February 27, 2018

Gary Trombly, Jr.
Department of Energy and Environmental Protection
Storage Tank and PCB Enforcement Unit
79 Elm Street
Hartford, Connecticut 06106

Craig Bobrowiecki
Department of Energy and Environmental Protection
Remediation Division
79 Elm Street
Hartford, Connecticut 06106

Re: Partial Consent Order #COWSPCB 15-001
Soil and Groundwater Report – Parcel B (South)

Dear Messrs. Trombly and Bobrowiecki:

Pursuant to the Partial Consent Order (PCO) between the Commissioner of Energy and Environmental Protection (the "Commissioner") and The United Illuminating Company ("UI"), UI is submitting the Soil and Groundwater Report – Parcel B (South) for your review.

Should you have any question regarding any of the above, please don't hesitate to contact Charles Eves at (203) 926-4632 or (203) 535-7461.

UNITED ILLUMINATING COMPANY

Anthony Marone
President and Chief Executive Officer
United Illuminating Company

Charles Eves
Senior Project Manager
United Illuminating Company

CERTIFICATION

I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law.

Anthony Marone

Charles Eves

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REPORT

South Side Investigation Summary Report

Former English Station Facility
510 Grand Avenue
New Haven, Connecticut

March 2018

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EXECUTIVE SUMMARY

Weston & Sampson Engineers, Inc. (Weston & Sampson), on behalf of the United Illuminating Company (UI), has prepared this Investigation Summary Report for a portion of the Former English Station facility located at 510 Grand Avenue in New Haven, Connecticut (hereinafter referred to as "the Site"). The Site occupies approximately 9-acres of land located south of Grand Avenue in New Haven. The Mill River borders the Site to the east, west and south. UI operated a former electric power plant (English Station) on the property between 1929 and 1992. Vacant buildings associated with English Station are located on Site. See Figure 1 for Site location and Figure 2 for an aerial view.

As a requirement of the change of control from UI to Iberdrola Electric Utility (Final Decision Docket No. 15-07-38), UI is required to investigate and remediate certain environmental conditions of the Site. TRC Companies Inc. has been retained by UI to provide Licensed Environmental Professional (LEP) services associated with investigation and remediation of the Site. Weston & Sampson has been retained by UI to provide Site investigation services. The Site investigation activities were performed in accordance with the Connecticut Department of Energy and Environmental Protection (CT DEEP) Partial Consent Order COWSPCB 15-001 (PCO) and applicable federal and state regulations.

Weston & Sampson performed Site investigation between July and September 2017. The investigation described in this report included the collection of soil, sediment and porous media (concrete, wood and asphalt) samples for laboratory analysis. The investigation was performed in accordance to with TRC's Scope of Study (SOS), English Station, revised July 2017, which was reviewed and approved by the CT DEEP.

To expedite implementation of potential remedial actions, two separate Investigation Summary Reports have been prepared and the reports have been split roughly by parcels. This report applies to the Areas of Concern (AOCs) within and abutting the South Side of the Site as shown on Figure 3. Specifically, this report applies to results for soil, sediment, and porous media for AOC-3, AOC-7 through AOC-11 and AOC-13. Major findings of the investigation for the above AOCs are provided below:

<u>AOC-3 Former Septic Systems</u>

- AOC-3 includes two former septic system locations within the South Side of the Site. Historic maps depict the locations of the historic septic structures; one located on the western side of the Site (Septic West) and one along the eastern side of the Site (Septic East).
- Weston & Sampson advanced soil borings and collected porous media (concrete and asphalt) samples within the area of Septic West and East. Sediment samples were also collected within each structure. Soil impacts require some remediation in the area of the septic structures, but these impacts may be the result of releases not related to the tanks. Testing of sediments within the structures indicates that they should be removed and disposed offsite.

<u>AOC-7 Former Waste Oil Aboveground Storage Tank (AST) / Oil Pump Room Area</u>

- AOC-7 is located within the southeastern corner of the Site. A former waste oil AST was located adjacent to the southeastern corner of the English Station building. An oil pump house that serviced the building boiler system was also located in this area. Numerous soil borings were advanced throughout AOC-7. Porous media (concrete and asphalt) samples were also collected at boring locations and from concrete pads and pipe trenches. Sediment samples were also collected from manhole structures and pipe trenches.
- Historical and recent data have found evidence of PCB and ETPH releases to this area of the

Site. Remedial actions are anticipated for the PCB and petroleum impacts identified within AOC-7.

AOC-8 Former Fuel Oil ASTs

- AOC-8 is located within the southern portion of the Site. One 50,000-gallon No. 6 fuel oil AST was previously located within a concrete containment berm located in the far southern end of the Site. To the west of the former No. 6 fuel oil tank, there were two 5,000-gallon No. 2 fuel oil ASTs that were formerly located in concrete cradles.
- Weston & Sampson advanced soil borings, collected surficial soil samples, and porous media samples (concrete and asphalt) throughout AOC-8. Sediment samples were also collected from pipe trench and sump structures within the AOC. PCB releases were identified, and remediation of PCB impacts to soil, sediment and porous media is anticipated. Petroleum hydrocarbon impacts were not identified in soil, but releases to sediments within the trenches were identified and will also require remediation.

AOC-9: Transformer Areas

- AOC-9 is located within the southwestern portion of the Site, to the west of the English Station building. Multiple historic transformers and capacitors were located in this area. Numerous soil borings were advanced throughout AOC-9 and porous media (concrete and asphalt) samples were also collected at boring locations and from concrete pads and pipe trenches. Sediment samples were also collected from manhole structures and pipe trenches throughout the AOC.
- Historical and current data have identified releases of PCBs and petroleum hydrocarbons from historical Site operations. As such, these impacts to soil and porous media, as well as sediments, will require remediation.

AOC -10 Former Interior Chemical Storage Areas

- AOC-10 is comprised of outbuildings located within the southwestern and southern portions of the Site associated with former interior chemical storage. Weston & Sampson advanced soil borings, collected numerous porous media (concrete) samples, and one sediment sample within AOC-10.
- Limited impacts to shallow soil beneath the buildings were identified. However, the concrete of these buildings was typically impacted with PCBs and demolition and removal of the concrete and limited soil from beneath the structures is anticipated to remediate these impacts. Identified impacts to concrete and limited impacts to soil will require remediation.

AOC -11 On-Site Fill Material: Evaluation of Tracking

- AOC-11 is fill material located throughout the Site. The fill material has been adequately characterized by others during previous investigatory efforts. This investigation included evaluation of tracking across pads/structures not captured by other AOCs. Weston & Sampson collected 3 porous media (concrete) samples from concrete pad structure P12 located in the southwestern portion of the Site. There was no sediment observed within the manholes of this structure and therefore, samples were not collected.
- Results of the investigation indicate surface concrete at structure P12 is not impacted with PCBs. In fact, data collected across the Site indicate that tracking of PCBs and other COCs across the property is not seen as a potential release mechanism. Additional investigation of the P12 structure within AOC-11 is not required.

AOC -13 Former Wastewater Treatment System

- AOC-13 is located within the southeastern portion of the Site, east of the English Station building and includes remnants of a former wastewater treatment system (primarily concrete pads). The operational history of this former treatment system is not well documented in historic reports. Weston & Sampson advanced soil borings and collected porous media samples (asphalt or concrete) throughout AOC-13. Sediment samples were also collected from pipe trenches in this area.
- Field screening of soil samples and results from the laboratory analysis of the soil samples indicate that releases of petroleum hydrocarbons have occurred during historical Site operations and these impacts will require remediation. PCBs were detected in shallow and deeper soil also indicating that releases have occurred during historical Site operations that will require remediation. Analysis of sediment samples identified PCBs and ETPH in sediments collected from trenches within the area that are likely from releases during historical Site operations and will require remediation as well.

1.0 INTRODUCTION

Weston & Sampson Engineers, Inc. (Weston & Sampson) has prepared this Investigation Summary Report which includes a detailed description of investigation activities, soil, sediment, and porous media data generated, and a summary discussion of remediation options for environmental impacts on the South Side of the parcel 510 Grand Avenue in New Haven, Connecticut also referred to as "English Station" (hereinafter referred to as "the Site"). Figure 1 provides a Site Locus map and Figure 2 is an aerial map showing the area covered under this South Side Investigation Summary Report.

In preparation of this report, Weston & Sampson conducted sampling of soil, sediment, and porous media samples for Areas of Concern (AOCs) located on the South Side of the Site and abutting AOCs as prescribed in the SOS prepared for UI by TRC (attached as Appendix A). The SOS was prepared for UI to execute its obligations under Partial Consent Order (PCO) COWSPCB 15-001, issued by the Connecticut Department of Energy & Environmental Protection (CT DEEP). The CT DEEP reviewed and approved the scope of work in the SOS and TRC oversaw all investigation activities performed by Weston & Sampson.

Weston & Sampson investigations summarized in this report were performed between July and September 2017. The investigation activities described in this report are limited to AOC-3, AOC-7 through AOC-11 and AOC-13. The locations of these AOCs are shown on Figure 3. Other AOCs not discussed in this report are covered in the North Side Investigation Summary Report. The results from the groundwater investigation performed will be discussed in the Groundwater Investigation Summary Report.

Samples collected were analyzed for potential chemicals of concern (COC) at the Site including polychlorinated biphenyls (PCBs), Semi-Volatile Organic Compounds (SVOCs), Volatile Organic Compounds (VOCs), extractable total petroleum hydrocarbons (ETPH), and Connecticut Remediation Standard Regulations (RSR) 15 Metals. Selected analyses for samples collected were determined based on TRC's SOS and field observations made by Weston & Sampson. Select samples were analyzed for leachable concentrations of contaminants using the Synthetic Precipitation Leachate Procedure (SPLP).

The investigation activities were conducted to further characterize areas of the Site not previously investigated, to identify other potential sources of impacts, and to delineate the horizontal and vertical extents of previously identified impacts to the Site. Analytical results were compared to applicable Connecticut remedial criteria found in Section 22a-133k-1 through -3, inclusive, of the RSRs of the Regulations of Connecticut State Agencies (RCSA). Because federal PCB regulations are also applicable, remedial standards contained within Chapter 40 of the Code of Federal Regulations Part 761 (40 CFR Part 761) are applicable. However, for the purposes of this report, the characterization and delineation of Site impacts are compared to criteria from the RSRs. Further discussion and application of the federal PCB regulations found in 40 CFR Part 761 will be included in the remedial action plans to be developed for the Site.

1.1 Location and Description

The Site is located at 510 Grand Avenue in New Haven, Connecticut and is comprised of approximately 9-acres of land located on a man-made island (Ball Island) situated within the Mill River which runs north to south into the Long Island Sound. The Site is comprised of two parcels, Parcels A and B (see Figure 2 for property and parcel boundaries) which are owned by two separate entities. The island is retained via steel bulkhead which encompasses the Site to the east, west and south. The Site can be further located through the following coordinates:

UTM Coordinates:	675239.9 meters North
	4574883.6 meters East
	Zone 18
Latitude/Longitude:	41° 18' 23" North
	72° 54' 24" West

The South Side of the Site, as indicated on Figure 2, is the subject of this report and covers an area of approximately 5.32 acres of land located at the southern tip of Ball Island. Several structures currently stand within this portion of the Site, including the former English Station power generating plant and smaller outbuildings. Of the 5.32 acres of land in the southern portion of the Site, the footprint of the English Station building encompasses approximately 2.29 acres. Other buildings present in this area of the Site include a former assembly hall, a storage building, and what was referred to as the "foam house".

The northern portion of the Site is discussed in a separate Investigation Summary Report. The North Side of the Site covers an area of approximately 3.58 acres and is developed with a two-story former electrical generating plant (also called Station B). In addition to Station B, the North Side of the Site also includes former locations of concern including a coal bin storage area, a stormwater surge basin, cable houses and a subsurface cooling water tunnel which historically operated on Site.

1.2 Site History

As indicated in the SOS prepared by TRC, the Site was first occupied by Enos S. Kimberly and Company in the late 1880s and was utilized as a coal and lumber facility. In 1890, New Haven Electric Company purchased the Site and began the construction of Station B. As part of this construction, Ball Island's footprint was expanded via the filling of the portion of the Mill River south of the Site. Station B reportedly operated as a coal-fired power plant until 1903.

UI purchased the property in 1914 and began the construction of the English Station Power Plant in 1924. The initial construction consisted of a coal-fired, low-pressure boiler and turbine areas which were completed in 1929. Sometime between 1948 and 1952, two additional coal fired, high-pressure boilers and turbines were constructed at the southern end of English Station. At that time, Ball Island was further expanded to the south by the additional filling of the Mill River. English Station power plant operated as a coal-fired power plant until sometime in the mid-1950s when the plant was converted into an oil-fired plant. English Station then operated as an oil-fired plant until 1992 when it was placed on deactivated

reserve status.

In 2000, UI transferred the Site to Quinnipiac Energy, LLC (QE). At that time, an escrow of $1,900,000 was established by UI to support environmental investigation and cleanup of the Site. From 2000 through 2008, Advanced Environmental Interface, Inc. (AEI) performed environmental assessment activities on behalf of QE. Assessment activities were ceased in 2008, when the escrow funds were depleted. In 2006, prior to depleting the escrow funds, QE filed for bankruptcy and divided the property into two parcels (Parcels A and B as shown on Figure 2). Subsequently, QE sold Parcel A to Evergreen and Parcel B to ASNAT.

In 2011, the new Site owners (ASNAT and Evergreen) contracted Grant Mackay Company (Grant Mackay) and Classic Environmental Inc. (Classic Environmental) to demolish the existing structures on-Site with the intention of generating enough money through selling scrap-metal steel to fund the future environmental investigation and eventual cleanup of the Site. The initial focus of this project was at the main English Station power plant building. In 2012, CT DEEP conducted an on-Site inspection which concluded that there was potential for tracking and spreading PCB contamination from source areas to other uncontaminated areas of the Site. In February 2012, CT DEEP issued a Cease and Desist Order (CDOWSUST 12-001) which terminated all on-Site investigation and remedial activities. The Site has remained dormant until the performance of the investigation summarized within this report and others.

1.3 Current Site Conditions

In July 2017, Weston & Sampson was granted Site access to observe current on-Site conditions. The Site is primarily improved with decaying impervious surfaces (asphalt and concrete), as evident by vegetative growth throughout the Site. Brushy vegetation had been allowed to grow in some areas of the Site and the brush was removed from above the ground surface only to allow access to certain areas. The brush removed was collected on poly-sheeting and not allowed to contact potentially PCB-impacted ground surfaces. The brush was then disposed of as clean vegetative debris and the poly-sheeting was disposed as PCB Remediation Waste.

Several large and small debris piles (scrap metal, wood, etc.) were noted throughout the Site and some had to be moved to allow access to investigation areas. None of this debris was removed from the Site and was moved as little as required to gain access to investigation locations.

Directly in front of the English Station power plant building (north of the building) were field trailers, Conex boxes, truck trailers, portable restrooms, an excavator and black contractor bags with asbestos containing material (ACM). Evidence of oil staining on the asphalt directly in front of the English Station power plant was also observed. The equipment and materials observed in front of the power plant building, including those that were oil-stained, have subsequently been properly decontaminated and removed from the Site or properly disposed of by others under contract to UI as prescribed in a work plan approved by CT DEEP.

1.4 Historical Site Filling

On March 27, 2003, the CT DEEP approved a “Widespread Polluted Fill Variance” for the Site based on an application submitted on behalf of Quinnipiac Energy, LLC. The application noted that the Site

subsurface includes widespread polluted fill from historic dredging operations and that:

- Sediments impacted by historical industrial use along the Mill River had been used to construct Ball Island. Prior to 1886, there were sand bars present within the current footprint of Ball Island and that the grade had been raised enough to allow for commercial use after 1886. Grades were subsequently raised to allow for construction of Station B on the northern portion of the Site in 1901 and that fill was placed on the southern portion of the Site to allow for construction of the English Station Power Generation Facility by 1935. Construction of final grades at the Site using sediments appears to have been completed by 1953.
- Sediments in the Mill River had been impacted by historical industrial operations which included coal gasification, storage and burning of coal in electrical generating facilities, metal processing, and lumber storage. These activities had impacted sediment within the Mill River with petroleum hydrocarbons and associated polyaromatic hydrocarbons (PAHs), and metals.
- These impacted sediments were used to construct Ball Island above the mean low water level in the Mill River and placed throughout the Site contained within a steel bulkhead.

The CT DEEP approval of the Widespread Polluted Fill Variance application applies to the entire English Station Site and is based on meeting the following provisions of RCSA 22a-133k-2(f)(1):

- (A) geographically extensive polluted fill is present at such parcel and at other parcels near the subject parcel; There have been no changes in site conditions that might change the Approval;
- (B) such fill is not polluted with volatile organic substances; Weston & Sampson sampling efforts did not identify additional VOC impacts at the Site and there was nothing found that might change the Approval;
- (C) such fill is not affecting and will not affect the quality of an existing or potential public water supply resource or an existing private drinking water supply; There have been no changes in site conditions that might change the Approval;
- (D) the concentration of each substance in such fill is consistent with subsection (b) of this section; There have been no changes in site conditions that might change the Approval;
- (E) the placement of such fill was not prohibited by law at the time of placement. There have been no changes in site conditions that might change the Approval; and
- (c)… whether the person requesting the variance is affiliated with any person responsible for such placement through any direct or indirect familial relationship or any contractual, corporate or financial relationship other than that by which such person's interest in such parcel is to be conveyed or financed; No change from original application.

No changes in Site conditions were observed during the investigation that might affect the applicability and use of the variance and no changes in conditions around the Site (e.g., addition of groundwater supply wells) have occurred. Thus, dredged sediments impacted with metals, PAHs, and total petroleum hydrocarbons that are believed to be present in the fill materials and not because of releases at the Site after the fill was placed are subject to the approved variance request. As such, the pollutant mobility criteria (PMC) are not applicable to these chemicals. However, remediation to address direct

exposure criteria (DEC) is still required.

Weston & Sampson investigation data are discussed in Section 4. As detailed in Section 4, results of the investigation identified PAHs, ETPH, and metals within the AOCs discussed in this report and that some of these analytical results exceeded remedial criteria (i.e., PMC and DEC). As PAHs, ETPH and metals are ubiquitous in fill material at the Site, delineation of exceedances is not considered feasible. Site-wide fill material will be remediated in accordance with the Fill Variance.

1.5 Investigation Objectives

The purpose of this Investigation Summary Report is to present the findings of Weston & Sampson's Site investigation. This Report includes the following items which will be discussed and evaluated:

1. Detailed description of the investigation activities performed.
2. Evaluation relative to the nature and extent of on-Site soil, sediment, and porous media contamination within the AOCs.
3. Update the Conceptual Site Model for each AOC.
4. An evaluation of the Data Quality Objectives (DQOs) to determine if the data obtained from on-Site investigations meet the requirements of the CT DEEP Laboratory Quality Assurance and Quality Control Data Quality Assessment and Data Usability Evaluation (DQA/DUE) Guidance Document dated May 2009 and revised in December 2010 as well as the Revised SOS prepared by TRC.
5. A preliminary evaluation of remedial action alternatives that address on-Site impacts relative to future industrial/commercial (I/C) Site use. Remedial action alternatives are evaluated based on COCs determined within each AOC and the applicable regulations which include:
    a. I/C Direct Exposure Criteria (I/C DEC).
    b. Groundwater Classification "B" Pollution Mobility Criteria (GB PMC)

1.6 Pre-Investigation Activities

In preparation for the Site investigation, Weston & Sampson contracted ACS Underground Solutions from Redding, Connecticut to perform ground penetrating radar (GPR) surveys throughout the Site to locate on-Site utilities and other subsurface structures. In addition to utilities, GPR was also used to locate tie-backs and deadmen that are used to support Ball Island's bulkhead. Obstructions and utilities were marked out utilizing spray paint and flagging, where applicable. The focus of the GPR survey was conducted in areas where soil borings were planned to be advanced. Additional Site utility location was performed by UI in support of the investigation. Call Before You Dig (CBYD) was also notified in advance of the investigation activities to be performed by the drilling contractors.

Prior to the commencement of environmental sampling and generating investigation derived waste (IDW), Weston & Sampson had an anti-tracking pad and IDW drum storage area constructed. An anti-tracking pad was installed within the North Side of the Site between AOC-2 and AOC-12N. The 12-foot-wide by 50-foot-long anti-tracking pad was constructed utilizing synthetic geofabric covered with

angular stone (ASTM C-33 size No 2/3). All equipment that accessed the Site was decontaminated on the anti-tracking pad following procedures specified in 40 CFR Part 761 in §761.79(c)(2)(i) or (ii). The decontamination solvent used was a commercial-grade terpene hydrocarbon solution containing greater than ninety percent terpene hydrocarbon.

The drum storage area was constructed utilizing polyethylene sheeting and orange construction fencing and an M_L mark was placed on the fencing. Open top and Department of Transportation (DOT)-rated 55-gallon drums were utilized to store solid IDW on Site which included personal protective equipment (PPE) and all soil wastes generated from the soil investigation. Closed top and DOT-rated 55-gallon drums were utilized to store all liquid decontamination wastes generated and water removed from the cooling water tunnel during sampling. All drums were properly labeled with M_L marks prior to off-Site disposal arranged for by UI.

Areas of previously identified Significant Environmental Hazards (SEHs) were marked at the Site and barriers established around the perimeters of each SEH area. These demarcation boundaries had to be maintained and reestablished during the investigation and new areas were marked as identified during the course of the investigation.

Anti-tracking measures employed during the soil investigation included removal of dirt from sampling equipment (e.g., treads on drill rig) prior to movement between boring locations. Poly sheeting was installed over areas with oil impacts or known high concentrations of COCs in surficial materials. The poly sheeting was removed and stored as PCB wastes following use. Overall, the investigation of soil was performed by starting at AOCs with lesser impacts to soil and then moving to more heavily impacted AOCs.

2.0 FIELD WORK METHODOLOGY

Weston & Sampson personnel collected environmental media samples including soil and sediment. Porous media samples, including concrete, asphalt, and wood, were also collected to assess the potential for on-Site tracking and deposition of PCBs. Sample collection was performed in accordance with the SOS prepared by TRC and approved by the CT DEEP and sampling activities were conducted under the supervision of an inspector from TRC. Laboratory-provided containers were used to store samples collected and the samples were placed into a cooler with ice upon sample collection. Where VOC analysis was not conducted, samples were homogenized utilizing dedicated mixing spoons and aluminum foil. To reduce the potential for any tracking of contamination, investigation work commenced in areas with less contamination (typically found on the north side of the property) and progressed toward areas previously identified as having more significant impacts.

2.1 Soil Sampling

On-Site soil sampling was performed primarily via GeoProbe® with some surficial soil samples being collected via disposable spoons and/or decontaminated shovels/trowels. Deeper soils were assessed via direct push GeoProbe® Macro-Core methodology. Soil samples were collected continuously, from the ground surface to depths up to 20 feet below ground surface (bgs). A five-foot dedicated acetate Macro-Core® liner was utilized to collect samples. Each soil core was logged with respect to its soil characteristics (i.e., color, grain size, moisture content, fill material, etc.) and were noted for any indications of potential environmental impacts. Each soil core was field screened using a Photo-Ionization Detector (PID) for total volatile organic vapors (TVOVs). At sample locations where VOC analysis was to be performed, the sample was collected from the location that exhibited the highest concentration of TVOVs, and/or that exhibited signs of environmental impacts. In the absence of obvious environmental impacts VOC samples were collected from the water table interface.

Any excess soil, acetate liners, PPE, and polyethylene sheeting generated from soil boring activities were stored within 55-gallon drums properly labeled with M_L marks. All bore holes were backfilled using S-2 silica filtration sand and were compacted as necessary.

Where applicable, the following decontamination procedure, performed in accordance with the requirements of 40 CFR Part 761 Subpart S – Double Wash/Rinse Method for Decontaminating Non-Porous Surfaces, were employed to limit the potential for cross contamination between sampling locations. Outer steel casing of each GeoProbe® and other metal sampling equipment used for sampling were decontaminated between each sample location utilizing the double wash/rinse methodology as follows:

1. Rinse with aqueous detergent solution.
2. Rinse with deionized water.
3. Rinse with aqueous detergent solution.
4. Rinse with deionized water.

All soil sample locations, sample collection depths, and analytical parameters were determined from TRC's SOS, revised in July 2017 and approved by CT DEEP. Minor alterations to the sampling plan were

made based upon observations, in the field which included obstructions, refusal and indications of other potential environmental impacts discovered during investigation.

A soil boring log was created for each GeoProbe® boring conducted on Site. Soil boring logs are included in Appendix B of this report.

2.2 Porous Media Sampling

As part of this investigation, porous media (concrete, wood and asphalt) samples were collected and analyzed for PCBs. Concrete and asphalt samples were collected following the Environmental Protection Agency (EPA) standard operating procedure (SOP) for sampling porous media (Revision 4) using a rotary hammer drill with 1" drill bits. The drill was advanced ½" into the porous media surface and the associated dust/chips generated from the holes were collected for analysis. Weston & Sampson utilized wooden tongue depressors to collect porous media samples from the drill holes. The depressors were disposed of after a one-time use.

Drill bits and other metal sampling equipment were decontaminated between each location using the following methodology in accordance with the EPA SOP referenced above:

1. Rinse with aqueous detergent solution.
2. Rinse with deionized water.
3. Rinse with hexane.
4. Rinse with deionized water.

In addition to the procedures described above, a swab with hexane was included in the decontamination of drill bits and other equipment used in porous media sampling equipment because this is prescribed in the EPA SOP. The PVC pipe was not reused, and the sections of pipe were disposed with waste soils generated during the investigation.

2.3 Sediment Sampling

Sediment sampling was conducted from various AOCs as described above with the addition of the following procedures. Sediment samples consisting of very fine materials were dewatered as necessary using dedicated filters for each sample. Any decanting or straining of excess water was done in a method and manner to maintain the amount of fines present in the sediment.

Collection of sediment samples was completed utilizing a ponar dredge claw and dedicated ¼" PVC piping. After accessing the subgrade structures, the ponar dredge claw was dropped into the structure and, if sediments were collected using this method, a sample was collected, placed in a dedicated sample jar, and analyzed for parameters as specified in the TRC SOS. If sediments could not be collected with the ponar, a section of ¼" PVC piping was advanced into the structure. Samples collected within the PVC was done via the "straw" sampling method. Sediment was collected with the PVC by blocking the top end of the PVC piping as the bottom end is advanced into sediment. This allowed the PVC to retain sediment from within the piping and brought back to the surface where it could be decanted over filter material and a sample collected. Not all of the subgrade structures were determined to contain sediments. However, the two sampling methods described above were employed at each

location prior to determining that a sample could not be collected.

Sections of PVC pipe were not reused and were disposed with other solid PCB wastes generated during the investigation. The Ponar dredge claw was decontaminated using the following methodology:

1. Rinse with aqueous detergent solution.
2. Rinse with deionized water.
3. Rinse with aqueous detergent solution.
4. Rinse with deionized water.

All excess sediment generated was placed directly into an open top 55-gallon drum properly labeled with a M_L mark.

2.4 Sample Nomenclature

Sample nomenclature was applied as described in TRC's SOS. Samples collected were identified first with a distinguishable letter to show what company collected the sample (i.e., WS for Weston & Sampson), followed by the AOC identification number (AOC numbers and boundaries were predetermined by figures provided by TRC), followed by a matrix code to note the sample media (i.e., SO for soil, AS for asphalt, CO for concrete, and SED for sediment). After the sample media ID, a number was used to identify sample location within that AOC. Where applicable, a dash (-) followed by an additional number was applied to display vertical sample depth. At locations where both porous media and soil samples were collected, the porous media sample number matches the soil boring number and it is the matrix code that distinguishes them from one another.

3.0 DATA QUALITY

The following provides a discussion of the data quality for soil, sediment, and porous media sample results. As described below, DQOs for the frequency of the collection and analysis of field and laboratory QA/QC samples were met. In addition, none of the data reported in this Investigation Summary Report exceeded applicable acceptance criteria in a manner that would require that the data be rejected. Thus, the data reported are acceptable for the purposes of this investigation which were the characterization of soil, sediments, and porous materials and the delineation of impacts to these environmental media.

3.1 Data Quality Objectives

For the purposes of this Site investigation, DQOs were established for the evaluation of the accuracy, precision and representativeness of the data generated. These DQOs included the collection of field quality assurance/quality control (QA/QC) samples and the analysis of these field samples and additional laboratory QA/QC samples. The overall quality assurance objective for laboratory analysis of samples was to provide a laboratory QA/QC program that is sufficient to ensure that data quality objectives are achieved. Analytical data for the Site was generated following the Reasonable Confidence Protocols (RCP) (CT DEEP, 2010b).

Each of the analytical data reports were assessed to determine the quality of the data as received. The following summarizes the DQA:

- All data were reported following the CT DEEP RCP. For each analytical method, narration was provided for each analysis or QA/QC sample for which results fell outside of acceptance criteria.
- Method Blanks, trip blanks, and other QA/QC samples used to measure potential contamination were generally free of analytes. Those analytes detected were not detected in samples. Thus, contamination of samples is not an issue with these data and no positive bias in the data set is indicated.
- Laboratory Control Samples and Laboratory Control Sample Duplicates (LCS/LCSDs) were analyzed with each analytical data batch. In general, the recoveries of spiked compounds and the relative percent difference (RPD) between duplicate samples were within acceptance criteria. No trends in the data for LCS/LCSD samples were observed that would indicate a bias in the data set.
- Matrix Spike Samples and Matric Spike Sample Duplicates (MS/MSDs) were analyzed with each analytical data batch. In general, the recoveries of spiked compounds and the RPD between duplicate samples were within acceptance criteria. No trends in the data for MS/MSD samples were observed that would indicate a bias in the data set.
- Samples were received under chain-of-custody protocols and any discrepancies in the documentation were promptly resolved. Samples were received at the appropriate temperature and properly preserved. Samples were extracted and analyzed within specified holding times.
- Required reporting limits were specified on the chain-of-custody forms. Reporting limits were

generally achieved. Some samples contained target analytes at concentrations high enough to require dilution and the reporting limits for other analytes did not always meet requested reporting limits under these circumstances. The interpretation of these data has been modified as needed to account for reporting limits that may exceed remedial criteria. No bias in the overall data set is seen.

3.2 QA/QC Samples and Data Evaluation

QA/QC samples for evaluation of data involve both field-collected samples and laboratory QA/QC. Field QA/QC samples were collected at the frequency prescribed in the SOS prepared by TRC. In addition, a narrative was completed by ConTest Laboratories (ConTest) of East Longmeadow, Massachusetts for each of the analytical data batches. This narrative provides relevant comments, data anomalies and non-conformances with laboratory-related QA/QC. These narratives can be found within each individual laboratory report and work order. All laboratory reports are included in Appendix C.

3.2.1 Precision

Precision is a measurement of the reproducibility of analytical data through analysis of duplicate samples. According to the CT DEEP Laboratory QA/QC Guidance RCP Guidance Document, the precision of the data is measured by the following calculation to determine the RPD:

$$RPD = \frac{|A-B|}{((A+B)/2)} \times 100$$

Where:

A = Analytical results from the first duplicate measurement
B = Analytical results from the second duplicate measurement.

For this investigation, the goal for RPD was less than or equal to 50% for solid samples, and less than or equal to 30% for aqueous samples. Duplicate samples can be found adjacent to their parent sample within the data summary tables for each AOC.

Field duplicates were collected during sampling and these data are used to evaluate effects of field sampling and laboratory analytical procedures on data reproducibility. Additional duplicate samples are analyzed by the laboratory and include matrix spike/matrix spike duplicates (MS/MSDs) and laboratory control spikes/laboratory control spike duplicates (LCS/LCSDs). The MS/MSDs are used to evaluate the effect of Site matrices and laboratory procedures on the reproducibility of analytical data. The LCS/LCSD samples are used to evaluate the effect of laboratory procedures only on data precision.

3.2.2 Accuracy

Accuracy is a measurement of the analytical data versus known concentrations. For this investigation program, accuracy is evaluated using spiked samples which include MS/MSDs and LCS/LCSDs. The MS/MSDs are used to evaluate the effect of Site matrices and laboratory procedures on the accuracy of analytical data. The LCS/LCSD samples are used to evaluate the effect of laboratory procedures only on data accuracy.

3.2.3 Representativeness

Data representativeness is a determination of the data collected and the ability to use the data set to

characterize the Site.

3.3 Field QA/QC

The following is a description of the field QA/QC samples collected to date.

3.3.1 Equipment Blanks

The purpose of the collection of equipment blanks is to assess the adequacy of the decontamination process conducted on Site. Additionally, it is used to assess the potential contamination from dedicated sampling items like the Macro-Core® acetate liners. Equipment blanks were collected using laboratory-provided, high performance liquid chromatography grade ASTM Type II water being poured over sampling equipment collected into a laboratory provided container.

For purposes of this investigation, equipment blanks were collected each day samples were collected, for each media type and parameter analyzed for. In total 71 equipment blanks were collected throughout the entirety of the project (North Side and South Side investigations) completed to date. Equipment blanks were collected from the following sampling devices:

1. Ponar Dredge Claw
2. ¼" PVC
3. Macro Core® Acetate Liners
4. 1" Rotary Hammer Drill Bit
5. Breaker Bar

Analytes detected in equipment blanks are compared to samples associated with that equipment blank to determine if contamination is present in a sample because of improper equipment decontamination.

A review of equipment blank data obtained reveals that detections of COCs were found in two of the equipment blank samples submitted (EB-23 and EB-67). The analytes detected in the equipment blanks were not found in sample analyses so there is no effect on data quality.

3.3.2 Field Duplicates

Field duplicates were collected during the on-Site investigation to assess accuracy of sample methodology and laboratory analysis. Field duplicates were collected as replicate or split samples and submitted to the laboratory without indication to the duplicate's partner sample. For the purposes of this investigation, field duplicates were collected per twenty samples collected, for each sample media, for each parameter analyzed as prescribed in CT DEEP Laboratory QA/QC and DQA/DUE Evaluation Guidance Document, Appendix B-3 (revised December 2010).

Duplicate samples can be found adjacent to their parent sample within the data summary tables. The following summarizes the numbers of duplicate samples collected by analysis:

- PCBs, 1215 soil samples with 60 duplicates, 89 sediment samples with 4 duplicates, and 426 porous media samples with 21 duplicates.
- ETPH, 32 sediment samples with 1 duplicate and 242 soil samples with 12 duplicates.
- VOCs, 22 sediment samples with 1 duplicate.
- Metals, 22 sediment samples with 1 duplicate and 27 soil samples with 2 duplicates.
- SVOCs, 20 sediment samples with 1 duplicate and 18 soil samples with 1 duplicate.
- PAHs, 12 sediment samples with 1 duplicate and 18 soil samples with 1 duplicate.

Duplicate samples were collected at a frequency of approximately 1 duplicate for every 20 samples collected. The RPD for the sample results were typically less than 50% and no systematic bias was indicated by the results. Thus, the duplicate sample results indicate that the analytical data are acceptable.

3.3.3 Matrix Spike and Matrix Spike Duplicate (MS/MSD)

The purpose of MS/MSD samples is to determine if the sample matrix effects accuracy and bias in the analytical results. MS/MSD samples are collected as duplicate or split samples, the pair is then spiked by the laboratory with a known quantity of target analytes. Through MS/MSD analysis one can evaluate precision and accuracy of laboratory analysis methodology.

MS/MSD samples were collected per 20 samples collected, per sample media, per parameter analyzed for as prescribed in CT DEEP Laboratory QA/QC and DQA/DUE Evaluation Guidance Document, Appendix B-3 (revised December 2010) and the TRC SOS.

Like field duplicate samples, MS/MSDs were compared to their partner samples to determine precious of sampling, handling, shipping, storage, preparation and analysis. Precision of the data was measured by evaluating the sample's RDP (see Field Duplicate section above).

The goal RDP was less than or equal to 50% for solid samples, and less than or equal to 30% for aqueous samples. The following summarizes the numbers of duplicate samples collected by analysis:

- PCBs, 1215 soil samples with 60 MS/MSDs, 89 sediment samples with 4 MS/MSDs, and 426 porous media samples with 21 MS/MSDs.
- ETPH, 32 sediment samples with 1 MS/MSD and 242 soil samples with 12 MS/MSDs.
- VOCs, 22 sediment samples with 1 MS/MSD.
- Metals, 22 sediment samples with 1 MS/MSD and 27 soil samples with 2 MS/MSDs.
- SVOCs, 20 sediment samples with 1 MS/MSD and 18 soil samples with 1 MS/MSD.
- PAHs, 12 sediment samples with 1 MS/MSD and 18 soil samples with 1.

MS/MSD samples were collected at a frequency of approximately 1 duplicate for every 20 samples collected. The RPD for the sample results were typically less than 50% and spike recoveries were within lab specific limits. No systematic bias was indicated by the results for the MS/MSDs. Thus, the MS/MSD sample results indicate that the analytical data are acceptable.

3.3.4 Laboratory Control Spike and Laboratory Control Spike Duplicate (LCS/LCSD)

The purpose of LCS/LCSD samples is to determine if the laboratory procedures effect accuracy and bias in the analytical results. LCS/LCSD samples are is prepared by the laboratory by spiking a blank matrix with a known quantity of target analytes. Through LCS/LCSD analysis one can evaluate precision and accuracy of laboratory analysis methodology.

LCS/LCSD samples were analyzed with each analytical batch which did not exceed 20 samples, per sample media, per parameter analyzed for as prescribed in CT DEEP Laboratory QA/QC and DQA/DUE Evaluation Guidance Document, Appendix B-3 (revised December 2010).

Like the other duplicates, LCS results were compared to its partner LCSD to determine accuracy and

precision of the analysis. Precision of the data was measured by evaluating the sample's RPD and accuracy was measured by comparison to the know value. Accuracy and precision limits for LCS/LCSD samples are established by the analytical laboratory.

LCS/LCSD samples were analyzed at the required frequency and the accuracy and RPDs were typically within laboratory established acceptance criteria and no systematic bias in the date are indicated. Thus, the LCS/LCSD sample results indicate that the analytical data are acceptable.

3.3.5 Trip Blanks

Trip blanks are laboratory provided sample containers that have been filled with analyte free reagent (water, methanol, etc.) that are held with samples collected. The purpose of the trip blank is to assess if sample containers may be releasing contamination during sample transportation and storage. For the purposes of this investigation trip blanks were collected and submitted for analysis whenever VOC soil samples were collected. Trip blanks accompanied VOC soil samples inside the same cooler. Trip blank vials submitted for analysis consisted of one methanol 40milli liter (mL) vial, and two deionized water 40mL vials. No COCs were detected in the trip blanks and no bias in the data are indicated.

3.3.6 Temperature Blanks

Temperature blanks are used to determine that proper preservation of samples has been maintained during sample storage and shipment. Temperature blanks must be 4° Celsius +/- 2° to demonstrate preservation of submitted samples. All temperatures noted on the chains- of-custody upon sample receipt were within this acceptable range. Thus, no biases in the data are indicated.

3.4 DQA/DUE Conclusions

QA/QC samples were collected at the frequencies established in the DQOs for the site. Analysis of these QA/QC samples were generally within established acceptance criteria. For those QA/QC samples that did exceed acceptance criteria, no systematic bias was indicated. Thus, the data collected during this field investigation are considered to be acceptable for their intended purpose which is characterization of the Site.

4.0 INVESTIGATION RESULTS

Weston & Sampson performed Site investigation activities between July and September 2017. The investigation included the collection of soil, sediment and porous media (concrete, wood and asphalt) samples for laboratory analysis. The investigation was performed in accordance to with TRC's SOS, English Station, October 2016 and revised July 2017, which was reviewed and approved by the DEEP. For further historical details please see TRC's SOS which is attached electronically in Appendix A.

In this Section, the following is provided for each AOC:

1) Conceptual Site Model (CSM) developed for each AOC prior to sampling;
2) Sampling performed within each AOC to delineate impacts;
3) Evaluation of the delineation of impacts within each AOC; and
4) Evaluation of the CSM based upon most recent sampling data.

Generally, the sampling was conducted as indicated in TRC's SOS and sample parameters and depths were followed. However, modifications to the sampling program in the SOS were made based upon field observations and prescribed sample collection depths may have been changed. Additionally, at some locations where refusal was encountered, the original prescribed sample total may have been reduced because the prescribed sample depth could not be reached. It is noted that concrete obstructions up to 24-inches thick were penetrated to collect samples beneath the concrete so occasions where refusal limited collection of additional samples are limited.

The 2017 investigation sample locations are provided on Figures 4 through 12 along with historical sample locations. Interpretation of sample results at each soil boring location are provided in the same manner as that which was shown in the TRC SOS. Specifically, each soil boring location has color-coding indicating the sample result for any analytical parameter collected at that boring location. This data presentation gives a representation of the extent of impacts to the media sampled in the horizontal. Multiple figures are provided for each AOC to depict the depths of impacts identified and to provide information regarding vertical delineation. South Side data interpretation is provided in Figures 12-1 through 12-3.

A summary of analytical results is provided in Tables 1 through 7. Porous media sample results at each location where they were collected are included with the soil data at the same location. Grouping data in this manner allows for an evaluation of impacts to porous media and soil at each location in the vertical.

Soil boring logs for locations included in this report are provided electronically in Appendix B. Laboratory analytical reports for data included in this report are provided electronically in Appendix C.

4.1 Investigation Goals

The goals of the investigation program were to characterize areas of the Site where data gaps exist and to delineate the extent of releases to the environment. Characterization of impacts to soil, sediments, and/or porous media were performed within AOC-3, AOC-7 through AOC-11 and AOC-13. Sampling within these areas was performed on grid patterns with multi-depth sampling and for analytical

parameters specified in the TRC SOS. Sampling was also performed to delineate the extent of releases or the effectiveness of previous remedial efforts. Extensive sampling of surface cover materials (i.e., concrete, asphalt, and soil) was also performed to determine if tracking of PCB impacts from one area to another had occurred at the Site.

Delineation of Site impacts is judged against two criteria. The first is a determination of whether or not releases to the environment have been delineated to the extent where remedial criteria are no longer exceeded. This level of delineation is sufficient to allow for the design of remedial actions. The second is a determination of whether or not the entire release area has been defined; which is the requirement of the CT DEEP Site Characterization Guidance Document (CT DEEP, September 2007 and Revised December 2010). This second level of delineation for non-naturally occurring COCs (e.g., PCBs) is typically performed until PCBs are non-detect in the samples analyzed. However, this level of delineation may not be possible for naturally occurring COCs (e.g., metals) or COCs that may be widespread in fill (e.g., metals, ETPH, and PAHs).

Remedial criteria included in the data summary tables and used to judge the level of delineation for this report include:

- I/C DEC – Use of this criteria assumes that an industrial/commercial environmental land use restriction (ELUR) will be applied to the Site as part of the overall remedial efforts. The criteria used are those provided in Appendix A of the CT RSRs.
- GB PMC – The criteria used are those provided in Appendix B of the RSRs. Where SPLP extraction and analysis was performed, the leachate concentration is compared to: (1) ten times the Groundwater Protection Criteria (GWPC) for organic chemicals, excluding PCBs given that no non-aqueous phase liquid (NAPL) is present in the soils; or (2) the listed GB PMC for inorganic chemicals and PCBs.

The industrial/commercial volatilization criteria were potentially applicable for determination of delineation. However, VOCs were typically non-detect or detected at very low concentrations and these criteria were not listed in the tables as VOCs will not require remediation on Southern Side of the Site.

The Federal PCB remedial standards specified in §761.61(a)(4) of 40 CFR Part 761 are also applicable. The Federal high occupancy standard of 1 mg/kg is used to determine the need for remediation and locations with PCBs less than 10 mg/kg may be left in place with a cap.

For chemicals detected at the Site that do not have established remedial criteria in the RSRs, remedial criteria were selected from "Technical Support Document: Recommended Numeric Criteria for Common Additional Polluting Substances and Certain Alternative Criteria," CT DEEP December 10, 2015 and Revised January 27, 2017. Use of these remedial criteria will require application to and approval from the CT DEEP.

4.2 AOC-3: Former Septic Systems

AOC-3 includes two former septic system locations within the Southern Side of the Site. Historic maps depict the locations of two historic septic structures; one located on the western side of the Site (Septic West) and one manhole along the eastern side of the Site (Septic East). The vicinity of the structure

located within Septic West has been partially investigated in that a sludge sample from the structure was previously collected and analyzed for PCBs.

TRC's SOS indicates chemicals of concern for AOC-3 included VOCs, SVOCs, ETPH, PCBs, and metals. The primary release mechanisms are identified as direct dumping of material to septic structures or manholes and carrying of surficial contaminants by storm waters in through manholes into structures. Secondary release mechanisms are identified as potential releases from a buried septic structure directly to the subsurface. Releases directly to the subsurface would be entrapped in the soil pore spaces in the vadose zone. Any product that infiltrated into the subsurface would be subject to migration to the groundwater through the infiltration of rainwater and the fluctuating water table.

4.2.1 AOC-3 (Septic West)

Weston & Sampson documented the advancement of three soil borings (AOC-3-1 through AOC-3-3) within the area of AOC-3 – Septic West as prescribed in the TRC SOS. The borings were advanced around the structure to depths ranging from 6 to 15 feet below ground surface (bgs). Soil samples were collected from three sample intervals; shallow (0-0.5' bgs), intermediate (ranging from 2.5-8' bgs); and deep (11-12' bgs). Two porous media (concrete) samples were also collected from the top of the structure and one sediment sample was collected from the interior of the structure. The samples were submitted for laboratory analysis of PCBs, VOCs, SVOCs, ETPH and/or metals. See Figures 4-1 through 4-3 for sample locations and Table 1 for a summary of analytical results.

The following summarizes the findings of the AOC-3 (Septic West) investigation:

- Field screening of soil samples did not identify evidence of impacts.
- PCBs were detected in four of 12 soil samples at concentration below 1 mg/kg. Three of the samples were collected from 0-0.5 ft bgs and the other was at 2.5-4 ft bgs.
- The VOC carbon disulfide was detected in one soil sample at a concentration less than 120 mg/kg and well below applicable remedial criteria.
- ETPH was detected in seven of nine soil samples at concentrations less than the applicable remedial criteria.
- PAHs were detected in one duplicate soil sample (but not the parent), AOC-3-2 (3-4'), at concentrations above the GB PMC. However, it is suspected that the PAHs at this depth are more likely due to fill and not a release and the PMC is not applicable.
- SPLP lead was detected in soil sample (AOC-3-2 3-4') above the GB PMC. However, it is suspected that the lead at this depth is more likely due to fill and not a release and the PMC is not applicable. None of the lead sample results exceeded the I/C DEC.
- Analysis of the sediment sample (AOC-3-SE-6) collected from within the septic structure identified PAHs, PCBs above 1 mg/kg, and the VOCs chloroethane, 1,4-dichlorobenzene, and 1,1-dichloroethane. Sediments should be removed from this structure to remove a potential source of impacts to the subsurface.

- Analysis indicated that the two concrete samples were non-detect for PCBs.

Results of the investigation in AOC-3 – Septic West generally support the previous CSM for this area except for no evidence of tracking of PCBs were identified. Soil in the area is impacted with PAHs and lead above the GB PMC, however, these detections are likely associated with widespread polluted fill material and the PMC is not applicable under the Widespread Polluted Fill Variance. Sediment within the structure is impacted with PAHs and PCBs above remedial criteria and should be removed to eliminate this potential source material.

ETPH and VOCs were detected at low levels and therefore do not appear to be chemicals of concern for AOC-3. Based on the results of the investigation, additional investigation is not required to assess the horizontal and vertical extent of COCs in this AOC.

4.2.2 AOC-3 (Septic East)

Soil borings advanced within this AOC were designated as AOC-13 in the SOS in the sample identifier as the Septic East location is within AOC-13. The borings described below are included in this section as they are applicable to characterization of AOC-2 (Septic East).

Weston & Sampson documented the advancement of three soil borings (AOC-13-21 through AOC-13-23) within the area of AOC-3 – Septic East as prescribed in the TRC SOS. The borings were advanced around the structure to depths of 10 feet bgs. Soil samples were collected from three sample intervals; shallow (0 to 0.5' bgs), intermediate (ranging from 0.5 to 2' bgs); and deep (5 to 6' bgs). One porous media (asphalt) sample was collected from boring location AOC-13-21 and two sediment samples (AOC-3-SE-6 and AOC-13-SE-31) were collected from the interior of the structure and an adjacent manhole structure. The samples were submitted for laboratory analysis of PCBs, VOCs, SVOCs, ETPH and/or metals. See Figures 5-1 through 5-3 for sample locations and Table 1 for a summary of analytical results.

The following summarizes the findings of the AOC-3 (Septic East) investigation:

- Field screening of soil samples did not identify evidence of impacts.
- PCBs were detected in soil sample AOC-13-19 (0.5-1') above 1 mg/kg but below 10 mg/kg. As shown on Figure 5-1, other PCB impacts are present within the area and the source of the PCBs in this sample is probably likely to a release not associated with the septic structure.
- PAHs were detected in soil sample AOC-13-21 (1-1.5') at concentrations above applicable remedial criteria and arsenic was detected above remedial criteria in soil sample AOC-13-19 (5.5-6'). These detections are believed to be associated with fill material at the Site.
- ETPH was detected in the one soil sample analyzed at a concentration less than the applicable remedial criteria.
- Analysis of the sediment samples identified PCBs and PAHs above remedial criteria. PCBs were also detected above 1 mg/kg in the samples but below 10 mg/kg.
- Analysis of sediment sample AOC-13-SE-31 also identified ETPH and arsenic above applicable

remedial criteria.

- Analysis of the asphalt sample did not identify detectable concentrations of PCBs.

Results of the investigation in AOC-3 - Septic East generally support the previous CSM for this area. Although soil impacts above remedial criteria were not identified at depth, PCB impacts above criteria were identified in shallow soil. Sediment is impacted with PCBs, PAHs, ETPH and arsenic above remedial criteria. Based on the results of the investigation and review of historic data, additional investigation is not required in the area of AOC-3-Septic East to delineate the nature and extent of impacts.

4.3 AOC-7 Former Waste Oil AST / Oil Pump Room Area

AOC-7 is located within the southeastern corner of the Site. A former waste oil AST was located adjacent to the southeastern corner of the English Station building. An oil pump house that serviced the building's boiler system was also located in this area. Previous investigations in AOC-7 identified elevated concentrations of petroleum hydrocarbons, SVOCs, lead and PCBs in soil. Elevated concentrations of PCBs were also previously identified in asphalt and concrete.

TRC's SOS indicates that the primary release mechanisms identified for AOC-7 are leakage from oil-filled equipment being brought out of the building through the nearby overhead door onto the ground surface (asphalt/gravel or soil) and leakage from the tank and/or associated piping and fittings to the ground surface. Secondary release mechanisms are identified as seepage into the surrounding soil from infiltration through the asphalt and into an associated concrete pipe trench. Tracking is a concern due to amount of surficial impacts identified and the demolition activities which have taken place.

Weston & Sampson documented the advancement of 26 soil borings (AOC-7-1 through AOC-7-26) within AOC-7. The borings were advanced to depths ranging from 10 to 12 feet bgs. Soil samples were collected from the surface, intermediate and deeper depths and submitted for laboratory analysis of PCBs, PAHs, VOCs, ETPH and/or metals. Porous media (asphalt or concrete) samples were also collected from each boring location, where identified, and from concrete pads and pipe tunnels within the area of AOC-7. Sediment samples were also collected from manhole structures and pipe tunnels. See Figures 6-1 through 6-3 for sample locations and Table 2 for a summary of analytical results.

The following summarizes the findings of the AOC-7 investigation:

- Field screening of soil samples did not identify elevated PID readings; however, visual and olfactory evidence of petroleum impacts were identified in soil samples collected from borings AOC-7-2, 3, 4, 5, 9, 17, 20, 23 and 26. Soil with petroleum odors and sheen were observed in samples collected at depths ranging from 5 to 15 feet within the borings. A sheen was observed in soil sample AOC-7-20 (5-8') as well.
- PCBs were identified in soil samples AOC-7-1 (5.5-6'), 2 (8-8.5'), 3 (5-6'), 7 (0.5-1'), 7 (5.5-6'), 8 (0.5-1'), 8 (2.5-3'), 13 (0-0.5'), 13 (0.5-1') and 13 (4-4.5') above remedial criteria and at concentrations ranging from 12 to 330 mg/kg. Total PCB concentrations in samples 7 (5.5-6'), 13 (0.5-1' and 13 (4-4.5') were greater than 50 mg/kg. Additionally, PCBs were detected above 1 mg/kg and less than 10 mg/kg in soil samples AOC-7-6 (5.5-6'), AOC-7-7 (2.5-3'), 7 (5.5-6'),

8 (0-0.5'), 13 (0-0.5'), 14 (1-1.5'), 14 (4-4.5'), and 15 (2-2.5') and in sediment samples SE-27 and 28. SPLP PCB analysis did not identify exceedances of remedial criteria in soil samples.

- ETPH was detected above remedial criteria in soil samples AOC-7-2 (8.5-9'), 3 (6-6.5'), 4 (12.5-13'), 7 (5.5-6'), 9 (6-6.5'), 20 (8-9') and 20 (16-17'); and in sediment samples SE-26, 27 and 28. SPLP ETPH analysis identified an exceedance of remedial criteria in sample AOC-7-3 (6-6.5'). ETPH in this AOC is believed to be due to releases from site operations and not due to the presence of polluted fill.
- PAHs were detected above remedial criteria in soil samples AOC-7-5 (12.5-13'), 9 (6-6.5'), and 15 (5-5.5'); and in sediment samples SE-26, 27 and 28.
- Vanadium (leachable) was detected above remedial criteria in a duplicate soil sample AOC-7-2 (8.5-9') but not the parent. The presence of vanadium in this sample is believed to be from the fill that constitutes the Site and not from a release.
- VOCs were not identified above remedial criteria in any of the samples analyzed.
- Analysis of porous media samples (asphalt and concrete) did not identify concentrations above remedial criteria.

Results of the investigation in AOC-7, in general, support the previous CSM for this area. However, the investigation did not identify impacts to porous media which indicates that tracking of PCBs is not an issue. PAH and vanadium impacts may be associated with fill material on-Site but the extensive and deeper detections of PCBs and ETPH in this area make that determination difficult to make in this area of the Site. Based on investigation results and review of historic data, additional investigation is not required to delineate the extent of PCBs and petroleum impacts. Further, remedial measures are anticipated to address the PCB and petroleum impacts identified within AOC-7.

4.4 AOC-8 Former Fuel Oil ASTs

AOC-8 is located within the southern portion of the Site. One 50,000-gallon No. 6 fuel oil vertical tank was previously located within a concrete containment berm located in the far southern end of the Site. Following the cessation of the use of coal in the 1950s, No. 6 fuel oil was used as the fuel source for the plant. To the west of the former No. 6 fuel oil tank, there were two 5,000-gallon No. 2 fuel oil ASTs that were formerly located in concrete cradles.

TRC's SOS indicates that the chemicals of concern for AOC-8 included VOCs, PAHs, ETPH and PCBs. The primary release mechanisms identified for this AOC are incidental spills from filling operations, leaks from valves, piping, fittings to the ground surface or subsurface (relative to the appurtenances). Secondary release mechanisms included seepage into soils underlying concrete or asphalt through infiltration through cracks, seams or other breaches. Tracking of surficial contamination was also a concern particularly due to the fact that previously identified impacts include PCBs at concentrations greater than 50 mg/kg in shallow soils along the bulkhead where it is not paved.

Weston & Sampson documented the advancement of 6 soil borings (AOC-8-1 through 6) within AOC-8. Soil samples were selected at varying depth intervals within each boring for laboratory analysis. Ten

(10) surficial soil samples (AOC-8-7 through 16) were also collected. Additionally, 13 porous media (asphalt or concrete) were collected and seven (7) sediment samples were collected from pipe trenches and sumps associated with the former secondary containment structures. See Figures 7-1 through 7-3 for sample locations. The samples were submitted for varying analyses including: PCBs, VOCs, PAHs, ETPH, and metals. See Table 3 for a summary of analytical results.

The following summarizes the findings of the AOC-8 investigation:

- Field screening of soil samples did not identify evidence of impacts.
- PCBs were detected above 1 mg/kg and below 10 mg/kg in soil samples (AOC-8-4 (0-0.5'), 4 (0.5-1'), and 4 (2-2.5').
- PAHs were detected above remedial criteria in soil samples (AOC-8-2 (1-1.5'), 8 (1-2'), 9 (1-2'), 10 (1-2'), and 15 (1-2').
- ETPH was not detected above remedial criterial in any of the soil samples analyzed.
- PCBs were identified above 1 mg/kg in concrete samples AOC-8-CO-16B (0-0.5") and CO-17 (0-0.5"). A maximum concentration of 1,800 mg/kg total PCBs was identified in sample CO-16B (0-0.5").
- Analysis of sediment samples identified PCBs, PAHs, ETPH and metals (arsenic and lead) above remedial criteria. A maximum concentration of 2,300 mg/kg of total PCBs was identified in sample SE-16.

Results of the investigation in AOC-8 generally support the previous CSM for this area. However, this investigation did not identify significant petroleum impacts to soil which indicates that releases from the ASTs were not an issue. PAHs detected in soil are likely associated with fill material. Elevated concentrations of PCBs were identified in surficial soil and appear to be from releases of PCBs due to the concentrations detected and not as a result of tracking. Analysis of concrete and sediment samples identified significant PCB impacts to concrete and sediment in the trenches within the area, as well as indicating releases within the trenches. Sediment within the pipe trench is also impacted with elevated concentrations of ETPH, PAHs and metals which indicates releases directly to the sediments as these impacts are not identified in soil. Based on the above data and review of historic data, additional investigation is not required to further define the extent of soil with elevated PCB impacts or to further assess the extent of impacted concrete and sediment within the pipe trenches. Remediation of PCB impacted soil, sediments, and porous materials is anticipated within this AOC.

4.5 AOC-9: Transformer Areas

AOC-9 is located within the southwestern portion of the Site to the west of the English Station building. This area is the former location of multiple historical transformers and capacitors. There is one large pad-mounted transformer (identified as Transformer G) located adjacent to the northwestern corner of English Station. This transformer is located on a concrete pedestal within a concrete containment dike. Three pad-mounted transformers (identified as Service Transformers 1-3) were previously located

adjacent to the western exterior wall of the English Station building. Two transformers (identified as 7A and 37A) were previously located within a containment "tub" located within this AOC as well.

TRC's SOS indicates that chemicals of concern for AOC-9 included PCBs, ETPH and PAHs. The primary release mechanisms identified for this AOC are surface releases from oil-filled electrical equipment (e.g., transformers and capacitors) to concrete pads and dikes and absorption into concrete surfaces. Secondary release mechanisms included seepage/migration through concrete via cracks, breaches or sumps into the underlying soil, migration with precipitation into adjacent paved (asphalt) and unpaved surfaces and seepage into underlying soils. Tracking of surficial contamination was also considered a concern.

