           | 30                 |   |
| Bromobenzene                | ND    | 0.005     | 103      | 107       | 3.8        | 106     | 107      | 0.9       | 70 - 130           | 30                 |   |
| Bromochloromethane          | ND    | 0.005     | 95       | 108       | 12.8       | 105     | 103      | 1.9       | 70 - 130           | 30                 |   |
| Bromodichloromethane        | ND    | 0.005     | 104      | 111       | 6.5        | 105     | 105      | 0.0       | 70 - 130           | 30                 |   |
| Bromoform                   | ND    | 0.005     | 114      | 123       | 7.6        | 118     | 119      | 0.8       | 70 - 130           | 30                 |   |
| Bromomethane                | ND    | 0.005     | 89       | 94        | 5.5        | 82      | 85       | 3.6       | 70 - 130           | 30                 |   |
| Carbon Disulfide            | ND    | 0.005     | 110      | 116       | 5.3        | 94      | 106      | 12.0      | 70 - 130           | 30                 |   |
| Carbon tetrachloride        | ND    | 0.005     | 105      | 109       | 3.7        | 101     | 105      | 3.9       | 70 - 130           | 30                 |   |
| Chlorobenzene               | ND    | 0.005     | 102      | 105       | 2.9        | 105     | 108      | 2.8       | 70 - 130           | 30                 |   |
| Chloroethane                | ND    | 0.005     | 107      | 109       | 1.9        | 90      | 95       | 5.4       | 70 - 130           | 30                 |   |
| Chloroform                  | ND    | 0.005     | 98       | 105       | 6.9        | 93      | 101      | 8.2       | 70 - 130           | 30                 |   |
| Chloromethane               | ND    | 0.005     | 92       | 93        | 1.1        | 92      | 98       | 6.3       | 70 - 130           | 30                 |   |
| cis-1,2-Dichloroethene      | ND    | 0.005     | 105      | 92        | 13.2       | 113     | 111      | 1.8       | 70 - 130           | 30                 |   |
| cis-1,3-Dichloropropene     | ND    | 0.005     | 103      | 110       | 6.6        | 107     | 106      | 0.9       | 70 - 130           | 30                 |   |
| Dibromochloromethane        | ND    | 0.003     | 114      | 123       | 7.6        | 117     | 117      | 0.0       | 70 - 130           | 30                 |   |
| Dibromomethane              | ND    | 0.005     | 97       | 106       | 8.9        | 104     | 103      | 1.0       | 70 - 130           | 30                 |   |
| Dichlorodifluoromethane     | ND    | 0.005     | 111      | 114       | 2.7        | 103     | 112      | 8.4       | 70 - 130           | 30                 |   |
| Ethylbenzene                | ND    | 0.001     | 105      | 107       | 1.9        | 106     | 111      | 4.6       | 70 - 130           | 30                 |   |
| Hexachlorobutadiene         | ND    | 0.005     | 116      | 122       | 5.0        | 120     | 124      | 3.3       | 70 - 130           | 30                 |   |
| Isopropylbenzene            | ND    | 0.001     | 108      | 111       | 2.7        | 106     | 109      | 2.8       | 70 - 130           | 30                 |   |
| m&p-Xylene                  | ND    | 0.002     | 103      | 108       | 4.7        | 106     | 110      | 3.7       | 70 - 130           | 30                 |   |
| Methyl ethyl ketone         | ND    | 0.005     | 92       | 98        | 6.3        | 99      | 98       | 1.0       | 70 - 130           | 30                 |   |
| Methyl t-butyl ether (MTBE) | ND    | 0.001     | 98       | 107       | 8.8        | 102     | 103      | 1.0       | 70 - 130           | 30                 |   |