Weston & Sampson documented the advancement of 48 soil borings (AOC-9-1 through 48) within AOC-9. Soil samples were selected at varying depth intervals within each boring for laboratory analysis. Porous media samples (asphalt or concrete) were collected at boring locations when encountered. Additionally, 36 porous media (concrete or asphalt) were collected to characterize structures and potential impacts from tracking. Six (6) sediment samples were collected from manhole structures and a sump. See Figures 8A-1 through 3, 8B-1 through 3, and 8C-1 through 3 for sample locations. The samples were submitted for varying analyses including: PCBs, VOCs, PAHs, ETPH, and metals. See Table 4 for a summary of analytical results.

The following summarizes the findings of the AOC-9 investigation:

- Field screening of soil samples did not identify elevated PID readings. Solvent odors were observed in soil samples collected from borings AOC-9-9, 11, and 14 at depths ranging from 4 to 10 feet bgs. Petroleum odors were observed in soil samples collected from borings AOC-9-18, 30, 32, 35 and 36 at depths ranging from 4 to 10 feet bgs.
- PCBs were detected at or above 1 mg/kg and at or below 10 mg/kg in 40 soil samples. Analysis of soil samples AOC-9-6 (0.5-1'), 6 (1-1.5'), 7 (0.5-1'), 9 (0.5-1'), 13 (0.5-1'), 13 (1.5-2'),16 (1.5-2'), 23 (1.5-2'), 27 (0-0.5'), 28 (0.5-1'), 29 (0-0.5'), 31 (0.5-1'), 31 (2-3') and 48 (5.5-6') identified PCBs above 10 mg/kg. PCBs were detected above 50 mg/kg in samples AOC-9-6 (0.5-1'), 6 (1-1.5'), 29 (0-0.5') and 48 (5.5-6').
- PAHs were detected above remedial criteria in soil samples AOC-9-6 (1-1.5'), 11(8-9.5', 18 (8-9.5'), 30 (9-9.5'), 32 (6-7.5'), 35 (4-5'), 37 (4-5'), 40 (0-0.5'), 41 (9.5-10') and 47 (12-12.5').
- ETPH and VOCs were not detected above remedial criterial in any of the samples analyzed.
- PCBs were identified above 1 mg/kg in asphalt samples AOC-9-AS-4 (0-0.5'), AS-21 (0-0.5') and AS-30 (0-0.5').
- Analysis of concrete samples collected to characterize structures and potential impacts from tracking did not identify PCBs above 1 mg/kg.
- Analysis of sediment samples identified PCBs above 1 mg/kg but below 10 mg/kg. PAHs and lead were also identified above remedial criteria in 1 sediment sample.
- A single sample of oil found in a subsurface structure (see Figure 8C-1 for location) was found

to contain 5 mg/kg Aroclor 1260. There were no sediments in the structure and the thickness of the oil was approximately two inches.

Results of the investigation in AOC-9 generally support the previous CSM for this area. Significant PCB impacts to soil and asphalt have been identified and the source appears the former use of transformers in the area and potential localized tracking of contaminants. PAHs detected in soil are likely associated with fill material. Sediment within manhole structures is also impacted with PCBs, PAHs and lead above remedial criteria. Based on the above data and review of historic data, additional investigation is not required to further define the extent of soil and asphalt with elevated PCB impacts and further assess potential petroleum impacts.

4.6 AOC -10 Former Interior Chemical Storage Areas

AOC-10 is located within the southwestern and southern portions of the Site and is associated with former interior chemical storage in outbuildings located adjacent to the main English Station building. The buildings include a former Assembly Hall Building and Storage and Shop Building located west of English Station and a Foam House building located to the south.

TRC's SOS indicates that the chemicals of concern for AOC-10 included: VOCs, SVOCs, ETPH, PCBs and metals. The primary release mechanisms identified for this AOC are direct releases to the floors of the buildings and tracking of contaminants into the buildings from outside areas. Secondary release mechanisms included potential seepage through cracks, seams or other breaches in the floors to the underlying soils. Tracking of surficial contamination both into and out of the building was also a concern.

Weston & Sampson documented the advancement of 19 soil borings (AOC-10-1, 2, 7, 8, 10, 11, 13, 16, 17, 20, 25, 30, 31, 41, 42, 43 and 45) within AOC-10. Soil samples were selected at varying depth intervals within each boring for laboratory analysis. Additionally, 45 porous media (concrete) samples and one sediment sample were collected. **See Figures 9A-1 through 3, 9B-1 through 3, and 9C-1 through 3** for sample locations. The samples were submitted for varying analyses including: PCBs, PAHs, ETPH, and metals. See **Table 5** for a summary of analytical results.

The following summarizes the findings of the AOC-10 investigation:

- Field screening of soil samples did not identify evidence of impacts.
- Analysis of soil samples did not identify PCBs, PAHs, EPTH or metals above remedial criteria, with the exception of soil sample AOC-10-8 (0.5-1') where arsenic was identified above criteria. However, the detection is likely associated with fill material at the Site.
- As shown in Table 5, PCBs were detected at or above 1 mg/kg and at or below 10 mg/kg in 24 of the concrete samples. PCBs were detected above 10 mg/kg in nine concrete samples (AOC-9-CO-10, 11, 14, 19, 24, 25, 26, 27 and 28). PCB were detected above 50 mg/kg in concrete samples AOC-9-11, 14, 24, 25, 26 and 27 with concentrations ranging from 62 mg/kg to 11,000 mg/kg.
- Analysis of the sediment sample (AOC-10-SE-15) collected from a sump within the Shop Building identified total PCBs at 430 mg/kg which is above the remedial criteria.

Results of the investigation in AOC-10 generally support the previous CSM for this area. PCB-impacted concrete was identified within each of the buildings. However, this investigation did not identify significant impacts to soil beneath the buildings. The arsenic detected in the single soil sample above remedial criteria is likely associated with fill material. Sediment within the sump of the Shop Building is also impacted with PCBs above remedial criteria. Based on the above data and review of historic data, additional investigation is not required to further define the extent of PCB-impacted concrete for remedial planning purposes.

4.7 AOC -11 On-Site Fill Material: Evaluation of Tracking

AOC-11 is fill material located throughout the Site. The Site exists on Ball Island, a land mass that was created within the Mill River. As documented in historic reports for the Site, the island was created from spoils generated from dredging operations performed from the 1800s to 1900s in the Mill River to maintain navigable waters. As the Mill River was the receiving water body for many discharges emanating from industrial operations over the years, the spoils that comprise the island and fill material at the Site are inherently impacted with petroleum hydrocarbons, PAHs and metals.

TRC's SOS indicates that the chemicals of concern for AOC-11 include: PCBs (from tracking and not historical releases), PAHs, ETPH and metals. The COCs PAHs, EPTH, and metals are found in the fill materials that comprise the island on which English Station and Station B are located. The SOS indicates that the fill material has been adequately characterized by others during previous investigatory efforts. As such, the SOS for AOC-11 included evaluation of tracking across pads/structures not captured by other AOCs.

Weston & Sampson collected three porous media (concrete) samples (AOC-11-CO-1 through 3) from concrete pad structure P12 located on the southwestern portion of the Site. See Figures 10-1 through 10-3 for sample locations. There was no sediment observed within the manholes of the structure and therefore, sediment samples were not collected. The concrete samples were submitted for PCB analysis. See Table 6 for a summary of analytical results.

As shown in Table 6, the analysis did not identify detectable concentration of PCBs in the concrete samples. Results of the investigation indicate surface concrete at structure P12 is not impacted with PCBs. Additional investigation of the structure from potential impacts from tracking are not required.

4.8 AOC -13 Former Wastewater Treatment System

AOC-13 is located within the southeastern portion of the Site, to the east of the English Station building and includes remnants of a former wastewater treatment system (primarily concrete structures). The operational history of this former treatment system is not well documented in historic reports associated with the Site.

TRC's SOS indicates that the chemicals of concern for AOC-13 include: VOCs, SVOCs, ETPH, PCBs and metals. The primary release mechanisms identified for this AOC are leakage or spillage onto the concrete pads on which former treatment system components were located or to asphalt surfaces in the area and direct discharge to the ground surface. Secondary release mechanisms include infiltration

through the asphalt or concrete or through cracks, to the underlying soils. Tracking of surficial contamination was also considered a concern.

Weston & Sampson documented the advancement of 22 soil borings (AOC-13-1 through 18 and 22 through 25) within AOC-13. Soil samples were selected at varying depth intervals within each boring for laboratory analysis. A total of 27 porous media samples (asphalt or concrete) were collected at boring locations, where encountered, and from concrete pads and piping trenches. Six (6) sediment samples were collected from pipe trenches in this area. See Figures 11-1 through 3 for sample locations. The samples were submitted for varying analyses including: PCBs, VOCs, PAHs, ETPH, and metals. See Table 7 for a summary of analytical results.

The following summarizes the findings of the AOC-13 investigation:

- Field screening identified petroleum / fuel oil odors in soil samples collected from borings AOC-13-8, 9, 10, 11, 24, and 25 at depths ranging from 7.5 to 20 feet bgs. PID screening identified TOVs ranging from 1 to 15 part per million by volume (ppmv) in the soil samples collected from these borings.
- PCBs were detected above 1 mg/kg and below 10 mg/kg in soil samples AOC-13-6 (0.5-1'), 19 (0.5-1'), 22(0.5-1'), 22 (1.5-2'), 23 (0.5-1'), 23 (1.5-2'), 23 (5-5.5'), 24 (7.5-8'), 25 (7.5-8') and 37.
- Analysis of soil samples AOC-13-22 (0.5-1'), 22 (5-5.5'), 24 (0-0.5'), 24 (0.5-1'), 24 (1.5-2'), 25 (0-0.5'), 25 (0.5-1'), 25 (1.5-2'), and 25 (7.5-8') identified PCBs above 10 mg/kg.
- PCBs were detected above 50 mg/kg in soil samples AOC-13-24 (0-0.5'), 25 (0.5-1'), 25 (1.5-2'), and 25 (7.5-8').
- PAHs were detected above remedial criteria in soil samples AOC-13-5 (8-8.5'), 9 (8.5-9.5'), 17 (11-12'), and 21 (1-1.5'). The PAH detections appear to be associated with fill material at the Site. The PAH detection in sample AOC-13-9 (8.5-9.5') may also be associated with petroleum impacts identified during field screening.
- ETPH and VOCs were not detected above remedial criterial in any of the soil samples analyzed.
- Arsenic was detected in the soil sample from AOC-13-19 (5.5-6') at a concentration of 37 mg/kg. At this depth, the arsenic is believed to be from fill and not a release at the Site.
- PCBs were not identified above laboratory detection limits in any of the asphalt samples.
- Analysis of concrete samples identified PCBs above 1 mg/kg and below 10 mg/kg in samples AOC-13-CO-26 (0-0.5") and CO-29 (0-0.5").
- Analysis of sediment samples identified PCBs above 1 mg/kg but below 10 mg/kg. PAHs, ETPH and metals (arsenic and lead) were also identified above remedial criteria in sediment samples.

Results of the investigation in AOC-13 generally support the previous CSM for this area. Significant PCB impacts to soil at depth have been identified and these impacts are believed to be from releases during historical Site operations. Petroleum impacts were also identified at discrete sample locations and are also believed to be from releases during historical Site operations. PCB impacts to asphalt were not

identified and tracking is not seen as a potential release mechanism. PAHs and metals detected appear to be associated with fill material as they are typically at depth and are not likely due to surface releases during historical Site operations. Sediment within the pipe trenches is impacted with various COCs including PCBs and will require remediation. Based on the above data and review of historic data, additional investigation is not required to further define the extent of elevated PCB impacts and soil identified with petroleum impacts.

4.9 Conceptual Site Model Summary

The following is a summary of modifications to the AOC CSMs following the evaluation of Site investigation data:

- AOC-3 Former Septic Systems: PAHs, lead and arsenic identified in soil above remedial criteria appear to be associated with fill and are not from historic use of the septic systems/structures. ETPH and VOCs were detected at low levels and therefore do not appear to be COCs for AOC-3. Sediments within the septic structures exhibit concentrations greater than the I/C DEC for some COCs and should be removed as they present a potential source of COCs.
- AOC-7 Former Waste Oil AST / Oil Pump Room Area: PAHs and vanadium identified in soil above remedial criteria appear to be associated with fill and are not from a release from the former AST or pump room. Impacts to porous media were not identified and tracking is not seen as an issue for this AOC. PCBs and ETPH were identified in soil to depths of eight to ten feet below the ground surface and the source of these impacts are believed to be from releases from historical Site operations.
- AOC-9 Transformer Areas: The investigation did not identify significant petroleum impacts to soil and PAHs detected in soil are likely associated with fill material. However, historical data and that obtained during this investigation indicate areas where PCBs have been released to the surface.
- AOC-10 Former Interior Chemical Storage Areas: This investigation did not identify significant impacts to soil beneath the buildings from historical operations within AOC-10. Arsenic detected in the single soil sample above remedial criteria is likely associated with fill material. However, the concrete of the buildings was significantly impacted with PCBs and demolition of the concrete pads is anticipated as being necessary to remediate the concrete.
- AOC -11 On-Site Fill Material: Evaluation of Tracking: Results indicate surface concrete at structure P12 is not impacted with PCBs. Analytical data collected from across the Site generally indicate that tracking of PCBs and other COCs at the site is not a release mechanism of concern.
- AOC -13 Former Wastewater Treatment System: PCB impacts to asphalt were not identified and tracking of PCBs is not seen as a potential release mechanism for this AOC. PAHs and metals detected are likely associated with fill material used to construct the island. However, releases of PCBs and petroleum hydrocarbons during historical Site operations were identified

as well as releases of these COCs to sediment samples and these impacts will require remediation.

- South Side: Figures 12-1 through 12-3 show the entire South Side of the property with all of the historical and current PCB data as well as recently collected ETPH. There are areas of PCB impacts identified (e.g. AOC-7, AOC-9, trenches in AOC-8) but evidence of tracking of these impacts was not identified. In general, the extent of these PCB impacts have been delineated and no additional investigation is required to delineate these impacts. Remediation will be required to comply with the RSRs.

5.0 REMEDIAL ALTERNATIVES

The following is a discussion of the chemicals of concern at the Site, the applicable regulations, and how these regulations will affect remedial decision making.

5.1 Chemicals of Concern

Chemicals of concern at the Site include PCBs, ETPH, PAHs, and metals. These COCs are present at the Site either due to historical releases or, in the case of PAHs, metals, and some petroleum hydrocarbons, are present in widespread polluted fill used to construct and expand Ball Island.

Typical remediation processes used to treat these COCs along with their applicability for these COCs are:

- Biological Treatment – In-situ or ex-situ reduction of contaminants by enhancing natural biodegradation with addition of oxygen and/or nutrients or reliance on naturally-occurring conditions.
    - PCBs – Biodegradation of PCBs is an inefficient process that requires a transition between aerobic and anaerobic conditions to achieve complete degradation. This remedial process is not typically employed for this COC.
    - ETPH and PAHs – Biodegradation of these COCs is a proven technology but heavier PAHs (3-, 4-, or 5-ring) are degraded slowly. Biodegradation occurs best under aerobic conditions and could be employed at the Site for these COCs.
    - Metals – The oxidative state of metals may be altered during biodegradation. However, this method is typically employed only if metals are dissolved in groundwater and is not typically used for treating metals in soil.
- Chemical Oxidation – In-situ or ex-situ reduction of contaminants by treating with chemical oxidants.
    - PCBs – PCBs are readily degraded by chemical oxidation. However, this is not a typically employed remediation for this COC for reasons discussed in Section 5.2.
    - TPH and PAHs – Chemical oxidation of these COCs is a proven technology for these COCs.
    - Metals – The oxidative state of metals may be altered using chemical oxidation. However, this method is typically employed only if metals are dissolved in groundwater and is not typically used for treating metals in soil.
- In-Situ Stabilization – In-situ stabilization of contaminants to either reduce their solubility or to prevent direct exposure.
    - PCBs – PCBs can be stabilized in the environment and this is a technology that has been employed. However, this is not a typically employed remediation for this COC for reasons discussed in Section 5.2.

- TPH and PAHs – These COCs can be stabilized in-situ but this process is typically applied if COCs are deep below the surface or if there are other factors that render other treatment processes technically infeasible.
- Metals – In-situ stabilization is a technology that is used for these COCs. However, this method is typically employed only if metals are dissolved in groundwater and is not typically used for treating metals in soil.

- Excavation with off-Site disposal – A commonly employed remedial technology that offers permanent solutions in a short timeframe. However, costs for implementation can be significant and these costs could drive evaluation of other alternatives.
  - PCBs – PCBs can be excavated and disposed off-Site and this technology is typically employed for PCBs.
  - TPH and PAHs – These COCs can be excavated and disposed off-Site and this technology is typically employed.
  - Metals – These COCs can be excavated and disposed off-Site and this technology is typically employed.

5.2 Applicable Regulations

Chemicals of concern at the Site are regulated under the RSRs. The remedial criteria applicable to the Site for these COCs under the RSRs include the:

- I/C DEC – Soil with concentrations of COCs exceeding the I/C DEC may be treated in-situ or ex-situ to reduce concentrations, removed from the Site, or capped in a manner that renders the soil inaccessible as per the definition in the RSRs. The exception is PCBs which must be remediated to a concentration less than the I/C DEC down to a depth of fifteen feet below ground surface. Application of the I/C DEC will require an ELUR restricting site use to industrial and commercial purposes be placed on the parcel.
- GB PMC – Soil with concentrations of COCs exceeding these criteria or with SPLP leachate results that exceed the GB PMC above the seasonal high groundwater table must be reduced in concentration or the leachability of the COC reduced. This may be done by removing soil or treating the soil in-situ or ex-situ. The widespread polluted fill variance exempts COCs from application of the GB PMC. This variance is applicable to PAHs, metals, and petroleum hydrocarbons that were in the fill material used to construct the island and not due to a release after the fill materials were placed.

PCBs at the Site are regulated under the federal PCB regulations found in 40 CFR Part 761 as PCB Remediation Waste. Under the federal PCB regulations, disposal is defined as:

> *Disposal* means intentionally or accidentally to discard, throw away, or otherwise complete or terminate the useful life of PCBs and PCB Items. Disposal includes spills, leaks, and other uncontrolled discharges of PCBs as well as actions related to

containing, transporting, destroying, degrading, decontaminating, or confining PCBs and PCB Items.

Thus, both the release of PCBs to the environment and any process that involves removal, destroying or containing PCBs are defined as a disposal. Federal regulations for the storage and disposal of PCB-containing materials are found in 40 CFR Part 761 Subpart D. The technologies allowed for disposal of PCB remediation wastes under Subpart D include excavation and removal from the Site with either incineration (§761.70), disposal in an appropriately permitted landfill (§761.75), or capping PCB remediation waste soil and disposal in place. Other remedial technologies, such as soil washing, ex-situ thermal treatment, chemical oxidation, or in-situ stabilization may be employed but must be approved on a Site-specific basis. These approvals can be difficult to obtain so excavation and removal is typically employed. PCB-impacted materials may also be capped and disposed in place.

5.3 Remedial Implications

PCBs are the most common COC on the property and are driving remedial actions in many areas. For areas where PCBs are found with other COCs, the disposal requirements for PCBs control remedial selection.

As such, excavation and off-Site disposal of soil where PCB concentrations are greater than the I/C DEC for PCBs (10 mg/kg) will be the preferred remedial alternative because it can be implemented in a timely manner, is permanent, and acceptable to the regulators. However, this alternative is costly and other alternatives will be evaluated where applicable. For locations where PCB concentrations are less than the I/C DEC, these soils may be rendered inaccessible with a combination of soil and asphalt or concrete caps.

5.4 Anticipated Remedial Alternatives

The anticipated remedial alternatives for soil on the southside of the property is a mix of excavation to remove PCBs greater than 10 mg/kg and ETPH impacts due to releases that also exceed the GB PMC and rendering remaining soil inaccessible where implementable. However, grades will need to be maintained at the buildings and the bulkhead surrounding the island. Capping of impacts near the bulkhead and the buildings will be combined with excavation of two feet of soil with asphalt or concrete placed over the surface of the clean materials used to backfill or excavation of four feet of soil with backfilling with clean materials. The limited space between the building and the bulkhead make changing grades even more difficult on the southside when considering drainage. Thus, it is considered likely that grades will be maintained on the southside of the property.

Application of the I/C DEC requires that soil with total PCB concentration greater than 10 mg/kg be excavated and leaving soil with greater than 10 mg/kg total PCBs in place would require an engineered control variance which is not seen as being administratively implementable and would take extended timeframes to receive. Thus, excavation and offsite disposal of soil with PCB concentrations greater than 10 mg/kg is likely but an engineered control may be employed if necessary given site conditions.

Releases of petroleum hydrocarbons during historical site operations have been found and where these soil impacts exceed the GB PMC, excavation and offsite disposal is considered to be the likely remedial

alternative. These impacts could be treated in-situ, but they are typically collocated with PCBs which cannot be treated in-situ with going through a lengthy permitting process.

PCBs at concentrations less than 10 mg/kg and PAHs, metals, petroleum hydrocarbons that are present in the fill materials and not due to releases may be rendered inaccessible to comply with the I/C DEC. This can be done by constructing a cap. However, given that surface elevations at the bulkhead and around the buildings may not be raised, this capping will likely be combined with excavation so that the required thickness of a cap may be constructed.

6.0 LIMITATIONS

This report was prepared for use by United Illuminating exclusively. The findings provided by Weston & Sampson in this report are based solely on the information reported in this document. Future investigations and/or information that were not available to Weston & Sampson at the time of the investigation may result in a modification of the findings stated in this report.

Should additional information become available concerning this Site or neighboring properties that could directly impact the Site in the future, that information should be made available to Weston & Sampson for review so that, if necessary, conclusions presented in this report may be modified.

The conclusions of this report are based on conditions observed by Weston & Sampson personnel at the time of the investigation, information provided by United Illuminating, and samples collected and analyzed on the dates shown or stated in this report. This report has been prepared in general accordance with generally accepted engineering and geological practices. No other warranty, express or implied, is made.

7.0 REFERENCES

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FIGURES

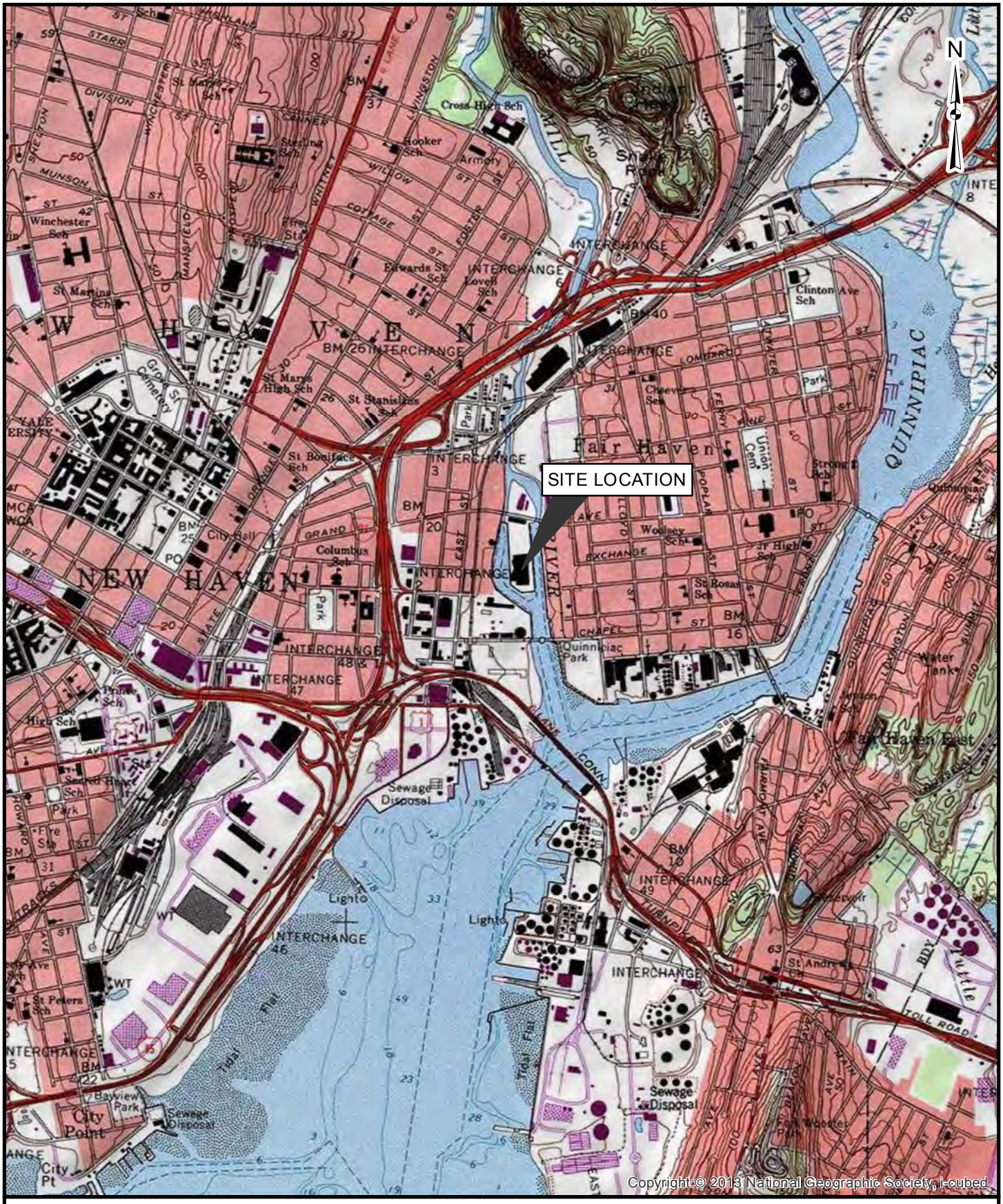

FIGURE 1
United Illuminating English Station Power Plant
510 Grand Avenue, New Haven, Connecticut

SITE LOCUS

2,000 0 2,000

Feet

Weston & Sampson

Path: \\gisdatasrv\GIS\DataStore\Client\United Illuminating\Project\English Station\Locus Map.mxd User: ozerekoz Saved: 10/17/2017 12:10:09 PM Opened: 10/17/2017 12:12:33 PM

NOTES:

1. REVISION 4 INCLUDES A PROPERTY LINE ADJUSTMENT BASED ON THE 11/28/16 SURVEY BY GODFREY–HOFFMAN & ASSOC.
2. ADAPTED FROM PLAN TITLED "SITE PLAN AND APPROXIMATE PARCEL BOUNDARIES" DATED 10/07/2016 BY TRC COMPANIES, INC..
3. AERIAL IMAGE FROM GOOGLE EARTH PRO, DATE OF IMAGE: 04/20/2016

PROPERTY BOUNDARY

PARCEL BOUNDARY

REPORT AREA BOUNDARY

N

100 50 0 100 200

SCALE: 1"=100'

FIGURE 2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

SITE PLAN WITH PARCEL BOUNDARY

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson℠

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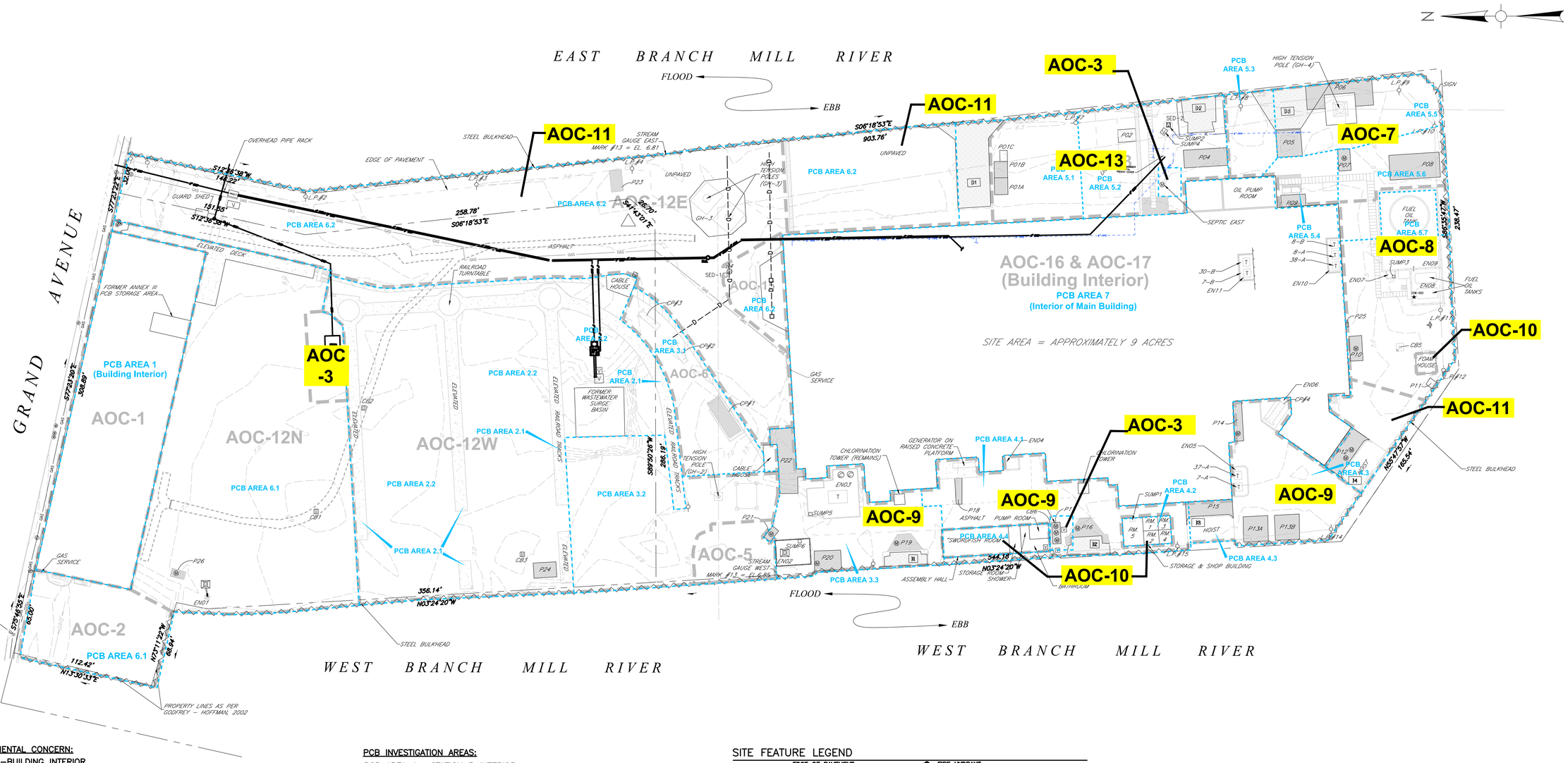

AREAS OF ENVIRONMENTAL CONCERN:

AOC-1 STATION B-BUILDING INTERIOR
AOC-2 STATION B UNDERGROUND STORAGE TANK AREA
AOC-3 FORMER SEPTIC SYSTEM
AOC-4 PAST SPILLS UNSPECIFIED LOCATIONS
AOC-5 BULKHEAD PCB REMEDIATION AREA
AOC-6 CAPACITOR RELEASE AREA/OUTDOOR CAPACITOR BANKS
AOC-7 FORMER WASTE OIL AST AND OIL PUMP HOUSE
AOC-8 FORMER FUEL OIL STORAGE ASTS
AOC-9 TRANSFORMER AREAS
AOC-10 INTERIOR CHEMICAL STORAGE AREAS EXCLUDING ENGLISH STATION
AOC-11 ON-SITE FILL MATERIAL SITE WIDE
AOC-12E COAL STORAGE, HANDLING, AND WASTE DISPOSAL AREAS
AOC-12N COAL STORAGE, HANDLING, AND WASTE DISPOSAL AREAS
AOC-12W COAL STORAGE, HANDLING, AND WASTE DISPOSAL AREAS
AOC-13 FORMER WASTEWATER TREATMENT FACILITY
AOC-14 FORMER COOLING WATER DISCHARGE TUNNEL
AOC-15 CATCH BASIN RELEASE & OIL STAIN AREA
AOC-16 ENGLISH STATION INTERIOR
AOC-17 DRAINAGE STRUCTURES ASSOCIATED WITH/BENEATH ENGLISH STATION

GENERAL NOTES:

1. ADAPTED FROM PLAN TITLED "SITE FEATURES, AOCs, AND PCB AREAS" DATED 10/07/2016 BY TRC COMPANIES INC..
2. NOT ALL STRUCTURAL DETAILS HAVE BEEN SHOWN WITHIN BUILDINGS AND ENCLOSURES.
3. ENCLOSURES EN01 THROUGH EN11 ARE ENCLOSED EITHER BY FOUR CONCRETE WALLS, OR BY THREE CONCRETE WALLS AND A BUILDING WALL. ENCLOSURE IS NOT SYNONYMOUS WITH CONTAINMENT.
4. FOUR CONCRETE PADS FORMERLY HELD CAPACITORS: CP#1, CP#2, CP#3, CP#4. CP#1 IS AT GRADE; THE OTHERS ARE ELEVATED.
5. IN A SURVEY OF MONITORING WELLS ON 13 APRIL 2004, AEI COULD NOT FIND THE FOLLOWING WELLS, AND THEY ARE PRESUMED EXCAVATED OR OTHERWISE DESTROYED: MW-01, MW-02, MW-13, MW-20, MW-N, AND MW-O.
6. GODFREY-HOFFMAN ASSOCIATES, LLC SUPPLIED A GENERAL LOCATION SURVEY BASE MAP: PROJECT 01-182; JANUARY 4, 2002 WITH REVISIONS TO NOVEMBER 28, 2016; SCALE 1 INCH = 40 FEET.
7. THIS FIGURE IS NOT INTENDED FOR CONSTRUCTION PURPOSES.

PCB INVESTIGATION AREAS:

PCB AREA 1: STATION B INTERIOR
- AREA 1.1 MEZZANINE AND FIRST FLOOR, EXCEPT ANNEX III
- AREA 1.2 FORMER ANNEX III
- AREA 1.3 BASEMENT

PCB AREA 2: FORMER COAL YARD
- AREA 2.1 ELEVATED RAILROAD TRACKS AND FOUNDATIONS
- AREA 2.2 REMAINDER OF FORMER COAL YARD

PCB AREA 3: ELECTRICAL INFRASTRUCTURE AND EXCAVATION
- AREA 3.1 FORMER CAPACITOR AREA
- AREA 3.2 UNITED ILLUMINATING REMEDIATION AREA
- AREA 3.3 TRANSFORMER AND CAPACITOR AREA

PCB AREA 4: SOUTHWEST CORNER
- AREA 4.1 FORMER TRANSFORMER AREA
- AREA 4.2 STORAGE AND SHOP BUILDING INTERIOR
- AREA 4.3 TRANSFORMER AND FORMER CAPACITOR AREA
- AREA 4.4 ASSEMBLY HALL INTERIOR

PCB AREA 5: SOUTHEAST CORNER
- AREA 5.1 FORMER DUMPSTER AREA
- AREA 5.2 FORMER WASTEWATER TREATMENT AREA
- AREA 5.3 OIL PUMP HOUSE AREA
- AREA 5.4 FORMER WASTE OIL TANK AREA
- AREA 5.5 TOWER GH-4 AREA
- AREA 5.6 FORMER STORAGE BUILDING AREA
- AREA 5.7 FUEL OIL TANK AREA

PCB AREA 6: BALANCE OF SITE, EXCEPT ENGLISH STATION
- AREA 6.1 FORMER STATION B AREA
- AREA 6.2 MILL RIVER EAST BRANCH AREA

PCB AREA 7: ENGLISH STATION INTERIOR

SITE FEATURE LEGEND

EDGE OF PAVEMENT	FIRE HYDRANT
PROPERTY / STREET LINE	MANHOLE
CHAIN LINK FENCE	VAULT
GUARDRAIL	HATCHWAY
NEW BULKHEAD	INTAKE CHANNEL
GAS LINE	DISCHARGE CHANNEL
OVERHEAD WIRE	TRANSFORMER
CONCRETE WALL	CIRCUIT BREAKER
APPROXIMATE EXTENT OF HISTORICAL EXCAVATION	CATHODIC BULKHEAD PROTECTION DEVICE
PCB AREA BOUNDARY	4AS-007 ASPHALT SAMPLE POINT
AOC BOUNDARY	3CO-040 CONCRETE SAMPLE POINT
PIPE TRENCH	CS-1 CONCRETE SAMPLE POINT – COLLECTED BY GEI
EXISTING BUILDING	4CO-078 CONCRETE SAMPLE POINT FROM WALL
CONCRETE PAD	3HX-004 HEXANE WIPE SAMPLE POINT
CONCRETE PAD (ELEVATED)	4XX-001 MISCELLANEOUS SAMPLE POINT
ASPHALT APRON	3SD-001 SEDIMENT SAMPLE POINT
RECENT FILL	PCB-05 SEDIMENT SAMPLE POINT – COLLECTED BY GEI
WATER GATE	4HA-513 SOIL SAMPLE POINT
GAS GATE	TB-XXX SAMPLE LOCATION WHERE BOTH POROUS MEDIA (ASPHALT OR CONCRETE) AND SOIL SAMPLES WHERE COLLECTED
ROUND CATCH BASIN	HA-1 SOIL SAMPLE POINT – COLLECTED BY OTHERS
RECTANGULAR CATCH BASIN	3SW-001 SURFACE WATER SAMPLE POINT
UTILITY POLE	MW-H / TB-W SOIL SAMPLE FROM GROUND WATER MONITORING WELL
	MW-01 SOIL SAMPLE FROM GROUND WATER MONITORING WELL – INSTALLED BY OTHERS

40 20 0 40 80
SCALE: 1"=40'

FIGURE 3
UNITED ILLUMINATING ENGLISH STATION POWER PLANT

510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

SOUTHSIDE SITE FEATURES, AOCs, AND PCB AREAS

OCTOBER, 2017 SCALE: 1" = 40'

Weston & Sampson
Weston & Sampson Engineers, Inc.
273 Dividend Road, Rocky Hill, CT 06067

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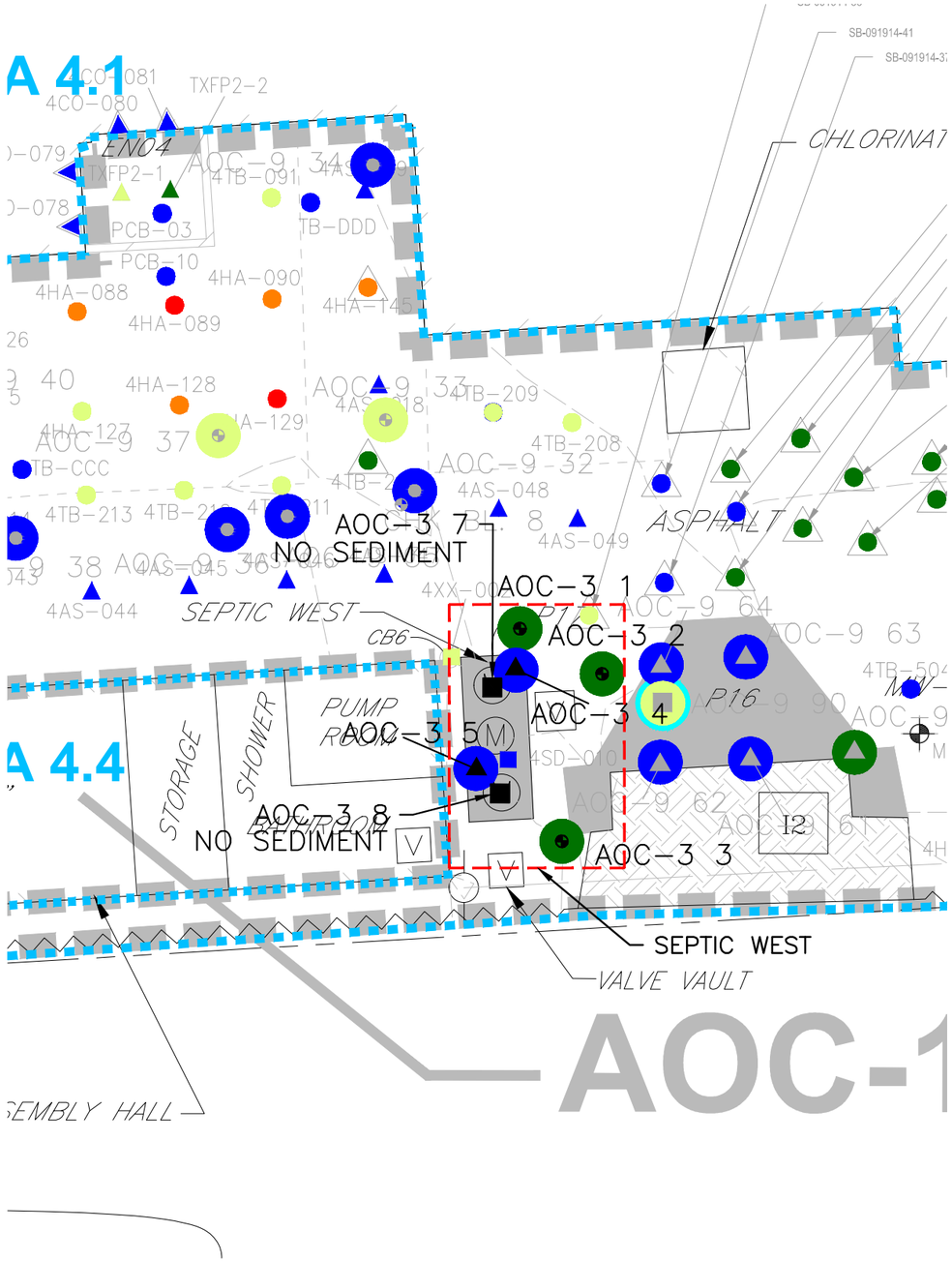

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 4-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-3 (SEPTIC WEST)
2017 SAMPLE LOCATIONS: 0-2 FEET DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson

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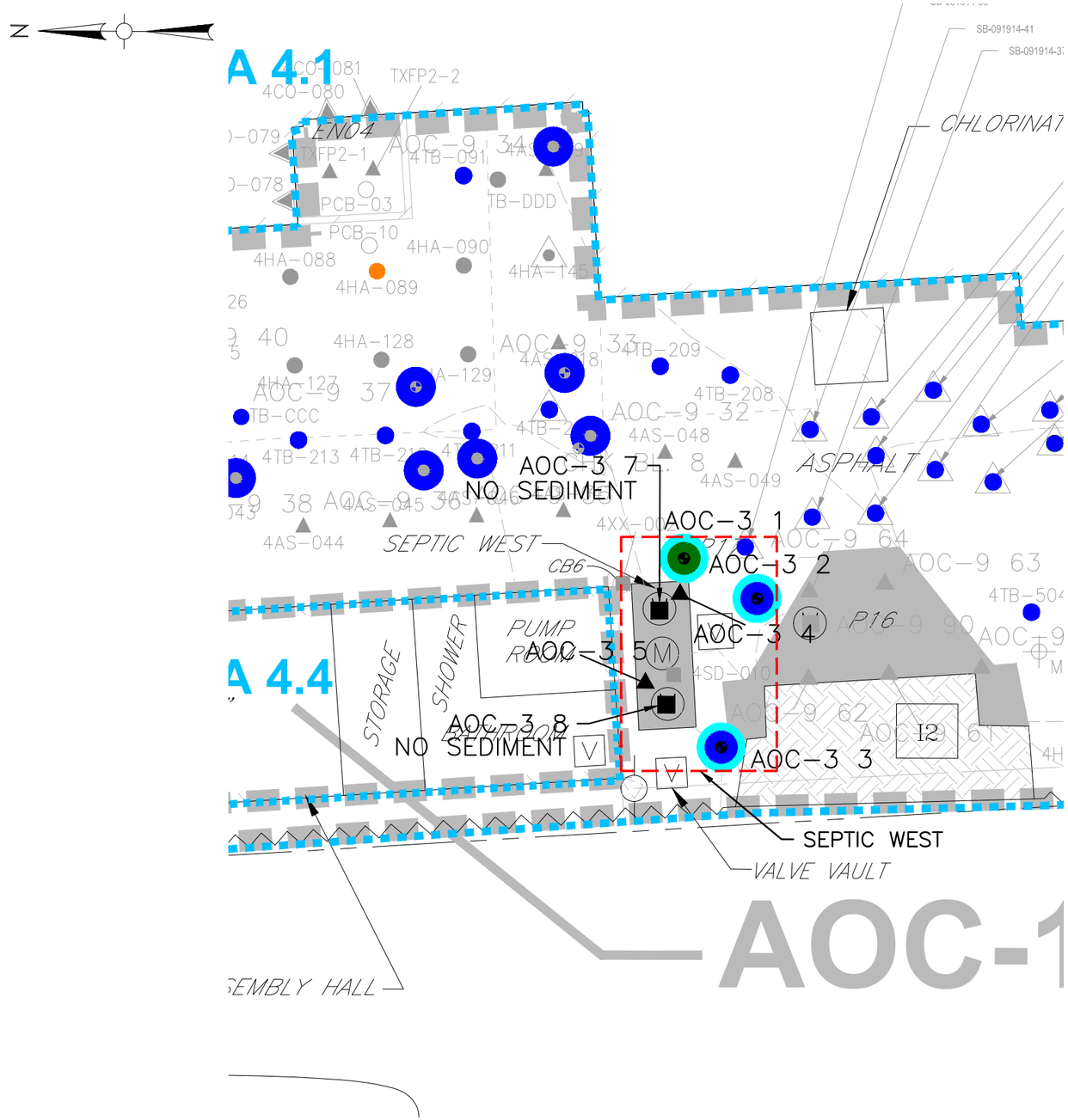

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- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
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- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
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NOTES:

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3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 4-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-3 (SEPTIC WEST)
2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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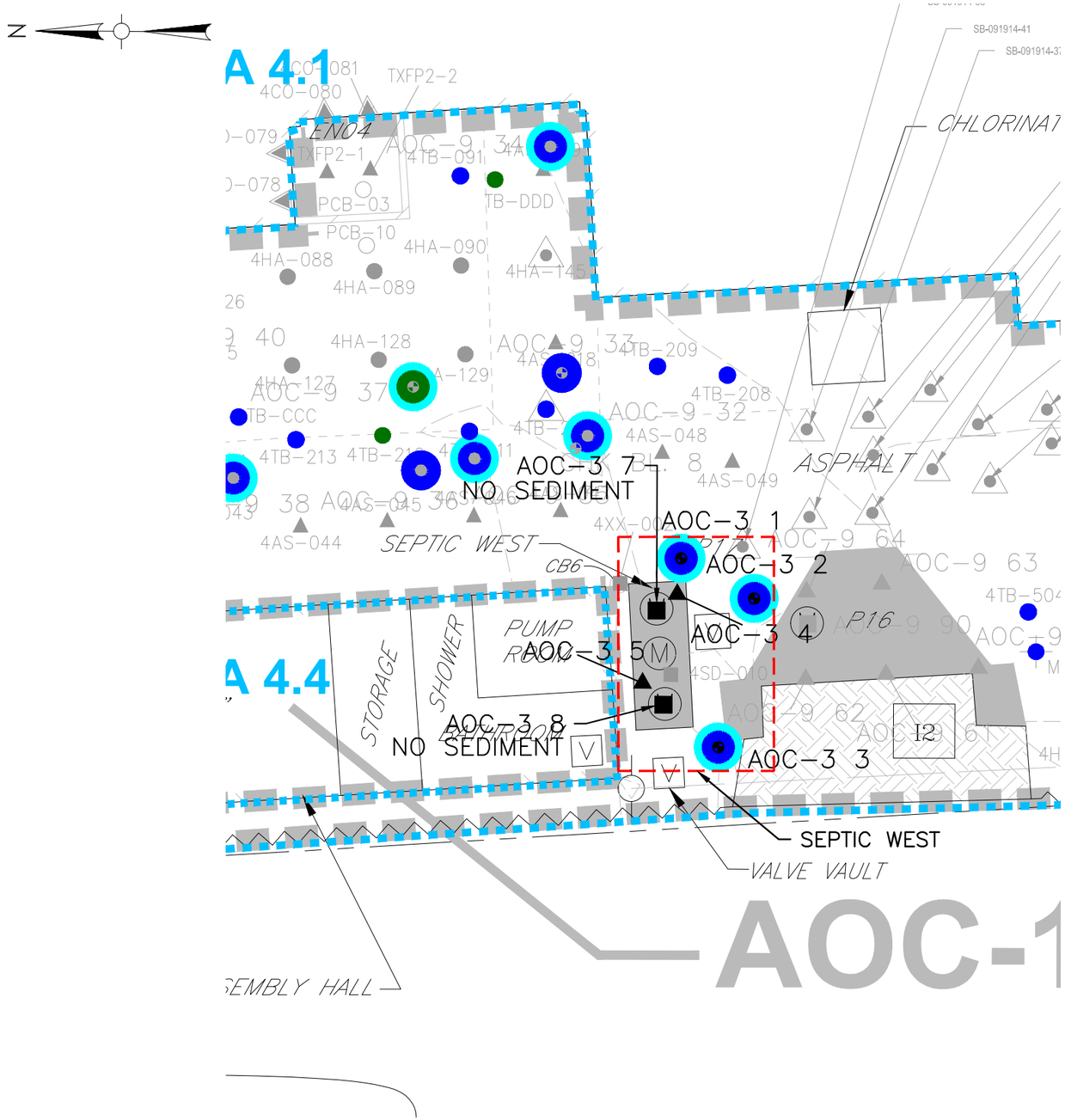

LEGEND:

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- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION

NOTES:

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2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 4-3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-3 (SEPTIC WEST)
2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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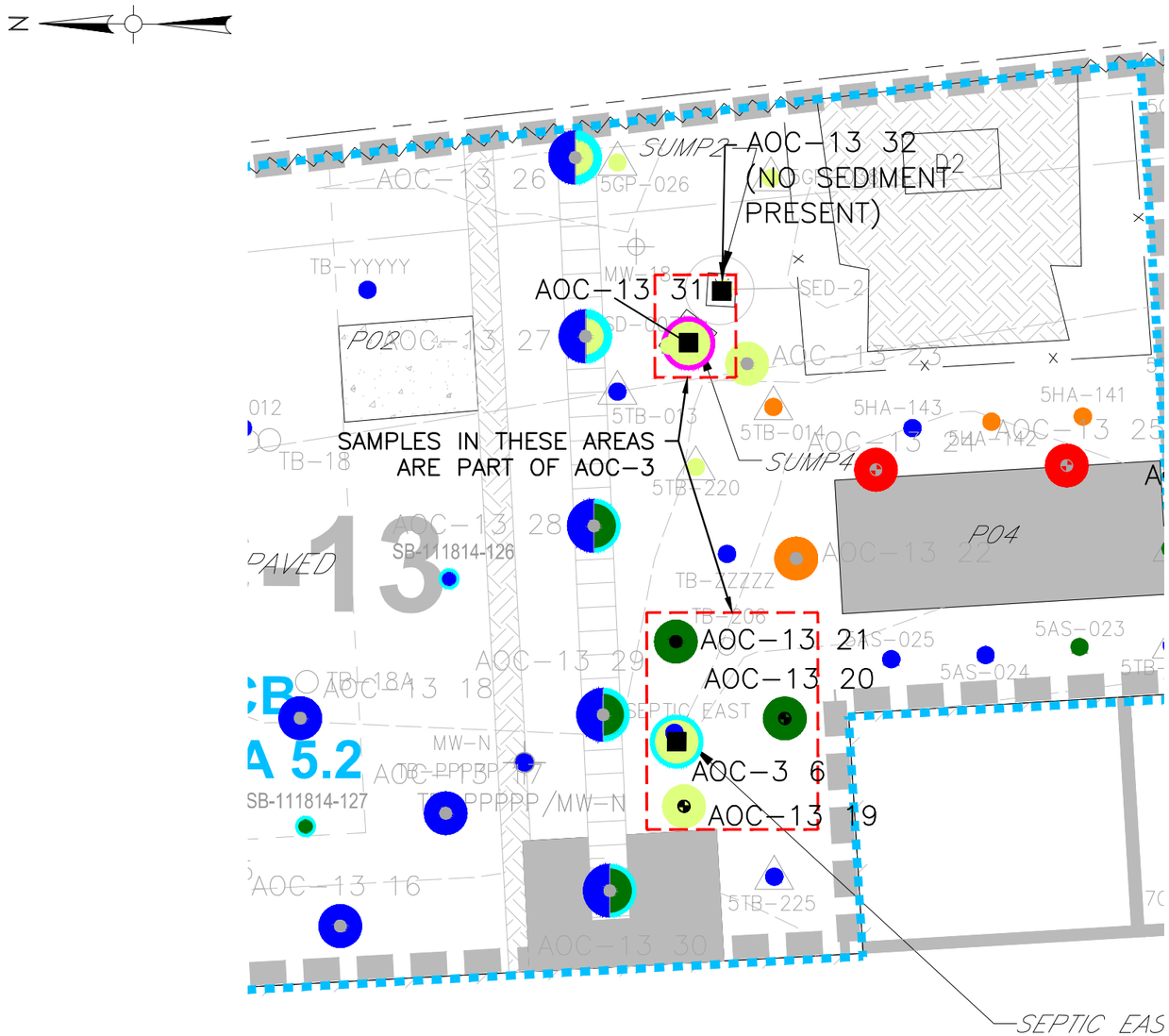

LEGEND:

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- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
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- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
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15 7.5 0 15 30

SCALE: 1"=15'

NOTES:

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3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

FIGURE 5-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-3 (SEPTIC EAST) 2017 SAMPLE LOCATIONS: 0-2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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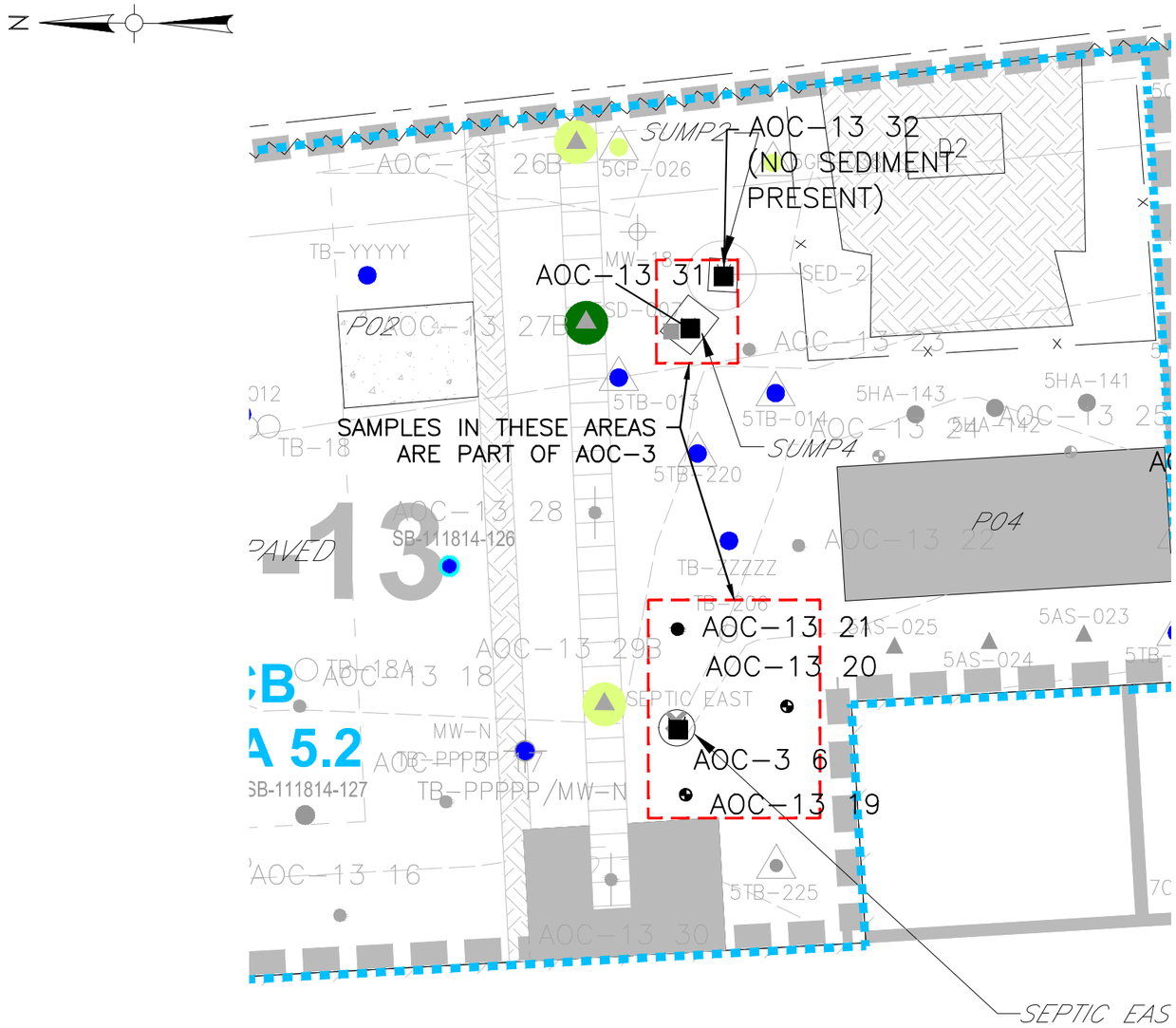

LEGEND:

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- SAMPLE LOCATION WITH NON–DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
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- SEDIMENT SAMPLE LOCATION
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- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- W&S 2017 POROUS MEDIA/ SEDIMENT SAMPLE. LEFT SIDE REPRESENTS POROUS MEDIA, RIGHT SIDE REPRESENTS SEDIMENT.

15 7.5 0 15 30

SCALE: 1"=15'

NOTES:

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3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

FIGURE 5-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-3 (SEPTIC EAST) 2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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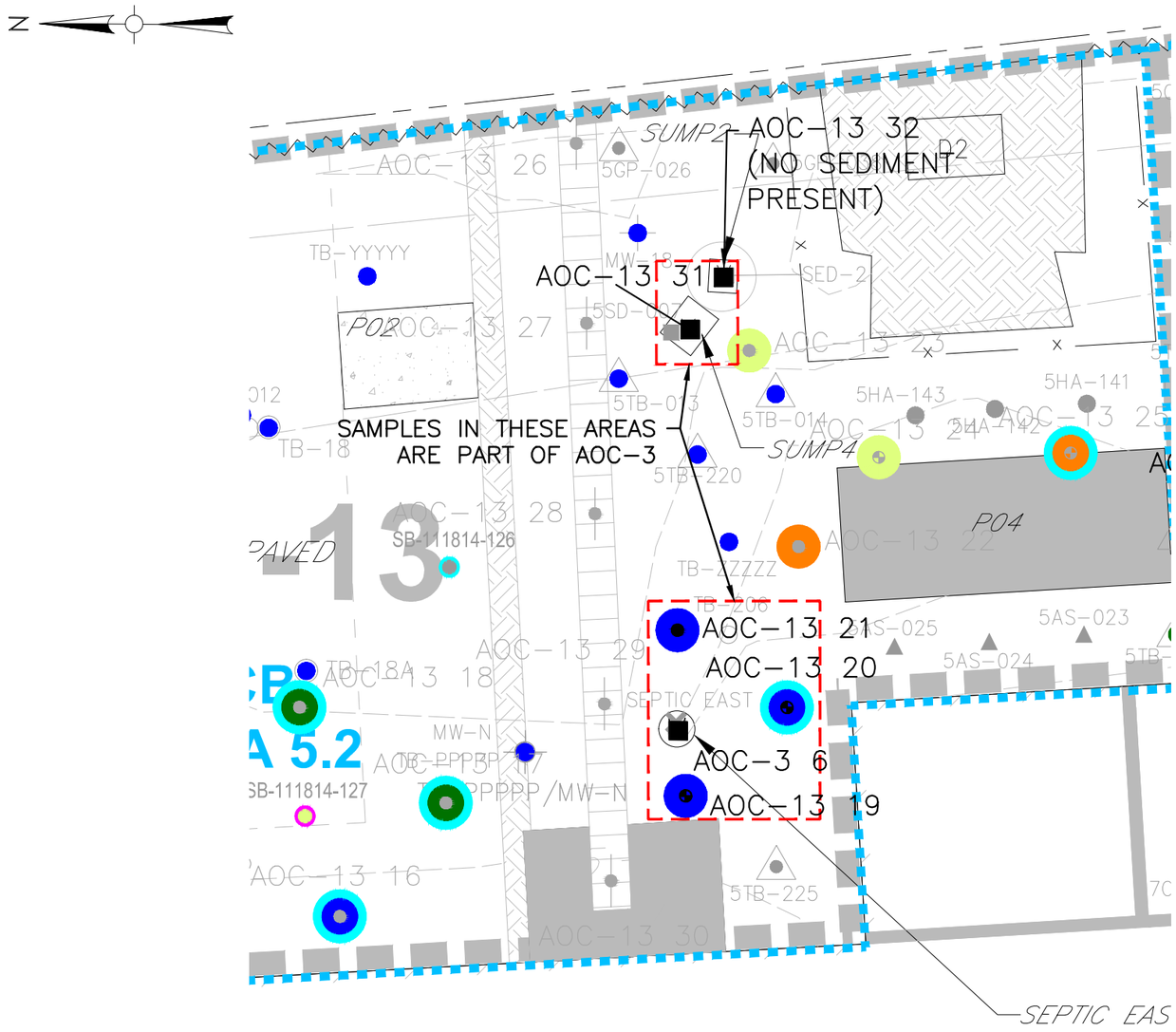

LEGEND:

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- SAMPLE LOCATION WITH NON–DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
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- SEDIMENT SAMPLE LOCATION
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- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
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15 7.5 0 15 30

SCALE: 1"=15'

NOTES:

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3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

FIGURE 5–3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC–3 (SEPTIC EAST) 2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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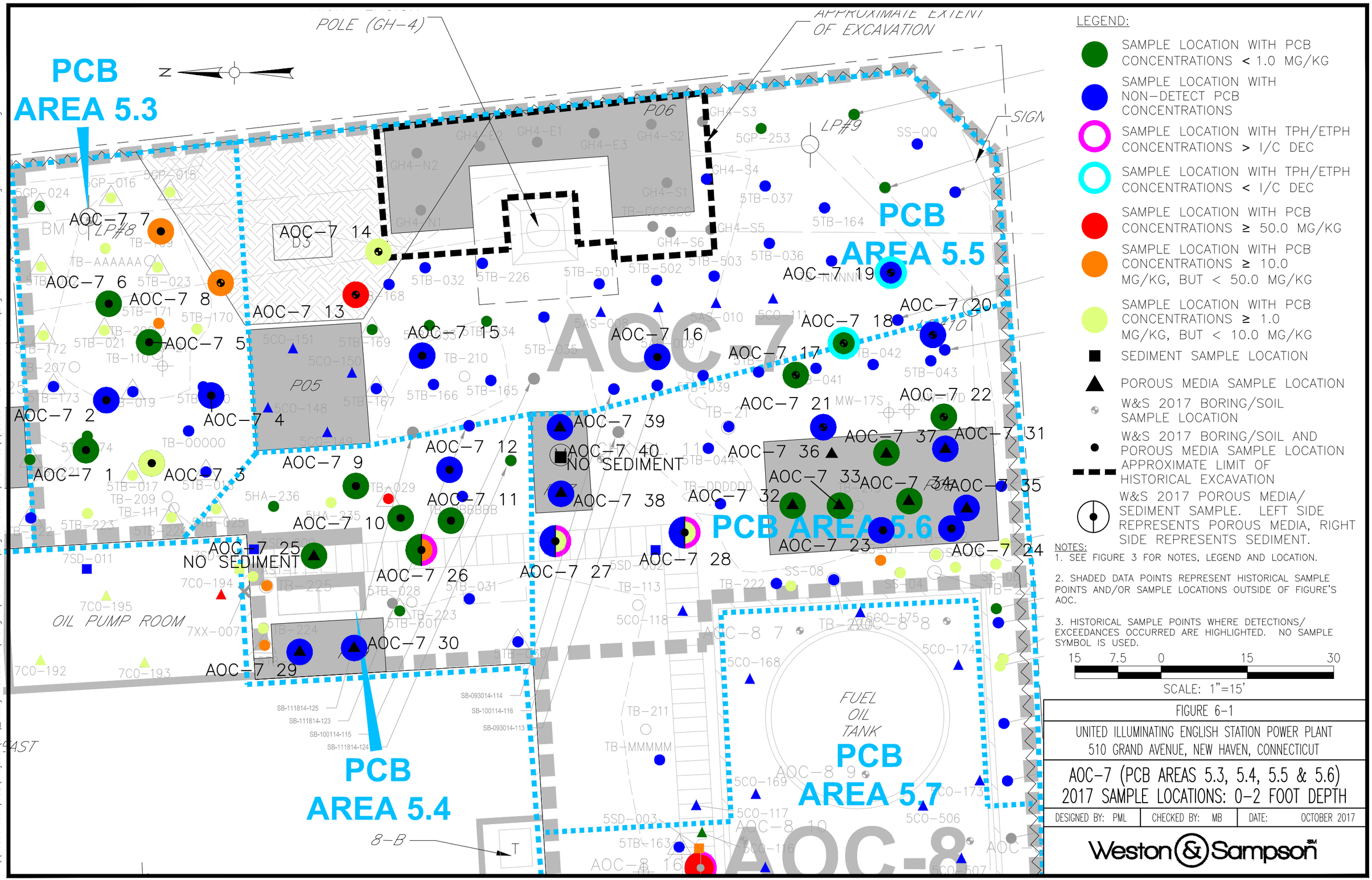

LEGEND:

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- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- W&S 2017 POROUS MEDIA/ SEDIMENT SAMPLE. LEFT SIDE REPRESENTS POROUS MEDIA, RIGHT SIDE REPRESENTS SEDIMENT.

NOTES:
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15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 6-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-7 (PCB AREAS 5.3, 5.4, 5.5 & 5.6)
2017 SAMPLE LOCATIONS: 0-2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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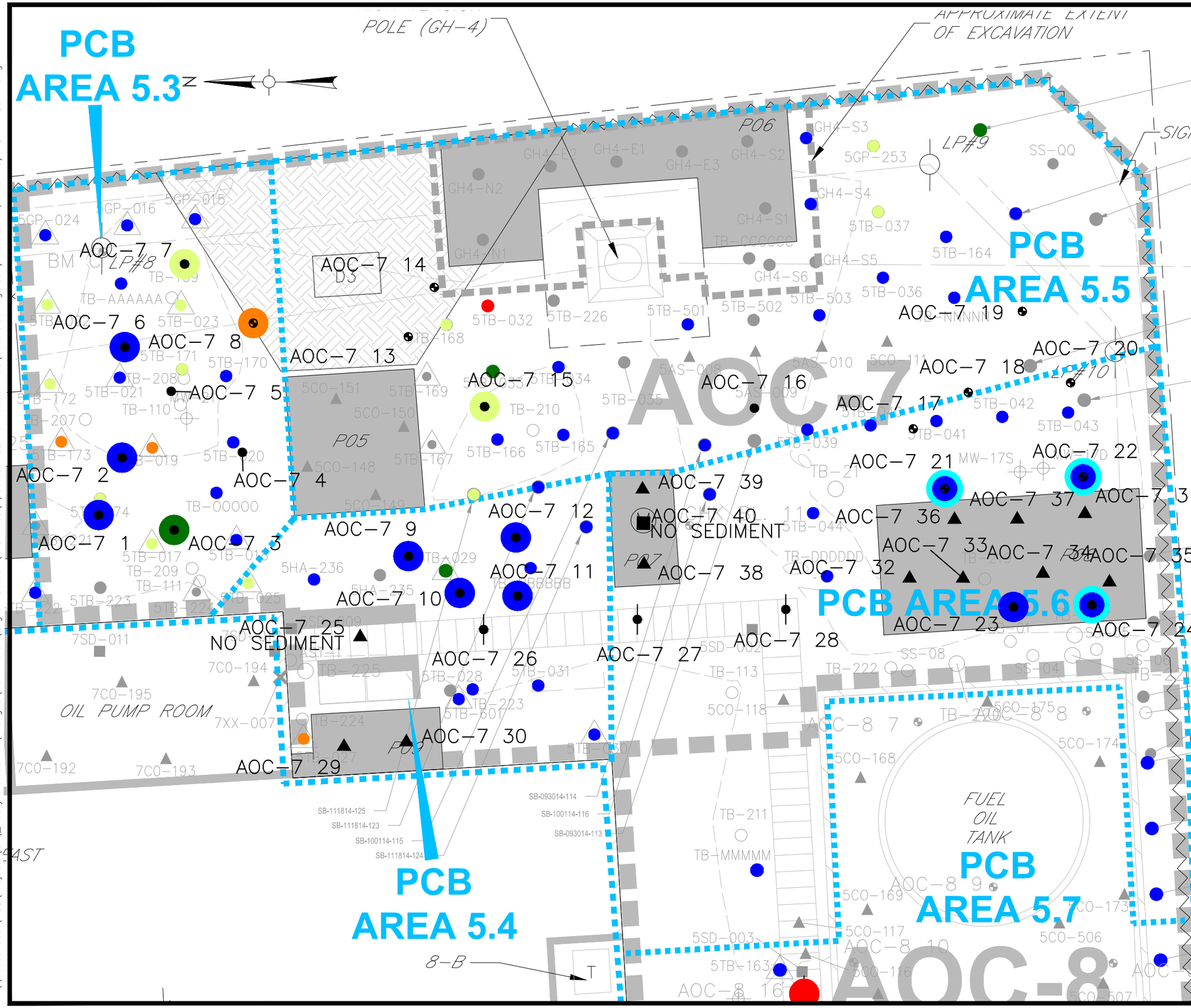

LEGEND:

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15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 6-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-7 (PCB AREAS 5.3, 5.4, 5.5 & 5.6)
2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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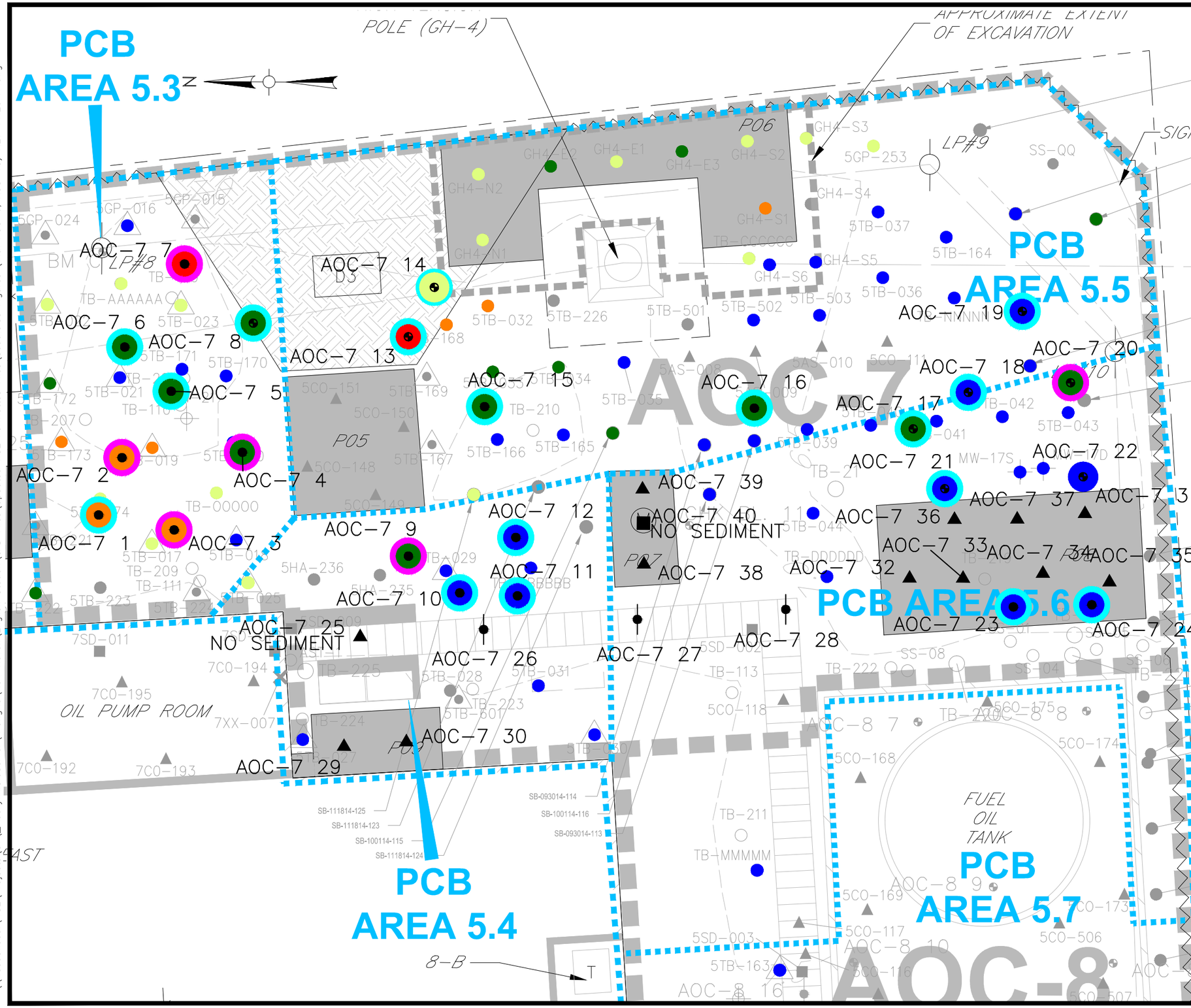

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2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 6-3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-7 (PCB AREAS 5.3, 5.4, 5.5 & 5.6)
2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson

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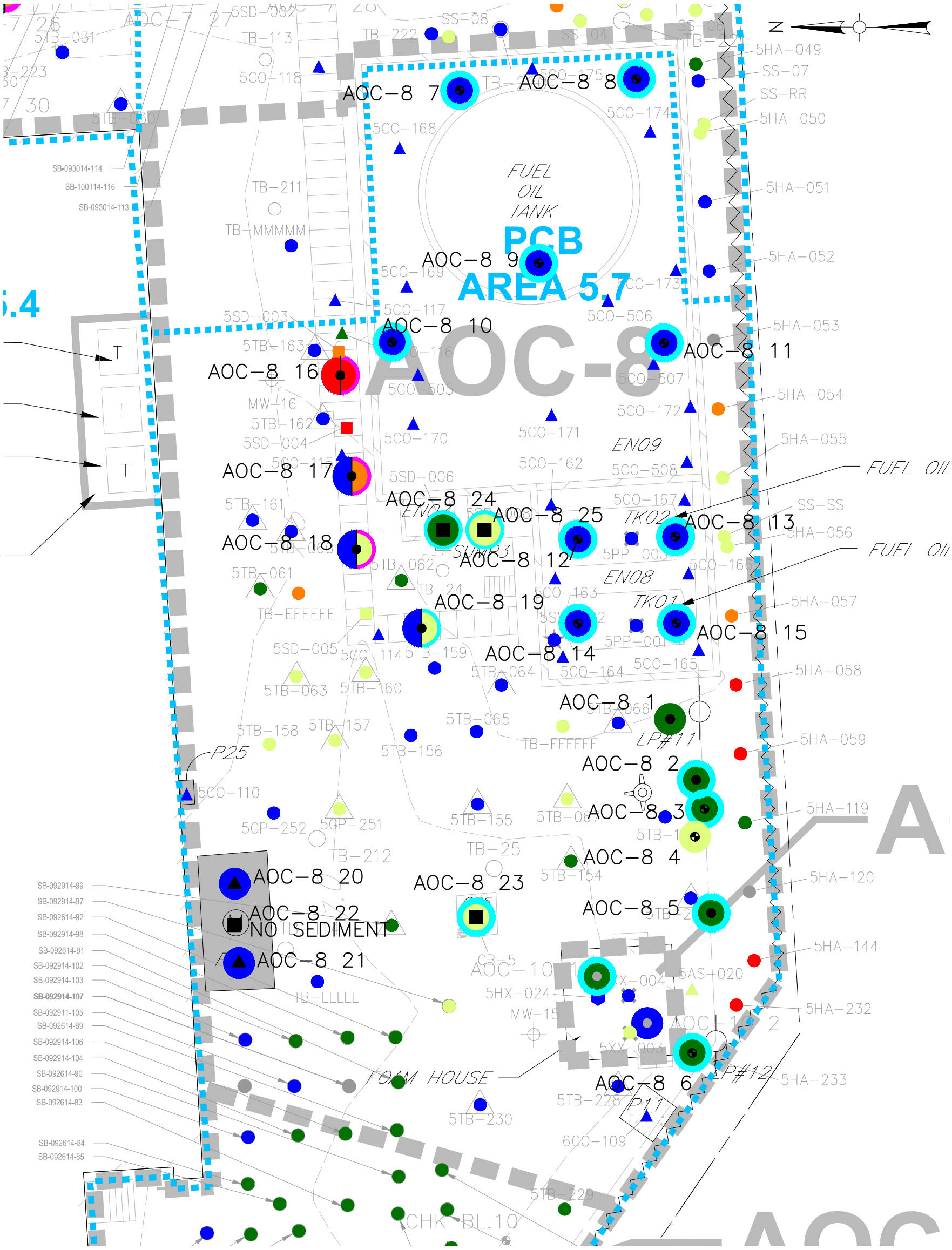


LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- W&S 2017 POROUS MEDIA/ SEDIMENT SAMPLE. LEFT SIDE REPRESENTS POROUS MEDIA, RIGHT SIDE REPRESENTS SEDIMENT.

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30
SCALE: 1"=15'

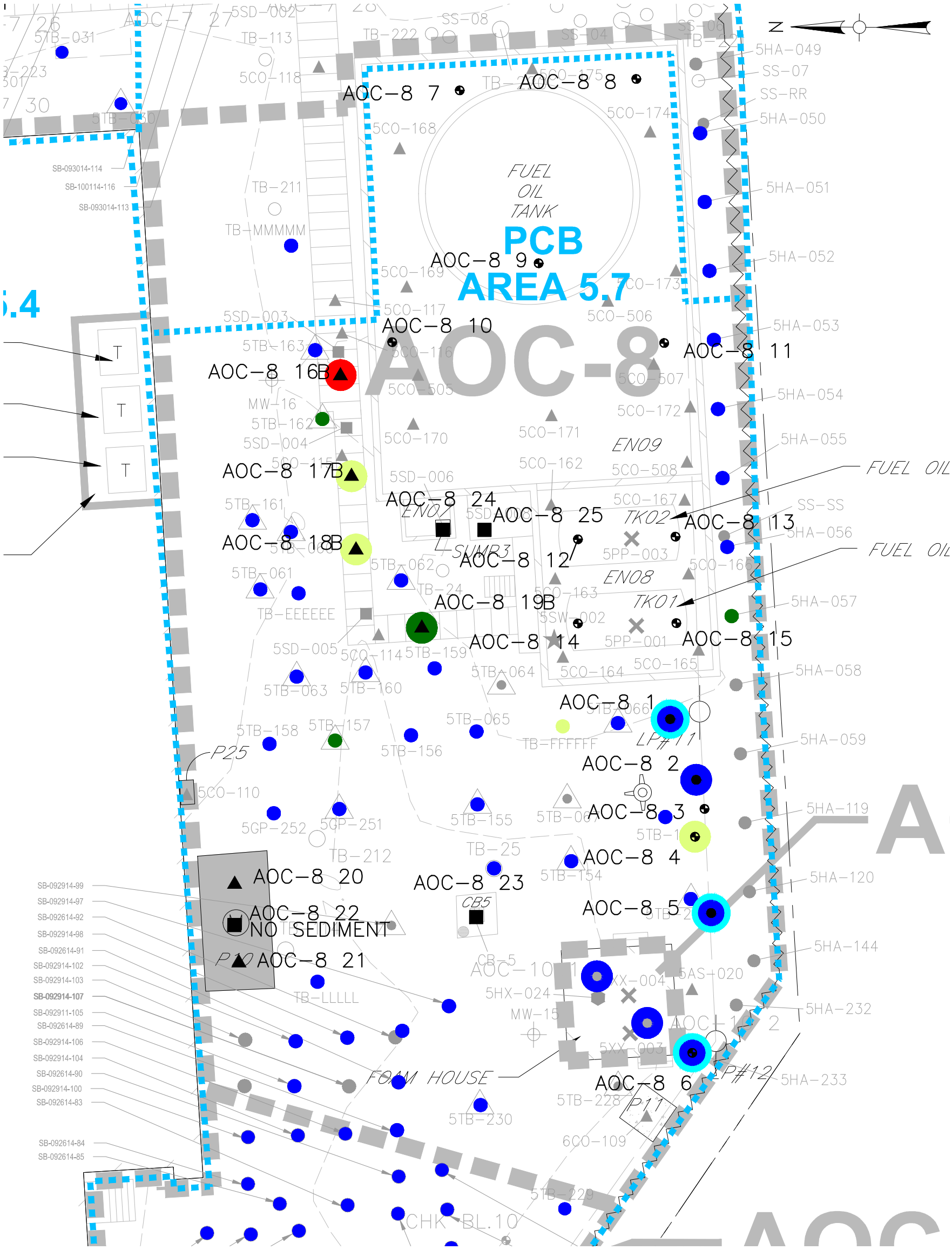
FIGURE 7-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-8 (PCB AREA 5.7)
2017 SAMPLE LOCATIONS: 0-2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson℠



LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- W&S 2017 POROUS MEDIA/ SEDIMENT SAMPLE. LEFT SIDE REPRESENTS POROUS MEDIA, RIGHT SIDE REPRESENTS SEDIMENT.

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30
SCALE: 1"=15'

FIGURE 7-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-8 (PCB AREA 5.7)
2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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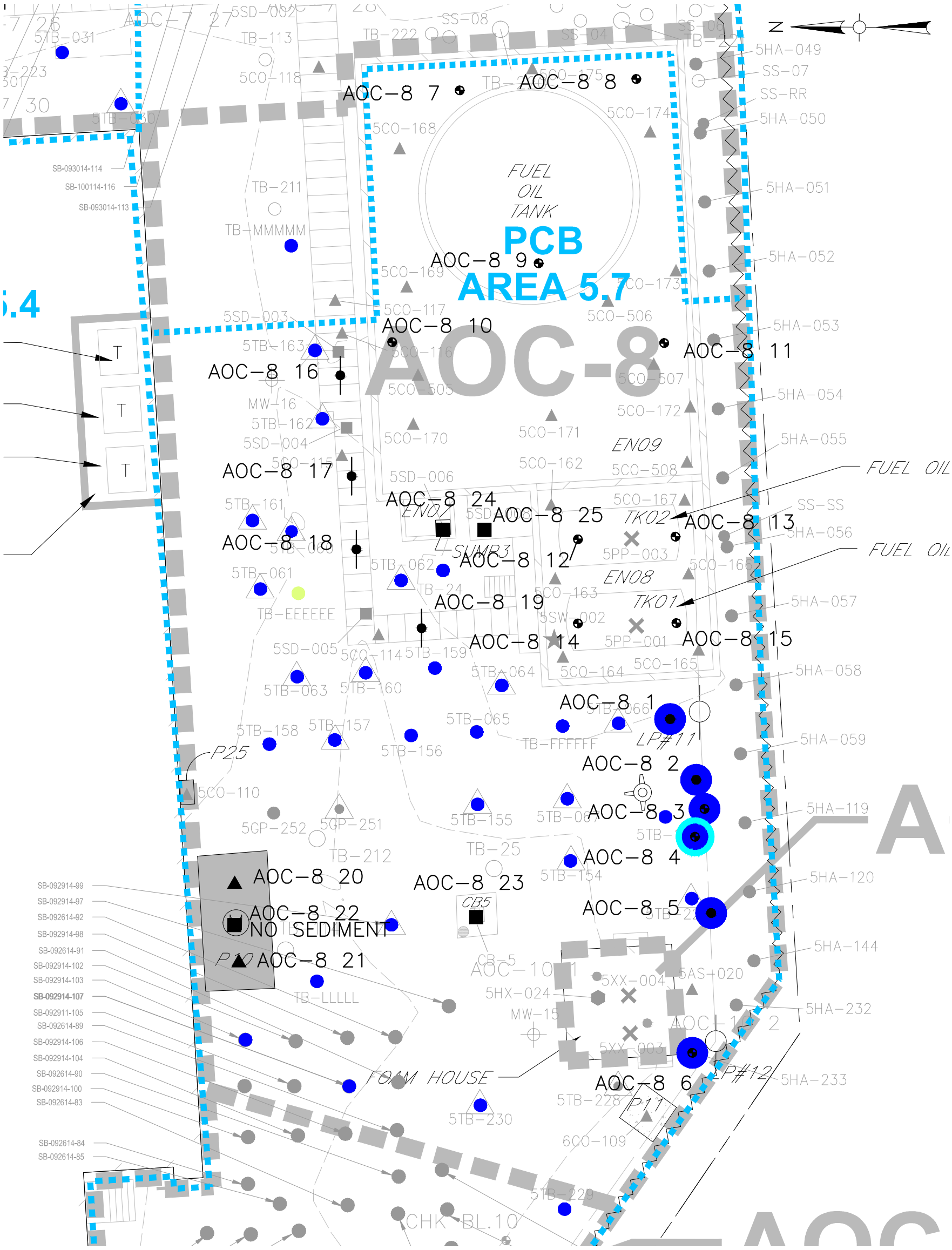


LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- W&S 2017 POROUS MEDIA/ SEDIMENT SAMPLE. LEFT SIDE REPRESENTS POROUS MEDIA, RIGHT SIDE REPRESENTS SEDIMENT.

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30
SCALE: 1"=15'

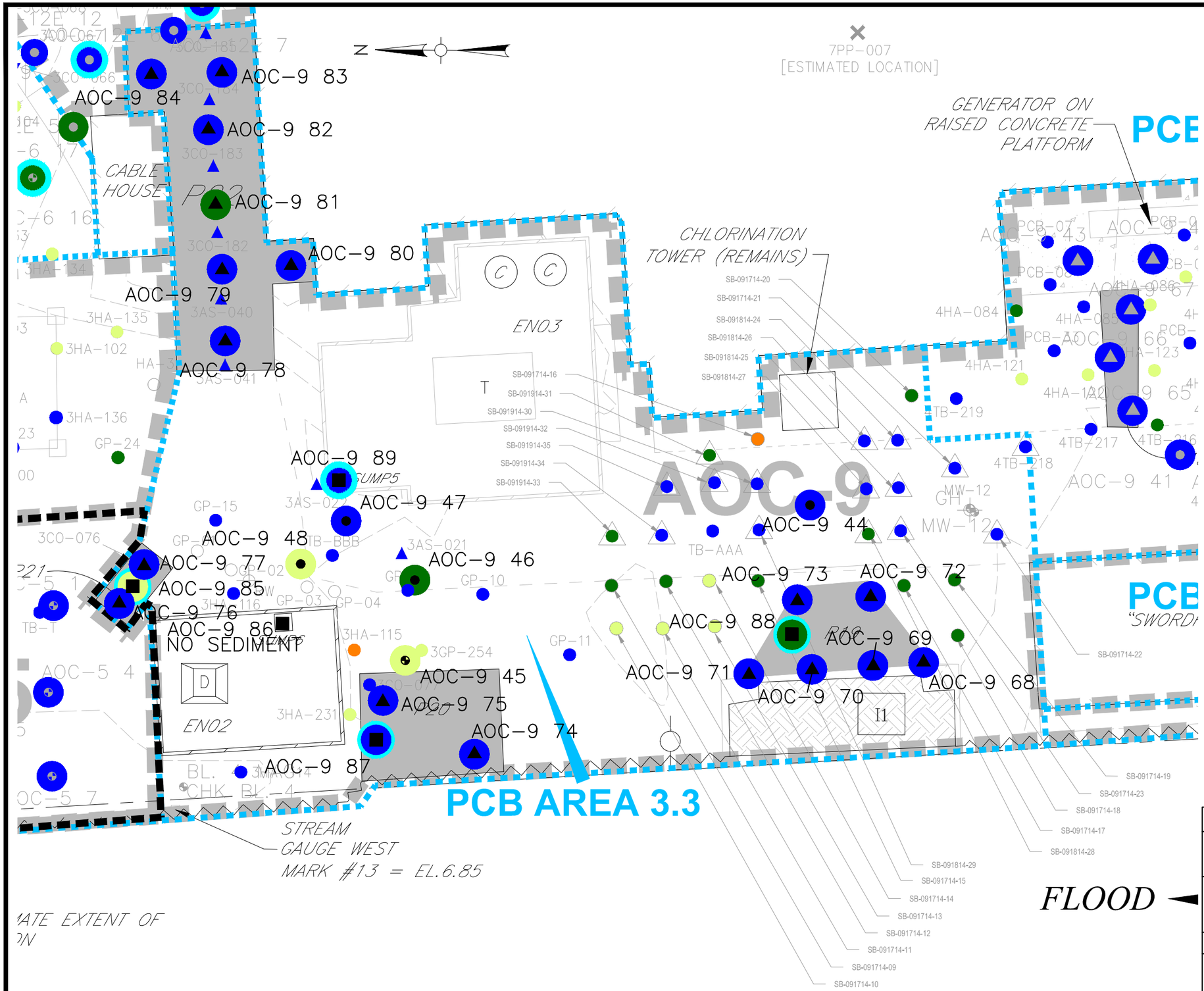
FIGURE 7-3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-8 (PCB AREA 5.7)
2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson℠



LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 8A-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-9 (PCB AREA 3.3)
2017 SAMPLE LOCATIONS: 0-2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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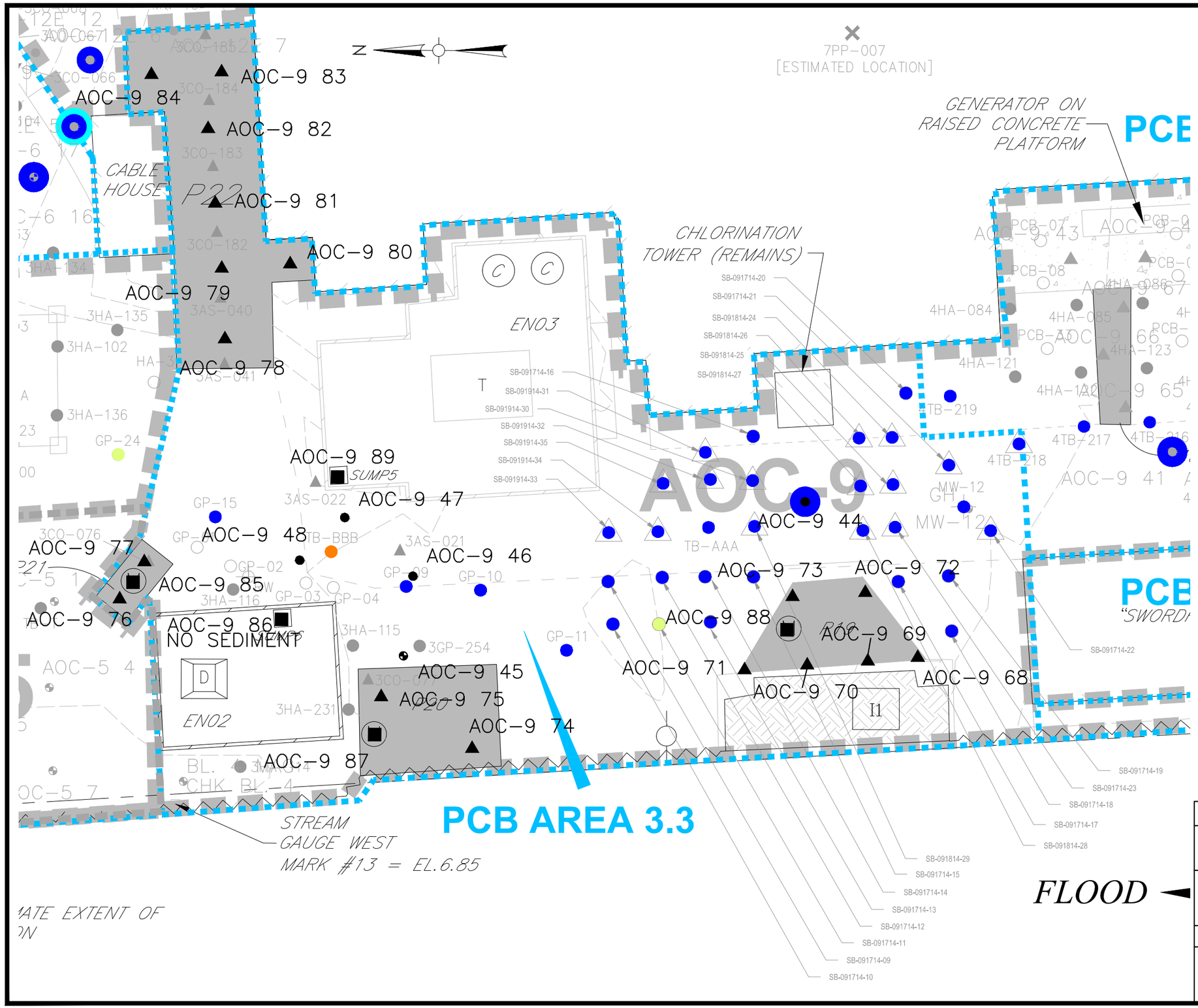

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 8A-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-9 (PCB AREA 3.3)
2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson

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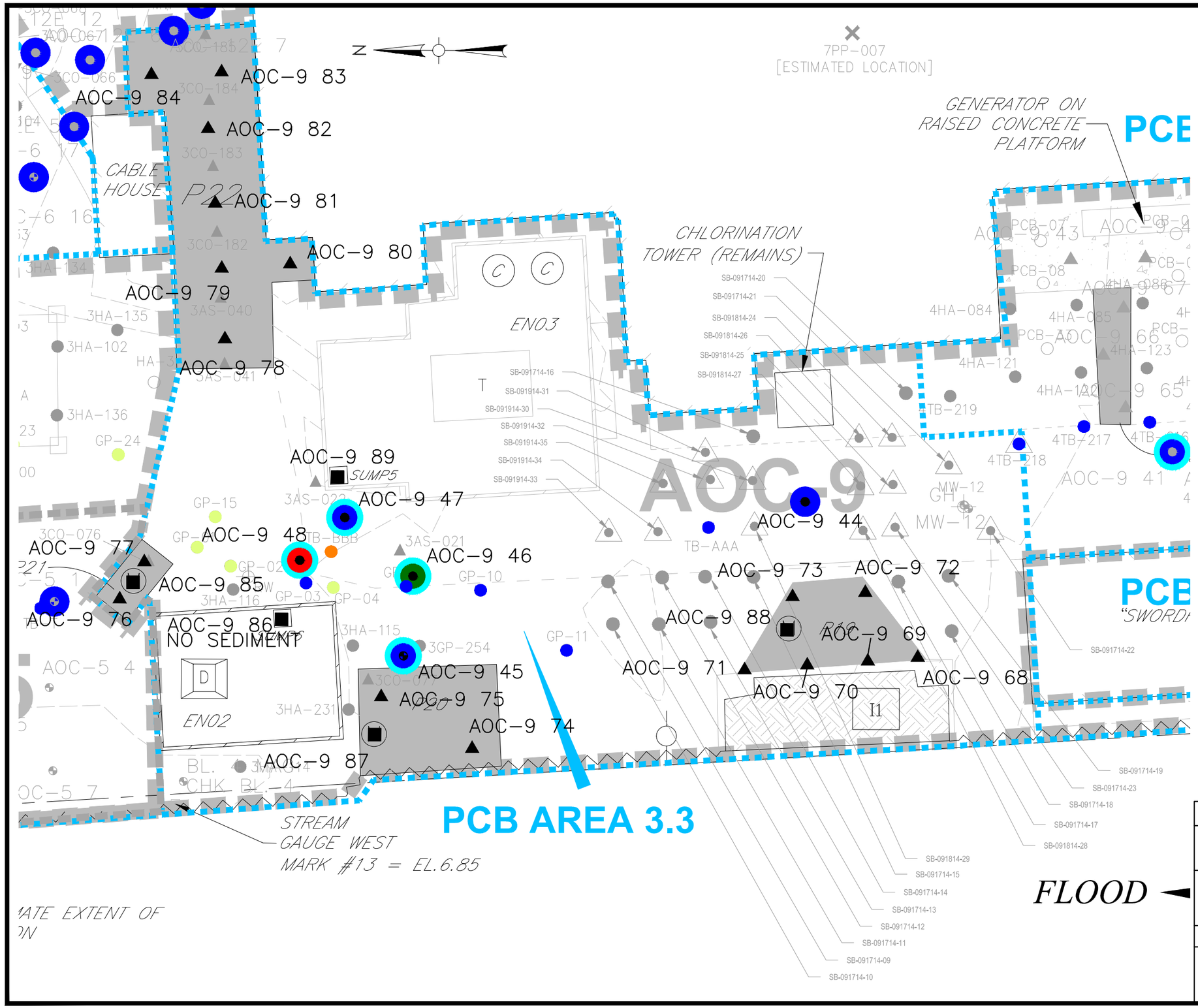

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 8A-3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-9 (PCB AREA 3.3)
2017 SAMPLE LOCATIONS > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson

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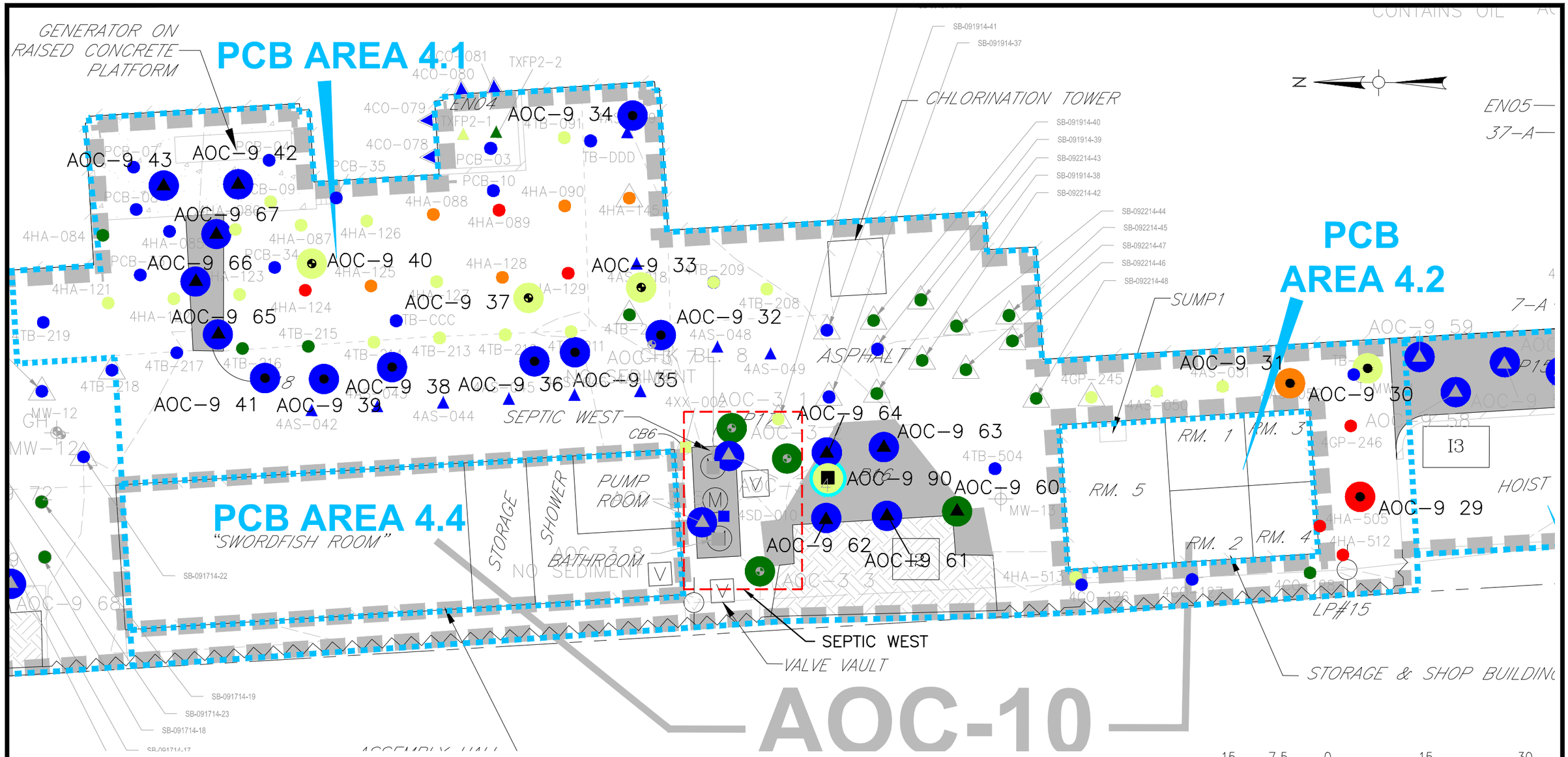
PCB AREA 4.1
PCB AREA 4.2
PCB AREA 4.4
"SWORDFISH ROOM"
GENERATOR ON RAISED CONCRETE PLATFORM
CHLORINATION TOWER
ASPHALT
SUMP1
SEPTIC WEST
VALVE VAULT
STORAGE & SHOP BUILDING
LP#15
HOIST
PUMP ROOM
BATHROOM
STORAGE
SHOWER
RM. 1
RM. 2
RM. 3
RM. 4
RM. 5
I3
AOC-9 34
AOC-9 43
AOC-9 42
AOC-9 67
AOC-9 66
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AOC-9 40
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AOC-10
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SB-091714-23
SB-091714-18
SB-091714-17
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ENO5
37-A
7-A
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TXFP2-2
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TB-CCC
CB6
MW-12
MW-13
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4HA-085
4HA-086
4HA-087
4HA-088
4HA-089
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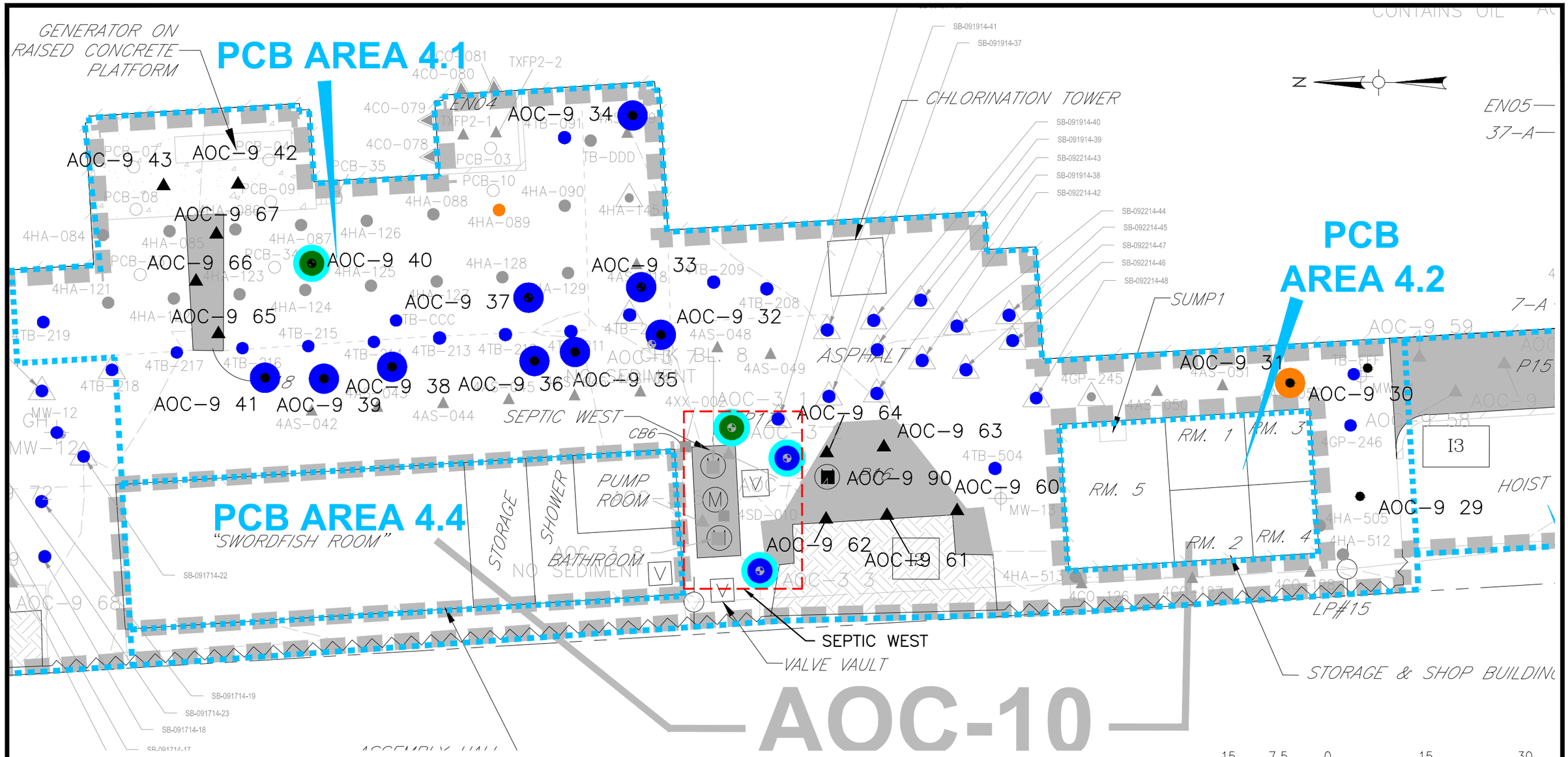

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 8B-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-9 (PCB AREA 4.1) 2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson℠

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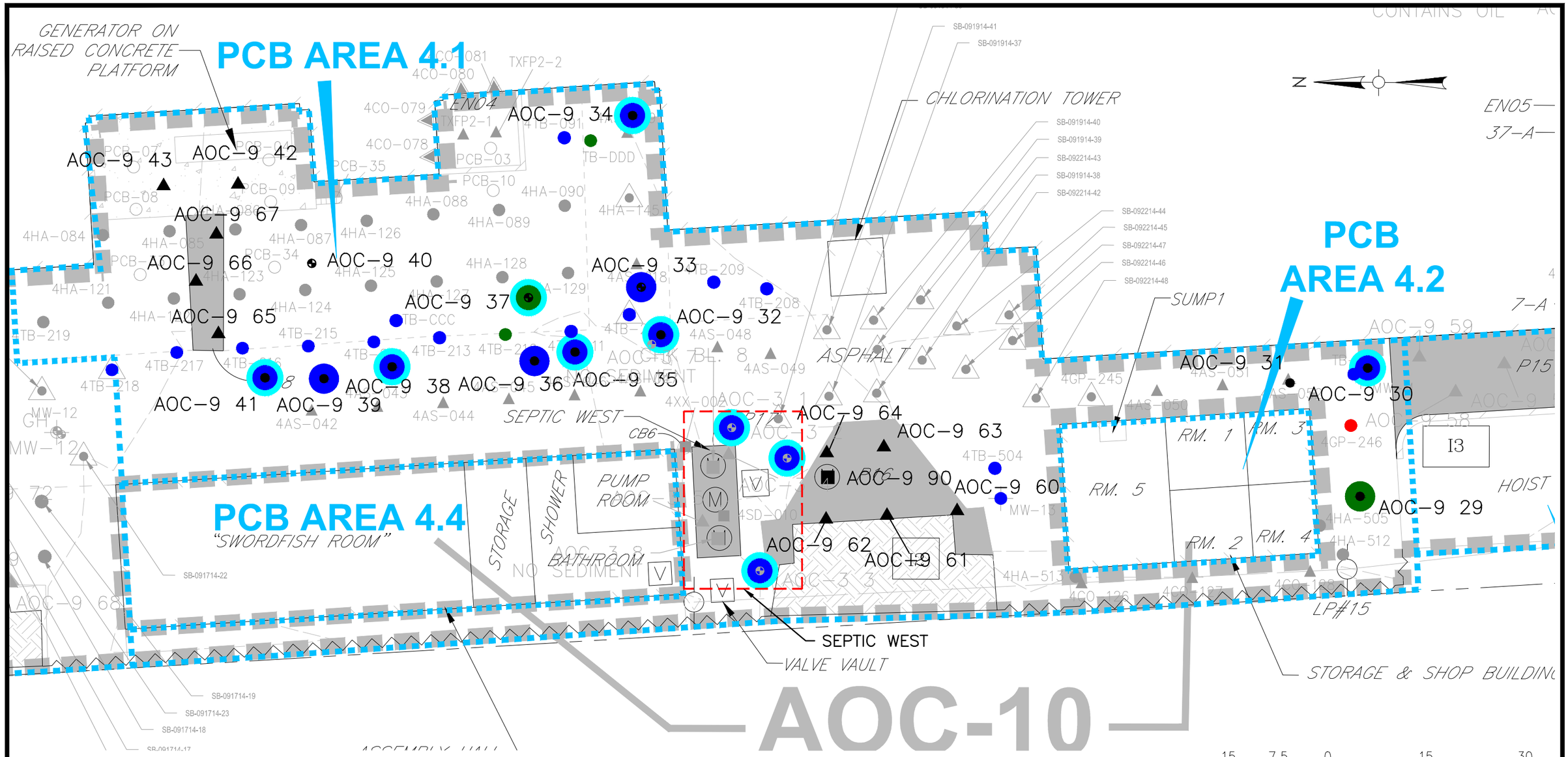
PCB AREA 4.1
GENERATOR ON RAISED CONCRETE PLATFORM
CHLORINATION TOWER
PCB AREA 4.2
PCB AREA 4.4
"SWORDFISH ROOM"
SEPTIC WEST
VALVE VAULT
SEPTIC WEST
STORAGE & SHOP BUILDING
ASPHALT
SUMP1
PUMP ROOM
BATHROOM
SHOWER
STORAGE
RM. 1
RM. 2
RM. 3
RM. 4
RM. 5
HOIST
I3
LP#15
AOC-10
AOC-9 34
AOC-9 43
AOC-9 42
AOC-9 67
AOC-9 66
AOC-9 40
AOC-9 65
AOC-9 37
AOC-9 33
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SB-091714-17
TXFP2-1
TXFP2-2
ENO4
ENO5
37-A
7-A
P15
P17
CB6
TB-DDD
TB-CCC
4HA-084
4HA-085
4HA-086
4HA-087
4HA-088
4HA-089
4HA-090
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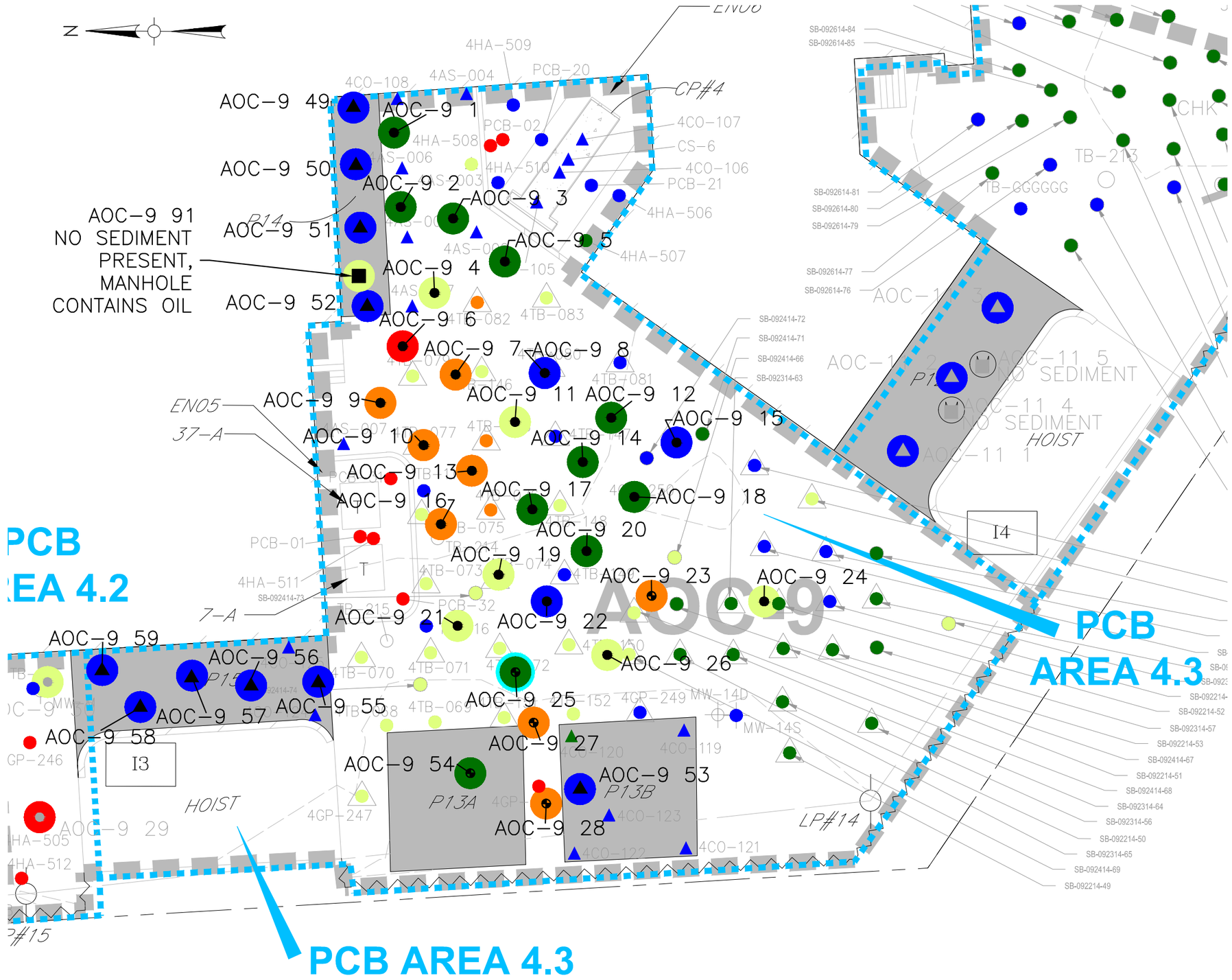

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 8C-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-9 (PCB AREA 4.3)
2017 SAMPLE LOCATIONS: 0-2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson℠

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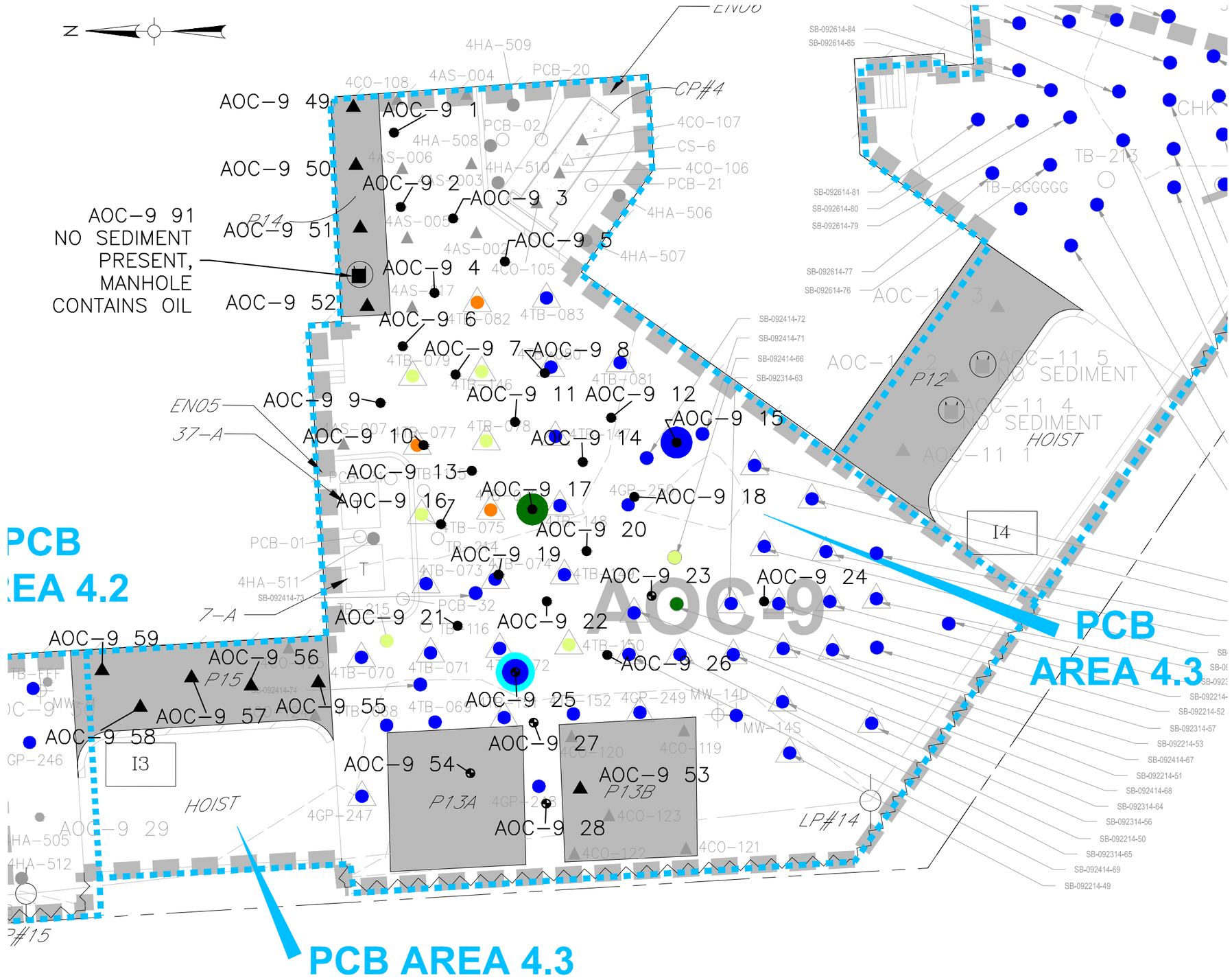