| Methylene chloride          | ND    | 0.005     | 95       | 105       | 10.0       | 101     | 102      | 1.0       | 70 - 130           | 30                 |   |
| Naphthalene                 | ND    | 0.005     | 113      | 120       | 6.0        | 113     | 117      | 3.5       | 70 - 130           | 30                 |   |
| n-Butylbenzene              | ND    | 0.001     | 116      | 118       | 1.7        | 115     | 120      | 4.3       | 70 - 130           | 30                 |   |
| n-Propylbenzene             | ND    | 0.001     | 108      | 112       | 3.6        | 107     | 112      | 4.6       | 70 - 130           | 30                 |   |
| o-Xylene                    | ND    | 0.002     | 107      | 112       | 4.6        | 113     | 114      | 0.9       | 70 - 130           | 30                 |   |
| p-Isopropyltoluene          | ND    | 0.001     | 114      | 117       | 2.6        | 113     | 116      | 2.6       | 70 - 130           | 30                 |   |
| sec-Butylbenzene            | ND    | 0.001     | 114      | 119       | 4.3        | 116     | 119      | 2.6       | 70 - 130           | 30                 |   |
| Styrene                     | ND    | 0.005     | 108      | 113       | 4.5        | 115     | 117      | 1.7       | 70 - 130           | 30                 |   |
| tert-Butylbenzene           | ND    | 0.001     | 108      | 113       | 4.5        | 109     | 113      | 3.6       | 70 - 130           | 30                 |   |
| Tetrachloroethene           | ND    | 0.005     | 100      | 103       | 3.0        | 107     | 108      | 0.9       | 70 - 130           | 30                 |   |
| Tetrahydrofuran (THF)       | ND    | 0.005     | 97       | 108       | 10.7       | 104     | 104      | 0.0       | 70 - 130           | 30                 |   |
| Toluene                     | ND    | 0.001     | 96       | 102       | 6.1        | 101     | 104      | 2.9       | 70 - 130           | 30                 |   |
| trans-1,2-Dichloroethene    | ND    | 0.005     | 102      | 114       | 11.1       | 105     | 111      | 5.6       | 70 - 130           | 30                 |   |
| trans-1,3-Dichloropropene   | ND    | 0.005     | 102      | 108       | 5.7        | 106     | 105      | 0.9       | 70 - 130           | 30                 |   |
| trans-1,4-dichloro-2-butene | ND    | 0.005     | 117      | 124       | 5.8        | 117     | 117      | 0.0       | 70 - 130           | 30                 |   |
| Trichloroethene             | ND    | 0.005     | 99       | 103       | 4.0        | 103     | 106      | 2.9       | 70 - 130           | 30                 |   |
| Trichlorofluoromethane      | ND    | 0.005     | 103      | 107       | 3.8        | 79      | 86       | 8.5       | 70 - 130           | 30                 |   |
| Trichlorotrifluoroethane    | ND    | 0.005     | 102      | 109       | 6.6        | 85      | 97       | 13.2      | 70 - 130           | 30                 |   |
| Vinyl chloride              | ND    | 0.005     | 98       | 105       | 6.9        | 101     | 111      | 9.4       | 70 - 130           | 30                 |   |
| % 1,2-dichlorobenzene-d4    | 99    | %         | 100      | 101       | 1.0        | 99      | 100      | 1.0       | 70 - 130           | 30                 |   |
| % Bromofluorobenzene        | 95    | %         | 100      | 100       | 0.0        | 101     | 101      | 0.0       | 70 - 130           | 30                 |   |
| % Dibromofluoromethane      | 106   | %         | 102      | 102       | 0.0        | 99      | 100      | 1.0       | 70 - 130           | 30                 |   |
| % Toluene-d8                | 99    | %         | 100      | 101       | 1.0        | 100     | 99       | 1.0       | 70 - 130           | 30                 |   |