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 8C-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-9 (PCB AREA 4.3)
2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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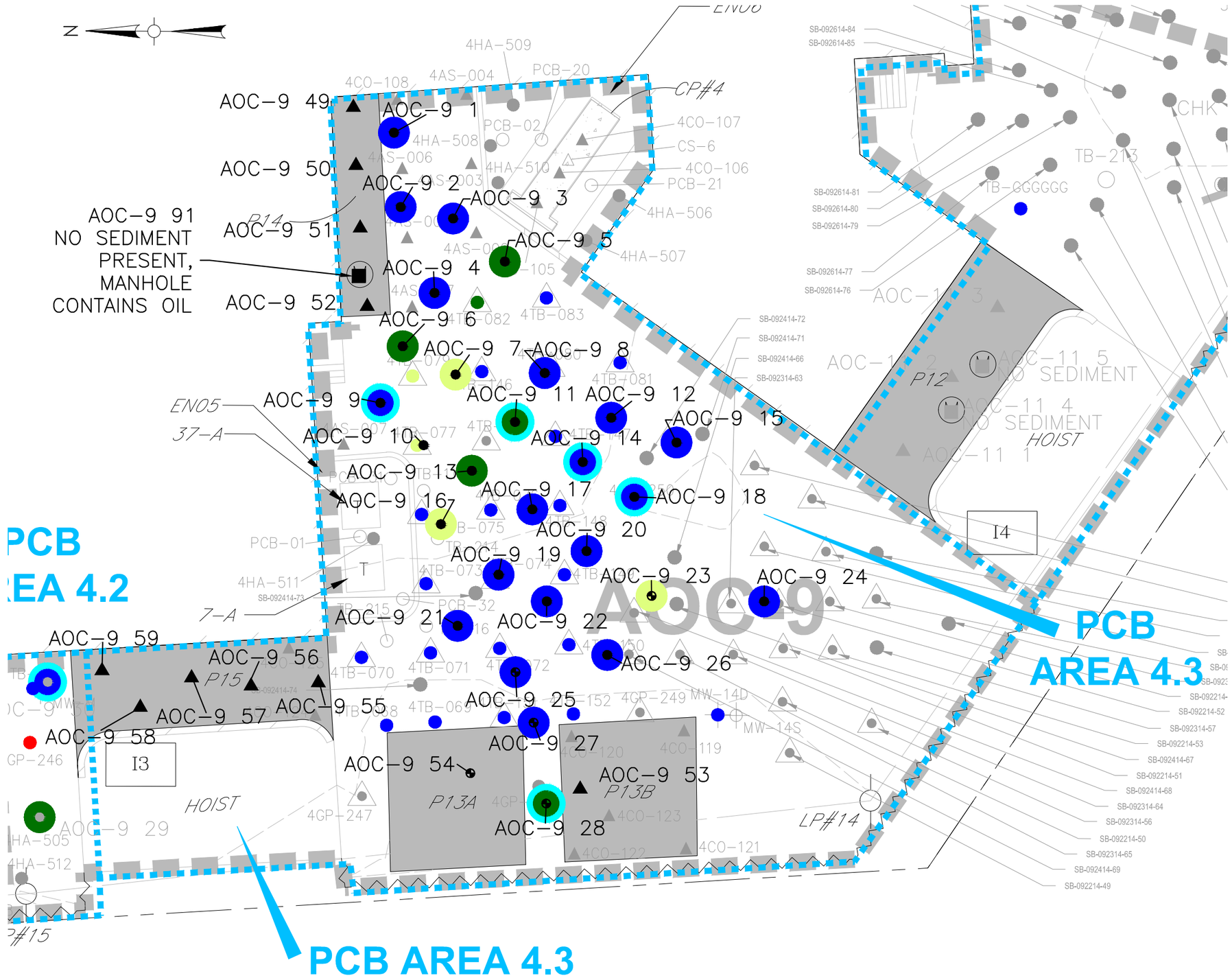

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 8C-3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-9 (PCB AREA 4.3)
2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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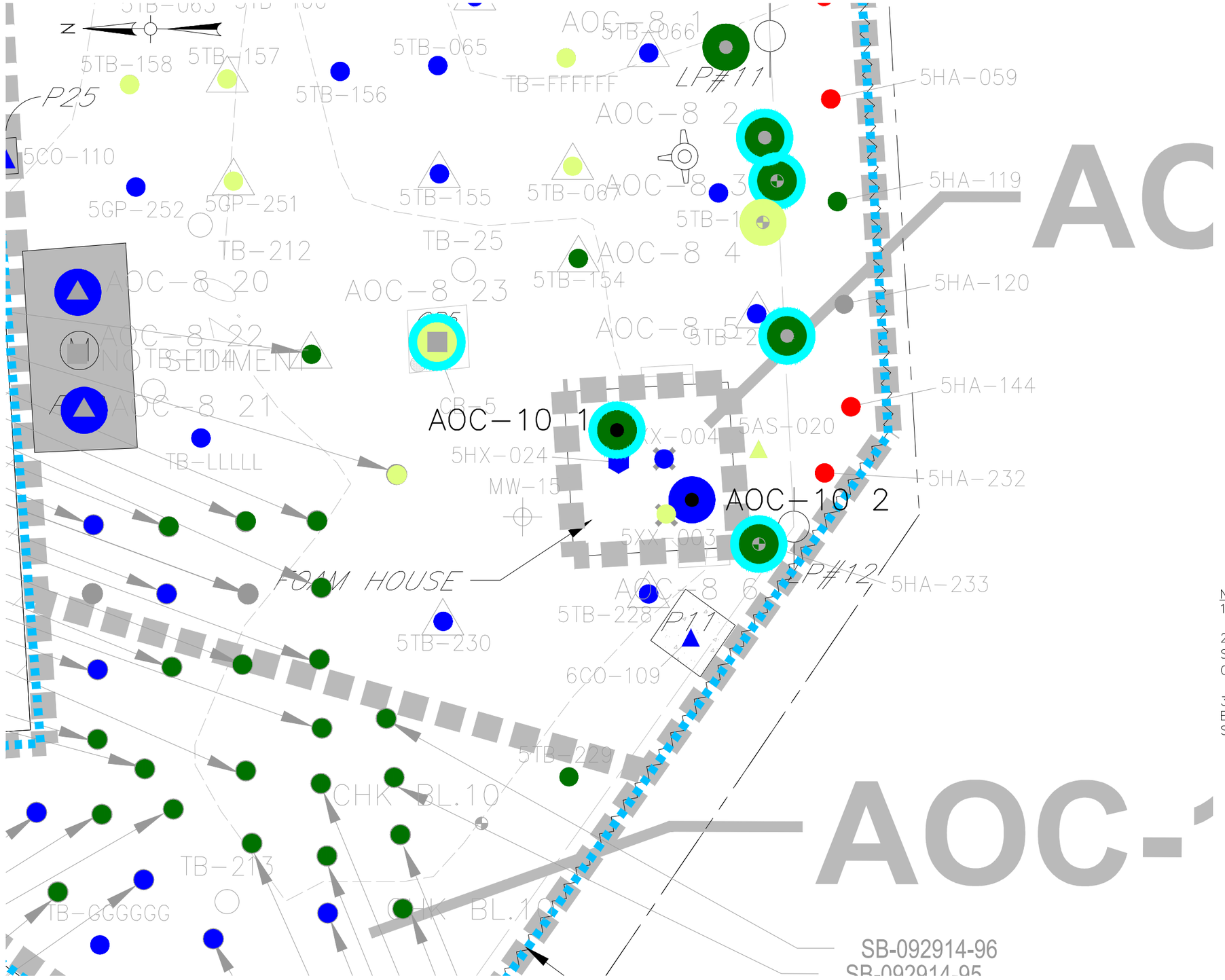

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

10 5 0 10 20

SCALE: 1"=10'

FIGURE 9A-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-10
2017 SAMPLE LOCATIONS: 0-2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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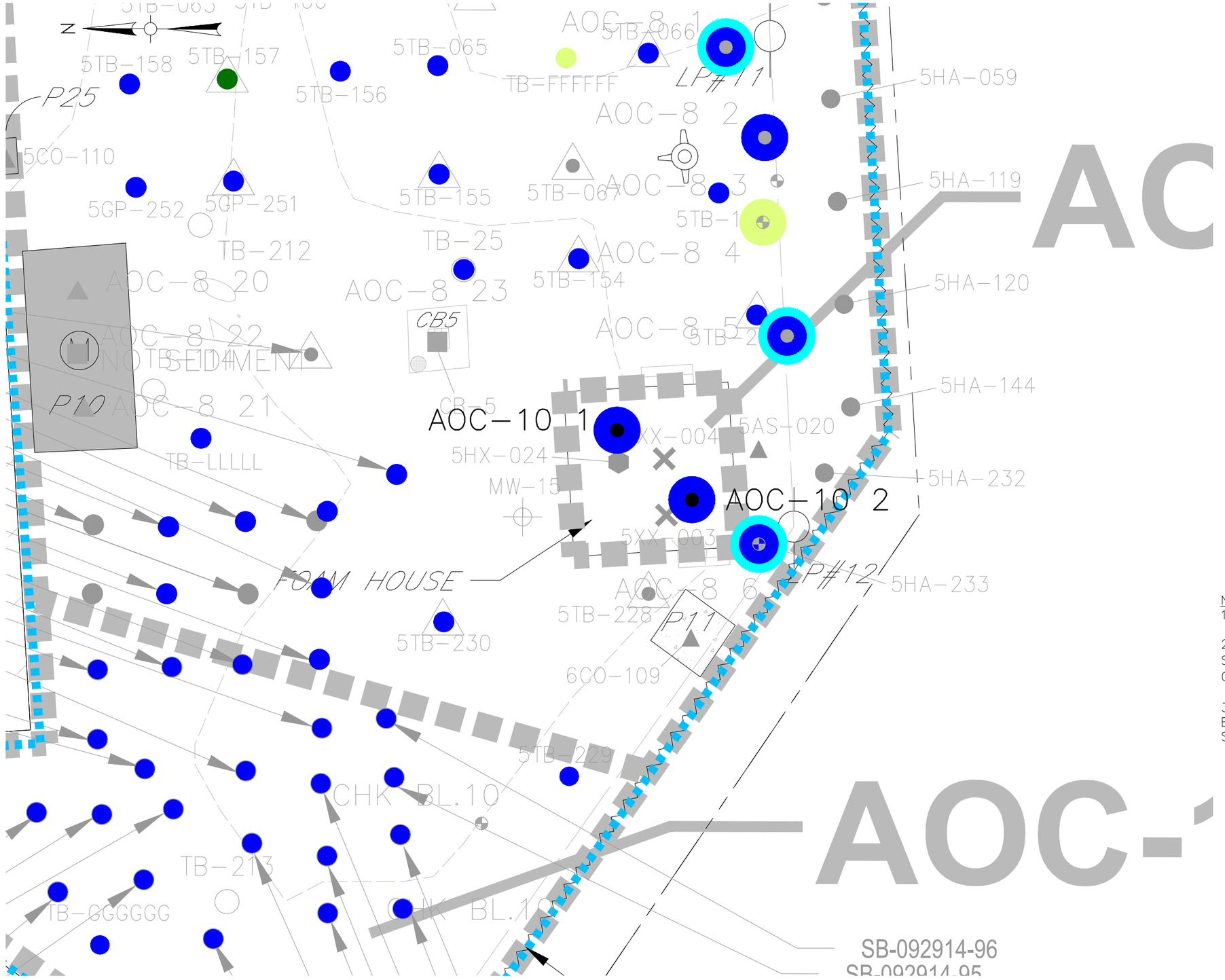

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.

2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.

3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

10 5 0 10 20

SCALE: 1"=10'

FIGURE 9A-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-10
2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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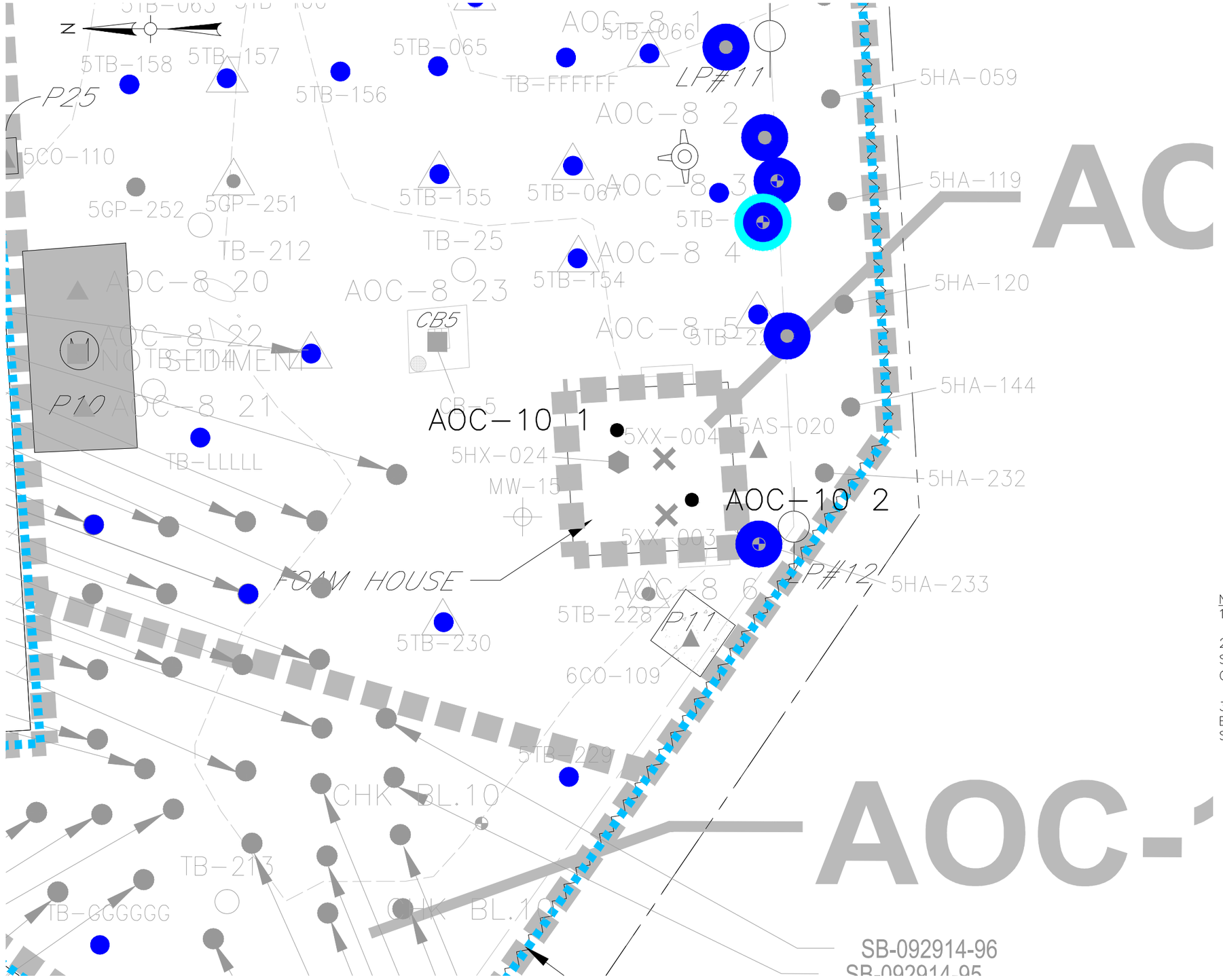

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

10 5 0 10 20

SCALE: 1"=10'

FIGURE 9A-3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-10
2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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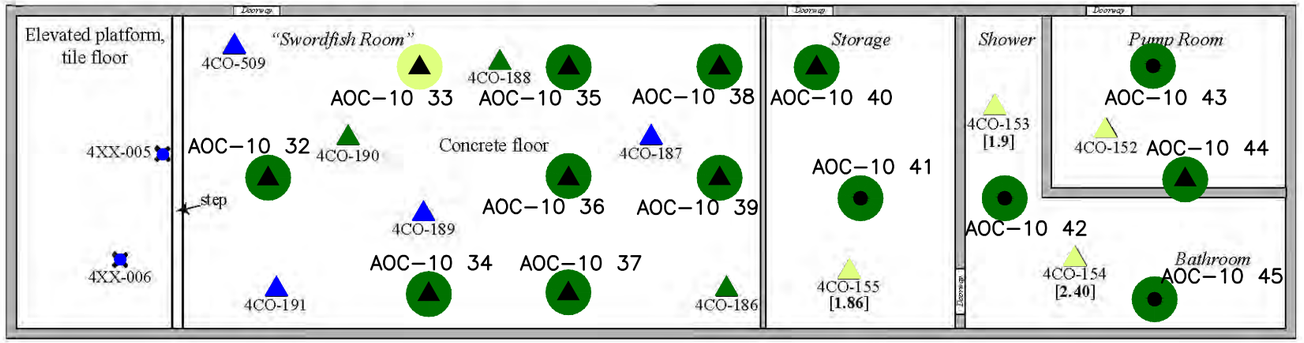
PCB AREA 4.4 – ASSEMBLY HALL



SOURCE:
Figure A4.4: PCB Area 4.4: Concrete and Miscellaneous Sample Points.
Project: AEI-00T-030e
Location: English Station
Grand Avenue, New Haven, Connecticut
Date: February 2005
By Advanced Environmental Interface, Inc.

10 5 0 10 20
SCALE: 1"=10'

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON–DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.

2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.

3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

FIGURE 9B-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC–10 (PCB AREA 4.4)
2017 SAMPLE LOCATIONS: 0–2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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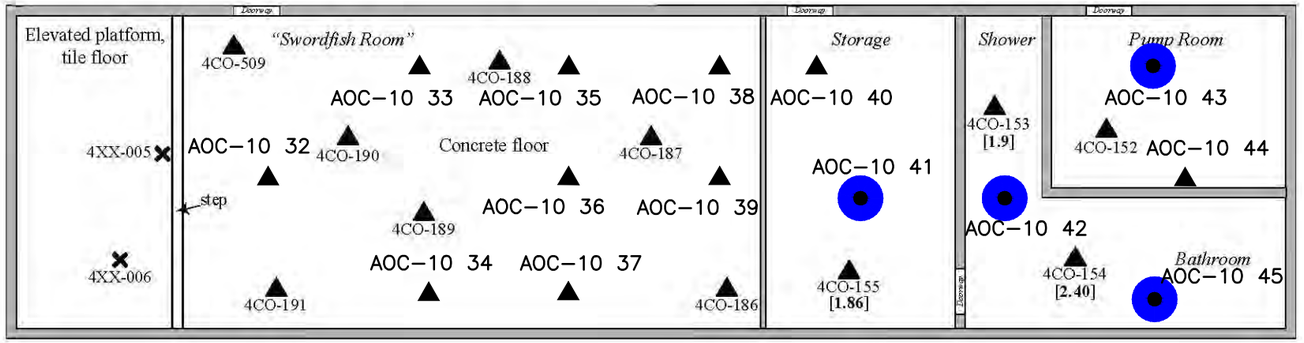
PCB AREA 4.4 – ASSEMBLY HALL



SOURCE:
Figure A4.4: PCB Area 4.4: Concrete and Miscellaneous Sample Points.
Project: AEI-00T-030e
Location: English Station
Grand Avenue, New Haven, Connecticut
Date: February 2005
By Advanced Environmental Interface, Inc.

10 5 0 10 20
SCALE: 1"=10'

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON–DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.

2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.

3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

FIGURE 9B–2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC–10 (PCB AREA 4.4)
2017 SAMPLE LOCATIONS: 2–4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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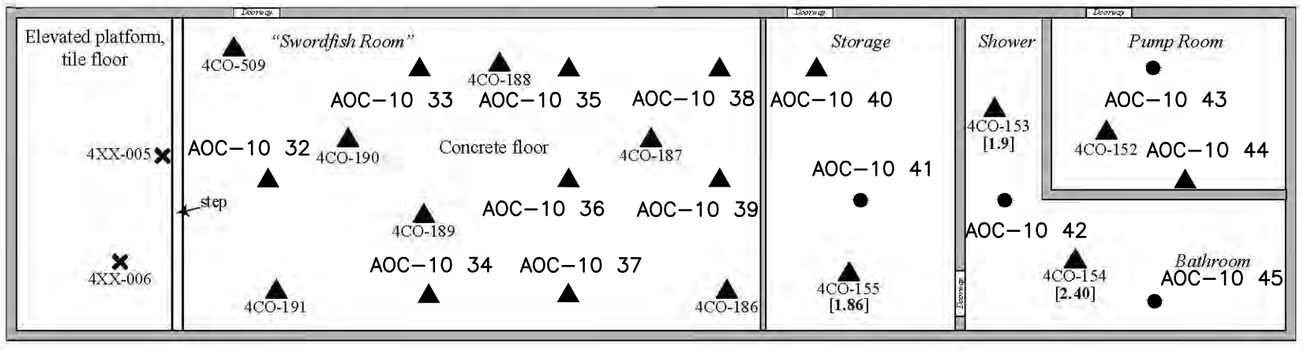
PCB AREA 4.4 – ASSEMBLY HALL



LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON–DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.

2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.

3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

SOURCE:
Figure A4.4: PCB Area 4.4: Concrete and Miscellaneous Sample Points.
Project: AEI-00T-030e
Location: English Station
Grand Avenue, New Haven, Connecticut
Date: February 2005
By Advanced Environmental Interface, Inc.

10 5 0 10 20
SCALE: 1"=10'

FIGURE 9B-3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-10 (PCB AREA 4.4)
2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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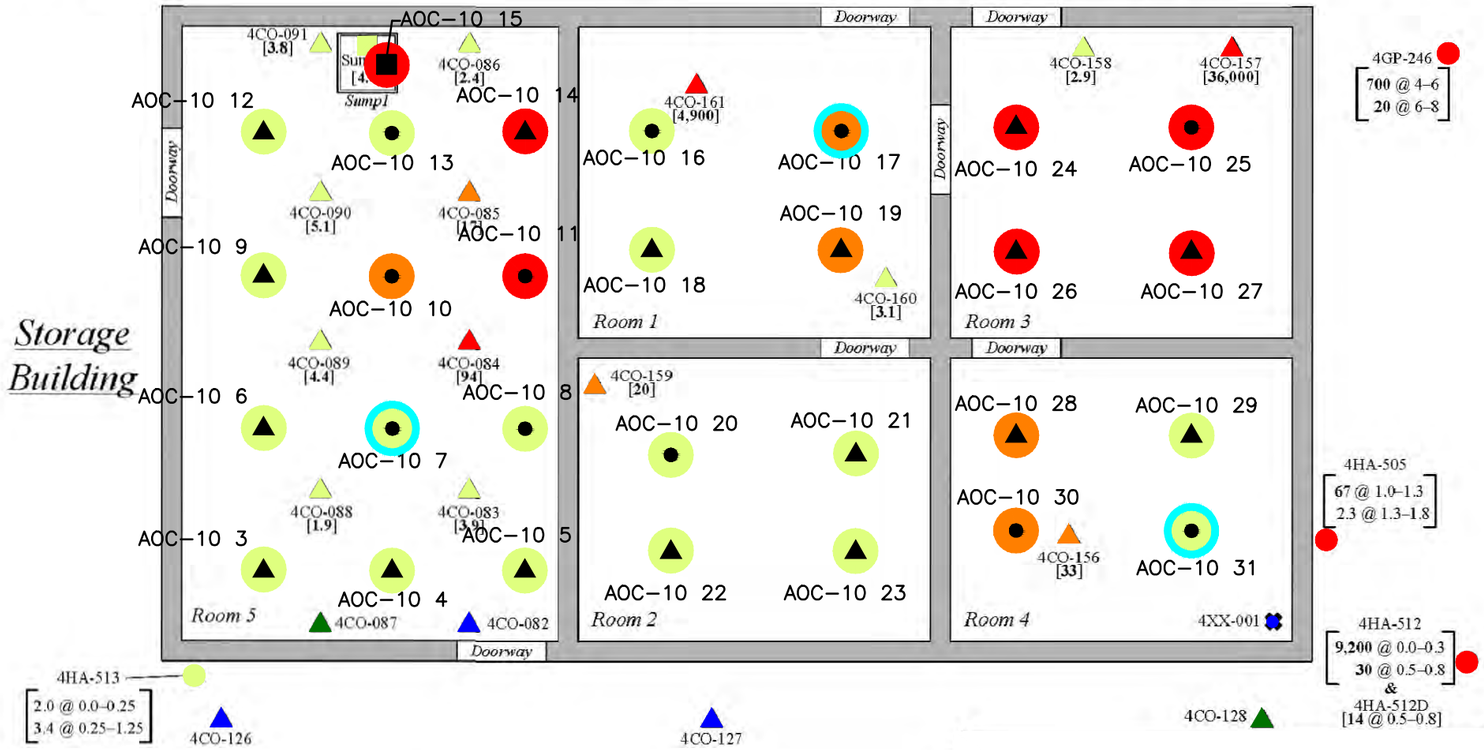
PCB AREA 4.2 – STORAGE ROOM



SOURCE:
Figure A4.2: PCB Area 4.2: Concrete, Miscellaneous Sediment and Soil Sample Points.
Project: AEI-00T-030e
Location: English Station
Grand Avenue, New Haven, Connecticut
Date: February 2005
By Advanced Environmental Interface, Inc.

5 2.5 0 5 10

SCALE: 1"=5'

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON–DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.

2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.

3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

FIGURE 9C-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-10 (PCB AREA 4.2)
2017 SAMPLE LOCATIONS: 0–2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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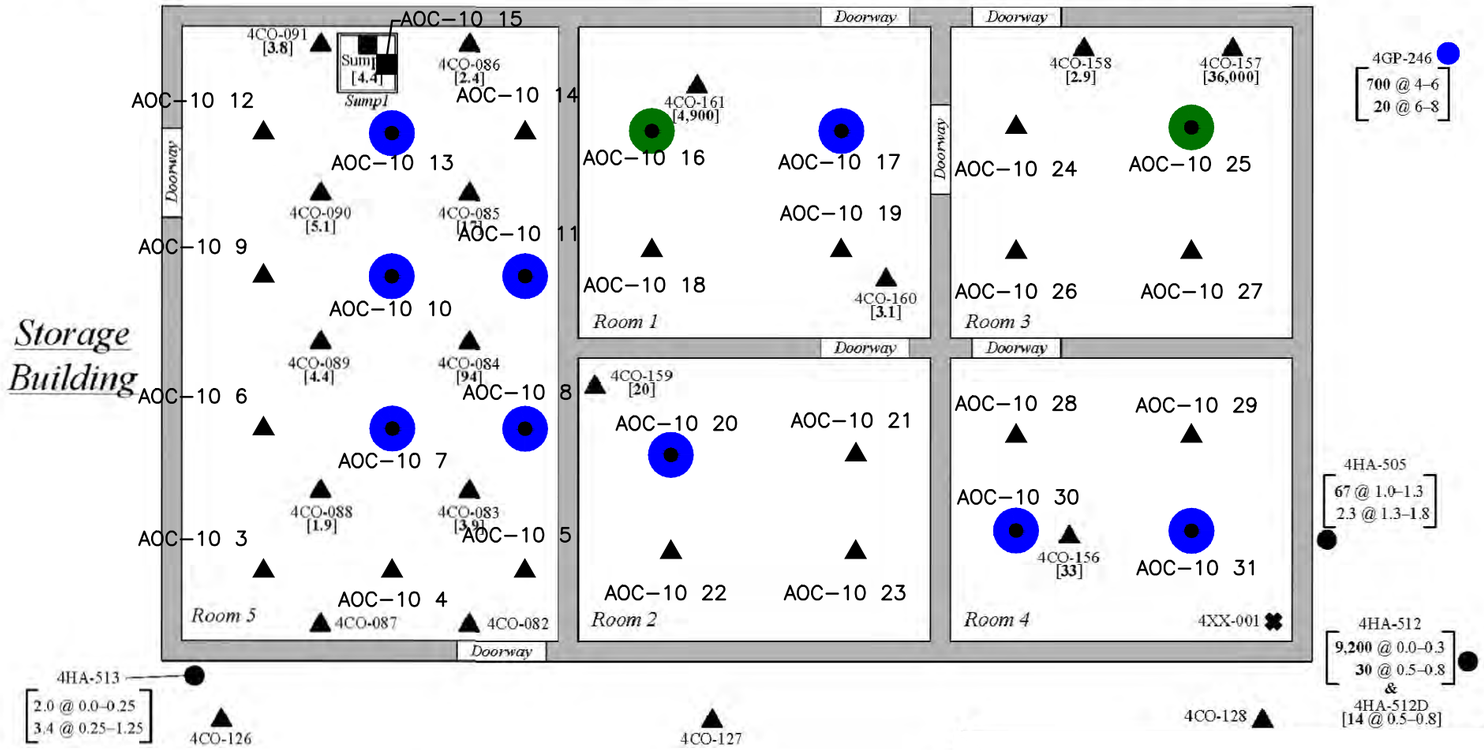
PCB AREA 4.2 – STORAGE ROOM



SOURCE:
Figure A4.2: PCB Area 4.2: Concrete, Miscellaneous Sediment and Soil Sample Points.
Project: AEI-00T-030e
Location: English Station
Grand Avenue, New Haven, Connecticut
Date: February 2005
By Advanced Environmental Interface, Inc.

5 2.5 0 5 10

SCALE: 1"=5'

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON–DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.

2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.

3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

FIGURE 9C–2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC–10 (PCB AREA 4.2)
2017 SAMPLE LOCATIONS: 2–4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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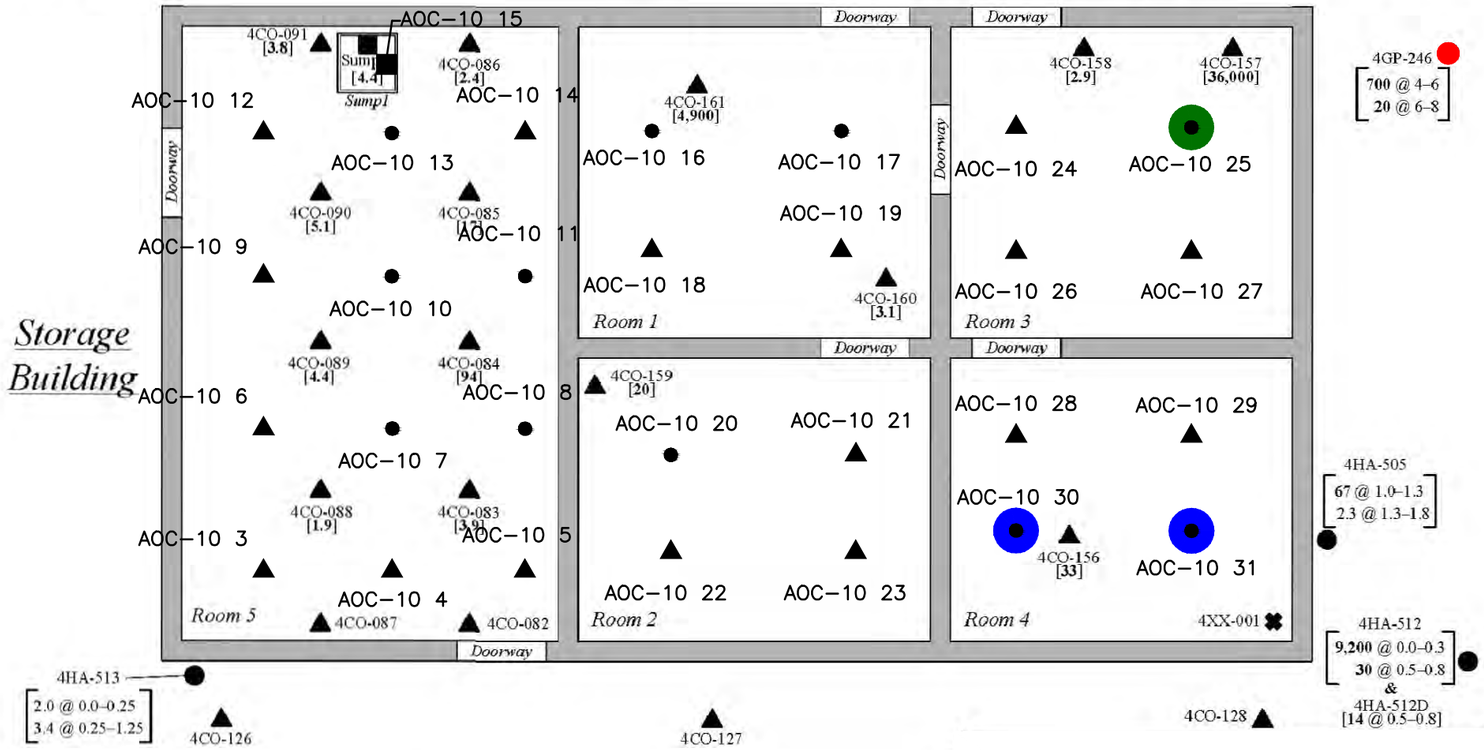
PCB AREA 4.2 – STORAGE ROOM



SOURCE:
Figure A4.2: PCB Area 4.2: Concrete, Miscellaneous Sediment and Soil Sample Points.
Project: AEI-00T-030e
Location: English Station
Grand Avenue, New Haven, Connecticut
Date: February 2005
By Advanced Environmental Interface, Inc.

5 2.5 0 5 10

SCALE: 1"=5'

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON–DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.

2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.

3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

FIGURE 9C–3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC–10 (PCB AREA 4.2)
2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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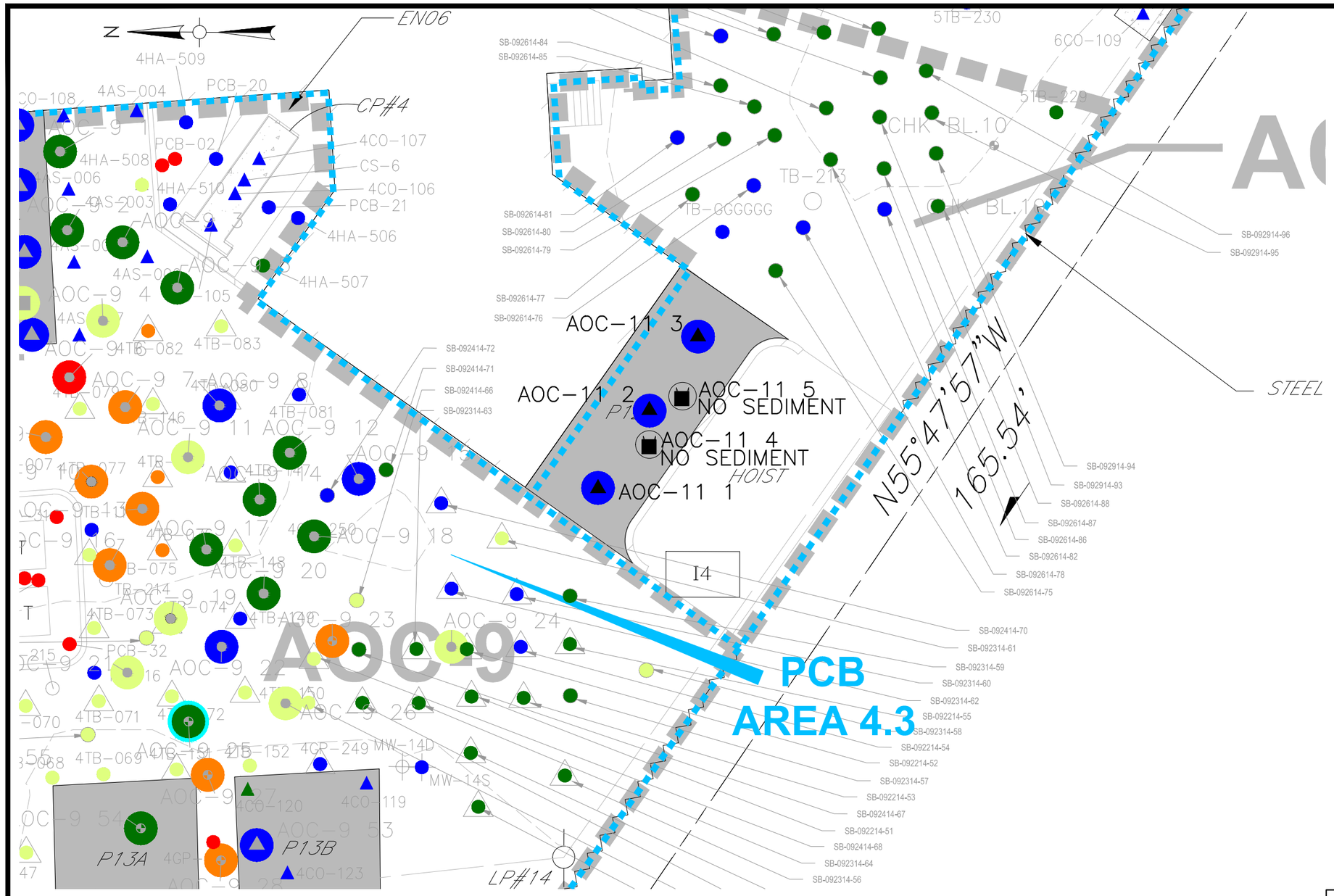

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.

2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.

3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 10-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-11
2017 SAMPLE LOCATIONS: 0-2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson℠

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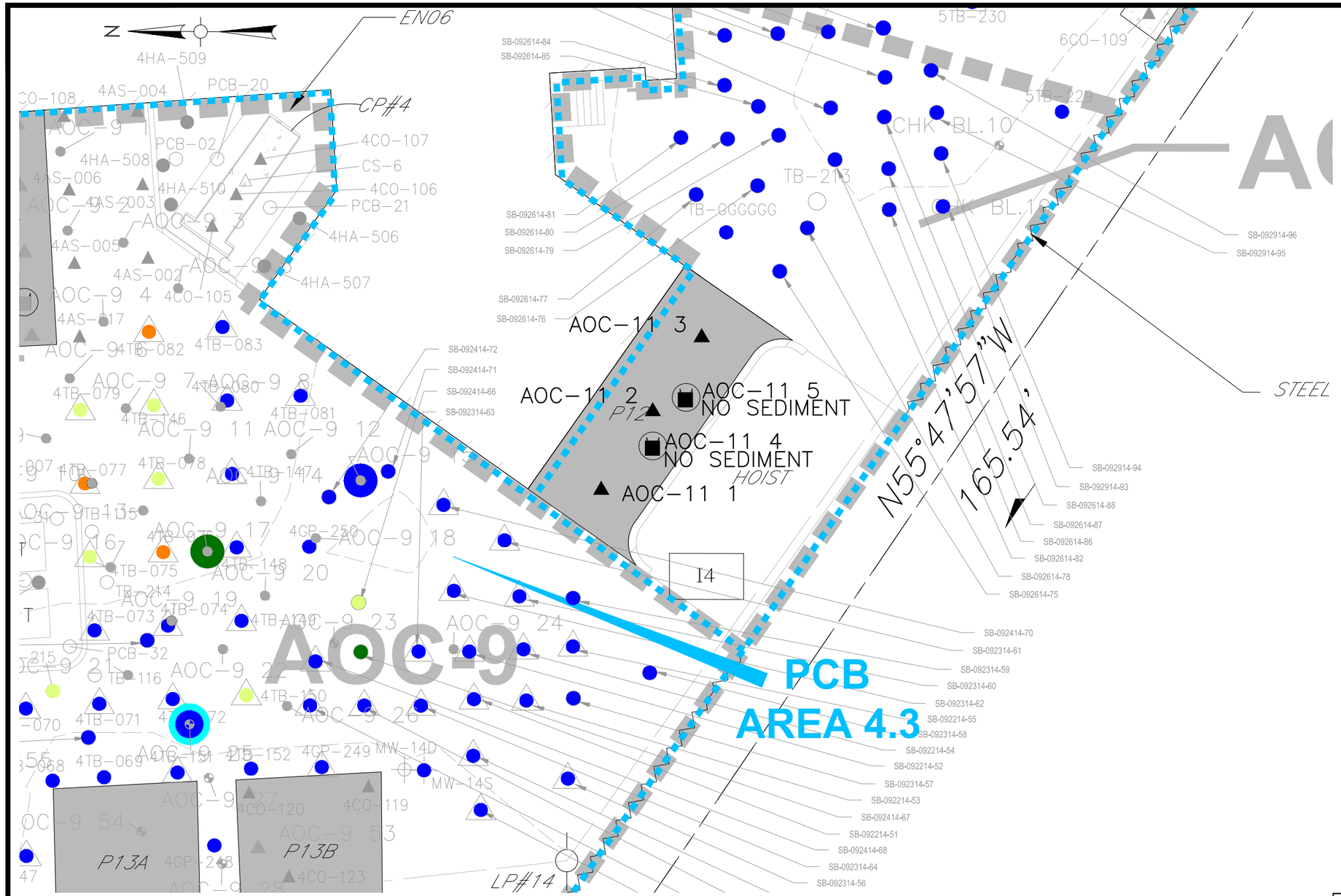

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 10-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-11
2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

Weston & Sampson

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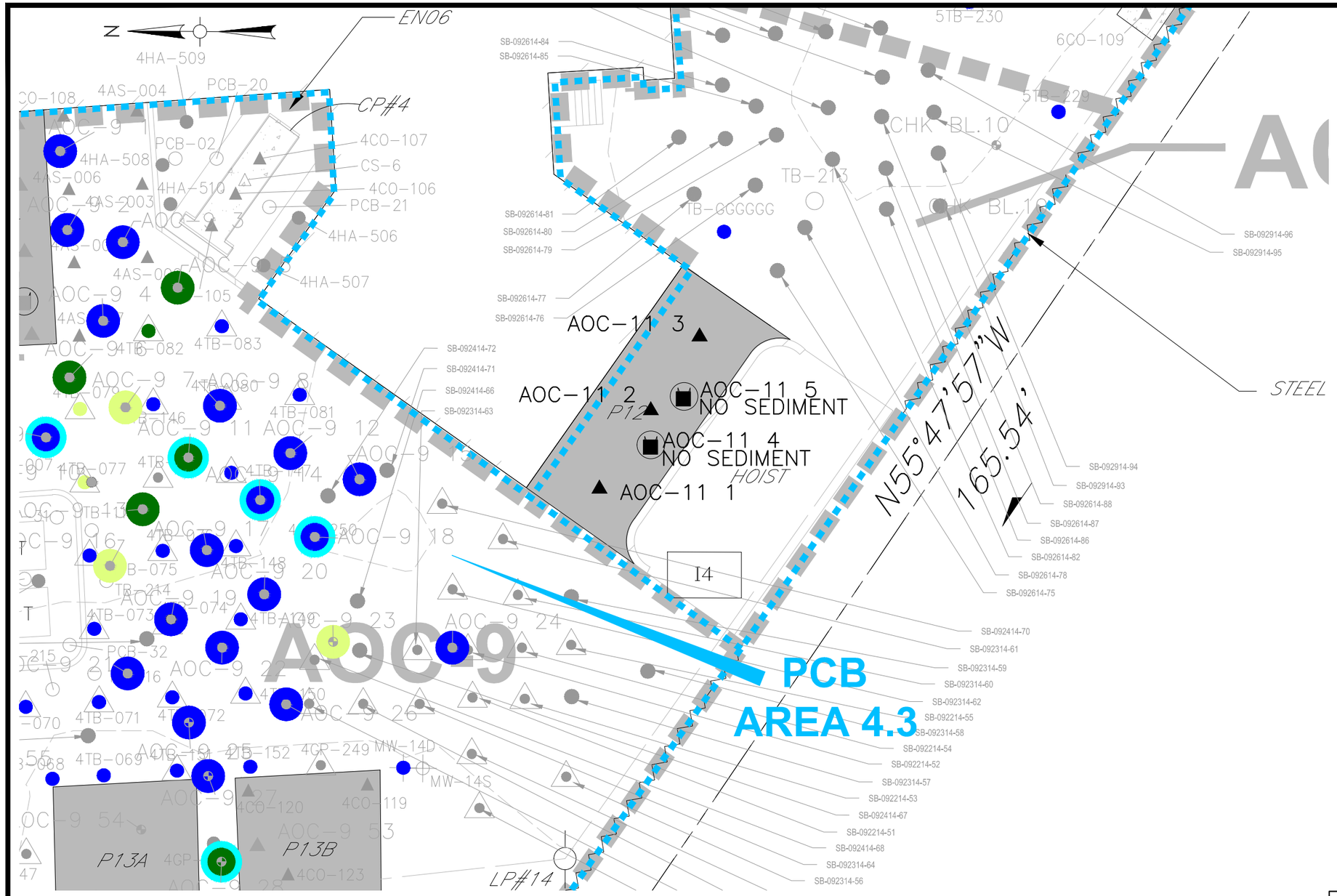

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION

NOTES:

1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.

2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.

3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 10-3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-11
2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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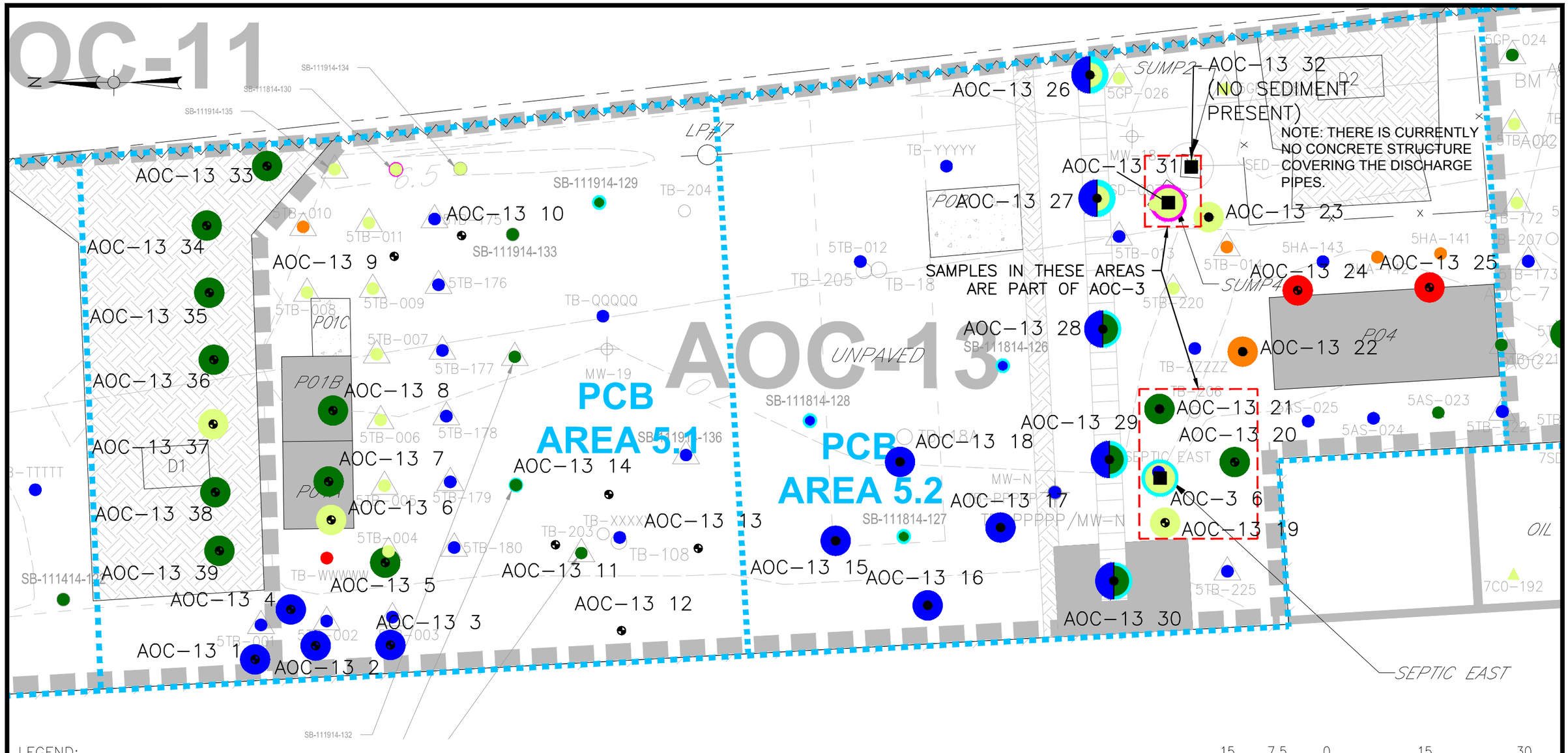

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- W&S 2017 POROUS MEDIA/ SEDIMENT SAMPLE. LEFT SIDE REPRESENTS POROUS MEDIA, RIGHT SIDE REPRESENTS SEDIMENT.

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30
SCALE: 1"=15'

FIGURE 11-1

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-13 (PCB AREAS 5.1 & 5.2)
2017 SAMPLE LOCATIONS: 0-2 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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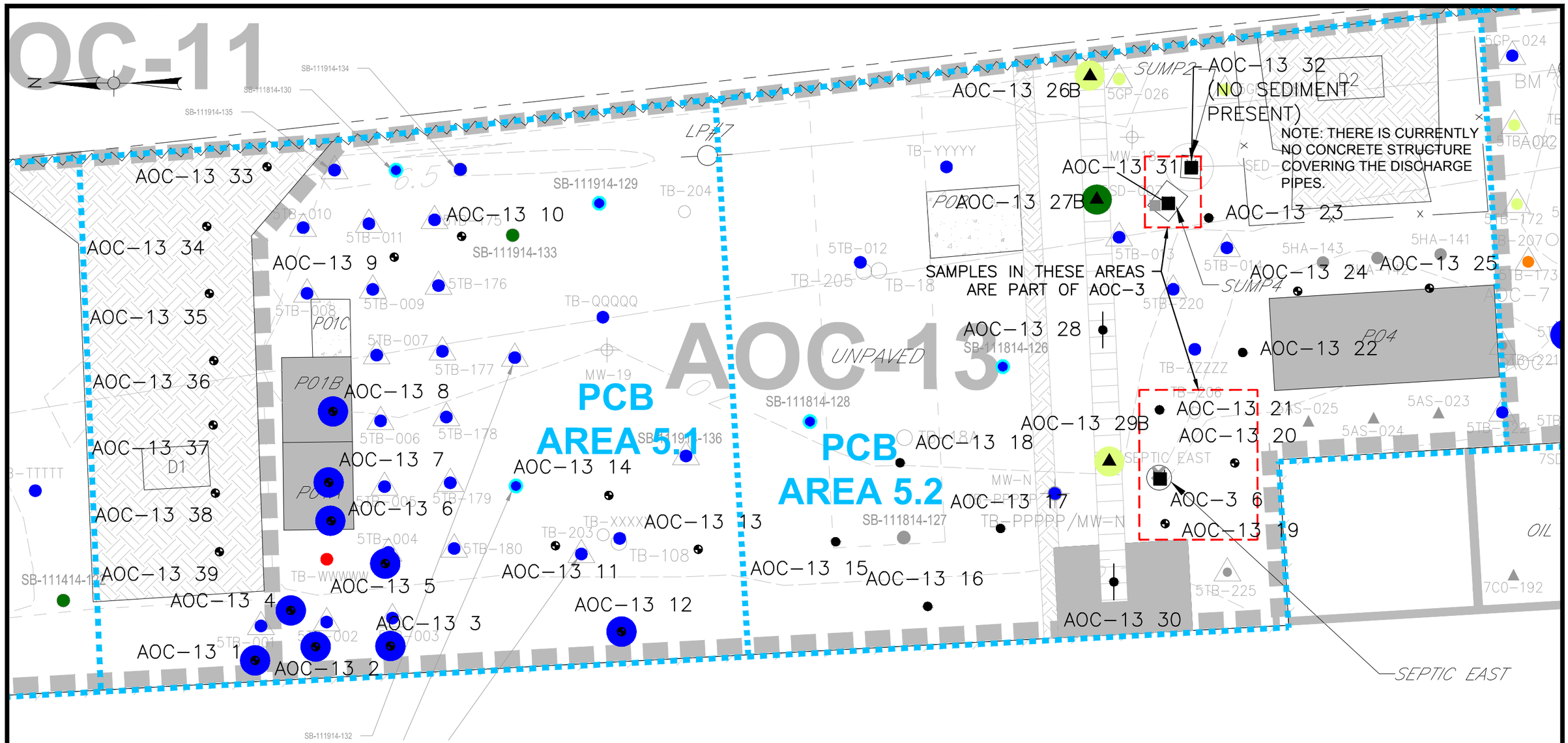

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- W&S 2017 POROUS MEDIA/ SEDIMENT SAMPLE. LEFT SIDE REPRESENTS POROUS MEDIA, RIGHT SIDE REPRESENTS SEDIMENT.

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30
SCALE: 1"=15'

FIGURE 11-2

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-13 (PCB AREAS 5.1 & 5.2)
2017 SAMPLE LOCATIONS: 2-4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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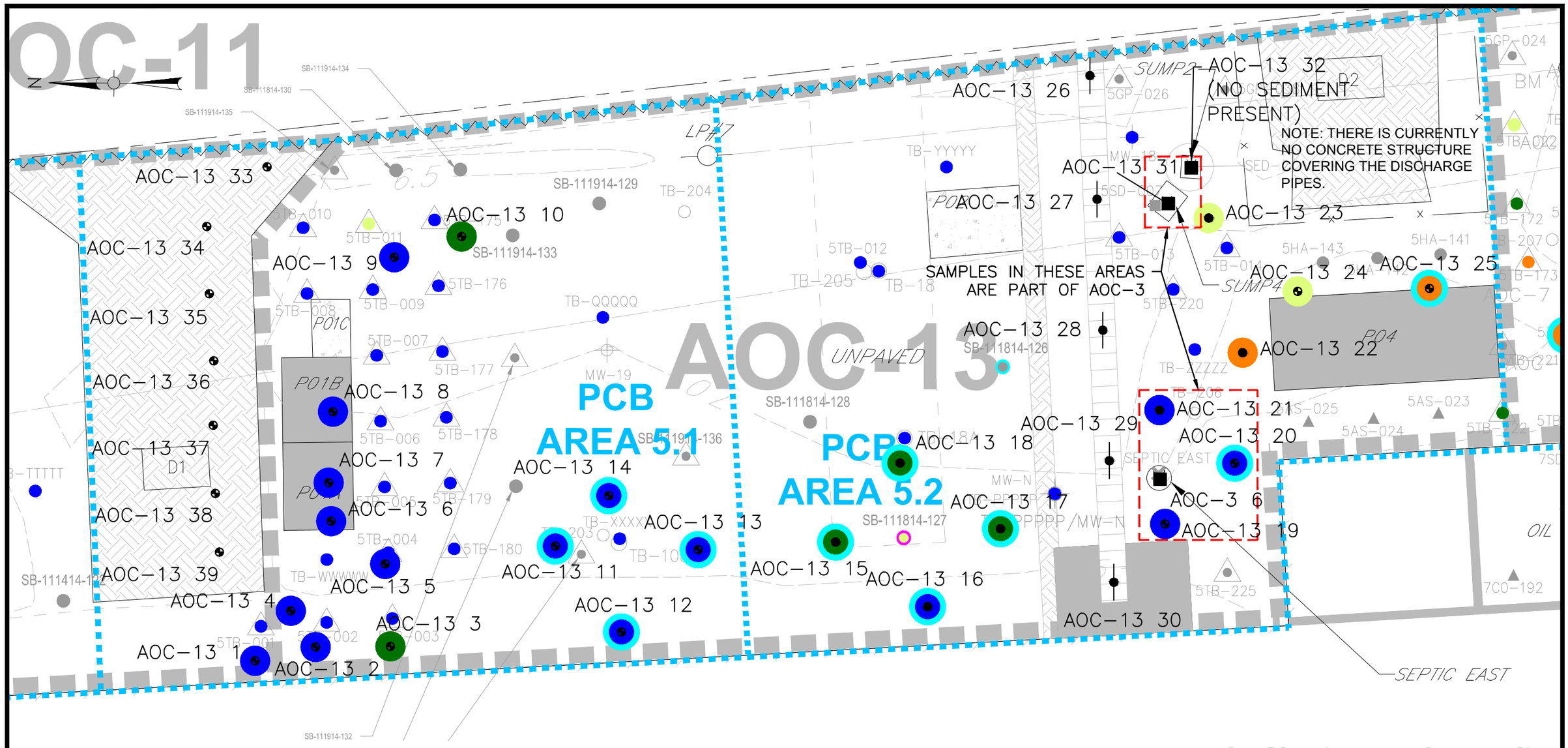

LEGEND:

- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- W&S 2017 POROUS MEDIA/ SEDIMENT SAMPLE. LEFT SIDE REPRESENTS POROUS MEDIA, RIGHT SIDE REPRESENTS SEDIMENT.

NOTES:
1. SEE FIGURE 3 FOR NOTES, LEGEND AND LOCATION.
2. SHADED DATA POINTS REPRESENT HISTORICAL SAMPLE POINTS AND/OR SAMPLE LOCATIONS OUTSIDE OF FIGURE'S AOC.
3. HISTORICAL SAMPLE POINTS WHERE DETECTIONS/ EXCEEDANCES OCCURRED ARE HIGHLIGHTED. NO SAMPLE SYMBOL IS USED.

15 7.5 0 15 30

SCALE: 1"=15'

FIGURE 11-3

UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT

AOC-13 (PCB AREAS 5.1 & 5.2)
2017 SAMPLE LOCATIONS: > 4 FOOT DEPTH

DESIGNED BY: PML	CHECKED BY: MB	DATE: OCTOBER 2017

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AOC-16 & AOC-17
(Building Interior)
PCB AREA 7
(Interior of Main Building)

AOC-11

AOC-13

AOC-7

AOC-8

AOC-9

AOC-10

PCB AREA 6.2

PCB AREA 5.1

PCB AREA 5.2

PCB AREA 5.3

PCB AREA 5.4

PCB AREA 5.5

PCB AREA 5.6

PCB AREA 5.7

PCB AREA 4.1

PCB AREA 4.2

PCB AREA 4.3

PCB AREA 4.4 "SWORDFISH ROOM"

PCB AREA 3.3

SITE AREA = APPROXIMATELY 9 ACRES

AOC-13 32 (NO SEDIMENT PRESENT)

AOC-13 31

AOC-13 27

AOC-13 26

AOC-13 23

AOC-13 24

AOC-13 25

AOC-13 22

AOC-13 28

AOC-13 29

AOC-13 18

AOC-13 17

AOC-13 21

AOC-13 20

AOC-3 6

AOC-13 19

AOC-13 30

SAMPLES IN THESE AREAS ARE PART OF AOC-3

SEPTIC EAST

OIL PUMP ROOM

AOC-7 7

AOC-7 6

AOC-7 8

AOC-7 5

AOC-7 4

AOC-7 2

AOC-7 1

AOC-7 3

AOC-7 14

AOC-7 13

AOC-7 15

AOC-7 9

AOC-7 12

AOC-7 10

AOC-7 11

AOC-7 26

AOC-7 30

AOC-7 29

AOC-7 25 NO SEDIMENT

AOC-7 39

AOC-7 40 NO SEDIMENT

AOC-7 38

AOC-7 27

AOC-7 28

AOC-7 16

AOC-7 19

AOC-7 18

AOC-7 20

AOC-7 17

AOC-7 21

AOC-7 22

AOC-7 36

AOC-7 37

AOC-7 31

AOC-7 33

AOC-7 34

AOC-7 35

AOC-7 32

AOC-7 23

AOC-7 24

AOC-8 7

AOC-8 8

AOC-8 9

AOC-8 10

AOC-8 11

AOC-8 16

AOC-8 17

AOC-8 18

AOC-8 24

AOC-8 25

AOC-8 12

AOC-8 19

AOC-8 14

AOC-8 15

AOC-8 1

AOC-8 2

AOC-8 3

AOC-8 4

AOC-8 5

AOC-8 6

AOC-8 20

AOC-8 22 NO SEDIMENT

AOC-8 21

AOC-8 23

AOC-10 1

AOC-10 2

AOC-11 3

AOC-11 2

AOC-11 5 NO SEDIMENT

AOC-11 4 NO SEDIMENT

AOC-11 1

AOC-9 91 NO SEDIMENT PRESENT, MANHOLE CONTAINS OIL

AOC-9 49

AOC-9 50

AOC-9 51

AOC-9 52

AOC-9 1

AOC-9 2

AOC-9 3

AOC-9 5

AOC-9 4

AOC-9 6

AOC-9 7

AOC-9 8

AOC-9 9

AOC-9 10

AOC-9 11

AOC-9 12

AOC-9 13

AOC-9 14

AOC-9 15

AOC-9 16

AOC-9 17

AOC-9 18

AOC-9 20

AOC-9 19

AOC-9 23

AOC-9 24

AOC-9 21

AOC-9 22

AOC-9 26

AOC-9 25

AOC-9 27

AOC-9 54

AOC-9 53

AOC-9 28

AOC-9 29

AOC-9 31

AOC-9 59

AOC-9 56

AOC-9 30

AOC-9 57

AOC-9 55

AOC-9 58

AOC-9 43

AOC-9 42

AOC-9 34

AOC-9 67

AOC-9 66

AOC-9 40

AOC-9 33

AOC-9 65

AOC-9 37

AOC-9 35

AOC-9 32

AOC-9 41

AOC-9 38

AOC-9 36 NO SEDIMENT

AOC-9 39

AOC-3 7

AOC-3 1

AOC-9 64

AOC-13 2

AOC-9 63

AOC-3 4

AOC-9 90

AOC-9 60

AOC-3 5

AOC-9 62

AOC-9 61

AOC-3 3

AOC-3 8 NO SEDIMENT

AOC-9 89

AOC-9 47

AOC-9 48

AOC-9 46

AOC-9 77

AOC-9 85

AOC-9 76

AOC-9 86 NO SEDIMENT

AOC-9 45

AOC-9 75

AOC-9 74

AOC-9 87

AOC-9 73

AOC-9 72

AOC-9 88

AOC-9 69

AOC-9 71

AOC-9 70

AOC-9 68

AOC-15 8

AOC-15 14

AOC-15 7

AOC-15 6

AOC-15 5

AOC-15 4

AOC-15 3

AOC-15 2

AOC-15 1

AOC-12E 35

AOC-12E 30

AOC-12E 25

AOC-12E 20

AOC-12E 15

AOC-12E 16

AOC-12E 14

AOC-12E 11

AOC-12E 10

AOC-12E 8

AOC-12E 7

AOC-9 83

AOC-9 84

AOC-9 82

AOC-9 81

AOC-9 80

AOC-9 79

AOC-9 78

AOC-13 33

AOC-13 34

AOC-13 35

AOC-13 36

AOC-13 37

AOC-13 38

AOC-13 39

AOC-13 10

AOC-13 9

AOC-13 8

AOC-13 7

AOC-13 6

AOC-13 5

AOC-13 4

AOC-13 3

AOC-13 2

AOC-13 14

AOC-13 13

AOC-13 11

AOC-13 12

AOC-13 15

AOC-13 16

7-B

30-B

EN11

8-B

8-A

38-A

EN10

37-A

EN05

EN06

EN09

EN08

TK01

TK02

P13A

P13B

P14

P15

P25

P05

P04

P01B

P01C

FUEL OIL TANK

FUEL OIL TANK

FUEL OIL TANK

FOUR HOUSE

CABLE HOUSE

CHLORINATION TOWER (REMAINS)

CHLORINATION TOWER

GENERATOR ON RAISED CONCRETE PLATFORM

SEPTIC WEST

SEPTIC EAST

VALVE VAULT

STORAGE & SHOP BUILDING

STEEL BULKHEAD

HOIST

ASPHALT

SUMP1

SUMPS

STORAGE

SHOWER

PUMP ROOM

RM. 1

RM. 2

RM. 3

RM. 4

RM. 5

#7 TANK [ESTIMATED LOCATION]

7XX-008 [ESTIMATED LOCATION]

7PP-007 [ESTIMATED LOCATION]

UNPAVED

LEGEND:

- W&S SEDIMENT/POROUS MEDIA SAMPLE LOCATION. LEFT SIDE REPRESENTS POROUS MEDIA SAMPLE, RIGHT SIDE REPRESENTS SEDIMENT SAMPLE
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- APPROXIMATE LIMIT OF COOLING TUNNEL

20 10 0 20 40

SCALE: 1"=20'

FIGURE 12-1
UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT
SOUTHSIDE SAMPLE LOCATIONS:
0-2 FOOT DEPTH

OCTOBER, 2017 SCALE: 1" = 20'

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273 Dividend Road, Rocky Hill, CT 06067

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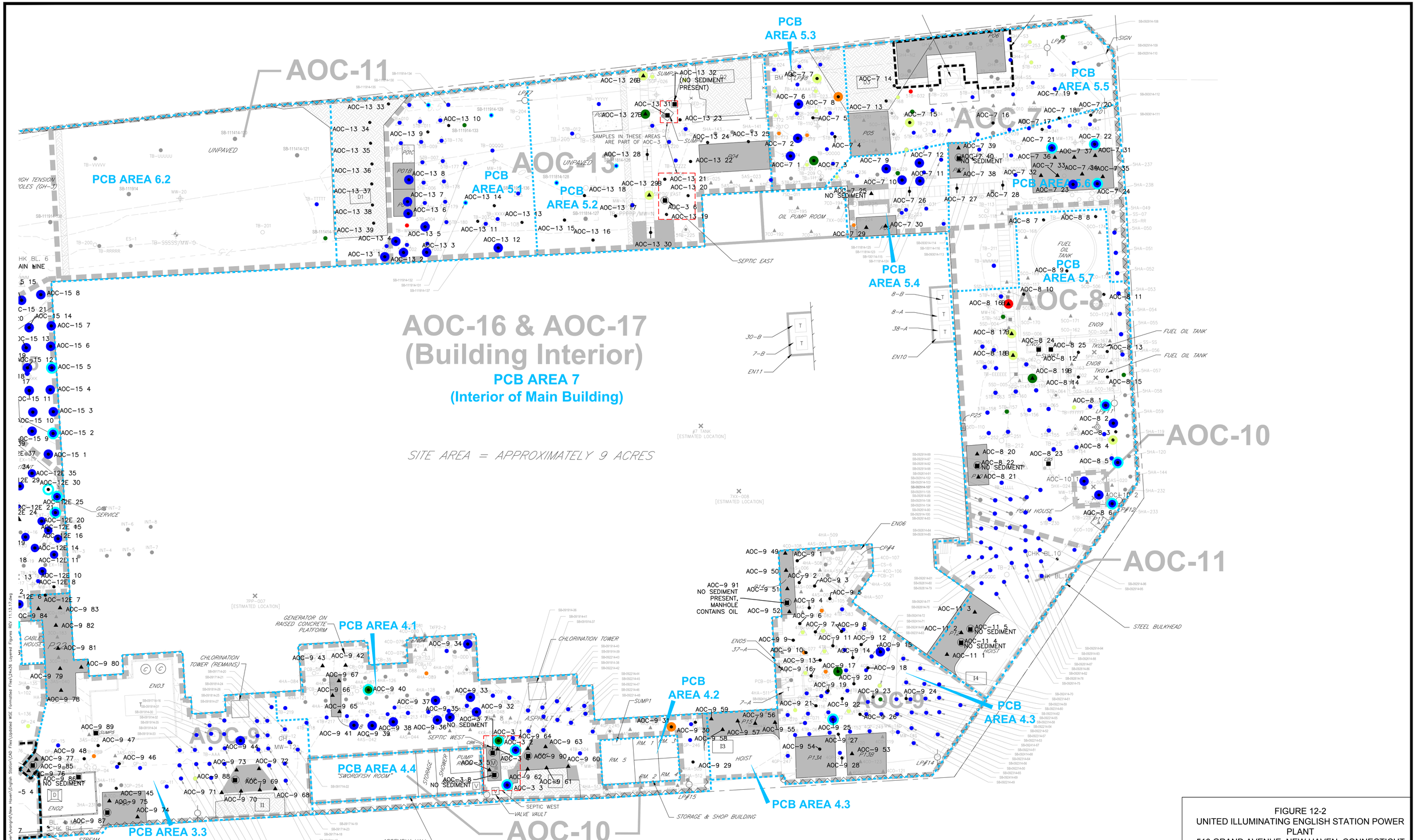

LEGEND:

- W&S SEDIMENT/POROUS MEDIA SAMPLE LOCATION. LEFT SIDE REPRESENTS POROUS MEDIA SAMPLE, RIGHT SIDE REPRESENTS SEDIMENT SAMPLE
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 10.0 MG/KG, BUT < 50.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 50.0 MG/KG
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS < I/C DEC
- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- APPROXIMATE LIMIT OF COOLING TUNNEL

FIGURE 12-2
UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT
SOUTHSIDE SAMPLE LOCATIONS:
2-4 FOOT DEPTH

OCTOBER, 2017 SCALE: 1" = 20'

Weston & Sampson

Weston & Sampson Engineers, Inc.
273 Dividend Road, Rocky Hill, CT 06067

AOC-16 & AOC-17
(Building Interior)
PCB AREA 7
(Interior of Main Building)

SITE AREA = APPROXIMATELY 9 ACRES

AOC-11

AOC-13

AOC-7

AOC-8

AOC-9

AOC-10

PCB AREA 6.2

PCB AREA 5.1

PCB AREA 5.2

PCB AREA 5.3

PCB AREA 5.4

PCB AREA 5.5

PCB AREA 5.6

PCB AREA 5.7

PCB AREA 4.1

PCB AREA 4.2

PCB AREA 4.3

PCB AREA 4.4

PCB AREA 3.3

UNPAVED

SAMPLES IN THESE AREAS ARE PART OF AOC-3

AOC-13 32 (NO SEDIMENT PRESENT)

AOC-7 40 NO SEDIMENT

AOC-7 25 NO SEDIMENT

AOC-8 22 NO SEDIMENT

AOC-9 91 NO SEDIMENT PRESENT, MANHOLE CONTAINS OIL

AOC-11 5 NO SEDIMENT

AOC-11 4 NO SEDIMENT

AOC-9 86 NO SEDIMENT

AOC-3 7 NO SEDIMENT

AOC-3 8 NO SEDIMENT

OIL PUMP ROOM

SEPTIC EAST

SEPTIC WEST

VALVE VAULT

CHLORINATION TOWER (REMAINS)

CHLORINATION TOWER

GENERATOR ON RAISED CONCRETE PLATFORM

STORAGE & SHOP BUILDING

FOAM HOUSE

FUEL OIL TANK

STEEL BULKHEAD

HIGH TENSION POLES (GH-7)

GAS SERVICE

CHK BL 6

RAIN LINE

CHK BL 10

#7 TANK [ESTIMATED LOCATION]

7XX-008 [ESTIMATED LOCATION]

7PP-007 [ESTIMATED LOCATION]

LEGEND:

- W&S SEDIMENT/POROUS MEDIA SAMPLE LOCATION. LEFT SIDE REPRESENTS POROUS MEDIA SAMPLE, RIGHT SIDE REPRESENTS SEDIMENT SAMPLE
- SAMPLE LOCATION WITH NON-DETECT PCB CONCENTRATIONS
- SAMPLE LOCATION WITH PCB CONCENTRATIONS < 1.0 MG/KG
- SAMPLE LOCATION WITH PCB CONCENTRATIONS ≥ 1.0 MG/KG, BUT < 10.0 MG/KG
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- SAMPLE LOCATION WITH TPH/ETPH CONCENTRATIONS > I/C DEC
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- SEDIMENT SAMPLE LOCATION
- POROUS MEDIA SAMPLE LOCATION
- W&S 2017 BORING/SOIL SAMPLE LOCATION
- W&S 2017 BORING/SOIL AND POROUS MEDIA SAMPLE LOCATION
- APPROXIMATE LIMIT OF HISTORICAL EXCAVATION
- APPROXIMATE LIMIT OF COOLING TUNNEL

20 10 0 20 40
SCALE: 1"=20'

FIGURE 12-3
UNITED ILLUMINATING ENGLISH STATION POWER PLANT
510 GRAND AVENUE, NEW HAVEN, CONNECTICUT
SOUTHSIDE SAMPLE LOCATIONS:
> 4 FOOT DEPTH

OCTOBER, 2017 SCALE: 1" = 20'

Weston & Sampson

Weston & Sampson Engineers, Inc.
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TABLES

Table 1
AOC-3 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC3-SO-1-1	WS-AOC3-SO-1-2	WS-AOC3-SO-1-3	WS-AOC3-SO-2-1	WS-AOC3-SO-2-2	WS-AOC3-SO-2-3	WS-AOC3-SO-2-4	WS-AOC3-SO-3-1
SAMPLE DEPTH (ft bgs)			(0-0.5')	(2.5'-4.0')	(4.0'-5.0')	(0-0.5')	(3.0'-4.0')	(7.0'-8.0')	(11.0'-12.0')	(0-0.5')
DATE SAMPLED			8/1/17	8/1/17	8/1/17	8/1/17	8/1/17	8/1/17	8/1/17	8/1/17
WORK ORDER NO.			17H0058	17H0058	17H0058	17H0058	17H0058	17H0058	17H0058	17H0059
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]								
PARAMETER (Units)[2]										
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)										
PCB-1254	10	--	<0.10	<0.12	<0.11	<0.10	<0.11	<0.17	<0.18	<0.11
PCB-1260	10	--	**0.36**	**0.15**	<0.11	**0.24**	<0.11	<0.17	<0.18	**0.22**
Total PCBs	10	--	**0.36**	**0.15**	<0.11	**0.24**	<0.11	<0.17	<0.18	**0.22**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)										
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)										
Carbon Disulfide*	1,000	8.0	NA	<0.0051	<0.0036	NA	<0.0043	**0.0098**	<0.0075	NA
Chloroethane*	1000	1.5	NA	<0.017	<0.012	NA	<0.014	<0.025	<0.025	NA
1,4-Dichlorobenzene	240	15	NA	<0.0017	<0.0012	NA	<0.0014	<0.0025	<0.0025	NA
1,1-Dichloroethane	1,000	14	NA	<0.0017	<0.0012	NA	<0.0014	<0.0025	<0.0025	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)										
Acenaphthene*	2,500	84	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Acenaphthylene	2,500	84	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Anthracene*	2,500	400	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Benzo(a)anthracene	7.8	1	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Benzo(a)pyrene	1	1	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Benzo(b)fluoranthene	7.8	1	NA	<0.20	<0.19	NA	**0.22**	<0.30	<0.30	NA
Benzo(g,h,i)perylene*	78	1	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Benzo(k)fluoranthene	78	1	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Chrysene*	780	1	NA	<0.20	<0.19	NA	**0.18**	<0.30	<0.30	NA
Dibenz(a,h)anthracene*	1	1	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Fluoranthene	2,500	56	NA	<0.20	<0.19	NA	**0.28**	<0.30	<0.30	NA
Fluorene	2,500	56	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
2-Methylnaphthalene*	1,000	5.6	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Naphthalene	2,500	56	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Phenanthrene	2,500	40	NA	<0.20	<0.19	NA	<0.18	<0.30	<0.30	NA
Pyrene	2,500	40	NA	<0.20	<0.19	NA	**0.31**	<0.30	<0.30	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)										
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**120**	**14**	NA	**11**	**40**	**37**	NA
Total Metals by EPA method 6010B (mg/kg)										
Antimony	8,200	NE	NA	<2.9	<2.6	NA	<2.5	<4.4	<4.3	NA
Arsenic	10	NE	NA	<2.9	<2.6	NA	<2.5	**6.6**	**7.9**	NA
Barium	140,000	NE	NA	**45**	**48**	NA	**35**	**48**	**43**	NA
Beryllium	2	NE	NA	<0.29	<0.26	NA	**0.32**	**0.93**	**0.85**	NA
Cadmium	1,000	NE	NA	**0.29**	<0.26	NA	**0.46**	**0.49**	<0.43	NA
Chromium	NE	NE	NA	**13**	**16**	NA	**8.2**	**38**	**36**	NA
Copper	76,000	NE	NA	**69**	**110**	NA	**42**	**17**	**16**	NA
Lead	1,000	NE	NA	**15**	**8.9**	NA	**24**	**9.7**	**10**	NA
Mercury	610	NE	NA	<0.030	**0.030**	NA	**0.060**	**0.047**	**0.044**	NA
Nickel	7,500	NE	NA	**15**	**20**	NA	**9.6**	**19**	**19**	NA
Selenium	10,000	NE	NA	<5.7	<5.3	NA	<5.1	<8.7	<8.6	NA
Silver	10,000	NE	NA	<0.057	<0.53	NA	<0.51	<0.87	<0.86	NA
Thallium	160	NE	NA	<2.9	<2.6	NA	<2.5	<4.4	<4.3	NA
Vanadium	14,000	NE	NA	**34**	**48**	NA	**31**	**42**	**41**	NA
Zinc	610,000	NE	NA	**150**	**54**	NA	**42**	**68**	**65**	NA
SPLP Total Metals by EPA method 6010B (µg/l)										
Beryllium	--	40	NA	NA	NA	NA	NA	<2.0	<2.0	NA
Chromium	--	500	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA
Lead	--	150	NA	<5.0	<5.0	NA	<5.0	<5.0	<5.0	NA
Nickel	--	1000	NA	NA	<25	NA	NA	NA	NA	NA
Vanadium	--	500	NA	<25	<25	NA	**27**	<25	<25	NA
Total Solids (%)	--	--	**97.1**	**84.3**	**91.2**	**96.5**	**95.0**	**57.6**	**57.0**	**91.9**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).

2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.

3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable

EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 1
AOC-3 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC3-SO-3-2	WS-AOC3-SO-DUP-40	WS-AOC3-SO-3-3	WS-AOC3-SO-3-4	WS-AOC3-CO-4	WS-AOC3-CO-5	WS-AOC3-SE-6	WS-AOC13-SO-19-1
SAMPLE DEPTH (ft bgs)			(3.0'-4.0')	(3.0'-4.0')	(7.0'-8.0')	(11.0'-12.0')	(0-0.5")	(0-0.5")		(0-0.5')
DATE SAMPLED			8/1/17	8/1/17	8/1/17	8/1/17	8/23/17	8/23/17	8/29/17	7/27/17
WORK ORDER NO.			17H0059	17H0064	17H0059	17H0059	17H1283	17H1283	17H1544	17G1252
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]	PARENT	DUPLICATE						
PARAMETER (Units)[2]										
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)										
PCB-1254	10	--	<0.12	<0.10	<0.11	<0.13	<0.10	<0.10	<1.4	<0.10
PCB-1260	10	--	<0.12	<0.10	<0.11	<0.13	<0.10	<0.10	**7.5**	**0.18**
Total PCBs	10	--	<0.12	<0.10	<0.11	<0.13	<0.10	<0.10	**7.5**	**0.18**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)										
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)										
Carbon Disulfide*	1,000	8.0	<0.0055	<0.0044	<0.0039	NA	NA	NA	<0.35	NA
Chloroethane*	1000	1.5	<0.018	<0.015	<0.013	NA	NA	NA	**0.31**	NA
1,4-Dichlorobenzene	240	15	<0.0018	<0.0015	<0.0013	NA	NA	NA	**6.0**	NA
1,1-Dichloroethane	1,000	14	<0.0018	<0.0015	<0.0013	NA	NA	NA	**0.15**	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)										
Acenaphthene*	2,500	84	<0.21	<0.17	<0.19	<0.22	NA	NA	<1.2	NA
Acenaphthylene	2,500	84	<0.21	<0.17	<0.19	<0.22	NA	NA	<1.2	NA
Anthracene*	2,500	400	<0.21	<0.17	<0.19	<0.22	NA	NA	<1.2	NA
Benzo(a)anthracene	7.8	1	<0.21	**0.93**	<0.19	<0.22	NA	NA	**2.0**	NA
Benzo(a)pyrene	1	1	<0.21	**0.82**	<0.19	<0.22	NA	NA	**1.6**	NA
Benzo(b)fluoranthene	7.8	1	<0.21	**1.1**	<0.19	<0.22	NA	NA	**2.2**	NA
Benzo(g,h,i)perylene*	78	1	<0.21	**0.59**	<0.19	<0.22	NA	NA	<1.2	NA
Benzo(k)fluoranthene	78	1	<0.21	**0.43**	<0.19	<0.22	NA	NA	<1.2	NA
Chrysene*	780	1	<0.21	**0.97**	<0.19	<0.22	NA	NA	**2.5**	NA
Dibenz(a,h)anthracene*	1	1	<0.21	**0.18**	<0.19	<0.22	NA	NA	<1.2	NA
Fluoranthene	2,500	56	<0.21	**1.3**	<0.19	<0.22	NA	NA	**5.1**	NA
Fluorene	2,500	56	<0.21	<0.17	<0.19	<0.22	NA	NA	<1.2	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	<0.21	**0.57**	<0.19	<0.22	NA	NA	<1.2	NA
2-Methylnaphthalene*	1,000	5.6	<0.21	<0.17	<0.19	<0.22	NA	NA	<1.2	NA
Naphthalene	2,500	56	<0.21	<0.17	<0.19	<0.22	NA	NA	<1.2	NA
Phenanthrene	2,500	40	<0.21	**0.54**	<0.19	<0.22	NA	NA	**2.6**	NA
Pyrene	2,500	40	<0.21	**1.4**	<0.19	<0.22	NA	NA	**5.2**	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)										
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**53**	**34**	<11	<13	NA	NA	**2100**	NA
Total Metals by EPA method 6010B (mg/kg)										
Antimony	8,200	NE	<2.9	<2.5	<2.7	<3.1	NA	NA	**9.9**	NA
Arsenic	10	NE	<2.9	<2.5	<2.7	<3.1	NA	NA	**8.8**	NA
Barium	140,000	NE	**41**	**36**	**20**	**28**	NA	NA	**98**	NA
Beryllium	2	NE	**0.48**	**0.34**	<0.27	<0.31	NA	NA	<0.44	NA
Cadmium	1,000	NE	<0.29	<0.25	<0.27	<0.31	NA	NA	**4.6**	NA
Chromium	NE	NE	**9.2**	**8.1**	**4.7**	**6.2**	NA	NA	**33**	NA
Copper	76,000	NE	**50**	**36**	**6.4**	**8.4**	NA	NA	**530**	NA
Lead	1,000	NE	**82**	**27**	**12**	**11**	NA	NA	**190**	NA
Mercury	610	NE	**0.048**	**0.048**	**0.036**	**0.048**	NA	NA	**0.52**	NA
Nickel	7,500	NE	**11**	**11**	**3.2**	**4.6**	NA	NA	**47**	NA
Selenium	10,000	NE	<5.8	<4.9	<5.4	<6.3	NA	NA	<8.8	NA
Silver	10,000	NE	<0.58	<0.49	<0.54	<0.63	NA	NA	<0.88	NA
Thallium	160	NE	<2.9	<2.5	<2.7	<3.1	NA	NA	<4.4	NA
Vanadium	14,000	NE	**19**	**16**	**12**	**16**	NA	NA	**160**	NA
Zinc	610,000	NE	**63**	**83**	**17**	**23**	NA	NA	**610**	NA
SPLP Total Metals by EPA method 6010B (µg/l)										
Beryllium	--	40	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	--	500	NA	NA	<5.0	NA	NA	NA	NA	NA
Lead	--	150	**250**	**250**	<5.0	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	<25	<25	<25	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**81.3**	**97.6**	**87.2**	**78.3**	NA	NA	**56.0**	**95.8**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).

2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.

3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 1
AOC-3 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-19-2	WS-AOC13-SO-19-2R	WS-AOC13-SO-19-3	WS-AOC13-SO-19-4A	WS-AOC13-SO-19-4B	WS-AOC13-SO-20-1	WS-AOC13-SO-20-2	WS-AOC13-SO-20-3
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(0.5'-1.0')	(1.5'-2.0')	(5.0'-5.5')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(1.5'-2.0')
DATE SAMPLED			7/27/17	9/13/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17
WORK ORDER NO.			17G1253	17I0542	17G1253	17G1253	17G1253	17G1252	17G1252	17G1252
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]								
PARAMETER (Units)[2]										
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)										
PCB-1254	10	--	<0.11	<0.084	<0.11	<0.13	NA	<0.10	<0.11	<0.11
PCB-1260	10	--	**1.1**	**0.61**	**0.63**	<0.13	NA	**0.12**	<0.11	<0.11
Total PCBs	10	--	**1.1**	**0.61**	**0.63**	<0.13	NA	**0.12**	<0.11	<0.11
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)										
PCB-1254	--	5	NA	<0.20	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	**0.34**	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	**0.34**	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)										
Carbon Disulfide*	1,000	8.0	NA	NA	NA	NA	NA	NA	NA	NA
Chloroethane*	1000	1.5	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)										
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)										
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)										
Antimony	8,200	NE	NA	NA	NA	NA	<2.8	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	**37**	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	**36**	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	<0.28	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	**0.63**	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	**22**	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	**200**	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	**280**	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	**0.26**	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	**25**	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	<5.7	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	<0.57	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	<2.8	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	**110**	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	**160**	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)										
Beryllium	--	40	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**93.0**	**92.6**	**92.9**	**74.6**	**82.0**	**94.9**	**92.3**	**91.8**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).

2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.

3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 1
AOC-3 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-20-4A	WS-AOC13-SO-20-4B	WS-AOC13-AS-21	WS-AOC13-SO-21-1A	WS-AOC13-SO-21-1B	WS-AOC13-SO-21-1R	WS-AOC13-SO-21-2	WS-AOC13-SO-21-3	WS-AOC13-SE-31
SAMPLE DEPTH (ft bgs)			(5.0'-5.5')	(5.5'-6.0')	(0-0.5")	(0.5'-1.0')	(1.0'-1.5')	(1.0'-1.5')	(1.5'-2.0')	(5.0'-5.5')	
DATE SAMPLED			7/27/17	7/27/17	8/3/17	7/27/17	7/27/17	9/13/17	7/27/17	7/27/17	8/27/17
WORK ORDER NO.			17G1252	17G1252	17H0199	17G1253	17G1253	17I0542	17G1253	17G1253	17H1544
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.12	NA	<0.98	<0.11	NA	NA	<0.11	<0.12	<1.5
PCB-1260	10	--	<0.12	NA	<0.98	<0.11	NA	NA	**0.46**	<0.12	**9.8**
Total PCBs	10	--	<0.12	NA	<0.98	<0.11	NA	NA	**0.46**	<0.12	**9.8**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
Carbon Disulfide*	1,000	8.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.0065
Chloroethane*	1000	1.5	NA	NA	NA	NA	NA	NA	NA	NA	<0.022
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	<0.0022
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	<0.0022
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	<0.19	<0.19	NA	NA	**3.2**
Acenaphthylene	2,500	84	NA	NA	NA	NA	**0.39**	<0.19	NA	NA	<1.1
Anthracene*	2,500	400	NA	NA	NA	NA	**0.30**	<0.19	NA	NA	**7.7**
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	**1.7**	**0.39**	NA	NA	**42**
Benzo(a)pyrene	1	1	NA	NA	NA	NA	**1.9**	**0.54**	NA	NA	**30**
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	**2.4**	**0.57**	NA	NA	**42**
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	**1.2**	**0.38**	NA	NA	**14**
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	**0.86**	**0.20**	NA	NA	**15**
Chrysene*	780	1	NA	NA	NA	NA	**1.6**	**0.42**	NA	NA	**45**
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	**0.34**	<0.19	NA	NA	**3.8**
Fluoranthene	2,500	56	NA	NA	NA	NA	**3.6**	**0.49**	NA	NA	**120**
Fluorene	2,500	56	NA	NA	NA	NA	<0.19	<0.19	NA	NA	**2.3**
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	**1.3**	**0.35**	NA	NA	**15**
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	<0.19	<0.19	NA	NA	<1.1
Naphthalene	2,500	56	NA	NA	NA	NA	**0.22**	<0.19	NA	NA	<1.1
Phenanthrene	2,500	40	NA	NA	NA	NA	**1.4**	<0.19	NA	NA	**61**
Pyrene	2,500	40	NA	NA	NA	NA	**3.5**	**0.76**	NA	NA	**97**
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	**0.082**	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	**0.14**	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	**0.22**	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	**0.21**	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	**0.10**	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**780**	NA	NA	NA	NA	NA	NA	**3800**
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	**10**
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	**23**
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**330**
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	<0.37
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**2.3**
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	**65**
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**3300**
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**290**
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	**27**
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	**580**
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**31**
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	<0.74
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	<3.7
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**740**
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**1100**
SPLP Total Metals by EPA method 6010B (µg/l)											
Beryllium	--	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**83.9**	**80.9**	NA	**87.3**	**89.5**	**89.5**	**91.2**	**84.1**	**64.7**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).

2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.

3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-AS-1	WS-AOC7-SO-1-1	WS-AOC7-SO-1-2A	WS-AOC7-SO-1-2B	WS-AOC7-SO-1-3	WS-AOC7-AS-2	WS-AOC7-SO-2-1	WS-AOC7-SO-2-2	WS-AOC7-SO-2-3A
SAMPLE DEPTH (ft bgs)			(0-0.5')	(0.5'-1.0')	(2.5'-3.0')	(4.5'-5.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(2.5'-3.0')	(8.0'-8.5')
DATE SAMPLED			8/3/17	7/27/17	7/27/17	7/27/17	7/27/17	8/3/17	7/27/17	7/27/17	7/27/17
WORK ORDER NO.			17H0199	17G1254	17G1254	17G1254	17G1254	17H0198	17G1255	17G1255	17G1255
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.99	<0.11	<0.11	NA	<5.9	<0.50	<0.11	<0.11	**4.6**
PCB-1260	10	--	<0.99	**0.13**	<0.11	NA	**24**	<0.50	<0.11	<0.11	**9.8**
Total PCBs	10	--	<0.99	**0.13**	<0.11	NA	**24**	<0.50	<0.11	<0.11	**14.4**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	**2000**	NA	NA	NA	NA	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**94.0**	**94.3**	**80.3**	**84.6**	NA	**92.7**	**87.8**	**87.6**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
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GB PMC = GB Pollutant Mobility Criteria
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NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-2-3B	WS-AOC7-SO-DUP-29	WS-AOC7-SO-2-3R	WS-AOC7-AS-3	WS-AOC7-SO-3-1	WS-AOC7-SO-3-2	WS-AOC7-SO-3-3A	WS-AOC7-SO-3-3B	WS-AOC-07-SO-3-3R
SAMPLE DEPTH (ft bgs)			(8.5'-9.0')	(8.5'-9.0')	(8.5'-9.0')	(0-0.5')	(0.5'-1.0')	(2.5'-3.0')	(5.5'-6.0')	(6.0'-6.5')	(6.0'-6.5')
DATE SAMPLED			7/27/17	7/27/17	9/13/17	8/3/17	7/27/17	7/27/17	7/27/17	7/27/17	9/13/17
WORK ORDER NO.			17G1255	17G1258	17I0542	17H0198	17G1255	17G1255	17G1255	17G1255	17I0542
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]	PARENT	DUPLICATE							PARENT
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	NA	NA	NA	<0.47	<0.11	**0.17**	**7.4**	NA	NA
PCB-1260	10	--	NA	NA	NA	**1.4**	<0.11	**0.59**	**16**	NA	NA
Total PCBs	10	--	NA	NA	NA	**1.4**	<0.11	**0.76**	**23.4**	NA	NA
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	<0.0014	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	<0.0014	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	<0.0014	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	<0.0027	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	<1.5	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	**3.2**	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**3500**	**3500**	**4300**	NA	NA	NA	NA	**4800**	**6700**
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	**0.92**	NA	NA	NA	NA	NA	**4.7**
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	<2.8	<2.6	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	<2.8	**3.3**	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	**15**	**31**	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	<0.28	<0.26	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	**0.33**	**0.37**	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	**11**	**16**	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	**36**	**70**	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	**17**	**31**	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	<0.027	<0.027	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	**31**	**46**	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	<5.6	<5.2	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	<0.056	<0.52	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	<2.8	<2.6	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	**350**	**590**	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	**45**	**67**	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	<5.0	<5.0	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	<25	<25	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	**350**	**930**	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**88.7**	**92.1**	**90.3**	NA	**91.5**	**89.9**	**87.6**	**89.2**	**88.0**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-DUP-62	WS-AOC7-AS-4	WS-AOC7-SO-4-1	WS-AOC7-SO-4-2	WS-AOC7-SO-4-3A	WS-AOC7-SO-4-3B	WS-AOC7-SO-4-3R	WS-AOC7-AS-5	WS-AOC7-SO-5-1
SAMPLE DEPTH (ft bgs)			(6.0'-6.5')	(0-0.5')	(0.5'-1.0')	(5.5'-6.0')	(12.0'-12.5')	(12.5'-13.0')	(12.5'-13.0')	(0-0.5")	(0.5'-1.0')
DATE SAMPLED			9/13/17	8/3/17	7/27/17	7/27/17	7/27/17	7/27/17	9/13/17	8/3/17	7/27/17
WORK ORDER NO.			17I0542	17H0198	17G1254	17G1255	17G1255	17G1255	17I0542	17H0198	17G1255
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]	DUPLICATE								
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	NA	<0.47	<0.11	<0.12	<0.12	NA	NA	<0.48	<0.11
PCB-1260	10	--	NA	<0.47	<0.11	**0.14**	<0.12	NA	NA	**0.53**	**0.28**
Total PCBs	10	--	NA	<0.47	<0.11	**0.14**	<0.12	NA	NA	**0.53**	**0.28**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	<0.0013	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	<0.0013	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	<0.0013	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	<0.0026	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**4400**	NA	NA	NA	NA	**4100**	**1900**	NA	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	**4.4**	NA	NA	NA	NA	NA	**1.2**	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**88.2**	NA	**92.3**	**84.8**	**85.4**	**88.4**	**86.2**	NA	**88.0**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-5-2	WS-AOC7-SO-5-3A	WS-AOC7-SO-5-3B	WS-AOC7-AS-6	WS-AOC7-SO-6-1	WS-AOC7-SO-6-2	WS-AOC7-SO-6-3A	WS-AOC7-SO-6-3B	WS-AOC7-AS-7
SAMPLE DEPTH (ft bgs)			(5.5'-6.0')	(12.0'-12.5')	(12.5'-13.0')	(0-0.5')	(0.5'-1.0')	(2.5'-3.0')	(5.5'-6.0')	(6.0'-6.5')	(0-0.5')
DATE SAMPLED			7/27/17	7/27/17	7/27/17	8/3/17	7/27/17	7/27/17	7/27/17	7/27/17	8/3/17
WORK ORDER NO.			17G1255	17G1255	17G1255	17H0198	17G1255	17G1255	17G1255	17G1255	17H0198
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									PARENT
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.16	<0.12	NA	<0.49	<0.12	<0.12	**0.33**	NA	<0.46
PCB-1260	10	--	**0.2**	<0.12	NA	**0.90**	<0.12	<0.12	**0.89**	NA	<0.46
Total PCBs	10	--	**0.2**	<0.12	NA	**0.90**	<0.12	<0.12	**1.22**	NA	<0.46
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	<0.44	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	<0.44	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	**1.7**	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	**5.1**	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	**5.9**	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	**5.8**	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	**3.3**	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	**2.2**	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	**4.4**	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	**0.69**	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	**9.9**	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	<0.44	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	**3.0**	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	<0.44	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	<0.44	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	**4.0**	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	**19**	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**650**	NA	NA	NA	NA	**82**	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**63.5**	**80.4**	**76.9**	NA	**84.8**	**82.9**	**81.6**	**77.7**	NA

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-AS-DUP-7	WS-AOC7-SO-7-1	WS-AOC7-SO-7-2	WS-AOC7-SO-7-2R	WS-AOC7-SO-7-3A	WS-AOC7-SO-7-3R	WS-AOC7-SO-7-3B	WS-AOC7-SO-8-1	WS-AOC7-SO-8-1R
SAMPLE DEPTH (ft bgs)			(0-0.5')	(0.5'-1.0')	(2.5'-3.0')	(2.5'-3.0')	(5.5'-6.0')	(5.5'-6.0')	(6.0'-6.5')	(0-0.5')	(0-0.5')
DATE SAMPLED			8/3/17	7/27/17	7/27/17	9/13/17	7/27/17	9/13/17	7/27/17	7/27/17	9/13/17
WORK ORDER NO.			17H0199	17G1254	17G1254	17I0542	17G1254	17I0542	17G1254	17G1254	17I0542
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]	DUPLICATE								
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.99	<2.3	<1.1	**1.1**	<1.2	<45	NA	<1.1	<0.42
PCB-1260	10	--	<0.99	**12**	**8.2**	**3.1**	**10**	**330**	NA	**5.5**	**1.6**
Total PCBs	10	--	<0.99	**12**	**8.2**	**4.2**	**10**	**330**	NA	**5.5**	**1.6**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	<0.20	NA	<0.20	NA	NA	<0.20
PCB-1260	--	5	NA	NA	NA	<0.20	NA	**1.6**	NA	NA	**0.27**
Total PCBs	--	5	NA	NA	NA	<0.20	NA	**1.6**	NA	NA	**0.27**
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	**3000**	**290**	NA	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	**2.5**	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**85.3**	**88.7**	**89.8**	**82.7**	**85.9**	**84.3**	**94.0**	**94.5**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-8-2	WS-AOC7-SO-8-3	WS-AOC7-SO-8-4A	WS-AOC7-SO-8-4B	WS-AOC7-AS-9	WS-AOC7-SO-9-1	WS-AOC7-SO-9-2	WS-AOC7-SO-9-3A	WS-AOC7-SO-9-3B
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(2.5'-3.0')	(5.5'-6.0')	(6.0'-7.0')	(0-0.5')	(0.5'-1.0')	(2.5'-3.0')	(5.5'-6.0')	(6.0'-6.5')
DATE SAMPLED			7/27/17	7/27/17	7/27/17	7/27/17	8/3/17	7/27/17	7/27/17	7/27/17	7/27/17
WORK ORDER NO.			17G1254	17G1254	17G1254	17G1254	17H0198	17G1255	17G1256	17G1256	17G1256
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									PARENT
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<11	<5.7	<0.12	NA	<0.48	**0.12**	<0.11	<0.12	NA
PCB-1260	10	--	**44**	**17**	**0.21**	NA	**0.53**	**0.46**	<0.11	**0.56**	NA
Total PCBs	10	--	**44**	**17**	**0.21**	NA	**0.53**	**0.58**	<0.11	**0.56**	NA
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	<0.11
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	<0.11
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.11
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	**5.6**
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	**490**
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	**5.0**
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	**370**
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	**220**
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	**72**
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	**100**
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	**23**
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	**41**
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	**210**
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	**11**
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	**1100**
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	**310**
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	**23**
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	**10**
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	**150**
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	**1800**
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	**990**
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	**16**	NA	NA	NA	NA	**7300**
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	<3.0	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	<3.0	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	**12**	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	<0.30	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	<0.30	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	**6.0**	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	**7.5**	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	**7.5**	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	<0.31	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	**160**	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	<6.0	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	**0.6**	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	<3.0	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	**110**	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	**63**	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**94.4**	**88.4**	**81.7**	**79.8**	NA	**92.4**	**90.8**	**83.0**	**70.6**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
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< = compound not detected above laboratory reporting limit, shown.
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NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
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NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-DUP-30	WS-AOC-07-SO-9-3R	WS-AOC7-AS-10	WS-AOC7-SO-10-1	WS-AOC7-SO-10-2	WS-AOC7-SO-10-3A	WS-AOC7-SO-10-3B	WS-AOC7-AS-11	WS-AOC7-SO-11-1
SAMPLE DEPTH (ft bgs)			(6.0'-6.5')	(6.0'-6.5')	(0-0.5')	(0.5'-1.0')	(2.5'-3.0')	(5.5'-6.0')	(6.0'-6.5')	(0-0.5")	(0.5'-1.0')
DATE SAMPLED			7/27/17	9/13/17	8/3/17	7/27/17	7/27/17	7/27/17	7/27/17	8/3/17	7/27/17
WORK ORDER NO.			17G1258	17I0542	17H0198	17G1256	17G1256	17G1256	17G1256	17H0198	17G1256
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]	DUPLICATE								
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	NA	NA	<0.44	<0.10	<0.12	<0.12	NA	<0.48	<0.11
PCB-1260	10	--	NA	NA	<0.44	**0.16**	<0.12	<0.12	NA	<0.48	**0.32**
Total PCBs	10	--	NA	NA	<0.44	**0.16**	<0.12	<0.12	NA	<0.48	**0.32**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	<0.073	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	<0.073	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	<0.073	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	**3.9**	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	**51**	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	**0.69**	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	**18**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	**10**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	**4.9**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	**6.5**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	**2.0**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	**2.3**	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	**9.0**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	**0.52**	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	**59**	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	**3.0**	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	**2.1**	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	<0.39	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	**2.3**	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	**13**	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	**49**	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	**400**	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	**1.8**	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	**14**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	**3.5**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	**1.5**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	**2.1**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	<0.50	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	**0.69**	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	**2.3**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	**42**	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	**14**	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	**0.46**	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	**2.4**	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	**48**	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	**37**	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	**27**	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**3000**	NA	NA	NA	NA	**580**	NA	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	**2.5**	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**70.6**	**86.4**	NA	**95.8**	**86.9**	**85.0**	**81.7**	NA	**92.7**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-11-2	WS-AOC7-SO-11-3A	WS-AOC7-SO-11-3B	WS-AOC7-AS-12	WS-AOC7-SO-12-1	WS-AOC7-SO-12-2	WS-AOC7-SO-12-3A	WS-AOC7-SO-12-3B	WS-AOC7-SO-13-1
SAMPLE DEPTH (ft bgs)			(2.0'-2.5')	(5.5'-6.0')	(6.0'-6.5')	(0-0.5")	(0.5'-1.0')	(2.5'-3.0')	(5.5'-6.0')	(6.0'-6.5')	(0-0.5')
DATE SAMPLED			7/27/17	7/27/17	7/27/17	8/3/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17
WORK ORDER NO.			17G1256	17G1256	17G1256	17H0198	17G1256	17G1256	17G1256	17G1256	17G1257
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.11	<0.12	NA	<0.49	<0.11	<0.11	<0.12	NA	<1.1
PCB-1260	10	--	<0.11	<0.12	NA	<0.49	<0.11	<0.11	<0.12	NA	**9.0**
Total PCBs	10	--	<0.11	<0.12	NA	<0.49	<0.11	<0.11	<0.12	NA	**9.0**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**67**	NA	NA	NA	NA	**130**	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	<2.8	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	**3.0**	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	**27**	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	<0.28	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	<0.28	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	**11**	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	**21**	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	**27**	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	**0.15**	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	**7.6**	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	<5.6	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	<0.56	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	<2.8	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	**79**	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	**26**	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**92.7**	**85.8**	**84.1**	NA	**92.2**	**89.5**	**84.9**	**83.9**	**95.0**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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mg/kg = milligrams per kilogram
µg/l = micrograms per liter
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GB PMC = GB Pollutant Mobility Criteria
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-13-1R	WS-AOC7-SO-13-2	WS-AOC7-SO-13-3	WS-AOC7-SO-13-4	WS-AOC7-SO-14-1	WS-AOC7-SO-14-2	WS-AOC7-SO-14-2R	WS-AOC7-SO-14-3A	WS-AOC7-SO-14-3R
SAMPLE DEPTH (ft bgs)			(0-0.5')	(0.5'-1.0')	(4.0'-4.5')	(9.0'-9.5')	(0-0.5')	(1.0'-1.5')	(1.0'-1.5')	(4.0'-4.5')	(4.0'-4.5')
DATE SAMPLED			9/14/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	9/14/17	7/27/17	9/14/17
WORK ORDER NO.			17I0641	17G1257	17G1257	17G1257	17G1257	17G1257	17I0641	17G1257	17I0641
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<8.2	<10	<11	<0.14	<0.11	<1.1	<0.34	<0.56	<0.91
PCB-1260	10	--	**42**	**52**	**58**	**0.25**	**0.12**	**6.0**	**1.8**	**2.4**	**8.3**
Total PCBs	10	--	**42**	**52**	**58**	**0.25**	**0.12**	**6.0**	**1.8**	**2.4**	**8.3**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	<2.0	NA	NA	NA	NA	NA	<0.20	NA	<0.20
PCB-1260	--	5	**11**	NA	NA	NA	NA	NA	**0.79**	NA	**1.7**
Total PCBs	--	5	**11**	NA	NA	NA	NA	NA	**0.79**	NA	**1.7**
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**340**	NA	NA	NA	NA	NA	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**95.3**	**95.6**	**94.8**	**73.4**	**93.5**	**93.4**	**94.0**	**89.1**	**87.5**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-14-3B	WS-AOC7-SO-14-4	WS-AOC7-AS-15	WS-AOC7-SO-15-1	WS-AOC7-SO-15-1R	WS-AOC7-SO-15-2A	WS-AOC7-SO-15-2B	WS-AOC7-SO-15-3	WS-AOC7-AS-16
SAMPLE DEPTH (ft bgs)			(5.0'-5.5')	(5.0'-5.5')	(0-0.5')	*(2.0'-2.5')	(2.0'-2.5')	(4.0'-4.5')	(5.0'-5.5')	(9.0'-9.5')	(0-0.5")
DATE SAMPLED			7/27/17	7/27/17	8/3/17	7/27/17	9/14/17	7/27/17	7/27/17	7/27/17	8/3/17
WORK ORDER NO.			17G1257	17G1257	17H0198	17G1256	17I0641	17G1256	17G1257	17G1257	17H0197
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	NA	<0.22	<0.48	<0.11	<0.84	<0.11	NA	<0.12	<0.93
PCB-1260	10	--	NA	<0.22	<0.48	**1.1**	<0.84	**0.39**	NA	<0.12	<0.93
Total PCBs	10	--	NA	<0.22	<0.48	**1.1**	**5.7**	**0.39**	NA	<0.12	<0.93
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	<0.20	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	**0.73**	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	**0.73**	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	<0.39	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	<0.39	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	<0.39	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	**1.0**	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	**0.92**	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	**1.1**	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	**0.67**	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	**0.46**	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	**0.94**	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	<0.39	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	**2.3**	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	<0.39	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	**0.59**	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	<0.39	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	<0.39	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	**1.6**	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	**2.2**	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**300**	NA	NA	NA	NA	NA	**94**	NA	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**88.1**	**90.1**	NA	**91.1**	**90.5**	**90.4**	**86.3**	**80.9**	NA

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-16-1	WS-AOC7-SO-16-2	WS-AOC7-SO-16-3	WS-AOC7-SO-17-0	WS-AOC7-SO-17-1	WS-AOC7-SO-17-2	WS-AOC7-SO-17-3	WS-AOC7-SO-18-0	WS-AOC7-SO-18-1
SAMPLE DEPTH (ft bgs)			(8.0'-10.0')	(13.0'-15.0')	(17.0'-17.5')	(0-0.5')	(6.0'-8.0')	(13.0'-15.0')	(15.0'-17.0')	(0-0.5')	(0-2.0')
DATE SAMPLED			7/28/17	7/28/17	7/28/17	8/31/17	7/28/17	7/28/17	7/28/17	8/31/17	7/28/17
WORK ORDER NO.			17G1308	17G1308	17G1308	17H1675	17G1308	17G1308	17G1308	17H1675	17G1308
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.11	<0.13	<0.14	<0.089	<0.12	<0.13	<0.19	<0.081	<0.10
PCB-1260	10	--	<0.11	<0.13	**0.22**	**0.096**	<0.12	**0.33**	<0.19	**0.86**	**0.16**
Total PCBs	10	--	<0.11	<0.13	**0.22**	**0.096**	<0.12	**0.33**	<0.19	**0.86**	**0.16**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**150**	**710**	**670**	NA	**250**	**1000**	**770**	NA	**120**
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**88.5**	**78.4**	**73.9**	**90.2**	**86.8**	**75.8**	**51.6**	**96.4**	**97.1**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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mg/kg = milligrams per kilogram
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BOLD = compound detected at that concentration.
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-18-2	WS-AOC7-SO-18-3	WS-AOC7-SO-19-0	WS-AOC7-SO-19-1	WS-AOC7-SO-DUP-31	WS-AOC7-SO-19-2	WS-AOC7-SO-19-3	WS-AOC7-SO-20-0	WS-AOC7-SO-20-1
SAMPLE DEPTH (ft bgs)			(6.0'-8.0')	(15.0'-16.0')	(0-0.5')	(0-2.0')	(0-2.0')	(6.0'-8.0')	(10.0'-12.0')	(0-0.5')	(8.0'-9.0')
DATE SAMPLED			7/28/17	7/28/17	8/31/17	7/28/17	7/28/17	7/28/17	7/28/17	8/31/17	7/27/17
WORK ORDER NO.			17G1308	17G1308	17H1675	17G1308	17G1309	17G1308	17G1308	17H1675	17G1256
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]				PARENT	DUPLICATE				
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.13	<0.12	<0.082	<0.10	NA	<0.12	<0.11	<0.086	<0.11
PCB-1260	10	--	<0.13	<0.12	<0.082	<0.10	NA	<0.12	<0.11	<0.086	<0.11
Total PCBs	10	--	<0.13	<0.12	<0.082	<0.10	NA	<0.12	<0.11	<0.086	<0.11
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	<0.0016	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	<0.0016	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	<0.0016	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	<0.0032	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	<0.17	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**190**	**91**	NA	**140**	**310**	**750**	**370**	NA	**6300**
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**78.4**	**80.3**	**93.9**	**98.1**	**97.8**	**85.2**	**88.5**	**92.0**	**87.3**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-20-2	WS-AOC7-SO-20-3	WS-AOC7-SO-21-1	WS-AOC7-SO-21-2	WS-AOC7-SO-21-3	WS-AOC7-SO-21-4	WS-AOC7-SO-22-1	WS-AOC7-SO-22-2	WS-AOC7-SO-22-3
SAMPLE DEPTH (ft bgs)			(13.0'-14.0')	(16.0'-17.0')	(0-0.5')	(0.5'-1.0')	(2.0'-3.5')	(7.0'-8.0')	(0-0.5')	(0.5'-1.0')	(2.0'-2.3')
DATE SAMPLED			7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17
WORK ORDER NO.			17G1256	17G1256	17G1257	17G1257	17G1257	17G1257	17G1257	17G1257	17G1258
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.25	<0.25	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
PCB-1260	10	--	<0.25	**0.34**	<0.11	<0.11	<0.11	<0.11	**0.14**	<0.11	<0.11
Total PCBs	10	--	<0.25	**0.34**	<0.11	<0.11	<0.11	<0.11	**0.14**	<0.11	<0.11
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**450**	**9000**	NA	NA	**190**	**12**	NA	NA	**79**
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**39.4**	**40.7**	**94.2**	**93.2**	**88.7**	**89.4**	**90.9**	**92.0**	**89.7**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-SO-22-4	WS-AOC7-CO-23	WS-AOC7-SO-23-1	WS-AOC7-SO-23-2	WS-AOC7-SO-23-3	WS-AOC7-CO-24	WS-AOC7-SO-24-1	WS-AOC7-SO-24-2	WS-AOC7-SO-24-3
SAMPLE DEPTH (ft bgs)			(7.0'-8.0')	(0-0.5')	(0.5'-1.0')	(2.0'-3.0')	(7.0'-7.8')	(0-0.5")	(0.5'-1.0')	(2.0'-3.0')	(7.0'-8.0')
DATE SAMPLED			7/27/17	8/3/17	7/27/17	7/27/17	7/27/17	8/3/17	7/27/17	7/27/17	7/27/17
WORK ORDER NO.			17G1258	17H0197	17G1258	17G1258	17G1258	17H0197	17G1257	17G1257	17G1257
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.11	<0.099	<0.11	<0.11	<0.18	<0.098	<0.11	<0.12	<0.12
PCB-1260	10	--	<0.11	<0.099	<0.11	<0.11	<0.18	<0.098	<0.11	<0.12	<0.12
Total PCBs	10	--	<0.11	<0.099	<0.11	<0.11	<0.18	<0.098	<0.11	<0.12	<0.12
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	<0.039	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	<0.039	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	**0.057**	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	**0.095**	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**77**	NA	NA	**39**	**1000**	NA	NA	<12	**190**
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**87.3**	NA	**93.5**	**89.2**	**57.1**	NA	**94.1**	**86.8**	**81.4**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-CO-25	WS-AOC7-CO-26	WS-AOC7-SE-26	WS-AOC7-CO-27	WS-AOC7-SE-27	WS-AOC7-SE-DUP-4	WS-AOC7-CO-28	WS-AOC7-SE-28	WS-AOC7-SE-DUP-3
SAMPLE DEPTH (ft bgs)			(0-0.5')	(0-0.5')		(0-0.5')			(0-0.5')		
DATE SAMPLED			8/3/17	8/3/17	11/2/17	8/3/17	11/2/17	11/2/17	8/3/17	11/2/17	11/2/17
WORK ORDER NO.			17H0198	17H0198	17K0251	17H0197	17K0251	17K0251	17H0198	17K0251	17K0251
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.099	<0.092	**11**	<0.088	<0.52	<0.10	<0.096	<0.48	<0.45
PCB-1260	10	--	**0.34**	**0.17**	**37**	<0.088	**2.3**	**1.2**	<0.096	**4.6**	**3.8**
Total PCBs	10	--	**0.34**	**0.17**	**48**	<0.088	**2.3**	**1.2**	<0.096	**4.6**	**3.8**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	**1.0**	NA	<0.11	NA	NA	<0.0013	NA
sec-Butylbenzene*	1,000	70	NA	NA	**0.36**	NA	<0.11	NA	NA	<0.0013	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	<0.25	NA	**0.31**	NA	NA	<0.0013	NA
Naphthalene	2,500	56	NA	NA	<0.25	NA	<0.23	NA	NA	<0.0027	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	**14**	NA	**2.0**	NA	NA	<0.82	<1.6
Acenaphthylene	2,500	84	NA	NA	<1.9	NA	<0.91	NA	NA	<0.82	<1.6
Anthracene*	2,500	400	NA	NA	**31**	NA	**5.4**	NA	NA	<0.82	**2.6**
Benzo(a)anthracene	7.8	1	NA	NA	**58**	NA	**12**	NA	NA	**2.4**	**9.0**
Benzo(a)pyrene	1	1	NA	NA	**52**	NA	**11**	NA	NA	**2.2**	**8.1**
Benzo(b)fluoranthene	7.8	1	NA	NA	**57**	NA	**13**	NA	NA	**2.8**	**11**
Benzo(g,h,i)perylene*	78	1	NA	NA	**23**	NA	**6.8**	NA	NA	**1.9**	**3.9**
Benzo(k)fluoranthene	78	1	NA	NA	**22**	NA	**4.9**	NA	NA	**1.1**	**4.2**
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	**3.9**	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	**10**	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	**53**	NA	**12**	NA	NA	**2.6**	**9.2**
Dibenz(a,h)anthracene*	1	1	NA	NA	**6.2**	NA	**1.8**	NA	NA	<0.82	<1.6
Dibenzofuran*	1,000	1.4	NA	NA	**7.4**	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	**170**	NA	**26**	NA	NA	**5.9**	**21**
Fluorene	2,500	56	NA	NA	**16**	NA	**2.7**	NA	NA	<0.82	<1.6
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	**25**	NA	**6.6**	NA	NA	**1.8**	**4.5**
2-Methylnaphthalene*	1,000	5.6	NA	NA	<1.9	NA	<0.91	NA	NA	<0.82	<1.6
Naphthalene	2,500	56	NA	NA	<1.9	NA	<0.91	NA	NA	<0.82	<1.6
Phenanthrene	2,500	40	NA	NA	**92**	NA	**19**	NA	NA	**3.1**	**13**
Pyrene	2,500	40	NA	NA	**160**	NA	**28**	NA	NA	**6.0**	**21**
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**27000**	NA	**18000**	NA	NA	**6200**	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	<3.4	NA	<3.4	NA	NA	<3.2	NA
Arsenic	10	NE	NA	NA	**4.9**	NA	<3.4	NA	NA	<3.2	NA
Barium	140,000	NE	NA	NA	**95**	NA	**100**	NA	NA	**80**	NA
Beryllium	2	NE	NA	NA	<0.34	NA	<0.34	NA	NA	<0.32	NA
Cadmium	1,000	NE	NA	NA	**2.5**	NA	**1.9**	NA	NA	**1.3**	NA
Chromium	NE	NE	NA	NA	**38**	NA	**59**	NA	NA	**38**	NA
Copper	76,000	NE	NA	NA	**370**	NA	**570**	NA	NA	**320**	NA
Lead	1,000	NE	NA	NA	**200**	NA	**480**	NA	NA	**230**	NA
Mercury	610	NE	NA	NA	**0.17**	NA	**0.18**	NA	NA	**0.12**	NA
Nickel	7,500	NE	NA	NA	**120**	NA	**120**	NA	NA	**86**	NA
Selenium	10,000	NE	NA	NA	<6.9	NA	<6.7	NA	NA	<6.3	NA
Silver	10,000	NE	NA	NA	**8.5**	NA	**10**	NA	NA	**8.1**	NA
Thallium	160	NE	NA	NA	<17	NA	<17	NA	NA	<29	NA
Vanadium	14,000	NE	NA	NA	**990**	NA	**150**	NA	NA	**100**	NA
Zinc	610,000	NE	NA	NA	**2600**	NA	**1500**	NA	NA	**350**	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	NA	**71.9**	NA	**74.6**	**73.0**	NA	**82.2**	**83.6**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-CO-29	WS-AOC7-CO-30	WS-AOC7-CO-31	WS-AOC7-CO-32	WS-AOC7-CO-33	WS-AOC7-CO-34	WS-AOC7-CO-35	WS-AOC7-CO-DUP-8	WS-AOC7-CO-36
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")
DATE SAMPLED			8/3/17	8/3/17	8/15/17	8/3/17	8/3/17	8/15/17	8/15/17	8/15/17	8/15/17
WORK ORDER NO.			17H0197	17H0197	17H0854	17H0197	17H0197	17H0854	17H0854	17H0854	17K0252
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]							PARENT	DUPLICATE	
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.088	<0.093	<0.098	<0.096	<0.094	<0.098	<0.10	<0.098	<0.097
PCB-1260	10	--	<0.088	<0.093	<0.098	**0.48**	**0.52**	**0.12**	<0.10	<0.098	**0.17**
Total PCBs	10	--	<0.088	<0.093	<0.098	**0.48**	**0.52**	**0.12**	<0.10	<0.098	**0.17**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	--	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
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-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 2
AOC-7 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC7-CO-37	WS-AOC7-CO-38	WS-AOC7-CO-39
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0-0.5")	(0-0.5")
DATE SAMPLED			8/15/17	8/15/17	8/15/17
WORK ORDER NO.			17H0854	17H0854	17H0854
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]			
PARAMETER (Units)[2]					
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)					
PCB-1254	10	--	<0.099	<0.098	<0.099
PCB-1260	10	--	**0.18**	<0.098	<0.099
Total PCBs	10	--	**0.18**	<0.098	<0.099
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)					
PCB-1254	--	5	NA	NA	NA
PCB-1260	--	5	NA	NA	NA
Total PCBs	--	5	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)					
n-Butylbenzene*	1,000	70	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)					
Acenaphthene*	2,500	84	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA
Bis(2-Ethylhexyl)phthalate	410	11	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA
Chrysene*	780	1	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)					
Acenaphthene*	NE	4200	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA
Benzo(b)fluoranthene	NE	0.8	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA
Fluoranthene	NE	2800	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA
2-Methylnaphthalene*	NE	7.4	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA
SPLP Extractable Total Petroleum Hydrocarbons by CT method (mg/l)	NE	2.5	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)					
Antimony	8,200	NE	NA	NA	NA
Arsenic	10	NE	NA	NA	NA
Barium	140,000	NE	NA	NA	NA
Beryllium	2	NE	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA
Chromium	NE	NE	NA	NA	NA
Copper	76,000	NE	NA	NA	NA
Lead	1,000	NE	NA	NA	NA
Mercury	610	NE	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA
Silver	10,000	NE	NA	NA	NA
Thallium	160	NE	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)					
Chromium	--	500	NA	NA	NA
Nickel	--	1000	NA	NA	NA
Vanadium	--	500	NA	NA	NA
Total Solids (%)	--	--	NA	NA	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
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< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