Comment:

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

m = This parameter is outside laboratory MS/MSD specified recovery limits.

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

# QA/QC Data

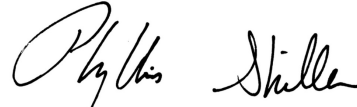
SDG I.D.: GCC14011

| Parameter | Blank | Blk<br>RL | LCS<br>% | LCSD<br>% | LCS<br>RPD | MS<br>% | MSD<br>% | MS<br>RPD | %<br>Rec<br>Limits | %<br>RPD<br>Limits |
|-----------|-------|-----------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|
|-----------|-------|-----------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|

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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  
December 19, 2018

Wednesday, December 19, 2018

Criteria: CT: GAM, GBM, RC

State: CT

# Sample Criteria Exceedances Report

GCC14011 - TRC-DOT

| SampNo  | Acode     | Phoenix Analyte        | Criteria                                 | Result | RL  | Criteria | RL   | Criteria | Analysis Units |
|---------|-----------|------------------------|--|--------|-----|----------|------|----------|----------------|
| CC14015 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR DEC RES (mg/kg) / APS Organics  | 1800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(a)pyrene         | CT / RSR DEC RES (mg/kg) / Semivolatiles | 3200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benz(a)anthracene      | CT / RSR DEC RES (mg/kg) / Semivolatiles | 2800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR DEC RES (mg/kg) / Semivolatiles | 2800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Chrysene               | CT / RSR GA,GAA (mg/kg) / APS Organics   | 2800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GA,GAA (mg/kg) / APS Organics   | 1800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(ghi)perylene     | CT / RSR GA,GAA (mg/kg) / APS Organics   | 1600   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 2700   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benz(a)anthracene      | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 2800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 2800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 3200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GB (mg/kg) / APS Organics       | 1800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Chrysene               | CT / RSR GB (mg/kg) / APS Organics       | 2800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(ghi)perylene     | CT / RSR GB (mg/kg) / APS Organics       | 1600   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GB (mg/kg) / Semivolatiles      | 3200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles      | 2800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles      | 2700   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14015 | \$8100SMR | Benz(a)anthracene      | CT / RSR GB (mg/kg) / Semivolatiles      | 2800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR DEC RES (mg/kg) / APS Organics  | 1200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR DEC RES (mg/kg) / Semivolatiles | 1900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benz(a)anthracene      | CT / RSR DEC RES (mg/kg) / Semivolatiles | 1800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benzo(a)pyrene         | CT / RSR DEC RES (mg/kg) / Semivolatiles | 2100   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GA,GAA (mg/kg) / APS Organics   | 1200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Chrysene               | CT / RSR GA,GAA (mg/kg) / APS Organics   | 1900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 1700   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 2100   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benz(a)anthracene      | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 1800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 1900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Chrysene               | CT / RSR GB (mg/kg) / APS Organics       | 1900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GB (mg/kg) / APS Organics       | 1200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles      | 1900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles      | 1700   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benz(a)anthracene      | CT / RSR GB (mg/kg) / Semivolatiles      | 1800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14016 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GB (mg/kg) / Semivolatiles      | 2100   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR DEC RES (mg/kg) / APS Organics  | 2200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benz(a)anthracene      | CT / RSR DEC RES (mg/kg) / Semivolatiles | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR DEC RES (mg/kg) / Semivolatiles | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(a)pyrene         | CT / RSR DEC RES (mg/kg) / Semivolatiles | 3800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GA,GAA (mg/kg) / APS Organics   | 2200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Chrysene               | CT / RSR GA,GAA (mg/kg) / APS Organics   | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |

# Sample Criteria Exceedances Report

## GCC14011 - TRC-DOT

| SampNo  | Acode     | Phoenix Analyte        | Criteria                                 | Result | RL  | Criteria | RL   | Criteria | Analysis Units |
|---------|-----------|------------------------|--|--------|-----|----------|------|----------|----------------|
| CC14017 | \$8100SMR | Benzo(ghi)perylene     | CT / RSR GA,GAA (mg/kg) / APS Organics   | 1900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 3800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Pyrene                 | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 4400   | 250 | 4000     | 4000 | 4000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 2900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(a)anthracene     | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Chrysene               | CT / RSR GB (mg/kg) / APS Organics       | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GB (mg/kg) / APS Organics       | 2200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(ghi)perylene     | CT / RSR GB (mg/kg) / APS Organics       | 1900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles      | 2900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles      | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GB (mg/kg) / Semivolatiles      | 3800   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14017 | \$8100SMR | Benzo(a)anthracene     | CT / RSR GB (mg/kg) / Semivolatiles      | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR DEC RES (mg/kg) / APS Organics  | 2000   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(a)anthracene     | CT / RSR DEC RES (mg/kg) / Semivolatiles | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(a)pyrene         | CT / RSR DEC RES (mg/kg) / Semivolatiles | 3500   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR DEC RES (mg/kg) / Semivolatiles | 3200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GA,GAA (mg/kg) / APS Organics   | 2000   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Chrysene               | CT / RSR GA,GAA (mg/kg) / APS Organics   | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(ghi)perylene     | CT / RSR GA,GAA (mg/kg) / APS Organics   | 1600   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Pyrene                 | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 4400   | 250 | 4000     | 4000 | 4000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 3200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 2900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(a)anthracene     | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 3500   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Chrysene               | CT / RSR GB (mg/kg) / APS Organics       | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GB (mg/kg) / APS Organics       | 2000   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(ghi)perylene     | CT / RSR GB (mg/kg) / APS Organics       | 1600   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(a)anthracene     | CT / RSR GB (mg/kg) / Semivolatiles      | 3300   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles      | 2900   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GB (mg/kg) / Semivolatiles      | 3500   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14018 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles      | 3200   | 250 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14019 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR DEC RES (mg/kg) / APS Organics  | 2400   | 260 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14019 | \$8100SMR | Benzo(a)pyrene         | CT / RSR DEC RES (mg/kg) / Semivolatiles | 4000   | 260 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14019 | \$8100SMR | Benzo(a)anthracene     | CT / RSR DEC RES (mg/kg) / Semivolatiles | 3600   | 260 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14019 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR DEC RES (mg/kg) / Semivolatiles | 3700   | 260 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14019 | \$8100SMR | Benzo(ghi)perylene     | CT / RSR GA,GAA (mg/kg) / APS Organics   | 2000   | 260 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14019 | \$8100SMR | Chrysene               | CT / RSR GA,GAA (mg/kg) / APS Organics   | 3700   | 260 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14019 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GA,GAA (mg/kg) / APS Organics   | 2400   | 260 | 1000     | 1000 | 1000     | ug/Kg          |
| CC14019 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles  | 3100   | 260 | 1000     | 1000 | 1000     | ug/Kg          |