TABLE 3
AOC-8 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC8-AS-1	WS-AOC8-SO-1-1	WS-AOC8-SO-1-2	WS-AOC8-SO-1-3	WS-AOC8-AS-2	WS-AOC8-SO-2-1A	WS-AOC8-SO-2-1B	WS-AOC8-SO-2-1R	WS-AOC8-SO-2-2
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0.5'-1.0')	(2.0'-3.5')	(5.0'-5.5')	(0-0.5")	(0.5'-1.0')	(1.0'-1.5')	(1.0'-1.5')	(2.0'-3.0')
DATE SAMPLED			8/15/17	7/31/17	7/31/17	7/31/17	8/15/17	7/31/17	7/31/17	9/14/17	7/31/17
WORK ORDER NO.			17H0854	17G1436	17G1436	17G1436	17H0854	17G1436	17G1436	17I0641	17G1436
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.10	<0.10	<0.10	<0.17	<0.95	<0.10	NA	NA	<0.11
PCB-1260	10	--	<0.10	**0.23**	<0.10	<0.17	<0.95	**0.41**	NA	NA	<0.11
PCB 1268	10	--	<0.10	<0.10	<0.10	<0.17	<0.95	<0.10	NA	NA	<0.11
Total PCBs	10	--	<0.10	**0.23**	<0.10	<0.17	<0.95	**0.41**	NA	NA	<0.11
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1262	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
Acetone	1,000	140	NA	NA	<0.069	NA	NA	NA	NA	NA	NA
n-Butylbenzene*	1,000	70	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	<0.0028	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	<0.18	NA	NA	NA	**0.85**	**12**	NA
Acenaphthylene	2,500	84	NA	NA	<0.18	NA	NA	NA	<0.18	<0.18	NA
Anthracene*	2,500	400	NA	NA	<0.18	NA	NA	NA	**1.4**	**20**	NA
Benzo(a)anthracene	7.8	1	NA	NA	<0.18	NA	NA	NA	**6.2**	**58**	NA
Benzo(a)pyrene	1	1	NA	NA	<0.18	NA	NA	NA	**4.9**	**44**	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	**0.19**	NA	NA	NA	**6.5**	**60**	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	<0.18	NA	NA	NA	**4.1**	**30**	NA
Benzo(k)fluoranthene	78	1	NA	NA	<0.18	NA	NA	NA	**2.7**	**24**	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	<0.18	NA	NA	NA	**6.3**	**56**	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	<0.18	NA	NA	NA	**1.0**	**8.5**	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	**0.21**	NA	NA	NA	**12**	**130**	NA
Fluorene	2,500	56	NA	NA	<0.18	NA	NA	NA	**0.42**	**8.7**	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	<0.18	NA	NA	NA	**3.8**	**33**	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	<0.18	NA	NA	NA	<0.18	**0.82**	NA
Naphthalene	2,500	56	NA	NA	<0.18	NA	NA	NA	<0.18	**2.0**	NA
Phenanthrene	2,500	40	NA	NA	<0.18	NA	NA	NA	**5.4**	**78**	NA
Pyrene	2,500	40	NA	NA	**0.22**	NA	NA	NA	**13**	**100**	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	**7.5**	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	**0.60**	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	**2.8**	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	**6.3**	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	**5.0**	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	**7.1**	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	**3.1**	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	**2.4**	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	**6.6**	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	**0.87**	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	**18**	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	**3.4**	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	**3.2**	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	<1.0	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	**3.4**	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	**18**	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	**14**	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**14**	NA	NA	NA	**220**	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**96.6**	**96.8**	**60.6**	NA	**97.5**	**96.0**	**93.6**	**95.2**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

TABLE 3
AOC-8 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC8-SO-2-3	WS-AOC8-SO-3-0	WS-AOC8-SO-3-1A	WS-AOC8-SO-3-1B	WS-AOC8-SO-3-2	WS-AOC8-SO-3-3	WS-AOC8-SO-DUP-38	WS-AOC8-SO-4-1	WS-AOC8-SO-4-1R
SAMPLE DEPTH (ft bgs)			(5.0'-6.0')	(0-0.5')	(0.5'-1.0')	(1.0'-1.5')	(1.5'-2.0')	(5.5'-6.0')	(5.5'-6.0')	(0-0.5')	(0-0.5')
DATE SAMPLED			7/31/17	8/31/17	7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	9/14/17
WORK ORDER NO.			17G1436	17H1675	17G1436	17G1436	17G1436	17G1436	17G1437	17G1436	17I0641
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]						PARENT	DUPLICATE		
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.11	<0.10	<0.12	NA	<0.14	<0.16	<0.18	<0.52	<0.82
PCB-1260	10	--	<0.11	**0.31**	**0.22**	NA	<0.14	<0.16	<0.18	**3.4**	**2.9**
PCB 1268	10	--	<0.11	<0.10	<0.12	NA	<0.14	<0.16	<0.18	<0.52	<0.82
Total PCBs	10	--	<0.11	**0.31**	**0.22**	NA	<0.14	<0.16	<0.18	**3.4**	**2.9**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	<0.20
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	**1.4**
PCB 1262	--	5	NA	NA	NA	NA	NA	NA	NA	NA	<0.20
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	<0.20
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	**1.4**
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
Acetone	1,000	140	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	<0.18	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	<0.18	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	**0.20**	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	**0.69**	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	**0.58**	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	**0.72**	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	**0.50**	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	**0.25**	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	**0.65**	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	<0.18	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	**1.5**	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	<0.18	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	**0.48**	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	<0.18	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	<0.18	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	**1.0**	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	**1.5**	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	**30**	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**89.5**	**80.0**	**86.2**	**96.2**	**71.1**	**61.8**	**57.0**	**96.8**	**93.7**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

TABLE 3
AOC-8 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC8-SO-4-2	WS-AOC8-SO-4-2R	WS-AOC8-SO-4-3	WS-AOC8-SO-4-3R	WS-AOC8-SO-4-4	WS-AOC8-AS-5	WS-AOC8-SO-5-1	WS-AOC8-SO-5-2	WS-AOC8-SO-5-3
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(0.5'-1.0')	(2.0'-2.5')	(2.0'-2.5')	(5.0'-6.0')	(0-0.5')	(0.5'-1.0')	(1.5'-2.5')	(5.5'-6.0')
DATE SAMPLED			7/31/17	9/14/17	7/31/17	9/14/17	7/31/17	8/15/17	7/31/17	7/31/17	7/31/17
WORK ORDER NO.			17G1436	17I0641	17G1436	17I0641	17G1436	17H0854	17G1436	17G1436	17G1436
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.56	<0.85	<0.13	<0.86	<0.15	<0.10	<0.11	<0.11	<0.11
PCB-1260	10	--	**4.3**	**4.1**	**1.3**	**5.7**	<0.15	<0.10	**0.12**	<0.11	<0.11
PCB 1268	10	--	<0.56	<0.85	<0.13	<0.86	<0.15	<0.10	<0.11	<0.11	<0.11
Total PCBs	10	--	**4.3**	**4.1**	**1.3**	**5.7**	<0.15	<0.10	**0.12**	<0.11	<0.11
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	<0.20	NA	<0.20	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	**1.4**	NA	**2.1**	NA	NA	NA	NA	NA
PCB 1262	--	5	NA	<0.20	NA	<0.20	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	<0.20	NA	<0.20	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	**1.4**	NA	**2.1**	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
Acetone	1,000	140	NA	NA	NA	NA	NA	NA	NA	<0.071	NA
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	<0.0014	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	<0.0014	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	<0.0014	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	<0.0028	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	<0.0014	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	<0.0014	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	<0.26	NA	NA	<0.19	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	<0.26	NA	NA	<0.19	NA
Anthracene*	2,500	400	NA	NA	NA	NA	<0.26	NA	NA	**0.27**	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	**0.57**	NA	NA	**0.85**	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	**0.55**	NA	NA	**0.74**	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	**0.53**	NA	NA	**0.98**	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	**0.37**	NA	NA	**0.55**	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	<0.26	NA	NA	**0.38**	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	**0.49**	NA	NA	**0.86**	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	<0.26	NA	NA	<0.19	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	**1.0**	NA	NA	**1.9**	NA
Fluorene	2,500	56	NA	NA	NA	NA	<0.26	NA	NA	<0.19	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	**0.32**	NA	NA	**0.49**	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	<0.26	NA	NA	<0.19	NA
Naphthalene	2,500	56	NA	NA	NA	NA	<0.26	NA	NA	<0.19	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	**0.59**	NA	NA	**1.6**	NA
Pyrene	2,500	40	NA	NA	NA	NA	**1.3**	NA	NA	**1.5**	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	**20**	NA	NA	**53**	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**88.7**	**93.1**	**78.2**	**92.2**	**66.4**	NA	**93.3**	**87.2**	**89.6**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
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I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

TABLE 3
AOC-8 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC8-SO-6-1	WS-AOC8-SO-6-2	WS-AOC8-SO-6-3	WS-AOC8-SO-6-4	WS-AOC8-SO-7	WS-AOC8-SO-8	WS-AOC8-SO-DUP-67	WS-AOC8-SO-9	WS-AOC8-SO-10
SAMPLE DEPTH (ft bgs)			(0.5'-1.5')	(1.5'-2.5')	(2.0'-3.0')	(5.0'-6.0')	(1.0'-2.0')	(1.0'-2.0')	(1.0'-2.0')	(1.0'-2.0')	(1.0'-2.0')
DATE SAMPLED			9/12/17	9/12/17	9/12/17	9/12/17	11/2/17	11/2/17	11/2/17	11/2/17	11/2/17
WORK ORDER NO.			17I0462	17I0462	17I0462	17I0462	17K0251	17K0251	17K0251	17K0251	17K0251
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]						PARENT	DUPLICATE		
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	**0.26**	<0.085	<0.082	<0.087	<0.079	<0.082	NA	<0.081	<0.084
PCB-1260	10	--	**0.33**	<0.085	<0.082	<0.087	<0.079	<0.082	NA	<0.081	<0.084
PCB 1268	10	--	<0.085	<0.085	<0.082	<0.087	<0.079	<0.082	NA	<0.081	<0.084
Total PCBs	10	--	**0.59**	<0.085	<0.082	<0.087	<0.079	<0.082	NA	<0.081	<0.084
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1262	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
Acetone	1,000	140	NA	NA	NA	NA	<0.077	**0.11**	NA	<0.073	<0.073
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	<0.0015	<0.0014	NA	<0.0015	<0.0015
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	<0.0015	<0.0014	NA	<0.0015	<0.0015
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	<0.0015	<0.0014	NA	<0.0015	<0.0015
Naphthalene	2,500	56	NA	NA	NA	NA	<0.0031	<0.0028	NA	<0.0029	<0.0029
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	<0.0015	<0.0014	NA	<0.0015	<0.0015
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	<0.0015	<0.0014	NA	<0.0015	<0.0015
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	<0.18	NA	NA	<0.69	**0.19**	<0.18	**1.2**	<0.18
Acenaphthylene	2,500	84	NA	<0.18	NA	NA	<0.69	<0.18	<0.18	<0.18	<0.18
Anthracene*	2,500	400	NA	<0.18	NA	NA	<0.69	**0.41**	<0.18	**3.9**	<0.18
Benzo(a)anthracene	7.8	1	NA	**0.55**	NA	NA	<0.69	**2.7**	**1.0**	**24**	**0.95**
Benzo(a)pyrene	1	1	NA	**0.68**	NA	NA	<0.69	**3.3**	**1.7**	**26**	**1.4**
Benzo(b)fluoranthene	7.8	1	NA	**0.76**	NA	NA	<0.69	**3.6**	**1.8**	**26**	**1.4**
Benzo(g,h,i)perylene*	78	1	NA	**0.58**	NA	NA	<0.69	**3.2**	**1.4**	**20**	**2.0**
Benzo(k)fluoranthene	78	1	NA	**0.29**	NA	NA	<0.69	**1.2**	**0.63**	**8.6**	**0.53**
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	**0.53**	NA	NA	<0.69	**2.8**	**1.1**	**23**	**1.0**
Dibenz(a,h)anthracene*	1	1	NA	<0.18	NA	NA	<0.69	**0.61**	**0.23**	**3.8**	**0.27**
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	**0.79**	NA	NA	<0.69	**4.6**	**1.3**	**42**	**1.3**
Fluorene	2,500	56	NA	<0.18	NA	NA	<0.69	<0.18	<0.18	**0.98**	<0.18
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	**0.53**	NA	NA	<0.69	**2.8**	**1.2**	**19**	**1.4**
2-Methylnaphthalene*	1,000	5.6	NA	<0.18	NA	NA	<0.69	<0.18	<0.18	**0.19**	<0.18
Naphthalene	2,500	56	NA	<0.18	NA	NA	<0.69	**0.20**	<0.18	**0.23**	<0.18
Phenanthrene	2,500	40	NA	**0.24**	NA	NA	<0.69	**2.5**	**0.42**	**15**	**0.48**
Pyrene	2,500	40	NA	**0.86**	NA	NA	<0.69	**5.7**	**2.1**	**63**	**1.8**
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**96**	NA	NA	**73**	**390**	NA	**2500**	**150**
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**92.6**	**94.6**	**94.3**	**89.7**	**96.4**	**92.9**	**93.0**	**92.7**	**92.4**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

TABLE 3
AOC-8 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC8-SO-11	WS-AOC8-SO-12	WS-AOC8-SO-13	WS-AOC8-SO-14	WS-AOC8-SO-15	WS-AOC8-CO-16	WS-AOC8-CO-16B	WS-AOC8-SE-16	WS-AOC8-CO-17
SAMPLE DEPTH (ft bgs)			(1.0'-2.0')	(1.0'-2.0')	(1.0'-2.0')	(1.0'-2.0')	(1.0'-2.0')	(0-0.5")	(0-0.5")		(0-0.5")
DATE SAMPLED			11/3/17	11/3/17	11/3/17	11/3/17	11/3/17	8/15/17	8/29/17	8/29/17	8/15/17
WORK ORDER NO.			17K0252	17K0252	17K0252	17K0252	17K0252	17H0854	17H1544	17H1544	17H0854
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.086	<0.091	<0.090	<0.093	<0.091	<0.10	<190	<220	<0.099
PCB-1260	10	--	<0.086	<0.091	<0.090	<0.093	<0.091	<0.10	**1800**	**2300**	<0.099
PCB 1268	10	--	<0.086	<0.091	<0.090	<0.093	<0.091	<0.10	<190	<220	<0.099
Total PCBs	10	--	<0.086	<0.091	<0.090	<0.093	<0.091	<0.10	**1800**	**2300**	<0.099
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1262	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
Acetone	1,000	140	<0.071	<0.064	<0.061	<0.072	<0.066	NA	NA	<0.10	NA
n-Butylbenzene*	1,000	70	<0.0014	<0.0013	<0.0012	<0.0014	<0.0013	NA	NA	<0.0020	NA
sec-Butylbenzene*	1,000	70	<0.0014	<0.0013	<0.0012	<0.0014	<0.0013	NA	NA	<0.0020	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	<0.0014	<0.0013	<0.0012	<0.0014	<0.0013	NA	NA	<0.0020	NA
Naphthalene	2,500	56	<0.0028	<0.0026	<0.0024	<0.0029	<0.0027	NA	NA	<0.0041	NA
1,2,4-Trimethylbenzene*	1,000	28	<0.0014	<0.0013	<0.0012	<0.0014	<0.0013	NA	NA	<0.0020	NA
1,3,5-Trimethylbenzene*	1,000	28	<0.0014	<0.0013	<0.0012	<0.0014	<0.0013	NA	NA	<0.0020	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	<0.19	<0.20	<0.20	<0.20	<0.20	NA	NA	**13**	NA
Acenaphthylene	2,500	84	<0.19	<0.20	<0.20	<0..20	<0.20	NA	NA	**4.2**	NA
Anthracene*	2,500	400	<0.19	<0.20	<0.20	<0..20	**0.69**	NA	NA	**29**	NA
Benzo(a)anthracene	7.8	1	**0.33**	<0.20	<0.20	<0..20	**3.4**	NA	NA	**84**	NA
Benzo(a)pyrene	1	1	**0.46**	<0.20	<0.20	<0..20	**4.2**	NA	NA	**65**	NA
Benzo(b)fluoranthene	7.8	1	**0.52**	<0.20	<0.20	<0..20	**4.5**	NA	NA	**84**	NA
Benzo(g,h,i)perylene*	78	1	**0.50**	<0.20	<0.20	<0..20	**2.4**	NA	NA	**42**	NA
Benzo(k)fluoranthene	78	1	<0.19	<0.20	<0.20	<0..20	**1.8**	NA	NA	**30**	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	**16**	NA
Chrysene*	780	1	**0.35**	<0.20	<0.20	<0..20	**3.7**	NA	NA	**79**	NA
Dibenz(a,h)anthracene*	1	1	<0.19	<0.20	<0.20	<0..20	**0.42**	NA	NA	**10**	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	**6.6**	NA
Fluoranthene	2,500	56	**0.45**	<0.20	**0.26**	<0..20	**5.9**	NA	NA	**160**	NA
Fluorene	2,500	56	<0.19	<0.20	<0.20	<0..20	<0.20	NA	NA	**13**	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	**0.41**	<0.20	<0.20	<0..20	**2.3**	NA	NA	**42**	NA
2-Methylnaphthalene*	1,000	5.6	<0.19	<0.20	<0.20	<0..20	<0.20	NA	NA	<3.1	NA
Naphthalene	2,500	56	NA	NA	NA	NA	<0.20	NA	NA	**5.9**	NA
Phenanthrene	2,500	40	<0.19	<0.20	<0.20	<0..20	**3.5**	NA	NA	**120**	NA
Pyrene	2,500	40	**0.59**	<0.20	**0.26**	<0..20	**7.2**	NA	NA	**160**	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**80**	**22**	**37**	**96**	**450**	NA	NA	**6300**	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	**21**	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	**37**	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	**120**	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	**51**	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	**290**	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	**230**	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	**0.12**	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	**87**	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	**280**	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	**380**	NA
Total Solids (%)	--	--	**87.0**	**85.8**	**86.5**	**83.9**	**84.4**	NA	NA	**88.6**	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

TABLE 3
AOC-8 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC8-CO-17B	WS-AOC8-SE-17	WS-AOC8-CO-18	WS-AOC8-CO-DUP-9	WS-AOC8-CO-18B	AS-AOC8-SE-18	WS-AOC8-CO-19
SAMPLE DEPTH (ft bgs)			(0-0.5")		(0-0.5")	(0-0.5")	(0-0.5")		(0-0.5")
DATE SAMPLED			8/29/17	8/29/17	8/15/17	8/15/2017	8/29/17	8/29/17	8/15/17
WORK ORDER NO.			17H1544	17H1544	17H0854	17H0854	17H1544	17H1544	17H0854
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]			PARENT	DUPLICATE			
PARAMETER (Units)[2]									
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)									
PCB-1254	10	--	<0.48	<1.8	<0.099	<0.10	<0.48	<0.93	<0.099
PCB-1260	10	--	**1.9**	**14**	<0.099	<0.10	**2.0**	**5.7**	<0.099
PCB 1268	10	--	<0.48	<1.8	<0.099	<0.10	<0.48	<0.93	<0.099
Total PCBs	10	--	**1.9**	**14**	<0.099	<0.10	**2.0**	**5.7**	<0.099
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)									
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA
PCB 1262	--	5	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)									
Acetone	1,000	140	NA	<0.10	NA	NA	NA	<0.091	NA
n-Butylbenzene*	1,000	70	NA	<0.0021	NA	NA	NA	<0.0018	NA
sec-Butylbenzene*	1,000	70	NA	<0.0021	NA	NA	NA	<0.0018	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	<0.0021	NA	NA	NA	<0.0018	NA
Naphthalene	2,500	56	NA	<0.0041	NA	NA	NA	<0.0036	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	<0.0021	NA	NA	NA	<0.0018	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	<0.0021	NA	NA	NA	<0.0018	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)									
Acenaphthene*	2,500	84	NA	**57**	NA	NA	NA	**4.1**	NA
Acenaphthylene	2,500	84	NA	<2.0	NA	NA	NA	<0.82	NA
Anthracene*	2,500	400	NA	**70**	NA	NA	NA	**6.7**	NA
Benzo(a)anthracene	7.8	1	NA	**220**	NA	NA	NA	**31**	NA
Benzo(a)pyrene	1	1	NA	**200**	NA	NA	NA	**31**	NA
Benzo(b)fluoranthene	7.8	1	NA	**220**	NA	NA	NA	**37**	NA
Benzo(g,h,i)perylene*	78	1	NA	**130**	NA	NA	NA	**20**	NA
Benzo(k)fluoranthene	78	1	NA	**91**	NA	NA	NA	**13**	NA
Carbazole*	290	1.0	NA	**43**	NA	NA	NA	**3.8**	NA
Chrysene*	780	1	NA	**210**	NA	NA	NA	**32**	NA
Dibenz(a,h)anthracene*	1	1	NA	**34**	NA	NA	NA	**4.8**	NA
Dibenzofuran*	1,000	1.4	NA	**22**	NA	NA	NA	<1.6	NA
Fluoranthene	2,500	56	NA	**460**	NA	NA	NA	**62**	NA
Fluorene	2,500	56	NA	**39**	NA	NA	NA	**2.6**	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	**140**	NA	NA	NA	**21**	NA
2-Methylnaphthalene*	1,000	5.6	NA	**12**	NA	NA	NA	<0.82	NA
Naphthalene	2,500	56	NA	**28**	NA	NA	NA	**1.3**	NA
Phenanthrene	2,500	40	NA	**350**	NA	NA	NA	**33**	NA
Pyrene	2,500	40	NA	**390**	NA	NA	NA	**51**	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)									
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**7400**	NA	NA	NA	**4000**	NA
Total Metals by EPA method 6010B (mg/kg)									
Antimony	8,200	NE	NA	**25**	NA	NA	NA	**10**	NA
Arsenic	10	NE	NA	**25**	NA	NA	NA	**18**	NA
Barium	140,000	NE	NA	**130**	NA	NA	NA	**140**	NA
Cadmium	1,000	NE	NA	**3.4**	NA	NA	NA	**2.9**	NA
Chromium	NE	NE	NA	**97**	NA	NA	NA	**47**	NA
Copper	76,000	NE	NA	**570**	NA	NA	NA	**210**	NA
Lead	1,000	NE	NA	**1800**	NA	NA	NA	**470**	NA
Mercury	610	NE	NA	**0.35**	NA	NA	NA	**0.35**	NA
Nickel	7,500	NE	NA	**210**	NA	NA	NA	**240**	NA
Vanadium	14,000	NE	NA	**2000**	NA	NA	NA	**1700**	NA
Zinc	610,000	NE	NA	**1100**	NA	NA	NA	**980**	NA
Total Solids (%)	--	--	NA	**84.9**	NA	NA	NA	**83.3**	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

TABLE 3
AOC-8 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC8-CO-19B	WS-AOC8-SE-19	WS-AOC8-CO-20	WS-AOC8-CO-21	WS-AOC8-SE-23	WS-AOC8-SE-24	WS-AOC8-SE-25
SAMPLE DEPTH (ft bgs)			(0-0.5")		(0-0.5")	(0-0.5")			
DATE SAMPLED			8/29/17	8/29/17	8/15/17	8/15/17	8/25/17	8/29/17	8/31/17
WORK ORDER NO.			17H1544	17H1544	17H0854	17H0854	17H1432	17H1544	17H1675
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]							
PARAMETER (Units)[2]									
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)									
PCB-1254	10	--	<0.097	<0.21	<0.10	<0.099	**0.23**	<0.11	<0.52
PCB-1260	10	--	**0.79**	**1.5**	<0.10	<0.099	**0.58**	**0.32**	**2.4**
PCB 1268	10	--	<0.097	<0.21	<0.10	<0.099	**0.23**	**0.14**	<0.52
Total PCBs	10	--	**0.79**	**1.5**	<0.10	<0.099	**1.04**	**0.46**	**2.4**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)									
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA
PCB 1262	--	5	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)									
Acetone	1,000	140	NA	<0.098	NA	NA	<3.8	<4.8	<0.11
n-Butylbenzene*	1,000	70	NA	<0.0020	NA	NA	<0.076	**0.15**	<0.0022
sec-Butylbenzene*	1,000	70	NA	<0.0020	NA	NA	<0.076	**0.13**	<0.0022
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	<0.0020	NA	NA	<0.076	**0.11**	<0.0022
Naphthalene	2,500	56	NA	<0.0039	NA	NA	<0.15	**0.73**	<0.0044
1,2,4-Trimethylbenzene*	1,000	28	NA	<0.0020	NA	NA	<0.076	**0.44**	<0.0022
1,3,5-Trimethylbenzene*	1,000	28	NA	<0.0020	NA	NA	<0.076	**0.15**	<0.0022
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)									
Acenaphthene*	2,500	84	NA	**21**	NA	NA	<0.25	<4.9	<0.22
Acenaphthylene	2,500	84	NA	**2.0**	NA	NA	<0.25	<4.9	<0.22
Anthracene*	2,500	400	NA	**37**	NA	NA	<0.25	<4.9	**0.49**
Benzo(a)anthracene	7.8	1	NA	**110**	NA	NA	**1.1**	<4.9	**2.4**
Benzo(a)pyrene	1	1	NA	**98**	NA	NA	**0.91**	<4.9	**1.9**
Benzo(b)fluoranthene	7.8	1	NA	**120**	NA	NA	**1.4**	<4.9	**2.9**
Benzo(g,h,i)perylene*	78	1	NA	**46**	NA	NA	**0.45**	<4.9	**1.4**
Benzo(k)fluoranthene	78	1	NA	**45**	NA	NA	**0.50**	<4.9	**1.0**
Carbazole*	290	1.0	NA	**23**	NA	NA	<0.25	<4.9	**0.53**
Chrysene*	780	1	NA	**110**	NA	NA	**1.3**	<4.9	**2.9**
Dibenz(a,h)anthracene*	1	1	NA	**13**	NA	NA	<0.25	<4.9	**0.38**
Dibenzofuran*	1,000	1.4	NA	**8.8**	NA	NA	<0.50	<9.8	<0.45
Fluoranthene	2,500	56	NA	**250**	NA	NA	**2.6**	**5.0**	**6.3**
Fluorene	2,500	56	NA	**15**	NA	NA	<0.25	<4.9	<0.22
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	**54**	NA	NA	**0.51**	<4.9	**1.5**
2-Methylnaphthalene*	1,000	5.6	NA	**2.5**	NA	NA	<0.25	<4.9	<0.22
Naphthalene	2,500	56	NA	**5.0**	NA	NA	<0.25	<4.9	**0.23**
Phenanthrene	2,500	40	NA	**220**	NA	NA	**1.5**	<4.9	**4.1**
Pyrene	2,500	40	NA	**200**	NA	NA	**2.8**	<4.9	**5.1**
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)									
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**31**	NA	NA	**740**	**1600**	**600**
Total Metals by EPA method 6010B (mg/kg)									
Antimony	8,200	NE	NA	**20**	NA	NA	<3.5	**3.8**	**30**
Arsenic	10	NE	NA	**19**	NA	NA	<3.5	<3.4	**39**
Barium	140,000	NE	NA	**150**	NA	NA	**70**	**210**	**430**
Cadmium	1,000	NE	NA	**2.4**	NA	NA	**0.77**	**2.0**	**3.9**
Chromium	NE	NE	NA	**80**	NA	NA	**20**	**32**	**100**
Copper	76,000	NE	NA	**450**	NA	NA	**170**	**220**	**310**
Lead	1,000	NE	NA	**870**	NA	NA	**330**	**460**	**1400**
Mercury	610	NE	NA	**0.11**	NA	NA	**0.23**	**0.098**	**0.21**
Nickel	7,500	NE	NA	**120**	NA	NA	**34**	**31**	**180**
Vanadium	14,000	NE	NA	**470**	NA	NA	**99**	**98**	**1400**
Zinc	610,000	NE	NA	**1500**	NA	NA	**570**	**950**	**1300**
Total Solids (%)	--	--	NA	**94.9**	NA	NA	**67.7**	**69.5**	**76.3**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
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BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-AS-1	WS-AOC9-SO-1-1	WS-AOC9-SO-1-2	WS-AOC9-SO-1-3	WS-AOC9-AS-2	WS-AOC9-SO-2-1	WS-AOC9-SO-2-2	WS-AOC9-SO-2-3	WS-AOC9-AS-3	WS-AOC9-SO-3-1
SAMPLE DEPTH (ft bgs)			(0-0.5')	(0.5'-1')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')
DATE SAMPLED			8/17/17	7/28/17	7/28/17	7/28/17	8/17/17	7/28/17	7/28/17	7/28/17	8/17/17	7/28/17
WORK ORDER NO.			17H1006	17G1306	17G1306	17G1306	17H1006	17G1306	17G1306	17G1306	17H1006	17G1306
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.75	<0.10	<0.11	<0.11	<0.90	<0.11	<0.10	<0.12	<0.91	<0.11
PCB-1260	10	--	<0.75	**0.45**	<0.11	<0.11	<0.90	<0.11	**0.12**	<0.12	<0.91	**1.0**
PCB 1268	10	--	<0.75	<0.10	<0.11	<0.11	<0.90	<0.11	<0.10	<0.12	<0.91	<0.11
Total PCBs	10	--	<0.75	**0.45**	<0.11	<0.11	<0.90	<0.11	**0.12**	<0.12	<0.91	**1.0**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	yea	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**92.3**	**92.9**	**90.8**	NA	**93.6**	**93.2**	**81.1**	NA	**90.6**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-3-2	WS-AOC9-SO-3-3	WS-AOC9-AS-4	WS-AOC9-SO-4-1	WS-AOC9-SO-4-1R	WS-AOC9-SO-4-2	WS-AOC9-SO-4-3	WS-AOC9-AS-5	WS-AOC9-SO-5-1	WS-AOC9-SO-5-2
SAMPLE DEPTH (ft bgs)			(1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(0.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(1.5'-2.0')
DATE SAMPLED			7/28/17	7/28/17	8/17/17	7/28/17	9/14/17	7/28/17	7/28/17	8/17/17	7/28/17	7/28/17
WORK ORDER NO.			17G1306	17G1306	17H1006	17G1306	17I0641	17G1306	17G1306	17H1006	17G1306	17G1306
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										PARENT
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.11	<0.11	<0.91	<0.42	<0.83	<0.12	<0.12	<0.93	<0.11	<0.10
PCB-1260	10	--	<0.11	<0.11	**1.0**	**2.2**	**5.8**	**1.2**	<0.12	<0.93	**0.64**	**0.21**
PCB 1268	10	--	<0.11	<0.11	<0.91	<0.42	<0.83	<0.12	<0.12	<0.93	<0.11	<0.10
Total PCBs	10	--	<0.11	<0.11	**1.0**	**2.2**	**5.8**	**1.2**	<0.12	<0.93	**0.64**	**0.21**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	<12	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**88.9**	**86.8**	NA	**93.1**	**93.3**	**79.7**	**81.7**	NA	**91.3**	**93.0**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Certain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-DUP-32	WS-AOC9-SO-5-3	WS-AOC9-AS-6	WS-AOC9-SO-6-1A	WS-AOC9-SO-6-1B	WS-AOC9-SO-6-2	WS-AOC9-SO-6-3	WS-AOC9-AS-7	WS-AOC9-SO-7-1	WS-AOC9-SO-7-2
SAMPLE DEPTH (ft bgs)			(1.5'-2.0')	(5.5'-6.0')	(0-0.5")	(0.5'-1.0')	(1.0'-1.5')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5")	(0.5'-1.0')	(1.5'-2.0')
DATE SAMPLED			7/28/17	7/28/17	8/17/17	7/28/17	7/28/17	7/28/17	7/28/17	8/17/17	7/28/17	7/28/17
WORK ORDER NO.			17G1309	17G1306	17H1006	17G1306	17G1306	17G1306	17G1306	17H1006	17G1306	17G1307
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]	DUPLICATE									
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.11	<0.11	<0.89	<5.4	<43	<0.11	<0.11	<0.88	<2.1	<0.43
PCB-1260	10	--	**0.59**	**0.13**	<0.89	**60**	**320**	**0.34**	**0.23**	<0.88	**13**	**3.5**
PCB 1268	10	--	<0.11	<0.11	<0.89	<5.4	<43	**0.14**	<0.11	<0.88	<2.1	<0.43
Total PCBs	10	--	**0.59**	**0.13**	<0.89	**60**	**320**	**0.48**	**0.23**	<0.88	**13**	**3.5**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stryene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	<0.18	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	**0.48**	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	**0.32**	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	**2.7**	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	**2.5**	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	**2.9**	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	**2.0**	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	**1.1**	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	**3.7**	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	**0.21**	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	**5.3**	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	**0.21**	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	**1.7**	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	<0.18	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	<0.18	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	**4.1**	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	**7.9**	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	**220**	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**91.6**	**88.5**	NA	**93.2**	**92.3**	**90.6**	**87.0**	NA	**94.2**	**93.2**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
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< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-7-2R	WS-AOC9-SO-7-3	WS-AOC9-AS-8	WS-AOC9-AS-DUP-11	WS-AOC9-SO-8-1	WS-AOC9-SO-8-2	WS-AOC9-SO-8-3	WS-AOC9-AS-9	WS-AOC9-CO-DUP-16	WS-AOC9-SO-9-1
SAMPLE DEPTH (ft bgs)			(1.5'-2.0')	(5.5'-6.0')	(0-0.5")	(0-0.5")	(0.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5")	(0-0.5")	(0.5'-1.0')
DATE SAMPLED			9/14/17	7/28/17	8/17/17	8/17/17	7/28/17	7/28/17	7/28/17	8/17/17	8/23/17	7/28/17
WORK ORDER NO.			17I0641	17G1307	17H1006	17H1006	17G1307	17G1307	17G1307	17H1006	17H1285	17G1307
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]			PARENT	DUPLICATE				PARENT	DUPLICATE	
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.34	<0.11	<0.98	<0.88	<0.11	<0.11	<0.12	<0.83	<0.095	<2.1
PCB-1260	10	--	**1.6**	**1.3**	<0.98	<0.88	<0.11	<0.11	<0.12	<0.83	<0.095	**7.7**
PCB 1268	10	--	<0.34	<0.11	<0.98	<0.88	<0.11	<0.11	<0.12	<0.83	<0.095	<2.1
Total PCBs	10	--	**1.6**	**1.3**	<0.98	<0.88	<0.11	<0.11	<0.12	<0.83	<0.095	**7.7**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**93.7**	**88.1**	NA	NA	**93.3**	**90.9**	**86.8**	NA	NA	**95.5**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-9-1R	WS-AOC9-SO-9-2	WS-AOC9-SO-9-3	WS-AOC9-AS-10	WS-AOC9-SO-10-1	WS-AOC9-SO-DUP-33	WS-AOC9-SO-10-1R	WS-AOC9-SO-10-2	WS-AOC9-SO-10-3	WS-AOC9-AS-11
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(1.5'-2.0')	(8.5'-10.0')	(0-0.5")	(0.5'-1.0')	(0.5'-1.0')	(0.5'-1.0')	(1.5'-2.0')	(1.5'-2.0')	(0-0.5")
DATE SAMPLED			9/14/17	7/28/17	7/28/17	8/17/17	7/28/17	7/28/17	9/14/17	7/28/17	7/28/17	8/17/17
WORK ORDER NO.			17I0641	17G1307	17G1307	17H1006	17G1307	17G1309	17I0641	17G1307	17G1307	17H1006
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]					PARENT	DUPLICATE				
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<1.6	<1.1	<0.12	<0.98	<2.1	<0.54	<0.082	<1.1	<0.11	<0.92
PCB-1260	10	--	**11**	**4.0**	<0.12	<0.98	**10**	**3.1**	**0.88**	**8.3**	<0.11	<0.92
PCB 1268	10	--	<1.6	<1.1	<0.12	<0.98	<2.1	<0.54	<0.082	<1.1	<0.11	<0.92
Total PCBs	10	--	**11**	**4.0**	<0.12	<0.98	**10**	**3.1**	**0.88**	**8.3**	<0.11	<0.92
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA
PCB-1260	--	5	**0.68**	NA	NA	NA	NA	NA	**0.23**	NA	NA	NA
PCB 1268	--	5	<0.20	NA	NA	NA	NA	NA	<0.20	NA	NA	NA
Total PCBs	--	5	**0.68**	NA	NA	NA	NA	NA	**0.23**	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	**0.0034**	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	**0.014**	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	<0.0014	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	**0.36**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	**0.49**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	**0.59**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	**0.43**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	**0.21**	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	**0.31**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	**0.70**	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	**0.36**	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	**0.33**	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	**0.78**	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**63**	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**94.3**	**95.2**	**86.3**	NA	**93.1**	**92.4**	**92.4**	**94.1**	**88.6**	NA

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
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NE = Not Established by DEEP
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-11-1	WS-AOC9-SO-11-2	WS-AOC9-SO-11-3	WS-AOC9-AS-12	WS-AOC9-SO-12-1	WS-AOC9-SO-12-2	WS-AOC9-SO-DUP-34	WS-AOC9-SO-12-3	WS-AOC9-AS-13	WS-AOC9-SO-13-1
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(1.5'-2.0')	(8.0'-9.5')	(0-0.5')	(0.5'-1.0')	(1.5'-2.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')
DATE SAMPLED			7/28/17	7/28/17	7/28/17	8/17/17	7/28/17	7/28/17	7/28/17	7/28/17	8/17/17	7/28/17
WORK ORDER NO.			17G1307	17G1307	17G1307	17H1006	17G1307	17G1307	17G1309	17G1307	17H1006	17G1307
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]						PARENT	DUPLICATE			
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<1.1	<0.11	<0.13	<0.99	<0.10	<0.11	<0.11	<0.12	<0.90	<2.1
PCB-1260	10	--	**3.9**	**0.26**	<0.13	<0.99	<0.10	**0.20**	<0.11	<0.12	<0.90	**22**
PCB 1268	10	--	<1.1	**0.25**	**0.26**	<0.99	<0.10	<0.11	<0.11	<0.12	<0.90	<2.1
Total PCBs	10	--	**3.9**	**0.51**	**0.26**	<0.99	<0.10	**0.2**	<0.11	<0.12	<0.90	**22**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	<0.22	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	<0.22	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	**0.53**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	**2.1**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	**2.4**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	**2.9**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	**1.3**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	**1.1**	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	**1.8**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	**0.30**	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	**4.7**	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	<0.22	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	**1.2**	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	<0.22	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	**0.70**	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	**1.3**	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	**5.0**	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**410**	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**91.5**	**92.6**	**77.1**	NA	**97.1**	**93.6**	**92.6**	**81.7**	NA	**94.1**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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mg/kg = milligrams per kilogram
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< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
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NE = Not Established by DEEP
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-13-2	WS-AOC9-SO-13-3	WS-AOC9-AS-14	WS-AOC9-SO-14-1	WS-AOC9-SO-14-2	WS-AOC9-SO-14-3	WS-AOC9-AS-15	WS-AOC9-SO-15-1	WS-AOC9-SO-15-2	WS-AOC9-SO-15-3
SAMPLE DEPTH (ft bgs)			(1.5'-2.0')	(5.5'-6.0')	(0-0.5")	(0.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5")	(0.5'-1.0')	(1.5'-2.5')	(5.5'-6.0')
DATE SAMPLED			7/28/17	7/28/17	8/16/17	7/28/17	7/28/17	7/28/17	8/16/17	7/28/17	7/28/17	7/28/17
WORK ORDER NO.			17G1307	17G1307	17H0919	17G1308	17G1308	17G1308	17H0919	17G1308	17G1308	17G1309
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<2.1	<0.12	<0.88	<0.11	<0.10	<0.11	<0.97	<0.11	<0.11	<0.13
PCB-1260	10	--	**20**	**0.60**	<0.88	**0.19**	<0.10	<0.11	<0.97	<0.11	<0.11	<0.13
PCB 1268	10	--	<2.1	<0.12	<0.88	<0.11	<0.10	<0.11	<0.97	<0.11	<0.11	<0.13
Total PCBs	10	--	**20**	**0.60**	<0.88	**0.19**	<0.10	<0.11	<0.97	<0.11	<0.11	<0.13
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	**530**	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**93.9**	**83.8**	NA	**92.5**	**95.3**	**94.1**	NA	**93.8**	**93.0**	**76.6**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-AS-16	WS-AOC9-SO-16-1	WS-AOC9-SO-16-2	WS-AOC9-SO-16-2R	WS-AOC9-SO-16-3	WS-AOC9-AS-17	WS-AOC9-SO-17-1	WS-AOC9-SO-17-2	WS-AOC9-SO-17-3	WS-AOC9-AS-18
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0.5'-1.0')	(1.5'-2.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5")	(0.5'-1.0')	(1.5'-2.5')	(5.5'-6.0')	(0-0.5")
DATE SAMPLED			8/17/17	7/28/17	7/28/17	9/14/17	7/28/17	8/16/17	7/31/17	7/31/17	7/31/17	11/3/17
WORK ORDER NO.			17H1006	17G1308	17G1308	17I0641	17G1308	17H0919	17G1420	17G1420	17G1420	17K0252
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.82	<0.54	<1.1	<8.7	<0.58	<0.96	<0.11	<0.10	<0.12	<0.098
PCB-1260	10	--	<0.82	**2.8**	**6.1**	**34**	**3.9**	<0.96	**0.87**	**0.2**	<0.12	**0.33**
PCB 1268	10	--	<0.82	<0.54	<1.1	<8.7	<0.58	<0.96	<0.11	<0.10	<0.12	<0.098
Total PCBs	10	--	<0.82	**2.8**	**6.1**	**34**	**3.9**	<0.96	**0.87**	**0.2**	<0.12	**0.33**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	**2.0**	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	**2.0**	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**92.5**	**92.1**	**92.3**	**85.8**	NA	**89.0**	**96.6**	**83.1**	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-18-1	WS-AOC9-SO-18-2	WS-AOC9-SO-18-3	WS-AOC9-AS-19	WS-AOC9-SO-19-1	WS-AOC9-SO-19-2	WS-AOC9-SO-19-3	WS-AOC9-SO-DUP-35	WS-AOC9-AS-20	WS-AOC9-SO-20-1
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(1.5'-2.0')	(8.0'-9.5')	(0-0.5")	(1.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')	(5.5'-6.0')	(0-0.5")	(0.5'-1.0')
DATE SAMPLED			7/31/17	7/31/17	7/31/17	8/16/17	7/31/17	7/31/17	7/31/17	7/31/17	8/16/17	7/31/17
WORK ORDER NO.			17G1420	17G1420	17G1420	17H0919	17G1420	17G1420	17G1420	17G1437	17H0919	17G1420
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]							PARENT	DUPLICATE		PARENT
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.10	<0.11	<0.14	<0.98	<0.10	<0.098	<0.19	<0.15	<0.99	<0.10
PCB-1260	10	--	**0.31**	**0.17**	<0.14	<0.98	**1.2**	<0.098	<0.19	<0.15	<0.99	**0.53**
PCB 1268	10	--	<0.10	<0.11	<0.14	<0.98	<0.10	<0.098	<0.19	<0.15	<0.99	<0.10
Total PCBs	10	--	**0.31**	**0.17**	<0.14	<0.98	**1.2**	<0.098	<0.19	<0.15	<0.99	**0.53**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	<0.24	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	<0.24	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	<0.24	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	**0.90**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	**0.93**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	**1.1**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	**0.71**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	**0.38**	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	**0.89**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	<0.24	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	**1.1**	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	<0.24	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	**0.64**	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	<0.24	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	<0.24	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	**0.52**	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	**1.5**	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**120**	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**93.0**	**87.7**	**71.6**	NA	**95.6**	**96.8**	**52.7**	**67.2**	NA	**94.0**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-DUP-36	WS-AOC9-SO-20-2	WS-AOC9-SO-20-3	WS-AOC9-AS-21	WS-AOC9-SO-21-1	WS-AOC9-SO-21-1R	WS-AOC9-SO-21-2	WS-AOC9-SO-21-3	WS-AOC9-AS-22	WS-AOC9-SO-22-1
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(0.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')
DATE SAMPLED			7/31/17	7/31/17	7/31/17	8/16/17	7/31/17	9/14/17	7/31/17	7/31/17	8/16/17	7/31/17
WORK ORDER NO.			17G1437	17G1420	17G1420	17H0919	17G1420	17I0641	17G1420	17G1420	17H0919	17G1420
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]	DUPLICATE									
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.11	<0.10	<0.17	**3.0**	<1.0	<1.6	<0.10	<0.10	<0.91	<0.11
PCB-1260	10	--	**0.16**	<0.10	<0.17	<0.96	**5.2**	**8.3**	<0.10	<0.10	<0.91	<0.11
PCB 1268	10	--	<0.11	<0.10	<0.17	<0.96	<1.0	<1.6	<0.10	<0.10	<0.91	<0.11
Total PCBs	10	--	**0.16**	<0.10	<0.17	**3.0**	**5.2**	**8.3**	<0.10	<0.10	<0.91	<0.11
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	**0.73**	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	<0.20	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	**0.73**	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**93.9**	**96.6**	**59.3**	NA	**95.4**	**94.2**	**92.4**	**92.1**	NA	**92.5**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-22-2	WS-AOC9-SO-DUP-37	WS-AOC9-SO-22-3	WS-AOC9-SO-23-1	WS-AOC9-SO-23-2	WS-AOC9-SO-23-3	WS-AOC9-SO-23-4	WS-AOC9-SO-23-4R	WS-AOC9-AS-24	WS-AOC9-AS-DUP-10
SAMPLE DEPTH (ft bgs)			(1.5'-2.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')	(5.5'-6.0')	(0-0.5")	(0-0.5")
DATE SAMPLED			7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	9/14/17	8/16/17	8/16/17
WORK ORDER NO.			17G1420	17G1437	17G1420	17G1420	17G1420	17G1427	17G1427	17I0641	17H0919	17H0919
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]	PARENT	DUPLICATE							PARENT	DUPLICATE
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.11	<0.11	<0.15	<0.097	<0.10	<11	<0.23	<0.83	<0.86	<0.85
PCB-1260	10	--	<0.11	<0.11	<0.15	<0.097	**0.86**	**36**	**2.1**	**5.3**	<0.86	<0.85
PCB 1268	10	--	<0.11	<0.11	<0.15	<0.097	<0.10	<11	<0.23	<0.83	<0.86	<0.85
Total PCBs	10	--	<0.11	<0.11	<0.15	<0.097	**0.86**	**36**	**2.1**	**5.3**	<0.86	<0.85
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	<0.20	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	**0.82**	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	<0.20	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	**0.82**	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**92.6**	**94.4**	**62.1**	**97.4**	**95.7**	**92.2**	**88.8**	**93.6**	NA	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-24-1	WS-AOC9-SO-24-2	WS-AOC9-SO-24-3	WS-AOC9-SO-25-1	WS-AOC9-SO-25-2	WS-AOC9-SO-25-3	WS-AOC9-SO-25-4	WS-AOC9-AS-26	WS-AOC9-SO-26-1	WS-AOC9-SO-26-2
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(1.5'-2.5')	(5.5'-6.0')	(0-0.5")	(0.5'-1.0')	(5.5'-6.0')
DATE SAMPLED			7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	8/16/17	7/31/17	7/31/17
WORK ORDER NO.			17G1427	17G1427	17G1427	17G1427	17G1427	17G1427	17G1427	17H0919	17G1427	17G1427
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.21	<0.11	<0.11	<0.10	<0.11	<0.11	<0.12	<0.94	<1.1	<0.11
PCB-1260	10	--	**1.6**	<0.11	<0.11	**0.32**	<0.11	<0.11	<0.12	<0.94	**5.0**	<0.11
PCB 1268	10	--	<0.21	<0.11	<0.11	<0.10	<0.11	<0.11	<0.12	<0.94	<1.1	<0.11
Total PCBs	10	--	**1.6**	<0.11	<0.11	**0.32**	<0.11	<0.11	<0.12	<0.94	**5.0**	<0.11
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	**0.19**	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	**0.19**	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	**0.25**	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	**0.18**	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	**0.19**	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	**0.32**	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	<0.18	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	**0.31**	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	**11**	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**96.5**	**90.2**	**89.4**	**95.8**	**94.0**	**94.6**	**84.0**	NA	**94.3**	**93.0**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-26-3	WS-AOC9-SO-27-1	WS-AOC9-SO-27-1R	WS-AOC9-SO-27-2	WS-AOC9-SO-27-3	WS-AOC9-SO-27-4	WS-AOC9-SO-28-1	WS-AOC9-SO-28-2	WS-AOC9-SO-28-3	WS-AOC9-SO-28-4A
SAMPLE DEPTH (ft bgs)			(5.5'-6.0')	(0-0.5')	(0-0.5')	(0.5'-1.0')	1.5'-2.0')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(1.5'-2.0')	(5.5'-6.0')
DATE SAMPLED			7/31/17	7/31/17	9/14/17	7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	7/31/17	7/31/17
WORK ORDER NO.			17G1427	17G1427	17I0641	17G1427	17G1427	17G1427	17G1427	17G1427	17G1427	17G1427
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.12	<1.0	<1.7	<0.10	<0.11	<0.15	<0.10	<10	<0.10	<0.17
PCB-1260	10	--	<0.12	**8.4**	**14**	**1.1**	**0.25**	<0.15	**1.1**	**34**	**0.19**	**0.20**
PCB 1268	10	--	<0.12	<1.0	<1.7	<0.10	<0.11	<0.15	<0.10	<10	<0.10	<0.17
Total PCBs	10	--	<0.12	**8.4**	**14**	**1.1**	**0.25**	<0.15	**1.1**	**34**	**0.19**	**0.20**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	**4.2**	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	**4.2**	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA				
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**82.4**	**97.2**	**96.2**	**97.4**	**93.8**	**66.3**	**96.1**	**97.1**	**96.8**	**59.2**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable

EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-28-4B	WS-AOC9-SO-29-1	WS-AOC9-SO-29-2	WS-AOC9-SO-29-3	WS-AOC9-SO-29-4	WS-AOC9-AS-30	WS-AOC9-SO-30-1	WS-AOC9-SO-DUP-39	WS-AOC9-SO-30-2	WS-AOC9-SO-30-3A
SAMPLE DEPTH (ft bgs)			(6.0'-6.5')	(0-0.5')	(0.5'-1.0')	(4.5'-5.0')	(8.5'-9.0')	(0-0.5")	(0.5'-1.0')	(0.5'-1.0')	(4.5'-5.0')	(8.5'-9.0')
DATE SAMPLED			7/31/17	9/11/17	9/11/17	9/11/17	9/11/17	8/22/17	8/1/17	8/1/17	8/1/17	8/1/17
WORK ORDER NO.			17G1436	17I0378	17I0378	17I0378	17I0378	17H1208	17H0058	17H0064	17H0058	17H0058
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]							PARENT	DUPLICATE		
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	NA	<9.1	<0.89	<0.11	<0.12	<2.5	<0.11	<0.11	<0.11	<0.31
PCB-1260	10	--	NA	**78**	**5.9**	**0.11**	<0.12	**9.2**	<0.11	<0.11	<0.11	<0.31
PCB 1268	10	--	NA	<9.1	<0.89	<0.11	<0.12	<2.5	<0.11	<0.11	<0.11	<0.31
Total PCBs	10	--	NA	**78**	**5.9**	**0.11**	<0.12	**9.2**	<0.11	<0.11	<0.11	<0.31
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	<0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**41**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**54.1**	**88.1**	**90.3**	**70.4**	**68.2**	NA	**94.6**	**94.7**	**89.0**	**64.0**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-30-3B	WS-AOC9-AS-31	WS-AOC9-SO-31-1	WS-AOC9-SO-31-1R	WS-AOC9-SO-31-2	WS-AOC9-AS-32	WS-AOC9-SO-32-1	WS-AOC9-SO-32-2	WS-SOC9-SO-DUP-42	WS-AOC9-SO-32-3
SAMPLE DEPTH (ft bgs)			(9.0'-9.5')	(0.0-0.5')	(0.5'-1.0')	(0.5'-1.0')	(2.0'-3.0')	(0.0-0.5')	(0.5'-1.0')	(2.0'-3.0')	(2.0'-3.0')	(6.0'-7.5')
DATE SAMPLED			8/1/17	8/22/17	8/1/17	9/14/17	8/1/17	8/22/17	8/1/17	8/1/17	8/1/17	8/1/17
WORK ORDER NO.			17H0058	17H1208	17H0058	17I0641	17H0058	17H1208	17H0060	17H0060	17H0064	17H0060
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]								PARENT	DUPLICATE	
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	NA	<0.10	<0.85	<1.7	<2.1	<0.50	<0.10	<0.11	<0.11	<0.17
PCB-1260	10	--	NA	<0.10	**5.2**	**15**	**18**	<0.50	<0.10	<0.11	<0.11	<0.17
PCB 1268	10	--	NA	<0.10	<0.85	<1.7	<2.1	<0.50	<0.10	<0.11	<0.11	<0.17
Total PCBs	10	--	NA	<0.10	**5.2**	**15**	**18**	<0.50	<0.10	<0.11	<0.11	<0.17
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	**0.69**	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	**0.69**	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	**1.2**
Acenaphthylene	2,500	84	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	<1.2
Anthracene*	2,500	400	**3.9**	NA	NA	NA	NA	NA	NA	NA	NA	**1.9**
Benzo(a)anthracene	7.8	1	**9.1**	NA	NA	NA	NA	NA	NA	NA	NA	**4.8**
Benzo(a)pyrene	1	1	**8.1**	NA	NA	NA	NA	NA	NA	NA	NA	**4.7**
Benzo(b)fluoranthene	7.8	1	**8.3**	NA	NA	NA	NA	NA	NA	NA	NA	**5.0**
Benzo(g,h,i)perylene*	78	1	**4.2**	NA	NA	NA	NA	NA	NA	NA	NA	**2.2**
Benzo(k)fluoranthene	78	1	**3.5**	NA	NA	NA	NA	NA	NA	NA	NA	**2.0**
Chrysene*	780	1	**7.5**	NA	NA	NA	NA	NA	NA	NA	NA	**3.7**
Dibenz(a,h)anthracene*	1	1	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	<1.2
Fluoranthene	2,500	56	**21**	NA	NA	NA	NA	NA	NA	NA	NA	**11**
Fluorene	2,500	56	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	<1.2
Indeno(1,2,3-cd)pyrene*	7.8	1	**4.1**	NA	NA	NA	NA	NA	NA	NA	NA	**2.2**
2-Methylnaphthalene*	1,000	5.6	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	<1.2
Naphthalene	2,500	56	<1.4	NA	NA	NA	NA	NA	NA	NA	NA	<1.2
Phenanthrene	2,500	40	**13**	NA	NA	NA	NA	NA	NA	NA	NA	**7.4**
Pyrene	2,500	40	**18**	NA	NA	NA	NA	NA	NA	NA	NA	**10**
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**380**	NA	NA	NA	NA	NA	NA	NA	NA	**820**
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**58.7**	NA	**94.4**	**94.2**	**95.3**	NA	**95.0**	**89.9**	**92.1**	**58.4**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-32-3R	WS-AOC9-SO-33-1	WS-AOC9-SO-33-2	WS-AOC9-SO-33-3	WS-AOC9-SO-33-4	WS-AOC9-AS-34	WS-AOC9-SO-34-1	WS-AOC9-SO-34-2	WS-AOC9-SO-34-3	WS-AOC9-AS-35
SAMPLE DEPTH (ft bgs)			(6.0'-7.5')	(0-0.5')	(0.5'-1.0')	(2.0'-3.0')	(6.0'-7.0')	(0-0.5')	(0.5'-1.0')	(2.0'-3.0')	(6.0'-7.0')	(0-0.5')
DATE SAMPLED			9/14/17	8/1/17	8/1/17	81/17	8/1/17	8/22/17	8/1/17	8/1/17	8/1/17	8/22/17
WORK ORDER NO.			17I0641	17H0059	17H0059	17H0060	17H0060	17H1208	17H0059	17H0059	17H0059	17H1208
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	NA	<0.10	<0.10	<0.12	<0.14	<0.50	<0.11	<0.11	<0.15	<0.50
PCB-1260	10	--	NA	**1.0**	**0.13**	<0.12	<0.14	<0.50	<0.11	<0.11	<0.15	<0.50
PCB 1268	10	--	NA	<0.10	<0.10	<0.12	<0.14	<0.50	<0.11	<0.11	<0.15	<0.50
Total PCBs	10	--	NA	**1.00**	**0.13**	<0.12	<0.14	<0.50	<0.11	<0.11	<0.15	<0.50
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	**1.7**	NA	NA	NA	NA	NA	NA	NA	<0.26	NA
Acenaphthylene	2,500	84	**0.37**	NA	NA	NA	NA	NA	NA	NA	<0.26	NA
Anthracene*	2,500	400	**2.0**	NA	NA	NA	NA	NA	NA	NA	**0.36**	NA
Benzo(a)anthracene	7.8	1	**4.5**	NA	NA	NA	NA	NA	NA	NA	**0.95**	NA
Benzo(a)pyrene	1	1	**4.4**	NA	NA	NA	NA	NA	NA	NA	**0.76**	NA
Benzo(b)fluoranthene	7.8	1	**4.9**	NA	NA	NA	NA	NA	NA	NA	**0.86**	NA
Benzo(g,h,i)perylene*	78	1	**3.0**	NA	NA	NA	NA	NA	NA	NA	**0.60**	NA
Benzo(k)fluoranthene	78	1	**1.9**	NA	NA	NA	NA	NA	NA	NA	**0.36**	NA
Chrysene*	780	1	**3.9**	NA	NA	NA	NA	NA	NA	NA	**0.96**	NA
Dibenz(a,h)anthracene*	1	1	**0.66**	NA	NA	NA	NA	NA	NA	NA	<0.26	NA
Fluoranthene	2,500	56	**10**	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA
Fluorene	2,500	56	**1.4**	NA	NA	NA	NA	NA	NA	NA	<0.26	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	**2.9**	NA	NA	NA	NA	NA	NA	NA	**0.55**	NA
2-Methylnaphthalene*	1,000	5.6	**0.72**	NA	NA	NA	NA	NA	NA	NA	<0.26	NA
Naphthalene	2,500	56	**2.9**	NA	NA	NA	NA	NA	NA	NA	<0.26	NA
Phenanthrene	2,500	40	**7.5**	NA	NA	NA	NA	NA	NA	NA	**2.1**	NA
Pyrene	2,500	40	**9.1**	NA	NA	NA	NA	NA	NA	NA	**2.3**	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	**5.3**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	<0.29	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	**3.7**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	**3.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	**2.1**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	**2.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	**0.88**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	**0.82**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	**3.4**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	**16**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	**2.8**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	**0.90**	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	<0.98	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	<0.98	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	**18**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	**15**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	**21**	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**69.3**	**97.2**	**94.7**	**80.1**	**67.9**	NA	**89.0**	**89.4**	**65.1**	NA

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-35-1	WS-AOC9-SO-35-2	WS-AOC9-SO-35-3	WS-AOC9-SO-35-3R	WS-AOC9-AS-36	WS-AOC9-SO-36-1	WS-AOC9-SO-36-2	WS-AOC9-SO-36-3	WS-AOC9-SO-37-1	WS-AOC9-SO-37-2
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(2.0'-3.0')	(4.0'-5.0')	(4.0'-5.0')	(0-0.5")	(0.5'-1.0')	(2.0'-3.0')	(6.0'-7.0')	(0-0.5')	(0.5'-1.0')
DATE SAMPLED			8/1/17	8/1/17	8/1/17	9/14/17	8/22/17	8/1/17	8//17	81/17	8/1/17	8/1/17
WORK ORDER NO.			17H0060	17H0060	17H0060	17I0641	17H1208	17H0061	17H0061	17H0061	17H0060	17H0060
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.10	<0.14	<0.12	NA	<0.50	<0.12	<0.11	<0.16	<0.42	<0.10
PCB-1260	10	--	<0.10	<0.14	<0.12	NA	<0.50	<0.12	<0.11	<0.16	**3.2**	<0.10
PCB 1268	10	--	<0.10	<0.14	<0.12	NA	<0.50	<0.12	<0.11	<0.16	<0.42	<0.10
Total PCBs	10	--	<0.10	<0.14	<0.12	NA	<0.50	<0.12	<0.11	<0.16	**3.2**	<0.10
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	**1.2**	**0.97**	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	<0.86	<0.21	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	**1.4**	**1.1**	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	**3.1**	**1.9**	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	**2.9**	**1.7**	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	**3.5**	**1.8**	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	**1.7**	**0.99**	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	**1.1**	**0.65**	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	**2.7**	**1.8**	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	<0.86	**0.24**	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	**5.8**	**5.7**	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	**1.0**	**0.72**	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	**1.5**	**1.0**	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	<0.86	**0.38**	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	**1.8**	**1.6**	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	**5.1**	**4.3**	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	**6.7**	**4.8**	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	**8.1**	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	<0.30	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	**1.1**	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	**0.14**	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	<0.10	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	**0.098**	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	**1.7**	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	**3.0**	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	**4.8**	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	**6.5**	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	**1.3**	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**550**	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**92.3**	**73.0**	**79.0**	**82.0**	NA	**80.8**	**88.8**	**63.2**	**94.3**	**92.7**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-37-3A	WS-AOC9-SO-37-3B	WS-AOC9-SO-DUP-43	WS-AOC9-SO-37-3R	WS-AOC9-SO-37-4	WS-AOC9-AS-38	WS-AOC9-SO-38-1	WS-AOC9-SO-38-2	WS-AOC9-SO-38-3	WS-AOC9-AS-39
SAMPLE DEPTH (ft bgs)			(2.0'-3.0')	(4.0'-5.0')	(4.0'-5.0')	(4.0'-5.0')	(6.0'-7.0')	(0-0.5")	(0.5'-1.0')	(2.0'-3.0')	(6.0'-7.0')	(0-0.5")
DATE SAMPLED			8/1/17	8/1/17	8/1/17	9/14/17	8/1/17	8/22/17	8/1/17	8/1/17	8/1/17	8/22/17
WORK ORDER NO.			17H0060	17H0060	17H0064	17I0641	17H0061	17H1208	17H0061	17H0061	17H0061	17H1208
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]		PARENT	DUPLICATE							
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.14	NA	NA	NA	<0.12	<0.50	<0.11	<0.11	<0.18	<0.50
PCB-1260	10	--	<0.14	NA	NA	NA	**0.63**	<0.50	<0.11	<0.11	<0.18	<0.50
PCB 1268	10	--	<0.14	NA	NA	NA	<0.12	<0.50	<0.11	<0.11	<0.18	<0.50
Total PCBs	10	--	<0.14	NA	NA	NA	**0.63**	<0.50	<0.11	<0.11	<0.18	<0.50
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	<1.1	**0.52**	**4.6**	NA	NA	NA	NA	<0.62	NA
Acenaphthylene	2,500	84	NA	<1.1	<0.52	**0.61**	NA	NA	NA	NA	<0.62	NA
Anthracene*	2,500	400	NA	**1.3**	**1.1**	**6.1**	NA	NA	NA	NA	<0.62	NA
Benzo(a)anthracene	7.8	1	NA	**2.6**	**2.3**	**9.4**	NA	NA	NA	NA	<0.62	NA
Benzo(a)pyrene	1	1	NA	**2.5**	**2.2**	**8.3**	NA	NA	NA	NA	<0.62	NA
Benzo(b)fluoranthene	7.8	1	NA	**2.6**	**2.5**	**8.9**	NA	NA	NA	NA	<0.62	NA
Benzo(g,h,i)perylene*	78	1	NA	**1.3**	**1.7**	**4.4**	NA	NA	NA	NA	<0.62	NA
Benzo(k)fluoranthene	78	1	NA	<1.1	**0.88**	**3.0**	NA	NA	NA	NA	<0.62	NA
Chrysene*	780	1	NA	**2.6**	**2.2**	**8.6**	NA	NA	NA	NA	<0.62	NA
Dibenz(a,h)anthracene*	1	1	NA	<1.1	<0.52	**1.1**	NA	NA	NA	NA	<0.62	NA
Fluoranthene	2,500	56	NA	**5.4**	**5.1**	**25**	NA	NA	NA	NA	<0.62	NA
Fluorene	2,500	56	NA	<1.1	<0.52	**4.1**	NA	NA	NA	NA	<0.62	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	**1.2**	**1.4**	**4.5**	NA	NA	NA	NA	<0.62	NA
2-Methylnaphthalene*	1,000	5.6	NA	<1.1	<0.52	**2.3**	NA	NA	NA	NA	<0.62	NA
Naphthalene	2,500	56	NA	**1.2**	**0.83**	**7.0**	NA	NA	NA	NA	<0.62	NA
Phenanthrene	2,500	40	NA	**2.9**	**3.0**	**23**	NA	NA	NA	NA	<0.62	NA
Pyrene	2,500	40	NA	**6.2**	**5.6**	**23**	NA	NA	NA	NA	<0.62	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	**8.4**	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	<0.30	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	**0.85**	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	**0.065**	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	<0.10	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	<0.050	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	<0.50	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	**1.2**	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	**2.3**	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	<0.20	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	**1.9**	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	**8.4**	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	**4.5**	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**480**	**1100**	NA	NA	NA	NA	NA	**660**	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**73.6**	**63.0**	**66.0**	**81.0**	**83.4**	NA	**90.7**	**93.6**	**54.9**	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-39-1	WS-AOC9-SO-39-2	WS-AOC9-SO-39-3	WS-AOC9-SO-DUP-44	WS-AOC9-SO-40-1	WS-AOC9-SO-40-2	WS-AOC9-AS-41	WS-AOC9-SO-41-1	WS-AOC9-SO-41-2	WS-AOC9-SO-41-3A
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(2.0'-3.0')	(6.0'-7.0')	(6.0'-7.0')	(0.0-0.5')	(0.5'-2.5')	(0-0.5")	(0.5'-1.0')	(2.0'-2.5')	(6.0'-6.5')
DATE SAMPLED			8/1/17	8/1/17	8/1/17	8/1/17	8/1/17	8/1/17	8/22/17	8/1/17	8/1/17	8/1/17
WORK ORDER NO.			17H0060	17H0061	17H0061	17H0064	17H0061	17H0061	17H1208	17H0060	17H0060	17H0060
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]			PARENT	DUPLICATE						
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.11	<0.12	<0.11	<0.11	<0.10	<0.11	<0.50	<0.11	<0.11	<0.18
PCB-1260	10	--	<0.11	<0.12	<0.11	<0.11	**1.0**	**0.30**	<0.50	<0.11	<0.11	<0.18
PCB 1268	10	--	<0.11	<0.12	<0.11	<0.11	<0.10	<0.11	<0.50	<0.11	<0.11	<0.18
Total PCBs	10	--	<0.11	<0.12	<0.11	<0.11	**1.0**	**0.30**	<0.50	<0.11	<0.11	<0.18
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	<0.39	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	<0.39	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	<0.39	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	**1.3**	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	**1.2**	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	**1.6**	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	**0.81**	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	**0.62**	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	**1.2**	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	<0.39	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	**2.4**	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	<0.39	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	**0.79**	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	<0.39	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	<0.39	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	**1.3**	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	**2.2**	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	**240**	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**92.5**	**83.6**	**91.8**	**91.1**	**96.4**	**87.0**	NA	**94.1**	**86.1**	**55.1**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Certain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-41-3B	WS-AOC9-SO-41-3R	WS-AOC9-CO-42	WS-AOC9-CO-43	WS-AOC9-CO-DUP-15	WS-AOC9-AS-44	WS-AOC9-SO-44-1	WS-AOC9-SO-44-2	WS-AOC9-SO-44-3	WS-AOC9-SO-45-0	WS-AOC9-SO-45-1
SAMPLE DEPTH (ft bgs)			(9.5'-10.0')	(9.5'-10.0')	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0.5'-1.0')	(2.0'-3.0')	(4.0'-5.0')		(0-0.5')
DATE SAMPLED			8/1/17	9/14/17	8/22/17	8/22/17	8/22/17	8/23/17	8/1/17	8/1/17	8/1/17	8/31/17	8/1/17
WORK ORDER NO.			17H0060	17I0642	17H1208	17H1208	17H1208	17H1283	17H0060	17H0060	17H0060	17H1675	17H0059
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]				PARENT	DUPLICATE						
PARAMETER (Units)[2]													
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)													
PCB-1254	10	--	NA	NA	<0.10	<0.10	<0.10	<0.10	<0.11	<0.11	<0.12	<0.091	<0.10
PCB-1260	10	--	NA	NA	<0.10	<0.10	<0.10	<0.10	<0.11	<0.11	<0.12	**0.27**	**0.78**
PCB 1268	10	--	NA	NA	<0.10	<0.10	<0.10	<0.10	<0.11	<0.11	<0.12	<0.091	**0.50**
Total PCBs	10	--	NA	NA	<0.10	<0.10	<0.10	<0.10	<0.11	<0.11	<0.12	**0.27**	**1.28**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)													
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)													
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)													
Acenaphthene*	2,500	84	<1.0	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	<1.0	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	**2**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	**4.5**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	**3.6**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	**4.7**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	**2.1**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	**1.6**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	**4.1**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	<1.0	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	**8.9**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	**1.2**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	**1.9**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	<1.0	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	<1.0	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	**10**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	**10**	<0.27	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)													
Acenaphthene*	NE	4200	NA	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	<0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	<0.050	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	<0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	<0.050	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	<0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	**0.16**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**1400**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)													
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**67.3**	**64.1**	NA	NA	NA	NA	**92.7**	**89.7**	**82.6**	**86.7**	**98.3**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-45-1R	WS-AOC9-SO-45-2	WS-AOC9-SO-45-2R	WS-AOC9-SO-45-3A	WS-AOC9-SO-45-3B	WS-AOC9-AS-46	WS-AOC9-SO-46-1	WS-AOC9-SO-DUP-41	WS-AOC9-SO-46-2A	WS-AOC9-SO-46-2B
SAMPLE DEPTH (ft bgs)			(0-0.5')	(0.5'-1.0')	(1.5'-2.0')	(4.0'-4.5')	(4.5'-5.0')	(0-0.5")	(1.5'-2.0')	(1.5'-2.0')	(5.5'-6.0')	8.5'-9.0')
DATE SAMPLED			9/14/17	8/1/17	9/14/17	8/1/17	8/1/17	8/23/17	8/1/17	8/1/17	8/1/17	8/1/17
WORK ORDER NO.			17I0642	17H0059	17I0642	17H0059	17H0059	17H1283	17H0059	17H0064	17H0059	17H0059
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]							PARENT	DUPLICATE		
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.42	<0.10	<0.085	<0.11	NA	<0.10	<0.10	<0.10	<0.13	NA
PCB-1260	10	--	**1.1**	**0.23**	<0.085	<0.11	NA	**0.10**	<0.10	<0.10	**0.13**	NA
PCB 1268	10	--	**0.66**	**0.10**	<0.085	<0.11	NA	<0.10	<0.10	<0.10	<0.13	NA
Total PCBs	10	--	**1.76**	**0.33**	<0.085	<0.11	NA	**0.10**	<0.10	<0.10	**0.13**	NA
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	<0.20	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	<0.20	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	<0.20	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	<0.20	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Acenaphthylene	2,500	84	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Anthracene*	2,500	400	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	**0.31**
Benzo(a)pyrene	1	1	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	**0.037**
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Chrysene*	780	1	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	**0.38**
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Fluoranthene	2,500	56	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	**0.57**
Fluorene	2,500	56	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Naphthalene	2,500	56	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Phenanthrene	2,500	40	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	<0.31
Pyrene	2,500	40	NA	NA	NA	NA	<0.20	NA	NA	NA	NA	**0.71**
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	<12	NA	NA	NA	NA	**54**
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**93.9**	**96.5**	**93.1**	**88.5**	**85.2**	NA	**93.6**	**95.3**	**77.0**	**54.5**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-46-3	WS-AOC9-AS-47	WS-AOC9-SO-47-1	WS-AOC9-SO-47-2	WS-AOC9-SO-47-3A	WS-AOC9-SO-47-3B	WS-AOC9-AS-48	WS-AOC9-SO-48-1	WS-AOC9-SO-48-1R	WS-AOC9-SO-DUP-63
SAMPLE DEPTH (ft bgs)			(11.5'-12.0')	(0-0.5")	(0.5'-1.0')	(5.5'-6.0')	(11.5'-12.0')	(12.0'-12.5')	(0-0.5")	(0-0.5')	(0-0.5')	(0-0.5')
DATE SAMPLED			8/1/17	8/23/17	8/1/17	8/1/17	8/1/17	8/1/17	8/23/17	8/1/17	9/14/17	9/14/17
WORK ORDER NO.			17H0059	17H1283	17H0058	17H0059	17H0059	17H0059	17H1283	17H0058	17I0642	17I0642
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.14	<0.10	<0.11	<0.11	<0.16	NA	<0.10	<1.0	<0.082	<0.085
PCB-1260	10	--	<0.14	<0.10	<0.11	<0.11	<0.16	NA	**0.14**	**3.9**	**0.17**	**0.11**
PCB 1268	10	--	<0.14	<0.10	<0.11	<0.11	<0.16	NA	<0.10	<1.0	**0.12**	<0.085
Total PCBs	10	--	<0.14	<0.10	<0.11	<0.11	<0.16	NA	**0.14**	**3.9**	**0.29**	**0.11**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	<0.20	<0.20
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	<0.20	<0.20
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	<0.20	<0.20
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	<0.20	<0.20
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	<0.59	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	<0.59	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	<0.59	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	**1.1**	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	**1.0**	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	**1.1**	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	**0.60**	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	<0.59	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	**0.95**	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	<0.59	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	**2.3**	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	<0.59	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	<0.59	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	<0.59	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	<0.59	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	**0.79**	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	**2.4**	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	**200**	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**69.5**	NA	**89.9**	**87.1**	**60.8**	**57.3**	NA	**96.7**	**95.2**	**91.7**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SO-48-2	WS-AOC9-SO-48-3	WS-AOC9-SO-48-4A	WS-AOC9-SO-48-4B	WS-AOC9-CO-49	WS-AOC9-CO-50	WS-AOC9-CO-51	WS-AOC9-CO-52	WS-AOC9-CO-53	WS-AOC9-SO-54
SAMPLE DEPTH (ft bgs)			(1.5'-2.0')	(5.5'-6.0')	(11.5'-12.0')	(12.0'-12.5')	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5')
DATE SAMPLED			8/1/17	8/1/17	8/1/17	8/1/17	8/17/17	8/17/17	8/17/17	8/17/17	8/17/17	8/17/17
WORK ORDER NO.			17H0058	17H0058	17H0058	17H0058	17H1006	17H1006	17H1006	17H1006	17H1006	17H1006
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<1.1	<13	<0.16	NA	<0.093	<0.092	<0.098	<0.090	<0.83	<0.10
PCB-1260	10	--	**6.3**	**87**	**0.38**	NA	<0.093	<0.092	<0.098	<0.090	<0.83	**0.13**
PCB 1268	10	--	<1.1	<13	<0.16	NA	<0.093	<0.092	<0.098	<0.090	<0.83	<0.10
Total PCBs	10	--	**6.3**	**87**	**0.38**	NA	<0.093	<0.092	<0.098	<0.090	<0.83	**0.13**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	<0.34	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	<0.34	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	<0.34	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	**0.62**	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	**0.56**	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	**0.59**	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	**0.37**	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	<0.34	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	**0.48**	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	<0.34	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	**1.2**	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	<0.34	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	**0.39**	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	<0.34	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	<0.34	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	**0.43**	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	**1.3**	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	**260**	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**94.2**	**74.3**	**61.2**	**49.7**	NA	NA	NA	NA	NA	**97.4**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
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NE = Not Established by DEEP
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-CO-55	WS-AOC9-CO-56	WS-AOC9-CO-57	WS-AOC9-CO-58	WS-AOC9-CO-59	WS-AOC9-CO-60	WS-AOC9-CO-61	WS-AOC9-CO-62	WS-AOC9-CO-63	WS-AOC9-CO-64
SAMPLE DEPTH (ft bgs)			(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')
DATE SAMPLED			8/17/17	8/17/17	8/17/17	8/17/17	8/17/17	8/22/17	8/22/17	8/22/17	8/22/17	8/22/17
WORK ORDER NO.			17H1006	17H1006	17H1006	17H1006	17H1006	17H1208	17H1208	17H1208	17H1208	17H1208
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.096	<0.97	<0.097	<0.90	<0.087	<0.50	<0.10	<0.10	<0.10	<0.10
PCB-1260	10	--	<0.096	<0.97	<0.097	<0.90	<0.087	**0.76**	<0.10	<0.10	<0.10	<0.10
PCB 1268	10	--	<0.096	<0.97	<0.097	<0.90	<0.087	<0.50	<0.10	<0.10	<0.10	<0.10
Total PCBs	10	--	<0.096	<0.97	<0.097	<0.90	<0.087	**0.76**	<0.10	<0.10	<0.10	<0.10
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Stryene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-CO-65	WS-AOC9-CO-66	WS-AOC9-CO-67	WS-AOC9-CO-68	WS-AOC9-CO-69	WS-AOC9-CO-70	WS-AOC9-CO-71	WS-AOC9-CO-72	WS-AOC9-CO-73	WS-AOC9-CO-74
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")
DATE SAMPLED			8/22/17	8/22/17	8/22/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17
WORK ORDER NO.			17H1208	17H1208	17H1208	17H1283	17H1283	17H1283	17H1283	17H1283	17H1283	17H1283
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
PCB-1260	10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
PCB 1268	10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Total PCBs	10	--	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-CO-75	WS-AOC9-CO-76	WS-AOC9-CO-77	WS-AOC9-AS-78	WS-AOC9-AS-79	WS-AOC9-CO-80	WS-AOC9-CO-81	WS-AOC9-CO-82	WS-AOC9-CO-83	WS-AOC9-CO-84
SAMPLE DEPTH (ft bgs)			(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')
DATE SAMPLED			8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17	8/23/17
WORK ORDER NO.			17H1283	17H1285	17H1285	17H1285	17H1285	17H1285	17H1285	17H1285	17H1285	17H1285
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.10	<0.076	<0.075	<0.89	<0.93	<0.092	<0.082	<0.092	<0.090	<0.10
PCB-1260	10	--	<0.10	<0.076	<0.075	<0.89	<0.93	<0.092	**0.14**	<0.092	<0.090	<0.10
PCB 1268	10	--	<0.10	<0.076	<0.075	<0.89	<0.93	<0.092	<0.082	<0.092	<0.090	<0.10
Total PCBs	10	--	<0.10	<0.076	<0.075	<0.89	<0.93	<0.092	**0.14**	<0.092	<0.090	<0.10
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
1,3-Dichlorobenzene	1,000	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	240	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethylene	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Styrene*	1,000	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene*	200	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Trichloroethylene	520	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 4
AOC-9 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC9-SE-85	WS-AOC9-SE-87	WS-AOC9-SE-88	WS-AOC9-SE-89	WS-AOC9-SE-90	WS-AOC9-OIL-91
SAMPLE DEPTH (ft bgs)								
DATE SAMPLED			8/25/17	8/25/17	8/25/17	11/3/17	8/25/17	8/30/17
WORK ORDER NO.			17H1432	17H1432	17H1432	17K0252	17H1432	17H1621
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]						
PARAMETER (Units)[2]								
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)								
PCB-1254	10	--	<0.22	<0.087	**0.21**	<0.93	**0.50**	<0.99
PCB-1260	10	--	**1.4**	<0.087	**0.24**	<0.93	**0.59**	**5.0**
PCB 1268	10	--	<0.22	<0.087	<0.18	<0.93	<0.24	<0.99
Total PCBs	10	--	**1.4**	<0.087	**0.76**	<0.93	**1.57**	**5.0**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)								
PCB-1254	--	5	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)								
1,3-Dichlorobenzene	1,000	120	<0.040	<0.0016	<0.20	<0.031	<0.22	NA
1,4-Dichlorobenzene	240	15	<0.040	<0.0016	<0.20	<0.031	<0.22	NA
1,1-Dichloroethane	1,000	14	**0.19**	<0.0016	<0.20	<0.031	<0.22	NA
cis-1,2-Dichloroethylene	1,000	14	**0.10**	<0.0016	<0.20	<0.031	<0.22	NA
trans-1,2-Dichloroethylene	1,000	20	**0.041**	<0.0016	<0.20	<0.031	<0.22	NA
Stryene*	1,000	20	**0.091**	<0.0016	<0.20	<0.031	<0.22	NA
Tetrachloroethylene	110	1	**0.34**	<0.0016	<0.20	<0.031	<0.22	NA
1,2,4-Trichlorobenzene*	200	14	**0.065**	<0.0016	<0.20	<0.031	<0.22	NA
1,1,1-Trichloroethane	1,000	40	**0.39**	<0.0016	<0.20	<0.031	<0.22	NA
Trichloroethylene	520	1	**0.090**	<0.0016	<0.20	<0.031	<0.22	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)								
Acenaphthene*	2,500	84	<0.19	<0.19	<0.40	<2.1	<0.52	NA
Acenaphthylene	2,500	84	<0.19	<0.19	<0.40	<2.1	<0.52	NA
Anthracene*	2,500	400	<0.19	<0.19	<0.40	<2.1	<0.52	NA
Benzo(a)anthracene	7.8	1	<0.19	<0.19	<0.40	**6.7**	<0.52	NA
Benzo(a)pyrene	1	1	<0.19	<0.19	<0.40	**6.4**	<0.52	NA
Benzo(b)fluoranthene	7.8	1	**0.24**	<0.19	<0.40	**8.8**	**0.62**	NA
Benzo(g,h,i)perylene*	78	1	<0.19	<0.19	<0.40	**6.9**	<0.52	NA
Benzo(k)fluoranthene	78	1	<0.19	<0.19	<0.40	**3.7**	<0.52	NA
Chrysene*	780	1	**0.24**	<0.19	<0.40	**6.5**	<0.52	NA
Dibenz(a,h)anthracene*	1	1	<0.19	<0.19	<0.40	<2.1	<0.52	NA
Fluoranthene	2,500	56	**0.36**	<0.19	**0.45**	**14**	**0.63**	NA
Fluorene	2,500	56	<0.19	<0.19	<0.40	<2.1	<0.52	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	<0.19	<0.19	<0.40	**5.0**	<0.52	NA
2-Methylnaphthalene*	1,000	5.6	<0.19	<0.19	<0.40	<2.1	<0.52	NA
Naphthalene	2,500	56	<0.19	<0.19	<0.40	<2.1	<0.52	NA
Phenanthrene	2,500	40	<0.19	<0.19	<0.40	**3.0**	<0.52	NA
Pyrene	2,500	40	**0.43**	<0.19	**0.57**	**15**	**1.1**	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)								
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**250**	<11	**520**	**2300**	**930**	NA
Total Metals by EPA method 6010B (mg/kg)								
Antimony	8,200	NE	<2.8	<2.8	<5.6	**30**	<7.3	NA
Arsenic	10	NE	<2.8	<2.8	<5.6	<30	<7.3	NA
Barium	140,000	NE	**39**	**48**	**76**	**110**	**92**	NA
Beryllium	2	NE	<0.28	<0.28	<0.56	<3.0	<0.73	NA
Cadmium	1,000	NE	**0.65**	<0.28	**3.1**	**38**	**2.3**	NA
Chromium	NE	NE	**7.8**	**15**	**110**	**210**	**96**	NA
Copper	76,000	NE	**350**	**18**	**290**	**1100**	**280**	NA
Lead	1,000	NE	**310**	**2.1**	**170**	**2100**	**170**	NA
Mercury	610	NE	<0.028	<0.027	**0.18**	<0.30	**0.16**	NA
Nickel	7,500	NE	**11**	**9.5**	**41**	**67**	**39**	NA
Selenium	10,000	NE	<5.6	<5.5	<11	<59	<15	NA
Silver	10,000	NE	<1.1	<0.55	<1.1	<5.9	<1.5	NA
Thallium	160	NE	<2.8	<2.8	<5.6	<30	<7.3	NA
Vanadium	14,000	NE	**39**	**19**	**82**	**49**	**82**	NA
Zinc	610,000	NE	**720**	**19**	**340**	**19000**	**350**	NA
Total Solids (%)	--	--	**90.6**	**90.7**	**42.3**	**8.12**	**33.0**	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-CO-1	WS-AOC10-SO-1-1	WS-AOC10-SO-1-2	WS-AOC10-SO-1-3	WS-AOC10-CO-2	WS-AOC10-SO-2-1	WS-AOC10-SO-2-2	WS-AOC10-SO-2-3	WS-AOC10-CO-3	WS-AOC10-CO-4
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0.5'-1.5')	(1.5'-2.5')	(2.5'-3.5')	(0-0.5")	(0.5'-1.5')	(1.5'-2.5')	(2.5'-3.5')	(0-0.5")	(0-0.5")
DATE SAMPLED			8/16/17	9/12/17	9/12/17	9/12/17	8/16/17	9/12/17	9/12/17	9/12/17	8/18/17	8/18/17
WORK ORDER NO.			17H0919	17I0462	17I0462	17I0462	17H0919	17I0462	17I0462	17I0462	17H1165	17H1165
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.093	<0.091	<0.088	<0.093	<0.096	<0.099	<0.098	<0.094	<0.49	<0.50
PCB-1260	10	--	**0.16**	<0.091	<0.088	<0.093	<0.096	<0.099	<0.098	<0.094	**3.6**	**4.1**
PCB 1268	10	--	<0.093	<0.091	<0.088	<0.093	<0.096	<0.099	<0.098	<0.094	<0.49	<0.50
Total PCBs	10	--	**0.16**	<0.091	<0.088	<0.093	<0.096	<0.099	<0.098	<0.094	**3.6**	**4.1**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
Naphthalene	2,500	56	NA	NA	<0.0027	NA	NA	NA	<0.0027	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	<0.19	NA	NA	NA	<0.21	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	<0.19	NA	NA	NA	<0.21	NA	NA	NA	NA
Anthracene*	2,500	400	NA	<0.19	NA	NA	NA	<0.21	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	**0.33**	NA	NA	NA	**0.52**	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	**0.36**	NA	NA	NA	**0.65**	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	**0.42**	NA	NA	NA	**0.75**	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	**0.30**	NA	NA	NA	**0.56**	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	<0.19	NA	NA	NA	**0.27**	NA	NA	NA	NA
Chrysene*	780	1	NA	**0.32**	NA	NA	NA	**0.58**	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	<0.19	NA	NA	NA	<0.21	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	**0.69**	NA	NA	NA	**1.3**	NA	NA	NA	NA
Fluorene	2,500	56	NA	<0.19	NA	NA	NA	<0.21	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	**0.27**	NA	NA	NA	**0.49**	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	<0.19	NA	NA	NA	<0.21	NA	NA	NA	NA
Naphthalene	2,500	56	NA	<0.19	NA	NA	NA	<0.21	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	**0.38**	NA	NA	NA	**0.65**	NA	NA	NA	NA
Pyrene	2,500	40	NA	**0.64**	NA	NA	NA	**1.2**	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**160**	NA	NA	NA	**84**	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	<2.7	NA	NA	NA	<3.1	NA	NA	NA	NA
Arsenic	10	NE	NA	<2.7	NA	NA	NA	<3.1	NA	NA	NA	NA
Barium	140,000	NE	NA	**44**	NA	NA	NA	**80**	NA	NA	NA	NA
Cadmium	1,000	NE	NA	<0.27	NA	NA	NA	<0.31	NA	NA	NA	NA
Chromium	NE	NE	NA	**8.0**	NA	NA	NA	**11**	NA	NA	NA	NA
Copper	76,000	NE	NA	**21**	NA	NA	NA	**37**	NA	NA	NA	NA
Lead	1,000	NE	NA	**52**	NA	NA	NA	**130**	NA	NA	NA	NA
Mercury	610	NE	NA	**0.098**	NA	NA	NA	**0.27**	NA	NA	NA	NA
Nickel	7,500	NE	NA	**7.9**	NA	NA	NA	**8.8**	NA	NA	NA	NA
Selenium	10,000	NE	NA	<5.3	NA	NA	NA	<6.1	NA	NA	NA	NA
Silver	10,000	NE	NA	<0.53	NA	NA	NA	<0.61	NA	NA	NA	NA
Thallium	160	NE	NA	<2.7	NA	NA	NA	<3.1	NA	NA	NA	NA
Vanadium	14,000	NE	NA	**30**	NA	NA	NA	**34**	NA	NA	NA	NA
Zinc	610,000	NE	NA	**45**	NA	NA	NA	**95**	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**88.3**	**89.5**	**85.0**	NA	**79.4**	**80.6**	**84.9**	NA	NA

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable

EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-CO-5	WS-AOC10-CO-6	WS-AOC10-CO-7	WS-AOC10-SO-7-1	WS-AOC10-SO-7-2	WS-AOC10-SO-7-3	WS-AOC10-CO-8	WS-AOC10-SO-8-1	WS-AOC10-SO-8-2	WS-AOC10-SO-8-3
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0-0.5")	(0-0.5")	(0.5'-1.0')	(1.5'-2.0')	(3.5'-4.0')	(0-0.5")	(0.5'-1.0')	(1.5'-2.0')	(3.5'-4.0')
DATE SAMPLED			8/18/17	8/18/17	8/18/17	9/12/17	9/12/17	9/12/17	8/18/17	9/12/17	9/12/17	9/12/17
WORK ORDER NO.			17H1165	17H1165	17H1165	17I0463	17I0463	17I0463	17H1165	17I0463	17I0463	17I0463
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.19	<0.50	<0.50	<0.11	<0.11	<0.12	<0.99	<0.11	<0.11	<0.14
PCB-1260	10	--	**1.8**	**4.6**	**3.1**	<0.11	<0.11	<0.12	**9.3**	<0.11	<0.11	<0.14
PCB 1268	10	--	<0.19	<0.50	<0.50	<0.11	<0.11	<0.12	<0.99	<0.11	<0.11	<0.14
Total PCBs	10	--	**1.8**	**4.6**	**3.1**	<0.11	<0.11	<0.12	**9.3**	<0.11	<0.11	<0.14
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.0057
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	**130**	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	<3.2	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	**11**	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	**170**	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	**0.81**	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	**22**	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	**270**	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	**190**	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	**0.28**	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	**14**	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	<6.4	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	<0.64	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	<3.2	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	**30**	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	**180**	NA	NA
Total Solids (%)	--	--	NA	NA	NA	**72.4**	**70.1**	**66.8**	NA	**74.5**	**71.4**	**59.2**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-CO-9	WS-AOC10-CO-10	WS-AOC10-SO-10-1	WS-AOC10-SO-10-2	WS-AOC10-SO-10-3	WS-AOC10-CO-11	WS-AOC10-SO-11-1	WS-AOC10-SO-11-2	WS-AOC10-SO-11-3	WS-AOC10-CO-12
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0-0.5")	(0.5'-1.0')	(1.5'-2.0')	(3.5'-4.0')	(0-0.5")	(0.5'-1.0')	(1.5'-2.0')	(3.5'-4.0')	(0-0.5")
DATE SAMPLED			8/18/17	8/18/17	9/12/17	9/12/17	9/12/17	8/18/17	9/12/17	9/12/17	9/12/17	8/18/17
WORK ORDER NO.			17H1165	17H1165	17I0463	17I0463	17I0463	17H1165	17I0463	17I0463	17I0463	17H1165
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.20	<2.0	<0.13	<0.15	<0.14	<49	<0.099	<0.13	<0.17	<1.0
PCB-1260	10	--	**1.5**	**19**	<0.13	<0.15	<0.14	**320**	**0.28**	<0.13	<0.17	**5.5**
PCB 1268	10	--	<0.20	<2.0	<0.13	<0.15	<0.14	<49	<0.099	<0.13	<0.17	<1.0
Total PCBs	10	--	**1.5**	**19**	<0.13	<0.15	<0.14	**320**	**0.28**	<0.13	<0.17	**5.5**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	<0.21	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	<0.21	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	<0.21	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	**0.65**	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	**0.64**	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	**0.77**	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	**0.44**	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	**0.30**	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	**0.65**	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	<0.21	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	**1.5**	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	<0.21	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	**0.44**	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	<0.21	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	<0.21	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	**0.95**	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	**1.4**	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	**5.4**	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	<3.8	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	**43**	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	<0.38	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	**34**	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	**14**	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	**15**	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	<0.040	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	**9.3**	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	<7.7	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	<0.77	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	<3.8	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	**41**	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	**35**	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	NA	**62.2**	**55**	**57.1**	NA	**80.9**	**60.1**	**45.9**	NA

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

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µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-CO-13	WS-AOC10-SO-13-1	WS-AOC10-SO-13-2	WS-AOC10-SO-13-3	WS-AOC10-CO-14	WS-AOC10-SE-15	WS-AOC10-CO-16	WS-AOC10-CO-DUP-12	WS-AOC10-SO-16-1	WS-AOC10-SO-16-2
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0.5'-1.0')	(1.5'-2.0')	(3.5'-4.0')	(0-0.5")		(0-0.5")	(0-0.5")	(0.5'-1.0')	(1.5'-2.0')
DATE SAMPLED			8/18/17	9/12/17	9/12/17	9/12/17	8/18/17	8/31/17	8/21/17	8/21/17	9/12/17	9/12/17
WORK ORDER NO.			17H1165	17I0463	17I0463	17I0463	17H1165	17H1675	17H1164	17H1164	17I0462	17I0462
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]							PARENT	DUPLICATE		
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.99	<0.089	<0.086	<0.082	<20	<100	<0.99	<0.99	<0.087	<0.088
PCB-1260	10	--	**8.8**	<0.089	<0.086	<0.082	**150**	**430**	**6.6**	**7.6**	**0.092**	<0.088
PCB 1268	10	--	<0.99	<0.089	<0.086	<0.082	<20	<100	<0.99	<0.99	<0.087	<0.088
Total PCBs	10	--	**8.8**	<0.089	<0.087	<0.082	**150**	**430**	**6.6**	**7.6**	**0.092**	<0.088
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**89.6**	**92.3**	**96.3**	NA	**77.6**	NA	NA	**92.3**	**90.5**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
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< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-SO-16-3	WS-AOC10-CO-17	WS-AOC10-SO-17-1	WS-AOC10-SO-17-2	WS-AOC10-SO-17-3	WS-AOC10-CO-18	WS-AOC10-CO-19	WS-AOC10-CO-20	WS-AOC10-SO-20-1	WS-AOC10-SO-20-2
SAMPLE DEPTH (ft bgs)			(3.5'-4.0')	(0-0.5")	(0.5'-1.0')	(1.5'-2.0')	(3.5'-4.0')	(0-0.5")	(0-0.5")	(0-0.5")	(0.5'-1.0')	(0.5'-2.0')
DATE SAMPLED			9/12/17	8/21/17	9/12/17	9/12/17	9/12/17	8/21/17	8/21/17	8/22/17	9/12/17	9/12/17
WORK ORDER NO.			17I0462	17H1164	17I0462	17I0462	17I0462	17H1164	17H1164	17H1165	17I0462	17I0462
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.12	<0.98	<0.097	<0.095	<0.13	<1.0	<5.0	<1.0	<0.11	<0.11
PCB-1260	10	--	**0.38**	**10**	<0.097	<0.095	<0.13	**5.4**	**26**	**3.5**	<0.11	<0.11
PCB 1268	10	--	<0.12	<0.98	<0.097	<0.095	<0.13	<1.0	<5.0	<1.0	<0.11	<0.11
Total PCBs	10	--	**0.38**	**10**	<0.097	<0.095	<0.13	**5.4**	**26**	**3.5**	<0.11	<0.11
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	<0.21	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**100**	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**69.5**	NA	**82.0**	**82.3**	**61.0**	NA	NA	NA	**71.4**	**70.1**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
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GB PMC = GB Pollutant Mobility Criteria
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NE = Not Established by DEEP
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-SO-20-3	WS-AOC10-CO-21	WS-AOC10-CO-22	WS-AOC10-CO-DUP-13	WS-AOC10-CO-23	WS-AOC10-CO-24	WS-AOC10-CO-25	WS-AOC10-SO-25-1	WS-AOC10-SO-25-2	WS-AOC10-SO-25-3
SAMPLE DEPTH (ft bgs)			(3.5'-4.0')	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0.5-1.0')	(1.5'-2.5')	(8.0'-9.0')
DATE SAMPLED			9/12/17	8/21/17	8/21/17	8/21/17	8/21/17	8/21/17	8/21/17	9/12/17	9/12/17	9/13/17
WORK ORDER NO.			17I0462	17H1164	17H1164	17H1164	17H1164	17H1164	17H1164	17I0463	17I0463	17I0540
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]			PARENT	DUPLICATE						
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.12	<1.0	<0.98	<0.99	<1.0	<100	<200	<0.47	<0.094	<0.095
PCB-1260	10	--	<0.12	**3.5**	**2.6**	**2.7**	**3.2**	**790**	**1700**	**3.3**	**0.83**	**0.11**
PCB 1268	10	--	<0.12	<1.0	<0.98	<0.99	<1.0	<100	<200	<0.47	<0.094	<0.095
Total PCBs	10	--	<0.12	**3.5**	**2.6**	**2.7**	**3.2**	**790**	**1700**	**3.3**	**0.83**	**0.11**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	<0.20	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	**0.23**	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	<0.20	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	**0.23**	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**68.1**	NA	NA	NA	NA	NA	NA	**85.5**	**84.9**	**79.8**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-CO-26	WS-AOC10-CO-27	WS-AOC10-CO-28	WS-AOC10-CO-29	WS-AOC10-CO-30	WS-AOC10-SO-30-1	WS-AOC10-SO-30-2	WS-AOC10-SO-30-3	WS-AOC10-CO-31	WS-AOC10-SO-31-1
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0.5'-1.5')	(1.5'-2.5')	(8.0'-9.0')	(0-0.5")	(0.4'-1.5')
DATE SAMPLED			8/21/17	8/21/17	8/21/17	8/21/17	8/21/17	9/12/17	9/12/17	9/12/17	8/21/17	9/12/17
WORK ORDER NO.			17H1164	17H1164	17H1164	17H1164	17H1164	17I0463	17I0463	17I0463	17H1164	17I0462
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<2500	<10	<9.8	<0.98	<0.99	<0.11	<0.13	<0.14	<1.0	<0.091
PCB-1260	10	--	**11000**	**62**	**44**	**2.9**	**10**	**0.12**	<0.13	<0.14	**6.4**	<0.091
PCB 1268	10	--	<2500	<10	<9.8	<0.98	<0.99	<0.11	<0.13	<0.14	<1.0	<0.091
Total PCBs	10	--	**11000**	**62**	**44**	**2.9**	**10**	**0.12**	<0.13	<0.14	**6.4**	<0.091
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	**0.25**	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	**43**
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	**4.5**	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	<3.4	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	**85**	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	**0.38**	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	**24**	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	**67**	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	**74**	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	**0.21**	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	**12**	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	<6.8	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	<0.68	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	<3.4	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	**34**	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	**110**	NA	NA	NA	NA
Total Solids (%)	--	--	NA	NA	NA	NA	NA	**69.6**	**59.5**	**57.1**	NA	**87.6**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-SO-31-2	WS-AOC10-SO-31-3	WS-AOC10-CO-32	WS-AOC10-CO-33	WS-AOC10-CO-DUP-14	WS-AOC10-CO-34	WS-AOC10-CO-35	WS-AOC10-CO-36	WS-AOC10-CO-37	WS-AOC10-CO-38
SAMPLE DEPTH (ft bgs)			(1.5'-2.5')	(8.0'-9.0')	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")	(0-0.5")
DATE SAMPLED			9/12/17	9/12/17	8/21/17	8/21/17	8/21/17	8/21/17	8/21/17	8/21/17	8/21/17	8/21/17
WORK ORDER NO.			17I0463	17I0463	17H1165	17H1165	17H1165	17H1165	17H1165	17H1165	17H1165	17H1165
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]				PARENT	DUPLICATE					
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	<0.13	<0.13	**0.16**	**1.5**	**1.8**	**0.15**	**0.11**	**0.14**	<0.10	**0.12**
PCB-1260	10	--	<0.13	<0.13	**0.24**	**0.33**	**0.41**	**0.20**	**0.24**	**0.18**	**0.21**	**0.29**
PCB 1268	10	--	<0.13	<0.13	<0.098	<0.20	<0.20	<0.098	<0.099	<0.098	<0.10	<0.10
Total PCBs	10	--	<0.13	<0.13	**0.40**	**1.83**	**2.21**	**0.35**	**0.35**	**0.32**	**0.21**	**0.41**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
Naphthalene	2,500	56	NA	**0.95**	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	<0.28	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**61.4**	**60**	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-CO-39	WS-AOC10-CO-40	WS-AOC10-CO-41	WS-AOC10-SO-41-1	WS-AOC10-SO-41-2	WS-AOC10-SO-41-3	WS-AOC10-CO-42	WS-AOC10-SO-42-1	WS-AOC10-SO-42-2	WS-AOC10-SO-42-3
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0-0.5")	(0-0.5")	(0.5'-1.5')	(1.5'-2.5')	(2.5'-3.5')	(0-0.5")	(0.5'-1.5')	(1.5-2.5')	(2.5'-3.5')
DATE SAMPLED			8/21/17	8/23/17	8/23/17	9/13/17	9/13/17	9/13/17	8/23/17	9/13/17	9/13/17	9/13/17
WORK ORDER NO.			17H1165	17H1283	17H1283	17I0540	17I0540	17I0540	17H1283	17I0540	17I0540	17I0540
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1254	10	--	**0.12**	<0.10	<0.10	<0.085	<0.088	<0.087	<0.10	<0.077	<0.085	<0.089
PCB-1260	10	--	**0.27**	**0.45**	**0.31**	<0.085	<0.088	<0.087	**0.12**	<0.077	<0.085	<0.089
PCB 1268	10	--	<0.10	<0.10	<0.10	<0.085	<0.088	<0.087	<0.10	<0.077	<0.085	<0.089
Total PCBs	10	--	**0.39**	**0.45**	**0.42**	<0.085	<0.088	<0.087	**0.26**	<0.077	<0.085	<0.089
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	NA	NA	**92.1**	**90.7**	**90.3**	NA	**98.1**	**92.2**	**89.1**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 5
AOC-10 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC10-CO-43	WS-AOC10-SO-43-1	WS-AOC10-SO-43-2	WS-AOC10-SO-43-3	WS-AOC10-CO-44	WS-AOC10-CO-45	WS-AOC10-SO-45-1	WS-AOC10-SO-45-2	WS-AOC10-SO-45-3
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0.5'-1.5')	(1.5'-2.5')	(2.5'-3.5')	(0-0.5")	(0-0.5")	(0.5'-1.5')	(1.5'-2.5')	(2.5'-3.5')
DATE SAMPLED			8/23/17	9/13/17	9/13/17	9/13/17	8/23/17	8/23/17	9/13/17	9/13/17	9/13/17
WORK ORDER NO.			17H1283	17I0540	17I0540	17I0540	17H1283	17H1283	17I0540	17I0540	17I0540
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1254	10	--	<0.10	<0.085	<0.083	<0.095	<0.10	<0.10	<0.085	<0.085	<0.085
PCB-1260	10	--	**0.28**	<0.085	<0.083	<0.095	**0.41**	**0.19**	<0.085	<0.085	<0.085
PCB 1268	10	--	<0.10	<0.085	<0.083	<0.095	<0.10	<0.10	<0.085	<0.085	<0.085
Total PCBs	10	--	**0.28**	<0.085	<0.083	<0.095	**0.41**	**0.31**	<0.085	<0.085	<0.085
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB 1268	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**92.6**	**92.4**	**83.1**	NA	NA	**92.0**	**91.3**	**91.9**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.
* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 6

AOC-11 Summary of Analytical Results

English Station Soil and Groundwater Investigation

510 Grand Avenue, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC11-CO-1	WS-AOC11-CO-2	WS-AOC11-CO-3
SAMPLE DEPTH (ft bgs)			(0-0.5")	(0-0.5")	(0-0.5")
DATE SAMPLED			8/16/17	8/16/17	8/16/17
WORK ORDER NO.			17H0919	17H0919	17H0919
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]			
PARAMETER (Units)[2]					
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)					
Total PCBs	10	--	<0.093	<0.098	<0.071

NOTES:

1. Analytical results compared to applicable remedial criteria from Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013) and Federal PCB Regulations (40 CFR Part 761).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram

< = compound not detected above laboratory reporting limit, shown.

BOLD = compound detected at that concentration.