Wednesday, December 19, 2018

Criteria: CT: GAM, GBM, RC

State: CT

## Sample Criteria Exceedances Report

GCC14011 - TRC-DOT

| SampNo  | Acode     | Phoenix Analyte        | Criteria                                | Result | RL  | Criteria | RL<br>Criteria | Analysis<br>Units |
|---------|-----------|------------------------|---|--------|-----|----------|----------------|-------------------|
| CC14019 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GA,GAA (mg/kg) / Semivolatiles | 3700   | 260 | 1000     | 1000           | ug/Kg             |
| CC14019 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GA,GAA (mg/kg) / Semivolatiles | 4000   | 260 | 1000     | 1000           | ug/Kg             |
| CC14019 | \$8100SMR | Benz(a)anthracene      | CT / RSR GA,GAA (mg/kg) / Semivolatiles | 3600   | 260 | 1000     | 1000           | ug/Kg             |
| CC14019 | \$8100SMR | Pyrene                 | CT / RSR GA,GAA (mg/kg) / Semivolatiles | 4900   | 260 | 4000     | 4000           | ug/Kg             |
| CC14019 | \$8100SMR | Benzo(ghi)perylene     | CT / RSR GB (mg/kg) / APS Organics      | 2000   | 260 | 1000     | 1000           | ug/Kg             |
| CC14019 | \$8100SMR | Chrysene               | CT / RSR GB (mg/kg) / APS Organics      | 3700   | 260 | 1000     | 1000           | ug/Kg             |
| CC14019 | \$8100SMR | Indeno(1,2,3-cd)pyrene | CT / RSR GB (mg/kg) / APS Organics      | 2400   | 260 | 1000     | 1000           | ug/Kg             |
| CC14019 | \$8100SMR | Benzo(b)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles     | 3700   | 260 | 1000     | 1000           | ug/Kg             |
| CC14019 | \$8100SMR | Benzo(a)pyrene         | CT / RSR GB (mg/kg) / Semivolatiles     | 4000   | 260 | 1000     | 1000           | ug/Kg             |
| CC14019 | \$8100SMR | Benzo(k)fluoranthene   | CT / RSR GB (mg/kg) / Semivolatiles     | 3100   | 260 | 1000     | 1000           | ug/Kg             |
| CC14019 | \$8100SMR | Benz(a)anthracene      | CT / RSR GB (mg/kg) / Semivolatiles     | 3600   | 260 | 1000     | 1000           | ug/Kg             |

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





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

**Laboratory Name:** Phoenix Environmental Labs, Inc.      **Client:** TRC Environmental Corp.

**Project Location:** CONNDOT- CENTRAL WAREHOUSE      **Project Number:**

**Laboratory Sample ID(s):** CC14011-CC14020      **Sampling Date(s):** 12/13/2018

**List RCP Methods Used (e.g., 8260, 8270, et cetera)**      8260, 8270, ETPH

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

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

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

**Authorized Signature:**       **Position:** Project Manager

**Printed Name:** Maryam Taylor      **Date:** Wednesday, December 19, 2018

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

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



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



## RCP Certification Report

December 19, 2018

SDG I.D.: GCC14011

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### SDG Comments

8270 Semi-volatile Organics:

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).

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### ETPH Narration

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

#### Instrument:

**AU-FID21 12/14/18-1** Jeff Bucko, Chemist 12/14/18

CC14014, CC14020

The initial calibration (ETPHD05I) RSD for the compound list was less than 30% except for the following compounds: None. The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

**AU-FID22 12/14/18-1** Jeff Bucko, Chemist 12/14/18

CC14015, CC14016, CC14017, CC14018, CC14019

The initial calibration (ETPHD05I) RSD for the compound list was less than 30% except for the following compounds: None. The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

**AU-XL1 12/14/18-1** Jeff Bucko, Chemist 12/14/18

CC14013

The initial calibration (ETPHN06I) RSD for the compound list was less than 30% except for the following compounds: None. The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

#### QC (Batch Specific):

##### **Batch 459843 (CC13609)**

CC14013

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

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

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

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

##### **Batch 459888 (CC14036)**

CC14014, CC14015, CC14016, CC14017, CC14018, CC14019, CC14020

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

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

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

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

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### SVOA Narration

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

#### Instrument:

**CHEM05 12/16/18-1** Adam Werner, Chemist 12/16/18

CC14014, CC14015, CC14016, CC14017, CC14018, CC14019



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## RCP Certification Report

December 19, 2018

SDG I.D.: GCC14011

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### **SVOA Narration**

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

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

Initial Calibration Evaluation (CHEM05/5\_BN\_1114):

[PCTMET]% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM05/1216\_03-5\_BN\_1114):

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

100% of target compounds met criteria.

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

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

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

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

#### **CHEM28 12/17/18-1**

Adam Werner, Chemist 12/17/18

CC14020

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

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

Initial Calibration Evaluation (CHEM28/28\_BN\_1121):

[PCTMET]% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM28/1217\_06-28\_BN\_1121):

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

100% of target compounds met criteria.

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

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

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

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

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

#### **Batch 459995 (CC14036)**

CC14014, CC14015, CC14016, CC14017, CC14018, CC14019

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.

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%)

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

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## RCP Certification Report

December 19, 2018

SDG I.D.: GCC14011

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### SVOA Narration

#### Batch 460170 (CC14020)

CC14020

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

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### SVOASIM Narration

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

#### Instrument:

#### CHEM27 12/16/18-1

Keith Aloisa, Chemist 12/16/18

CC14013

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

Initial Calibration Evaluation (CHEM27/27\_BNSIM18\_1206):

[PCTMET]% of target compounds met criteria.

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

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

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

Continuing Calibration Verification (CHEM27/1216\_03-27\_BNSIM18\_1206):

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

100% of target compounds met criteria.

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

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

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

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

#### QC (Batch Specific):

#### Batch 460021 (CC14406)

CC14013

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

This batch consists of a Blank, LCS, MS and MSD.

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%)

#### QC (Site Specific):

#### Batch 460170 (CC14020)

CC14020

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

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## RCP Certification Report

December 19, 2018

SDG I.D.: GCC14011

### **SVOASIM Narration**

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

### **VOA Narration**

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

**QC Batch 460186 (Samples: CC14011, CC14012, CC14014, CC14015, CC14016, CC14017, CC14018, CC14019, CC14020): -----**

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

#### **Instrument:**

**CHEM17 12/13/18-2** Michael Hahn, Chemist 12/13/18

CC14013

Initial Calibration Evaluation (CHEM17/VT-S1211):

[PCTMET]% of target compounds met criteria.

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

The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.036 (0.05), 2-Hexanone 0.077 (0.1), Acetone 0.035 (0.1), Bromoform 0.096 (0.1), Methyl ethyl ketone 0.058 (0.1), Tetrahydrofuran (THF) 0.044 (0.05)

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

Continuing Calibration Verification (CHEM17/1213\_28-VT-S1211):

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

100% of target compounds met criteria.

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

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

The following compounds did not meet recommended response factors: 1,2-Dibromo-3-chloropropane 0.035 (0.05), Bromoform 0.090 (0.1), Tetrahydrofuran (THF) 0.044 (0.05)

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

**CHEM31 12/14/18-1** Jane Li, Chemist 12/14/18

CC14011, CC14012, CC14014, CC14015, CC14016, CC14017, CC14018, CC14019, CC14020

Initial Calibration Evaluation (CHEM31/VT-L1210):

[PCTMET]% of target compounds met criteria.

The following compounds had %RSDs >20%: Acetone 36% (20%), Chloroethane 23% (20%), Methyl Ethyl Ketone 24% (20%)

The following compounds did not meet recommended response factors: Tetrachloroethene 0.189 (0.2)

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

Continuing Calibration Verification (CHEM31/1214\_04-VT-L1210):

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

100% of target compounds met criteria.

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



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## RCP Certification Report

December 19, 2018

SDG I.D.: GCC14011

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### **VOA Narration**

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

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

#### **Batch 459963 (CC12830)**

CC14013

All LCS recoveries were within 70 - 130 with the following exceptions: None.  
All LCSD recoveries were within 70 - 130 with the following exceptions: None.  
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.  
A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.  
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

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

#### **Batch 460186 (CC14014)**

CC14011, CC14012, CC14014, CC14015, CC14016, CC14017, CC14018, CC14019, CC14020

All LCS recoveries were within 70 - 130 with the following exceptions: None.  
All LCSD recoveries were within 70 - 130 with the following exceptions: None.  
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.  
All MS recoveries were within 70 - 130 with the following exceptions: Acetone(58%)  
All MSD recoveries were within 70 - 130 with the following exceptions: Acetone(63%)  
All MS/MSD RPDs were less than 30% with the following exceptions: None.  
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.  
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

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### **Temperature Narration**

The samples were received at 2.3C with cooling initiated.  
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