NA = Not Analyzed

GB PMC = GB Pollutant Mobility Criteria

I/C DEC = Industrial/Commercial Direct Exposure Criteria

NE = Not Established by DEEP

-- = Not Applicable

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-1-1A	WS-AOC13-SO-1-1B	WS-AOC13-SO-1-2	WS-AOC13-SO-1-3	WS-AOC13-SO-2-1A	WS-AOC13-SO-2-1B	WS-AOC13-SO-2-2	WS-AOC13-SO-2-3	WS-AOC13-SO-3-1
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(1.0'-1.5')	(2.0'-2.5')	(5.0'-5.5')	(0.5'-1.0')	(1.0'-1.5)	(2.0'-2.5')	(5.0'-5.5')	(0.5'-1.0')
DATE SAMPLED			7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17
WORK ORDER NO.			17G1170	17G1170	17G1170	17G1170	17G1171	17G1171	17G1171	17G1171	17G1171
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	<0.11	NA	<0.12	<0.12	<0.10	NA	<0.12	<0.13	<0.10
PCB-1254	10	--	<0.11	NA	<0.12	<0.12	<0.10	NA	<0.12	<0.13	<0.10
PCB-1260	10	--	<0.11	NA	<0.12	<0.12	<0.10	NA	<0.12	<0.13	<0.10
Total PCBs	10	--	<0.11	NA	<0.12	<0.12	<0.10	NA	<0.12	<0.13	<0.10
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	<0.72	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	<0.36	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	<2.8	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	**7.5**	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	**200**	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	<0.28	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	<0.28	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	**61**	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	**110**	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	**21**	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	**0.063**	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	**41**	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	<5.7	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	<0.57	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	<2.8	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	**78**	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	**60**	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**92.2**	**86.8**	**84.9**	**80.7**	**96.8**	**94.6**	**80.0**	**76.8**	**97.2**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-3-2	WS-AOC13-SO-3-3	WS-AOC13-SO-4-1	WS-AOC13-SO-DUP-26	WS-AOC13-SO-4-2	WS-AOC13-SO-4-3	WS-AOC13-SO-5-1A	WS-AOC13-SO-5-1B	WS-AOC13-SO-5-2
SAMPLE DEPTH (ft bgs)			(2.0'-2.5')	(5.0'-5.5')	(0.5'-1.0')	(0.5'-1.0')	(2.0'-2.5')	(5.0'-5.5')	(0.5'-1.5')	(1.5'-2.0')	(2.0'-2.5')
DATE SAMPLED			7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17
WORK ORDER NO.			17G1171	17G1171	17G1170	17G1172	17G1170	17G1170	17G1170	17G1170	17G1170
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]			PARENT	DUPLICATE					
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	<0.13	**0.17**	<0.10	<0.10	<0.11	<0.12	<0.11	NA	<0.12
PCB-1254	10	--	<0.13	<0.15	<0.10	<0.10	<0.11	<0.12	<0.11	NA	<0.12
PCB-1260	10	--	<0.13	<0.15	<0.10	<0.10	<0.11	<0.12	**0.18**	NA	<0.12
Total PCBs	10	--	<0.13	**0.17**	<0.10	<0.10	<0.11	<0.12	**0.18**	NA	<0.12
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	<2.7	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	**8.7**	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	**35**	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	<0.27	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	<0.27	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	**24**	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	**100**	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	**26**	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	**0.028**	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	**26**	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	<5.4	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	<0.54	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	<2.7	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	**20**	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	**41**	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**79.9**	**68.8**	**96.3**	**96.1**	**90.9**	**82.3**	**92.4**	**86.2**	**81.5**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-5-3	WS-AOC13-SO-5-3R	WS-AOC13-SO-6-1A	WS-AOC13-SO-DUP-27	WS-AOC13-SO-6-1R	WS-AOC13-SO-6-1B	WS-AOC13-SO-6-2	WS-AOC13-SO-6-3	WS-AOC13-SO-7-1
SAMPLE DEPTH (ft bgs)			(8.0'-8.5')	(8.0'-8.5')	(0.5'-1.0')	(0.5'-1.0')	(0.5'-1.0')	(1.0'-1.5')	(2.0'-2.5')	(5.0'-5.5')	(0.5'-1.0')
DATE SAMPLED			7/26/17	9/13/17	7/26/17	7/26/17	9/13/17	7/26/17	7/26/17	7/26/17	7/26/17
WORK ORDER NO.			17G1170	1705042	17G1171	17G1172	1705042	17G1171	17G1171	17G1171	17G1171
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]			PARENT	DUPLICATE					
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	<0.13	NA	<1.1	<1.1	<0.085	NA	<0.12	<0.13	<0.11
PCB-1254	10	--	<0.13	NA	<1.1	<1.1	<0.085	NA	<0.12	<0.13	<0.11
PCB-1260	10	--	<0.13	NA	**6.3**	**5.2**	**0.16**	NA	<0.12	<0.13	**0.95**
Total PCBs	10	--	<0.13	NA	**6.3**	**5.2**	**0.16**	NA	<0.12	<0.13	**0.95**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	<0.20	<0.20	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	<0.20	<0.20	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	<0.20	<0.20	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	<0.20	<0.20	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
m + p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	**2.6**	<1.0	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	**6.1**	<1.0	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	**12**	<1.0	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	**21**	**2.2**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	**17**	**2.5**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	**19**	**3.2**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	**15**	**2.4**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	**8.8**	**1.1**	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	**3.1**	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	**19**	**2.2**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	**3.7**	<1.0	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	**9.4**	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	**47**	**3.8**	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	**8.1**	<1.0	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	**14**	**1.8**	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	<0.43	<1.0	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	**1.8**	<1.0	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	**53**	**1.5**	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	**42**	**3.5**	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	<0.30	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	<0.30	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	**0.071**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	<0.10	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	**0.075**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	<0.50	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	<0.50	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	**0.21**	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	<2.5	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	<2.5	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	**16**	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	<0.25	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	<0.25	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	**8.2**	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	**31**	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	**21**	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	<0.026	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	**9.3**	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	<5.0	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	<0.50	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	<2.5	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	**32**	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	**32**	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**79.8**	**84.8**	**92.0**	**93.0**	**93.2**	**96.5**	**83.7**	**75.7**	**94.8**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-7-2	WS-AOC13-SO-7-3	WS-AOC13-SO-8-1	WS-AOC13-SO-8-2	WS-AOC13-SO-8-3A	WS-AOC13-SO-8-3B	WS-AOC13-SO-9-1	WS-AOC13-SO-9-2	WS-AOC13-SO-9-3A
SAMPLE DEPTH (ft bgs)			(2.0'-2.5')	(5.0'-5.5')	(0.5'-1.0')	(2.0'-2.5')	(7.0'-7.5')	(8.0'-9.0')	(5.0'-7.0')	(7.0'-8.0')	(8.0'-8.5')
DATE SAMPLED			7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17
WORK ORDER NO.			17G1171	17G1171	17G1171	17G1171	17G1171	17G1171	17G1170	17G1170	17G1170
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	<0.12	<0.12	<0.11	<0.10	<0.14	NA	<0.12	<0.12	<0.13
PCB-1254	10	--	<0.12	<0.12	<0.11	<0.10	<0.14	NA	<0.12	<0.12	<0.13
PCB-1260	10	--	<0.12	<0.12	**0.33**	<0.10	<0.14	NA	<0.12	<0.12	<0.13
Total PCBs	10	--	<0.12	<0.12	**0.33**	<0.10	<0.14	NA	<0.12	<0.12	<0.13
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	<0.0014	NA	NA	NA	<0.0016	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	<0.0014	NA	NA	NA	<0.0016	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	**0.0031**	NA	NA	NA	<0.0016	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	<0.0014	NA	NA	NA	<0.0016	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	<0.0014	NA	NA	NA	<0.0016	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	<0.0014	NA	NA	NA	<0.0016	NA	NA	NA
Naphthalene	2,500	56	NA	<0.0029	NA	NA	NA	<0.0032	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	<0.0014	NA	NA	NA	<0.0016	NA	NA	NA
Tetrachloroethylene	110	1	NA	**0.0076**	NA	NA	NA	<0.0016	NA	NA	NA
Toluene	1,000	67	NA	<0.0014	NA	NA	NA	<0.0016	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	**0.0094**	NA	NA	NA	<0.0016	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	<0.0014	NA	NA	NA	<0.0016	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	<0.0014	NA	NA	NA	<0.0016	NA	NA	NA
m+p Xylene	1,000	19.5	NA	<0.0029	NA	NA	NA	<0.0032	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	<3.0	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	**3.8**	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	**23**	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	<0.60	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	<0.30	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	**16**	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	**45**	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	**28**	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	<0.030	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	**19**	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	<6.0	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	<0.60	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	<3.0	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	**23**	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	**46**	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**85.2**	**83.8**	**92.8**	**98.1**	**73.2**	**79.0**	**80.1**	**86.2**	**79.8**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Certrain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-9-3B	WS-AOC13-SO-9-3R	WS-AOC13-SO-10-1	WS-AOC13-SO-10-2	WS-AOC13-SO-10-3A	WS-AOC13-SO-10-3B	WS-AOC13-SO-11-1	WS-AOC13-SO-11-2A	WS-AOC13-SO-11-2B
SAMPLE DEPTH (ft bgs)			(8.5'-9.5')	(8.5'-9.5')	(5.0'-5.5')	(7.0'-7.5')	(7.5'-8.0')	(8.0'-9.0')	(5.0'-5.5')	(7.0'-7.5')	(8.0'-9.0')
DATE SAMPLED			7/26/17	9/13/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17
WORK ORDER NO.			17G1170	17I0542	17G1170	17G1170	17G1170	17G1170	17G1172	17G1172	17G1172
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	NA	NA	<0.12	<0.11	<0.12	NA	<0.13	<0.12	NA
PCB-1254	10	--	NA	NA	<0.12	<0.11	<0.12	NA	<0.13	<0.12	NA
PCB-1260	10	--	NA	NA	**0.15**	**0.66**	<0.12	NA	<0.13	<0.12	NA
Total PCBs	10	--	NA	NA	**0.15**	**0.66**	<0.12	NA	<0.13	<0.12	NA
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	**0.77**	NA	NA	<0.054
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	**0.28**	NA	NA	<0.11
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	<0.044	NA	NA	<0.054
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	**0.43**	NA	NA	<0.054
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	**0.32**	NA	NA	**0.073**
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	**0.32**	NA	NA	<0.054
Naphthalene	2,500	56	NA	NA	NA	NA	NA	**5.8**	NA	NA	**0.34**
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	**0.49**	NA	NA	**0.068**
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	<0.044	NA	NA	<0.054
Toluene	1,000	67	NA	NA	NA	NA	NA	<0.044	NA	NA	**0.066**
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	<0.044	NA	NA	<0.054
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	**0.055**	NA	NA	<0.054
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	**0.81**	NA	NA	**0.065**
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	**0.12**	NA	NA	<0.11
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	<0.40	<0.21	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	**0.59**	<0.21	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	**0.86**	**0.52**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	**8.0**	**4.5**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	**8.0**	**4.2**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	**8.3**	**3.9**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	**5.6**	**1.8**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	**2.8**	**2.0**	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	<0.40	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	**7.2**	**4.2**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	**0.78**	**0.57**	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	<0.81	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	**12**	**6.0**	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	<0.40	<0.21	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	**5.4**	**2.8**	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	<0.40	<0.21	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	<0.40	**0.33**	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	**3.4**	**2.5**	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	**16**	**5.7**	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	<0.30	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	<0.30	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	**0.18**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	**0.18**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	**0.24**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	<0.50	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	**0.20**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	<0.50	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	**0.26**	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	<1.0	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	**190**
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**84.2**	**78.6**	**83.5**	**88.9**	**84.5**	**84.5**	**79.6**	**80.3**	**79.5**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-11-3	WS-AOC13-SO-12-1	WS-AOC13-SO-12-2	WS-AOC13-SO-12-3A	WS-AOC13-SO-12-3B	WS-AOC13-SO-13-1	WS-AOC13-SO-13-2A	WS-AOC13-SO-13-2B	WS-AOC13-SO-13-3
SAMPLE DEPTH (ft bgs)			(15.0'-15.5')	(3.5'-4.0')	(4.5'-5.0')	(15.0'-15.5')	(15.5'-16.0')	(5.0'-5.5')	(7.0'-7.5')	(8.0'-9.0')	(15.0'-15.5')
DATE SAMPLED			7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17	7/26/17
WORK ORDER NO.			17G1172	17G1252	17G1252	17G1252	17G1252	17G1172	17G1172	17G1172	17G1172
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	<0.12	<0.11	<0.11	<0.13	NA	<0.12	<0.13	NA	<0.12
PCB-1254	10	--	<0.12	<0.11	<0.11	<0.13	NA	<0.12	<0.13	NA	<0.12
PCB-1260	10	--	<0.12	<0.11	<0.11	<0.13	NA	<0.12	<0.13	NA	<0.12
Total PCBs	10	--	<0.12	<0.11	<0.11	<0.13	NA	<0.12	<0.13	NA	<0.12
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	**60**	NA	NA	**73**	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**82.5**	**89.1**	**88.7**	**76.5**	**69.3**	**80.1**	**77.8**	**85.8**	**86.9**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-14-1	WS-AOC13-SO-14-2	WS-AOC13-SO-14-3A	WS-AOC13-SO-14-3B	WS-AOC13-AS-15	WS-AOC13-AS-DUP-6	WS-AOC13-SO-15-1	WS-AOC13-SO-15-2	WS-AOC13-SO-15-3
SAMPLE DEPTH (ft bgs)			(5.0'-5.5')	(7.0'-7.5')	(15.0'-15.5')	(15.5'-16.0')	(0-0.5')	(0-0.5')	(11.0'-12.0')	(14.0'-15.0')	(17.0'-18.0')
DATE SAMPLED			7/26/17	7/26/17	7/26/17	7/26/17	8/3/17	8/3/17	7/26/17	7/26/17	7/26/17
WORK ORDER NO.			17G1252	17G1252	17G1252	17G1252	17H0199	17H0199	17G1252	17G1252	17G1252
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]					PARENT	DUPLICATE			
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	<0.11	<0.13	<0.12	NA	<0.99	<0.99	<0.29	<0.17	<0.18
PCB-1254	10	--	<0.11	<0.13	<0.12	NA	<0.99	<0.99	<0.29	<0.17	<0.18
PCB-1260	10	--	<0.11	<0.13	<0.12	NA	<0.99	<0.99	**0.74**	<0.17	<0.18
Total PCBs	10	--	<0.11	<0.13	<0.12	NA	<0.99	<0.99	**0.74**	<0.17	<0.18
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	**760**	NA	NA	NA	**32**	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**90.3**	**78.2**	**79.5**	**84.6**	NA	NA	**34.3**	**59.2**	**55.2**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Ceitrain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
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GB PMC = GB Pollutant Mobility Criteria
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EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-AS-16	WS-AOC13-SO-16-1	WS-AOC13-SO-16-2	WS-AOC13-SO-16-3	WS-AOC13-AS-17	WS-AOC13-SO-17-1	WS-AOC13-SO-17-2	WS-AOC13-SO-17-3	WS-AOC13-AS-18
SAMPLE DEPTH (ft bgs)			(0-0.5')	(11.0'-12.0')	(15.0'-16.0')	(17.0'-18.0')	(0-0.5')	(11.0'-12.0')	(14.0'-15.0')	(17.0'-18.0')	(0-0.5')
DATE SAMPLED			8/3/17	7/26/17	7/26/17	7/26/17	8/3/17	7/26/17	7/26/17	7/26/17	8/3/17
WORK ORDER NO.			17H0199	17G1252	17G1252	17G1252	17H0199	17G1172	17G1172	17G1172	17H0196
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	<1.0	<0.14	<0.17	<0.16	<0.99	<0.27	<0.14	<0.12	<0.48
PCB-1254	10	--	<1.0	<0.14	<0.17	<0.16	<0.99	<0.27	<0.14	<0.12	<0.48
PCB-1260	10	--	<1.0	<0.14	<0.17	<0.16	<0.99	**0.54**	<0.14	**0.13**	<0.48
Total PCBs	10	--	<1.0	<0.14	<0.17	<0.16	<0.99	**0.54**	<0.14	**0.13**	<0.48
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	**1.3**	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	<0.91	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	**1.9**	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	**3.8**	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	**3.2**	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	**4.1**	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	**2.6**	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	**1.5**	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	**4.5**	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	<0.91	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	**12**	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	<0.91	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	**2.1**	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	**0.98**	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	**3.2**	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	**2.7**	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	**13**	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	**0.56**	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	<0.30	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	**0.3**	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	**0.54**	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	**0.47**	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	**0.7**	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	<0.50	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	**0.23**	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	**0.66**	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	<0.20	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	**2.2**	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	<1.0	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	**0.24**	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	<1.0	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	<1.0	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	**0.39**	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	**3**	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	**26**	NA	NA	NA	**490**	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	<4.5	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	**9.6**	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	**40**	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	<0.45	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	<0.45	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	**34**	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	**20**	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	**13**	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	<0.045	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	**19**	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	<8.9	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	<0.89	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	<4.5	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	**41**	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	**57**	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	<5.0	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	<5.0	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	<25	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**66.6**	**56.3**	**61.9**	NA	**37.5**	**72.6**	**82.6**	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Certain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-18-1	WS-AOC13-SO-18-2	WS-AOC13-SO-18-3	WS-AOC13-SO-19-1	WS-AOC13-SO-19-2	WS-AOC13-SO-19-2R	WS-AOC13-SO-19-3	WS-AOC13-SO-19-4A	WS-AOC13-SO-19-4B
SAMPLE DEPTH (ft bgs)			(11.0'-12.0')	(14.0'-15.0')	(17.0'-18.0')	(0-0.5')	(0.5'-1.0')	(0.5'-1.0')	(1.5'-2.0')	(5.0'-5.5')	(5.5'-6.0')
DATE SAMPLED			7/26/17	7/26/17	7/26/17	7/27/17	7/27/17	9/13/17	7/27/17	7/27/17	7/27/17
WORK ORDER NO.			17G1171	17G1171	17G1172	17G1252	17G1253	1760542	17G1253	17G1253	17G1253
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	<0.12	<0.16	<0.14	<0.10	<0.11	<0.084	<0.11	<0.13	NA
PCB-1254	10	--	<0.12	**0.36**	<0.14	<0.10	<0.11	<0.084	<0.11	<0.13	NA
PCB-1260	10	--	<0.12	<0.16	<0.14	**0.18**	**1.1**	**0.61**	**0.63**	<0.13	NA
Total PCBs	10	--	<0.12	**0.36**	<0.14	**0.18**	**1.1**	**0.61**	**0.63**	<0.13	NA
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	NA	NA	<0.20	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	<0.20	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	**0.34**	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	**0.34**	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**2200**	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	<2.8
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	**37**
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**36**
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	<0.28
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**0.63**
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	**22**
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**200**
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**280**
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	**0.26**
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	**25**
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	<5.7
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	<0.57
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	<2.8
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**110**
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	**160**
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**80.2**	**61.7**	**70.7**	**95.8**	**93.0**	**92.6**	**92.9**	**74.6**	**82.0**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-20-1	WS-AOC13-SO-20-2	WS-AOC13-SO-20-3	WS-AOC13-SO-20-4A	WS-AOC13-SO-20-4B	WS-AOC13-AS-21	WS-AOC13-SO-21-1A	WS-AOC13-SO-21-1B	WS-AOC13-SO-21-1R
SAMPLE DEPTH (ft bgs)			(0-0.5')	(0.5'-1.0')	(1.5'-2.0')	(5.0'-5.5')	(5.5'-6.0')	(0-0.5')	(0.5'-1.0')	(1.0'-1.5')	(1.0'-1.5')
DATE SAMPLED			7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	8/3/17	7/27/17	7/27/17	9/13/17
WORK ORDER NO.			17G1252	17G1252	17G1252	17G1252	17G1252	17H0199	17G1253	17G1253	17I0542
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]									
PARAMETER (Units)[2]											
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)											
PCB-1248	10	--	<0.10	<0.11	<0.11	<0.12	NA	<0.98	<0.11	NA	NA
PCB-1254	10	--	<0.10	<0.11	<0.11	<0.12	NA	<0.98	<0.11	NA	NA
PCB-1260	10	--	**0.12**	<0.11	<0.11	<0.12	NA	<0.98	<0.11	NA	NA
Total PCBs	10	--	**0.12**	<0.11	<0.11	<0.12	NA	<0.98	<0.11	NA	NA
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)											
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)											
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)											
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	<0.19	<0.19
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	**0.39**	<0.19
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	**0.30**	<0.19
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	**1.7**	**0.39**
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	**1.9**	**0.54**
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	**2.4**	**0.57**
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	**1.2**	**0.38**
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	**0.86**	**0.20**
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	**1.6**	**0.42**
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	**0.34**	<0.19
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	**3.6**	**0.49**
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	<0.19	<0.19
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	**1.3**	**0.35**
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	<0.19	<0.19
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	**0.22**	<0.19
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	**1.4**	<0.19
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	**3.5**	**0.76**
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)											
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	<0.30
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	<0.30
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	<0.20
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	**0.082**
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	**0.14**
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	**0.22**
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	<0.50
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	<0.20
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	<0.20
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	<0.20
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	<0.50
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	<1.0
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	**0.21**
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	<1.0
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	<1.0
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	**0.10**
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	<1.0
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	**780**	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)											
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)											
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**94.9**	**92.3**	**91.8**	**83.9**	**80.9**	NA	**87.3**	**89.5**	**89.5**

NOTES:

1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable

EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-21-2	WS-AOC13-SO-21-3	WS-AOC13-AS-22	WS-AOC13-SO-22-1	WS-AOC13-SO-DUP-28	WS-AOC13-SO-22-2	WS-AOC13-SO-22-2R	WS-AOC13-SO-22-3	WS-AOC13-AS-23	WS-AOC13-SO-23-1A
SAMPLE DEPTH (ft bgs)			(1.5'-2.0')	(5.0'-5.5')	(0-0.5')	(0.5'-1.0')	(0.5'-1.0')	(1.5'-2.0')	(1.5-2.0')	(5.0'-5.5')	(0-0.5')	(0.5'-1.0')
DATE SAMPLED			7/27/17	7/27/17	8/3/17	7/27/17	7/27/17	7/27/17	9/13/17	7/27/17	8/3/17	7/27/17
WORK ORDER NO.			17G1253	17G1253	17H0199	17G1253	17G1258	17G1253	1710542	17G1253	17H0199	17G1254
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]				PARENT	DUPLICATE					
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1248	10	--	<0.11	<0.12	<0.99	<2.1	<0.53	<1.1	<0.43	<2.3	<0.99	<0.21
PCB-1254	10	--	<0.11	<0.12	<0.99	<2.1	<0.53	<1.1	**0.79**	<2.3	<0.99	<0.21
PCB-1260	10	--	**0.46**	<0.12	<0.99	**18**	**3.5**	**9.5**	**2.0**	**17**	<0.99	**1.5**
Total PCBs	10	--	**0.46**	<0.12	<0.99	**18**	**3.5**	**9.5**	**2.79**	**17**	<0.99	**1.5**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	<0.20	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	<0.20	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	**0.98**	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	**0.98**	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)												
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**91.2**	**84.1**	NA	**93.5**	**94.3**	**91.7**	**92.9**	**85.8**	NA	**94.4**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Certain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-23-1R	WS-AOC13-SO-23-1B	WS-AOC13-SO-23-2	WS-AOC13-SO-23-2R	WS-AOC13-SO-23-3	WS-AOC13-SO-23-3R	WS-AOC13-SO-24-1	WS-AOC13-SO-24-2
SAMPLE DEPTH (ft bgs)			(0.5'-1.0')	(1.0'-1.5')	(1.5'-2.0')	(1.5'-2.0')	(5.0'-5.5')	(5.0'-5.5')	(0-0.5')	(0.5'-1.0')
DATE SAMPLED			9/13/17	7/27/17	7/27/17	9/13/17	7/27/17	9/13/17	7/27/17	7/27/17
WORK ORDER NO.			1706542	17G1254	17G1254	1706542	17G1254	1706542	17G1253	17G1253
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]								
PARAMETER (Units)[2]										
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)										
PCB-1248	10	--	<0.084	NA	<0.59	<0.087	<0.12	<0.46	<13	<2.2
PCB-1254	10	--	<0.084	NA	<0.59	<0.087	<0.12	**0.80**	<13	<2.2
PCB-1260	10	--	**0.46**	NA	**3.6**	**0.84**	**1.1**	**1.8**	**72**	**17**
Total PCBs	10	--	**0.46**	NA	**3.6**	**0.84**	**1.1**	**2.6**	**72**	**17**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)										
PCB-1248	--	5	<0.20	NA	NA	<0.20	NA	<0.20	NA	NA
PCB-1254	--	5	<0.20	NA	NA	<0.20	NA	<0.20	NA	NA
PCB-1260	--	5	<0.20	NA	NA	<0.20	NA	**0.41**	NA	NA
Total PCBs	--	5	<0.20	NA	NA	<0.20	NA	**0.41**	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)										
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)										
Acenaphthene*	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)										
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)										
Antimony	8,200	NE	NA	<2.6	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	**3.6**	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	**34**	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	<0.26	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	<0.26	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	**7.5**	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	**150**	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	**72**	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	**0.081**	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	**12**	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	<5.2	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	<0.52	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	<2.6	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	**41**	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	**81**	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)										
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**93.2**	**92.8**	**84.5**	**90.6**	**82.0**	**84.6**	**77.7**	**89.7**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SO-24-3	WS-AOC13-SO-24-4A	WS-AOC13-SO-24-4B	WS-AOC13-SO-25-1	WS-AOC13-SO-25-2	WS-AOC13-SO-25-3	WS-AOC13-SO-25-4A	WS-AOC13-SO-25-4R	WS-AOC13-SO-25-4B	WS-AOC13-AS-26	WS-AOC13-CO-26
SAMPLE DEPTH (ft bgs)			(1.5'-2.0')	(7.5'-8.0')	(8.0'-9.0')	(0-0.5')	(0.5'-1.0')	(1.5'-2.0')	(7.5'-8.0')	(7.5'-8.0')	(8.0'-9.0')	(0-0.5')	(0-0.5')
DATE SAMPLED			7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	7/27/17	9/13/17	7/27/17	8/3/17	8/29/17
WORK ORDER NO.			17G1253	17G1253	17G1254	17G1253	17G1253	17G1253	17G1253	170542	17G1253	17H0199	17H1544
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]											
PARAMETER (Units)[2]													
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)													
PCB-1248	10	--	<2.2	<1.2	NA	<5.6	<11	<21	<0.57	<9.0	NA	<0.98	<0.10
PCB-1254	10	--	<2.2	<1.2	NA	<5.6	<11	<21	<0.57	<9.0	NA	<0.98	<0.10
PCB-1260	10	--	**13**	**4.8**	NA	**38**	**120**	**220**	**5.2**	**49**	NA	<0.98	**1.1**
Total PCBs	10	--	**13**	**4.8**	NA	**38**	**120**	**220**	**5.2**	**49**	NA	<0.98	**1.1**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)													
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	<1.0	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	**3.6**	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	**3.6**	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)													
n-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)													
Acenaphthene*	2,500	84	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	NA	<0.19	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)													
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	NA	NA	NA	NA	NA	NA	NA	**1200**	NA	NA
Total Metals by EPA method 6010B (mg/kg)													
Antimony	8,200	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)													
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**91.5**	**84.7**	**88.9**	**89.4**	**91.2**	**93.5**	**87.7**	**87.1**	**88.8**	NA	NA

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-SE-26	WS-AOC13-SE-DUP-1	WS-AOC13-AS-27	WS-AOC13-CO-27	WS-AOC13-SE-27	WS-AOC13-AS-28	WS-AOC13-SE-28	WS-AOC13-AS-29	WS-AOC13-CO-29	WS-AOC13-SE-29
SAMPLE DEPTH (ft bgs)					(0-0.5')	(0-0.5')		(0-0.5')		(0-0.5')	(0-0.5')	
DATE SAMPLED			8/29/17	8/29/17	8/3/17	8/29/17	8/29/17	8/3/17	8/29/17	8/3/17	8/29/17	8/29/17
WORK ORDER NO.			17H1544	17H1544	17H0198	17H1544	17H1544	17H0198	17H1544	17H0198	17H1544	17H1544
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]	PARENT	DUPLICATE								
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1248	10	--	<0.46	<0.20	<0.088	<0.098	<1.3	<0.088	<0.087	<0.10	<0.45	<0.088
PCB-1254	10	--	<0.46	<0.20	<0.088	<0.098	<1.3	<0.088	<0.087	<0.10	<0.45	<0.088
PCB-1260	10	--	**1.7**	**1.6**	<0.088	**0.93**	**5.0**	<0.088	**0.26**	<0.10	**2.9**	**0.40**
Total PCBs	10	--	**1.7**	**1.6**	<0.088	**0.93**	**5.0**	<0.088	**0.26**	<0.10	**2.9**	**0.57**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
n-Butylbenzene*	1,000	70	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
sec-Butylbenzene*	1,000	70	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
1,1-Dichloroethane	1,000	14	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
Ethylbenzene	1,000	10.1	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
Isopropylbenzene (Cumene)*	1,000	5.0	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
Naphthalene	2,500	56	<0.0035	<0.0037	NA	NA	<0.0061	NA	<0.0031	NA	NA	<0.0031
n-Propylbenzene*	1,000	10	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
Tetrachloroethylene	110	1	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
Toluene	1,000	67	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
1,1,1-Trichloroethane	1,000	40	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
1,2,4-Trimethylbenzene*	1,000	28	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
1,3,5-Trimethylbenzene*	1,000	28	<0.0017	<0.0018	NA	NA	<0.0030	NA	<0.0016	NA	NA	<0.0015
m+p Xylene	1,000	19.5	<0.0035	<0.0037	NA	NA	<0.0061	NA	<0.0031	NA	NA	<0.0031
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	<0.19	<0.85	NA	NA	<0.28	NA	**2.1**	NA	NA	**1.6**
Acenaphthylene	2,500	84	<0.19	<0.85	NA	NA	<0.28	NA	<0.37	NA	NA	<0.75
Anthracene*	2,500	400	<0.19	<0.85	NA	NA	<0.28	NA	**4.8**	NA	NA	**3.8**
Benzo(a)anthracene	7.8	1	**0.36**	**1.4**	NA	NA	**2.0**	NA	**23**	NA	NA	**17**
Benzo(a)pyrene	1	1	**0.50**	**1.5**	NA	NA	**2.3**	NA	**16**	NA	NA	**13**
Benzo(b)fluoranthene	7.8	1	**0.73**	**1.9**	NA	NA	**3.2**	NA	**24**	NA	NA	**18**
Benzo(g,h,i)perylene*	78	1	**0.52**	**0.90**	NA	NA	**1.7**	NA	**7.5**	NA	NA	**7.7**
Benzo(k)fluoranthene	78	1	**0.27**	<0.85	NA	NA	**1.2**	NA	**8.4**	NA	NA	**6.8**
Carbazole*	290	1.0	<0.19	<0.85	NA	NA	<0.28	NA	**5.6**	NA	NA	**3.5**
Chrysene*	780	1	**0.47**	**1.6**	NA	NA	**2.3**	NA	**25**	NA	NA	**19**
Dibenz(a,h)anthracene*	1	1	<0.19	<0.85	NA	NA	**0.44**	NA	**2.0**	NA	NA	**1.8**
Dibenzofuran*	1,000	1.4	<0.39	<1.7	NA	NA	<0.56	NA	**1.6**	NA	NA	<1.5
Fluoranthene	2,500	56	**0.60**	**2.3**	NA	NA	**3.6**	NA	**71**	NA	NA	**46**
Fluorene	2,500	56	<0.19	<0.85	NA	NA	<0.28	NA	**1.5**	NA	NA	**1.2**
Indeno(1,2,3-cd)pyrene*	7.8	1	**0.46**	**0.95**	NA	NA	**1.6**	NA	**8.7**	NA	NA	**8.4**
2-Methylnaphthalene*	1,000	5.6	<0.19	<0.85	NA	NA	<0.28	NA	**0.41**	NA	NA	<0.75
Naphthalene	2,500	56	<0.19	<0.85	NA	NA	<0.28	NA	**1.2**	NA	NA	<0.75
Phenanthrene	2,500	40	<0.19	<0.85	NA	NA	**0.93**	NA	**46**	NA	NA	**27**
Pyrene	2,500	40	**0.61**	**2.6**	NA	NA	**3.5**	NA	**56**	NA	NA	**36**
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	**900**	**560**	NA	NA	**210**	NA	**720**	NA	NA	**780**
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	**16**	**18**	NA	NA	**6.2**	NA	**19**	NA	NA	**5.6**
Arsenic	10	NE	**26**	**16**	NA	NA	**15**	NA	**10**	NA	NA	**5.0**
Barium	140,000	NE	**66**	**70**	NA	NA	**180**	NA	**61**	NA	NA	**130**
Beryllium	2	NE	<0.27	<0.31	NA	NA	<0.41	NA	<0.27	NA	NA	<0.26
Cadmium	1,000	NE	**1.9**	**1.4**	NA	NA	**3.7**	NA	**0.78**	NA	NA	**1.2**
Chromium	NE	NE	**74**	**91**	NA	NA	**47**	NA	**48**	NA	NA	**26**
Copper	76,000	NE	**360**	**410**	NA	NA	**650**	NA	**200**	NA	NA	**140**
Lead	1,000	NE	**190**	**180**	NA	NA	**310**	NA	**240**	NA	NA	**280**
Mercury	610	NE	**0.12**	**0.21**	NA	NA	**0.83**	NA	**0.10**	NA	NA	**0.26**
Nickel	7,500	NE	**110**	**150**	NA	NA	**160**	NA	**69**	NA	NA	**92**
Selenium	10,000	NE	<5.5	<6.3	NA	NA	**37**	NA	<5.5	NA	NA	<5.3
Silver	10,000	NE	<2.7	<1.3	NA	NA	<0.81	NA	<2.7	NA	NA	<0.53
Thallium	160	NE	<2.7	<3.1	NA	NA	<4.1	NA	<2.7	NA	NA	<2.6
Vanadium	14,000	NE	**380**	**470**	NA	NA	**450**	NA	**68**	NA	NA	**170**
Zinc	610,000	NE	**310**	**330**	NA	NA	**1000**	NA	**240**	NA	NA	**630**
SPLP Total Metals by EPA method 6010B (µg/l)												
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	**87.8**	**80.2**	NA	NA	**60.2**	NA	**91.1**	NA	NA	**90.5**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

Table 7
AOC-13 Summary of Analytical Results
English Station Soil and Groundwater Investigation
510 English Station, New Haven, Connecticut

SAMPLE LOCATION	REMEDIATION STANDARD REGULATIONS[1]		WS-AOC13-AS-30	WS-AOC13-SE-30	WS-AOC13-SE-31	WS-AOC13-SO-33	WS-AOC13-SO-34	WS-AOC13-SO-35	WS-AOC13-SO-36	WS-AOC13-SO-37	WS-AOC13-SO-38	WS-AOC13-SO-39
SAMPLE DEPTH (ft bgs)			(0-0.5')									
DATE SAMPLED			8/3/17	8/29/17	8/29/17	8/31/17	8/31/17	8/31/17	8/31/17	8/31/17	8/31/17	8/31/17
WORK ORDER NO.			17H0198	17H1544	17H1544	17H1675	17H1675	17H1675	17H1675	17H1675	17H1675	17H1675
QA/QC IDENTIFIER	I/C DEC	GB PMC[3]										
PARAMETER (Units)[2]												
Polychlorinated Biphenyls by EPA method 8082 (mg/kg)												
PCB-1248	10	--	<0.098	<0.088	<1.5	<0.085	<0.084	<0.087	<0.086	<0.94	<0.086	<0.086
PCB-1254	10	--	<0.098	<0.088	<1.5	<0.085	<0.084	<0.087	<0.086	<0.94	<0.086	<0.086
PCB-1260	10	--	<0.098	**0.46**	**9.8**	**0.17**	**0.24**	**0.21**	**0.61**	**6.2**	**0.32**	**0.14**
Total PCBs	10	--	<0.098	**0.46**	**9.8**	**0.17**	**0.24**	**0.21**	**0.61**	**6.2**	**0.32**	**0.14**
SPLP Polychlorinated Biphenyls by EPA method 8082 (ug/L)												
PCB-1248	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1254	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCB-1260	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total PCBs	--	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds by EPA method 8260 (mg/kg)												
n-Butylbenzene*	1,000	70	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene*	1,000	70	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	1,000	14	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	1,000	10.1	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
isopropylbenzene (Cumene)*	1,000	5.0	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene (p-Cymene)*	1,000	5.0	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	<0.0037	<0.0043	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene*	1,000	10	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethylene	110	1	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
Toluene	1,000	67	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	1,000	40	NA	<00018	<0.0022	NA	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene*	1,000	28	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene*	1,000	28	NA	<0.0018	<0.0022	NA	NA	NA	NA	NA	NA	NA
m+p Xylene	1,000	19.5	NA	<0.0037	<0.0043	NA	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds by EPA method 8270 (mg/kg)												
Acenaphthene*	2,500	84	NA	<0.75	**3.2**	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	2,500	84	NA	<0.75	<1.1	NA	NA	NA	NA	NA	NA	NA
Anthracene*	2,500	400	NA	**0.95**	**7.7**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	7.8	1	NA	**10**	**42**	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	1	1	NA	**8.8**	**30**	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	7.8	1	NA	**13**	**42**	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	78	1	NA	**5.3**	**14**	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78	1	NA	**4.9**	**15**	NA	NA	NA	NA	NA	NA	NA
Carbazole*	290	1.0	NA	**0.77**	**6.9**	NA	NA	NA	NA	NA	NA	NA
Chrysene*	780	1	NA	**11**	**45**	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	1	1	NA	**1.4**	**3.8**	NA	NA	NA	NA	NA	NA	NA
Dibenzofuran*	1,000	1.4	NA	<1.5	<2.1	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,500	56	NA	**21**	**120**	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,500	56	NA	<0.75	**2.3**	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	7.8	1	NA	**5.6**	**15**	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	1,000	5.6	NA	<0.75	<1.1	NA	NA	NA	NA	NA	NA	NA
Naphthalene	2,500	56	NA	<0.75	<1.1	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	2,500	40	NA	**6.8**	**61**	NA	NA	NA	NA	NA	NA	NA
Pyrene	2,500	40	NA	**18**	**97**	NA	NA	NA	NA	NA	NA	NA
SPLP Semivolatile Organic Compounds by EPA method 8270 (ug/L)												
Acenaphthene*	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	4200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene*	NE	20000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	NE	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	NE	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene*	NE	4.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	NE	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene*	NE	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	NE	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene*	NE	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene*	NE	280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	NE	2800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	NE	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Extractable Total Petroleum Hydrocarbons by CT method (mg/kg)	2,500	2,500	NA	**820**	**3800**	NA	NA	NA	NA	NA	NA	NA
Total Metals by EPA method 6010B (mg/kg)												
Antimony	8,200	NE	NA	**24**	**10**	NA	NA	NA	NA	NA	NA	NA
Arsenic	10	NE	NA	**8.4**	**23**	NA	NA	NA	NA	NA	NA	NA
Barium	140,000	NE	NA	**560**	**330**	NA	NA	NA	NA	NA	NA	NA
Beryllium	2	NE	NA	<0.25	<0.37	NA	NA	NA	NA	NA	NA	NA
Cadmium	1,000	NE	NA	**3.0**	**2.3**	NA	NA	NA	NA	NA	NA	NA
Chromium	NE	NE	NA	**87**	**65**	NA	NA	NA	NA	NA	NA	NA
Copper	76,000	NE	NA	**350**	**3300**	NA	NA	NA	NA	NA	NA	NA
Lead	1,000	NE	NA	**1500**	**290**	NA	NA	NA	NA	NA	NA	NA
Mercury	610	NE	NA	**0.25**	**27**	NA	NA	NA	NA	NA	NA	NA
Nickel	7,500	NE	NA	**130**	**580**	NA	NA	NA	NA	NA	NA	NA
Selenium	10,000	NE	NA	<5.1	**31**	NA	NA	NA	NA	NA	NA	NA
Silver	10,000	NE	NA	<1.0	<0.74	NA	NA	NA	NA	NA	NA	NA
Thallium	160	NE	NA	<2.5	<3.7	NA	NA	NA	NA	NA	NA	NA
Vanadium	14,000	NE	NA	**300**	**740**	NA	NA	NA	NA	NA	NA	NA
Zinc	610,000	NE	NA	**1900**	**1100**	NA	NA	NA	NA	NA	NA	NA
SPLP Total Metals by EPA method 6010B (µg/l)												
Chromium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Lead	--	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vanadium	--	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Solids (%)	--	--	NA	**91.1**	**64.7**	**91.4**	**91.9**	**89.7**	**89.7**	**83.7**	**92.6**	**92.9**

NOTES:
1. Analytical results compared to Connecticut Remediation Standard Regulations (January 1996; revised June 27, 2013).
2. Only compounds that were detected are provided in this table. For a complete list of analytes refer to laboratory report.
3. The site is located within a GB groundwater area. For comparison to SPLP results for Organics except for PCBs, the GB PMC listed is 10x the GWPC. No NAPL observed at the Site.

* These criteria are available through the submission and approval of a Request for Approval of Criteria for Additional Polluting Substances and Cetrtain Alternative Criteria Form.

mg/kg = milligrams per kilogram
µg/l = micrograms per liter
< = compound not detected above laboratory reporting limit, shown.
BOLD = compound detected at that concentration.
NA = Not Analyzed
GB PMC = GB Pollutant Mobility Criteria
I/C DEC = Industrial/Commercial Direct Exposure Criteria
NE = Not Established by DEEP
-- = Not Applicable
EXCEEDS I/C DEC
EXCEEDS GB PMC
EXCEEDS I/C DEC AND GB PMC

APPENDIX A

TRC Scope of Study (electronic)

TRC
Results you can rely on

SCOPE OF STUDY

ENGLISH STATION, 510 GRAND AVENUE
NEW HAVEN, CONNECTICUT

Prepared for

The United Illuminating Company

180 Marsh Hill Road, Orange, Connecticut

Prepared by

TRC Environmental Corporation

The United Illuminating Company

OCTOBER 2016

REVISED JULY 2017

SCOPE OF STUDY

ENGLISH STATION FACILITY
510 GRAND AVENUE
NEW HAVEN, CONNECTICUT

Prepared for

The United Illuminating Company
180 Marsh Road
Orange, Connecticut

TRC Project No. 263951

October 2016
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APPENDICES

Appendix A Copy of Partial Consent Order COWSPCB 15-001
Appendix B Historical Analytical Summary Tables
Appendix C Site Photographs

Acronym/Abbreviation List

AET	American Environmental Technology
AEI	Advanced Environmental Interface, Inc.
AHERA	Asbestos Hazard Emergency Response Act
AIHA	American Industrial Hygiene Association
AOC	Area of Concern
ASNAT	ASNAT Realty, LLC
AST	Aboveground storage tank
ASTM	American Society for Testing and Materials
AWP	Alternate Work Practices
CET	Complete Environmental Testing, Inc.
CFC	Chlorofluorocarbon
CHMM	Certified Hazardous Materials Manager
cm	Centimeter
cm/sec	Centimeters per second
COC	Contaminant of concern
CSM	Conceptual site model
CTDEEP	Connecticut Department of Energy and Environmental Protection
CT DPH	Connecticut Department of Health
CTL	Connecticut Testing Laboratories, Inc.
DEC	Residential Direct Exposure Criteria
DQA	Data Quality Assessment
DQO	Data Quality Objectives
DUE	Data Usability Evaluation
ECAF	Environmental Condition Assessment Form
ELLAP	Environmental Lead Laboratory Accreditation Program
ELUR	Environmental Land Use Restriction
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
ETPH	Extractable total petroleum hydrocarbons
ftbgs	Feet below ground surface
GEI	GEI Consultants, Inc.
gr	Gravimetric reduction
GWPC	Groundwater protection criteria
HPLC	High performance liquid chromatography
HRP	HRP Associates, Inc.
I/C	Industrial/Commercial
LCS	Laboratory control sample
ID	Identifier
IDW	Investigation-derived waste
LEP	Licensed Environmental Professional
LF	Lineal feet
LQG	Large Quantity Generator
MDL	Minimum detection limit
mg/cm^2	Milligrams per square centimeter

mg/kg	Milligrams per kilogram
MS	Matrix spike
MSD	Matrix spike duplicate
NAPL	Non-aqueous phase liquids
NESHAP	National Emissions Standard for Hazardous Air Pollutants
NOB	Non-friable organically bound
NTU	Nephelometric turbidity unit
NVLAP	National Voluntary Laboratory Accreditation Program
PAH	Polycyclic aromatic hydrocarbons
pc	Point counting
PCB	Polychlorinated biphenyl
PCO	Partial Consent Order
PID	Photoionization detector
PLM	Polarized light microscopy
PMC	Pollutant Mobility Criteria
PPE	Personal protective equipment
ppm	Parts per million
QA/QC	Quality Assurance/Quality Control
QE	Quinnipiac Energy, LLC
%R	Percent recovery
RAP	Remedial Action Plan
RCP	Reasonable Confidence Protocols
RCRA	Resource Conservation and Recovery Act
RCSA	Regulations of Connecticut State Agencies
RES	Residential
RL	Reporting limit
RPD	Relative percent difference
RSR	Remediation Standard Regulations
SEH	Significant Environmental Hazard
SOP	Standard Operating Procedure
SOS	Scope of Study
SPLP	Synthetic precipitation leachate procedure
Stantec	Stantec Consulting Services
SVOC	Semi-volatile organic compound
SWPC	Surface Water Protection Criteria
TCLP	Toxicity Characteristic Leaching Procedure
TEM	Transmission electron microscopy
TPH	Total petroleum hydrocarbon
TRC	TRC Environmental Corporation
UI	The United Illuminating Company
USCG	United States Coast Guard
USDOT	U.S. Department of Transportation
UST	underground storage tank
vae	Visual area estimation
VC	Volatilization Criteria
VOC	Volatile organic compound

XRF	X-ray fluorescence

1.0 INTRODUCTION

1.1 Overview

TRC Environmental Corporation (TRC) has been retained by The United Illuminating Company (UI) to provide Licensed Environmental Professional (LEP) services as they relate to adherence to and completion of all tasks outlined in Partial Consent Order (PCO) COWSPCB 15-001, including the preparation of this Scope of Study (SOS). On August 4, 2016, the PCO pertaining to environmental matters at an approximate 8.9-acre parcel of land located at 510 Grand Avenue in New Haven, Connecticut known as "English Station" (the "Site"), see Figure 1-1, became effective. For the purposes of the PCO, the Site includes the two main buildings, several smaller buildings and all associated structures located on the 510 Grand Avenue parcel of land, as well as the soil, sediment, groundwater and surface water located within the confines of the perimeter of the Site as defined on Exhibit A to the PCO (provided herein as Figure 2). The Site does not include off-site soil, groundwater or sediment in the adjacent Mill River.

As the Respondent, UI has committed to conducting the investigation and remediation (with the exception of any post-remediation monitoring requirements) of the Site in accordance with the provisions of the PCO within three years of the Access Date, unless there is an alternate completion date approved in writing by the Commissioner of Connecticut's Department of Energy and Environmental Protection (CTDEEP). Per the definition of the Access Date provided in the PCO, this means that the investigation and remediation shall be completed by August 10, 2019. Other general requirements of the PCO include:

- Development of the SOS and associated schedule;
- Implement the SOS once approved by the CTDEEP (and if required, any approved supplemental plans);
- Develop and submit for review and approval by the CTDEEP an Investigation Report that fully describes the investigatory activities conducted, evaluates the results of analyses conducted for all sample media as identified in the PCO, evaluates remedial alternatives and proposes a preferred alternative;
- Develop plans and specifications for the approved remedial actions, including a list of permits required in order to complete the remedial actions;

- Implement the CTDEEP-approved remedial actions;
- Prepare a report describing, in detail, the remedial actions performed at the Site and the proposed monitoring program designed to determine the effectiveness of the remediation; and
- Implement and document the results of the post-remediation monitoring activities.

There are two focal points of the investigation and remediation required by this PCO, environmental media and building materials (related not only to the buildings themselves, but other structures located at the Site, including, but not necessarily limited to, concrete pads). Whereas the general requirements of the PCO were outlined above, the following sections provide more detailed information about the objectives associated with the development of the SOS document for both environmental media and building materials. The PCO is included for reference in Appendix A.

1.2 Objectives

The primary objective of this SOS document is to provide a framework for investigation/characterization of the Site, therefore allowing for the fulfillment of the obligations of the PCO. Specifically, the SOS objectives as they relate to environmental media (soil, surface water, groundwater, and sediment located within the perimeter of the Site, as shown on Figure 2) include:

- Identifying the existing and potential extent and degree of contamination (defining the three-dimensional extent and distribution of substances associated with each release) while complying with all prevailing standards and guidelines (including, but not limited to Connecticut's Site Characterization Guidance Document (CTDEEP, 2010a).
- Identify non-hazardous and hazardous wastes at the Site.

These objectives will be accomplished by presenting within this document the following:

- A thorough summary of previous investigation and remediation efforts undertaken at the Site;
- An updated conceptual site model (CSM), including an evaluation and presentation of data gaps; and

- A proposed sampling and analytical program for all environmental media as defined above.

The SOS objective as it relates to building materials includes:

- Identifying asbestos and asbestos-containing materials, polychlorinated biphenyl (PCB) constituents of construction materials, lead and mercury, and other hazardous materials at the Site.

The specific requirements outlined in the PCO with respect to achieving this objective are as follows:

- Identify, document, inventory and assess asbestos and asbestos-containing materials;
- Determine if such materials are friable, damaged, unstable and accessible or may be disturbed by other actions required by the PCO;
- Further, determine how to conduct the abatement of the asbestos in accordance with all applicable laws and develop a plan for doing so;
- Fully characterize PCB constituents of all caulk, paint, flooring, roofing, mastics, fireproofing, soundproofing, waterproofing, sealants and all other materials;
- Sample PCBs consistent and in compliance with the requirements as set forth in 40 CFR Part 761 for PCBs;
- Investigate the presence of lead and mercury as part of the overall hazardous building materials survey; and
- Identify non-hazardous and hazardous waste and other hazardous materials.

In support of all activities outlined in this SOS, data quality objectives (DQOs) will be specified, as well as the quality assurance/quality control (QA/QC) measures to be implemented to meet those DQOs. In addition and per the requirements of the PCO, a proposed schedule for implementing the Scope of Study will be also be presented herein.

2.0 SITE INFORMATION

2.1 Site Location and Description

The Site is located at 510 Grand Avenue in the City of New Haven, Connecticut and consists of approximately 8.9 acres of land on the southern end of an island (Ball Island) located within the Mill River. Between 2000 when the Site was transferred from UI to Quinnipiac Energy, LLC (QE), and 2006 when QE sold a portion of the property to Evergreen Power, LLC (Evergreen) and another to ASNAT Realty, LLC (ASNAT), the Site was divided into two separate parcels. The portion of the Site identified as "Parcel A" (the northern portion) is approximately 3.58 acres in size. Parcel A is occupied by a portion of a former electrical generating plant, commonly referred to as Station B. The remainder of the property, identified as "Parcel B", encompasses the southern portion of the Site and is approximately 5.32 acres in size. Parcel B is occupied by the English Station power generating plant ("the Plant" or "English Station"). The Site as a whole is bounded to the east, west and south by the Mill River (note that the water-facing sides of the Site are bulk-headed) and to the north by Grand Avenue. The parcel boundaries and general Site layout are shown on Figure 2-1.

2.1.1 Parcel A

Station B consists of the northern portion of a former power plant constructed circa 1890 and is a two-story structure that occupies a footprint of approximately 25,000 square feet. Station B is immediately adjacent to Grand Avenue, which runs along the Site's northern property boundary. Station B is constructed of brick exterior walls with interior steel framing. A basement is present beneath the first floor of the building (GEI, 1998a). A second story office area occupies the eastern end of the building and a mezzanine is present above the first floor along the northern wall of the building.

Remnants of a former coal storage and handling system are present on Parcel A, between Station B and English Station. The system consisted of rails and elevated platforms, presumably to convey coal from barges on the Mill River to several on-site storage areas. Portions of the coal conveyor system have been removed to provide access to the interior of the Site.

A subsurface concrete tunnel that once served as the cooling water discharge conduit from Station B emanates from the southwestern portion of the building and runs toward the east-central portion of Parcel A.

2.1.2 Parcel B

English Station is located on the southern portion of the Site and has an approximate footprint of 100,000 square feet. English Station is constructed of brick and concrete with steel reinforcement. The northeastern portion of the Plant formerly housed twelve out-of-service low-pressure boilers and a fuel oil pump room. Two large, brick smokestacks are present extending through the roof in the southern portion of the former low-pressure boiler room.

The western portion of the first floor houses various pumps and equipment and also served as the Plant's main entrance. A second floor adjacent to the low-pressure boiler room formerly housed six turbines that were reportedly part of the older, low-pressure boiler system (Ibid.). Two cooling water intakes which directed water from the Mill River through the low pressure boiler system are located along the western side of the island, adjacent to the Plant. An outfall for the low-pressure boiler cooling water is located along the eastern side of the island, adjacent to the Plant.

Two separate rooms in the southern portion of English Station previously housed two large, high-pressure boilers and two turbines associated with the high-pressure system. Two large, steel smokestacks are present and extend through the roof over both high-pressure boiler systems. An oil and pump room and ash silo are located along the eastern side of the two high-pressure boiler rooms and were likely part of the fuel system that fed the high pressure boilers. Two additional cooling water intakes for the high-pressure boiler systems are located along the southwestern portion of the island, adjacent to the Plant. Discharge outfalls for the high-pressure boiler cooling water are located along the southeastern portion of the island, adjacent to the Plant.

Remnants of a former wastewater treatment system (concrete pads, etc.) are located adjacent to the eastern side of the Plant, between the high-pressure and low-pressure cooling water discharge outfalls.

Remnant structures, including brick and concrete secondary containment dikes associated with former horizontal and vertical fuel oil storage tanks, and concrete pads are located on the

southern portion of the Site, adjacent to English Station. These structures are associated with the former horizontal and vertical fuel oil storage tanks that fed the boiler systems in the Plant. A small, one-story brick building (former Foam House) is also located on the southern portion of the Site, to the west of the former fuel tank area.

Several structures are located on the southwestern portion of the Site, along the western side of English Station. Remnant and former structures in this area include a concrete slab for a former boathouse, a one-story brick building formerly used for storage and a contractor's office, and a larger rectangular one-story concrete block building that was reportedly a former assembly hall. A sub-grade sewage collection sump and pumping station are also located along the western side of Parcel B, adjacent to English Station.

2.1.3 Current Site Conditions

Several visits to the Site were made in September 2016 in order to evaluate current conditions. The Site appears overgrown in many areas relative to how it appears in historic aerial photographs and there is debris (primarily wood and metal debris) located behind Station B on Parcel A and throughout the southern portion of Parcel B, particularly around the perimeter of English Station. Also prominent throughout Parcel B are the Significant Environmental Hazard (SEH) areas that are fenced off with metal stakes, snow-fencing and signage indicating the presence of elevated concentrations of polychlorinated biphenyls (PCBs) in environmental media (predominantly surface soils) above SEH threshold criteria. Also present at the boundary between Parcels A and B (and extending onto Parcel B) are pieces of equipment left behind by demolition and asbestos abatement contractors that had been performing work at the Site until the issuance of a Cease and Desist Order in 2012. The equipment left behind includes two excavators, one outside and one inside of English Station, and several trailers that were used for storage of equipment during the demolition and abatement activities, decontamination and the storage of bags full of asbestos that had been brought from the building interior in preparation for off-site disposal. As both Station B and English Station have been vacant for several years and have not been subject to upkeep for at least 4 years, signs of decline were observed. Deterioration of portions of the roofs of both buildings were observed and evidence of exposure of the interiors to the elements were observed. Further, there was evidence that vagrants have been living in a portion of Station

B and on the date of a recent walk-through, a truck was observed on the first floor of the building. Notable observations made in English Station include the collapse of a large portion of the concrete mezzanine onto the concrete floor of the turbine hall below. In addition, there are areas of English Station in which there are hundreds to thousands of asbestos bags (totaling an estimated 10,000 bags) that had not been removed from the building for disposal prior to the issuance of the Cease and Desist Order. Additional details regarding current site conditions can be found throughout this document.

2.2 Site History and Ownership

In the late 1880s, the Site was occupied by a coal and lumber facility (Enos S. Kimberly and Company), as indicated on an 1886 Sanborn map. The New Haven Electric Company purchased the Site in 1890 and began construction of Station B, which included filling of the Mill River south of the original island boundary to provide room for the stockpiling of coal. Station B operated as a coal-fired power plant until 1903, when it reportedly ceased operations.

The Site was purchased by UI in 1914 and at that time, Station B was reportedly used for storage; however, a 1924 Sanborn map depicts the southern half of Station B as a boiler house with several smokestacks shown. The northern half of Station B is labeled as the "Generating House" on the 1924 Sanborn map. By 1939 the boiler house portion of Station B had been razed (Ibid.).

Construction of the English Station Power Plant commenced in 1924, with construction of the coal-fired, low-pressure boiler and turbine areas completed in 1929. In 1948 and 1952 two additional coal-fired, high-pressure boilers/turbines were added to the southern end of English Station, with additional filling of the river to extend the southern Site boundary (Ibid.). Sometime in the mid-1950s to early 1960s, the Plant ceased using coal as a fuel source and was converted to an oil-fired plant.

English Station continued operation until 1992, when it was placed on deactivated reserve status; two additional gas-fired boilers for maintaining interior building temperatures during colder months were added at that time. In addition to the gas-fired boilers, temperature and humidity controls were installed, reportedly to "preserve" the existing equipment such that it could be reactivated, if needed, with minimal maintenance (Ibid.).

The Site was previously identified in the New Haven Tax Assessor's records as a single parcel (Map 179, Block 567, Lot 8.01) (Ibid.). As indicated above, on or about August 16, 2000, UI transferred the Site to QE, as described in a deed recorded at page 72 of volume 5716 of the City of New Haven land records. When UI sold the Site to QE, an escrow in the amount of $1,900,000 was established by UI to fund environmental investigation and cleanup of the Site (Stantec, 2012). An Environmental Condition Assessment Form (ECAF) was filed with the CTDEEP on September 2000, by Advanced Environmental Interface, Inc. (AEI) on behalf of Quinnipiac Energy, summarizing the Areas of Concern (AOCs) for the Site and summarizing the environmental investigation completed on the Site to that date. AEI conducted investigation/remediation of the Site from 2000 until 2008 on behalf of QE, when the escrow originally established by UI was depleted. As discussed previously, sometime prior to December 2006, the Site was divided into two parcels, Parcel A and Parcel B.

As also indicated above, in 2006 QE filed for bankruptcy and subsequently sold Parcel A to Evergreen, as described in a deed recorded at page 14 of volume 7814 of the City of New Haven land records. On December 13, 2006, Quinnipiac Energy sold Parcel B to ASNAT, as described in a deed recorded at page 195 of volume 7817 of the City of New Haven land records.

From 2008 to 2011, the Site was unused and no longer maintained as suitable for power generation. In 2011, Grant Mackay Company (Grant Mackay) and Classic Environmental, Inc. (Classic Environmental) were hired by the owners of the Site to commence demolition activities, including the removal of scrap metal and structural steel, with the objective of generating enough money to fund further environmental investigation and remediation, including asbestos abatement. This work appears to have been focused on the English Station building on Parcel B. Mishandling of PCB-containing oils, including inaccurate characterization and waste disposal led to a CTDEEP inspection of the Site in February 2012. Based on the potential for tracking and spreading PCB contamination from source areas to other, uncontaminated areas of the Site and the off-site recycling of potentially contaminated steel and metals, the State of Connecticut issued to Grant Mackay and the Site owners a Cease and Desist Order (CDOWSUST 12-001) on February 12, 2012 (Partner, 2015).

Since the Cease and Desist Order was issued, no further demolition or asbestos abatement activities have occurred, and equipment owned or leased by Grant Mackay and Classic Environmental remains on-site.

In August 2014, there was a large area of staining observed on the pavement beneath equipment left behind by Grant Mackay and Classic Environmental. Specifically, oil staining was observed just to the north of the eastern portion of English Station (in the area between the main entrance and the two ash hoppers), beneath an asbestos waste trailer and the nearby asbestos abatement decontamination trailer and Connex supply box. It was later determined that the source of the oil staining was leaking drums and aboveground oil tanks located within the nearby Oil Room (interior to English Station, but within several feet of the staining). Based on the proximity of the oil staining to a nearby catch basin that conveys Site stormwater to the Mill River, a sample of the sediment in the catch basin was collected and subjected to laboratory analyses (the details of which are included in subsequent sections of this SOS document). The results indicated that there were PCBs present in the catch basin sediments at concentrations less than 1 part per million (ppm) (Ibid.).

In addition to the observation of the oil stain precipitating the sampling referenced above, it precipitated the involvement of the United States Coast Guard (USCG). Given the presence of uncontained oils and liquids identified in the Oil Room within English Station and the potential for a release to the Mill River via the nearby catch basin, the USCG issued Administrative Order 002-14 to the property owners and UI (as a former operator of the Site) on September 19, 2014. The USCG initiated response activities at the Site in late September 2014. The response actions conducted by the USCG included placement of a boom within the Mill River around the southern portion of Ball Island (south of Grand Avenue) and the removal of liquid wastes and drummed materials from within and around the Oil Room (Ibid.).

Since the completion of the USCG response actions in 2014, there has been a limited amount of work conducted at the Site. Namely, HRP Associates, Inc. (HRP) resumed investigatory work that they had begun prior to the issuance of the Administrative Order by the USCG. The scope and findings of HRP's work are discussed later in this document.

2.3 Environmental Setting

2.3.1 Geology

According to the Surficial Materials Map of Connecticut (Stone et al, 1992), the Site is located in an area underlain by fill. According to the 1998 Phase II/III report by GEI Consultants, Inc. (GEI), fill material encountered during their investigation of the Site ranged in thickness from 9 to 16.5 feet and consisted of a variety of granular materials, including loose, poorly sorted sands with fine to medium gravel, moderately dense, slightly plastic silty sands, and anthropomorphic materials including brick, ash, cinders, wood, glass, metal and plastic fragments.

A slightly plastic silt and fine sand layer was reportedly encountered beneath the fill layer and generally ranged in thickness from 5 to 11 feet. Numerous mollusk shells, fine roots and other organic material were observed in this layer. Occasional 1- to 3-inch thick layers of well-sorted and sub-rounded fine to medium sands were observed interbedded with the more silty portions of this strata.

Interbedded fine to medium sand and slightly plastic silts were observed beneath the potential confining layer of slightly plastic silts. This strata is interpreted to represent a transition from low to medium depositional environment energy, as suggested by the alternating strata types. Both materials are similar to those described in the overlying strata, except that individual layer thicknesses and spacing were greater than those observed in the strata above.

A reddish-brown, well-sorted, medium to coarse sand with less than 10 percent non-plastic fines and up to 15 percent sub-rounded fine gravel is present at approximately 35 feet below ground surface (ftbgs) (GEI, 1998b).

Others who have performed intrusive environmental work at the Site subsequent to the 1998 investigation have confirmed GEI's findings with respect to the presence of fill. In January 2003, AEI prepared a document titled *Request for Variance for Widespread Polluted Fill* for the English Station Site and on behalf of QE. In this document, AEI indicated that the materials that comprise the bulk-headed island on which English Station is located are primarily Mill River dredge spoils generated between 1900 and 1936 (prior to environmental laws and controls) to maintain navigable shipping channels. The dredged sand and silt materials that comprise the island were referred to in the 2003 report as "native" only in that they were derived from the adjacent river, however, as described in more detail later in this document, these dredged materials were

subject to pre-dredging impact by various contaminants as a result of discharges to the river from the industries that lined its banks. These spoils were placed upon the native sand and silts of the marsh and tidal flat areas once present in the area (and exposed at low tide) to create the present day Ball Island.

According to the Bedrock Geologic Map of Connecticut (USGS, 1985), the bedrock beneath the Site consists of New Haven Arkose. This bedrock is described as consisting of reddish, poorly sorted, coarse-grained, sandstone-like sedimentary rock.

2.3.2 Hydrogeology

In general, groundwater behavior beneath the Site is strongly influenced by the action of the tides in the Mill River, which is inferred to be a regional groundwater discharge zone. As the majority of the Site is paved, and therefore largely impervious to precipitation recharge, it is likely that the primary influence on groundwater flow is cyclical in response to the changing river stages (GEI, 1998b).

Shallow groundwater beneath the Site is strongly affected by tidal changes. According to the GEI Phase II/III report, a groundwater mound is evident in the northeastern portion of the Site, possibly resulting from a tidal head breaking through the old bulkhead line at a former intake tunnel. Groundwater flows in a northwesterly direction from this mound. An apparent groundwater sink is located in the central portion of the Site, where groundwater observations made during previous investigations determined that monitoring wells in this area are apparently isolated from tidal influences. The shallow groundwater table in the southern portion of the Site is relatively flat (Ibid.).

Based on the observed difference in groundwater elevations within the shallow and deep monitoring wells during previous investigations, the fine sandy silt horizon beneath the Site may be serving as a confining or semi-confining layer. GEI noted that the deeper aquifer appeared to have an upward gradient, as the head difference from the paired shallow and deep wells was between +1.5 and +2.0. In general, horizontal groundwater flow direction in the deep aquifer appears to be toward the west. GEI also surmised that the hydraulic gradient of the deep aquifer may also be influenced by the tidal stage.

Slug tests performed by GEI during their Phase II/III investigation of the Site identified hydraulic conductivity values of 7.2×10^{-2} centimeters per second (cm/sec), or 204.48 feet per day in the northern end of the Site, and 1.7×10^{-2} cm/sec, or 48.26 feet per day in the southern end of the Site. GEI concluded that the range of determined hydraulic conductivity values was consistent with the published values for the well-sorted medium to medium mixed with coarse sands screened by the wells tested (MW-3 and MW-17S). Using the groundwater data collected and an assumed soil porosity of 0.30, GEI calculated groundwater flow rates in the shallow aquifer beneath the Site as ranging from 6.43 feet per day to 61.34 feet per day, and indicated that the average groundwater flow velocity would likely be on the lower end of the range.

To evaluate tidal influence on groundwater, GEI monitored groundwater level fluctuations in several wells on-site and in the Mill River over an 8-hour period during their 1998 Phase II/Phase III investigation. During the monitoring period, the reported tidal range in the river was 5.02 feet between high and low tides. According to the Phase II/III report, groundwater elevations responded most dramatically in the northwestern (MW-1) and southern (MW-16) portions of the Site, with observed changes in groundwater elevations of 1.7 and 2.22 feet, respectively. Lesser changes in elevation were observed in the interior portions (0.97 feet) and the northern half (0.25 feet) of the Site. Lag times, in response to the tide, were reportedly just under two hours at interior and northern portions of the Site, with shorter lag times noted at the southern and northwestern ends of the Site. Based on the observed tidal influences, GEI indicated that a groundwater flow reversal due to the relatively rapid tidal influences at the outer portions of the Site was likely, and determined that the overall groundwater flow direction should not be greatly affected by the tide, but the overall groundwater table will rise and fall with the tide (Ibid.).

3.0 PREVIOUS ENVIRONMENTAL WORK

3.1 Historic Environmental Reports

The Site has been the subject of numerous investigations, cleanups, and remedial actions to evaluate its potential impacts to human health and the environment. A brief discussion of the environmental history of the Site based on the information provided in previous environmental reports and documents follows. Additionally, information provided by the previous environmental reports is referenced, where appropriate, throughout this report. Not every report available or reviewed is summarized below. Note that the historical analytical summary tables associated with previous investigations conducted at the Site are included as Appendix B.

3.1.1 1998 *Subsurface Investigation and Remediation Plan Report for English Station*, The United Illuminating Company (UI, 1998)

In a letter addressed to Ms. Lori Saliby, UI documented the results of a PCB remediation project that was carried out in advance of a bulkhead repair project. The letter references an earlier Remediation Plan having been submitted to the CTDEEP in March of 1998. No such plan was available for review by TRC at the time of this report. Though the location of the remediation project and associated soil samples are referenced as being presented in an attached Figure 1, no such figure was provided in the document reviewed. Additionally, no numerical remedial goal for PCB concentrations was mentioned in the report. A table summarizing sample dates, sample identifiers (IDs), remediation area, sample depths and PCB concentrations for the soil samples collected during remediation was attached to the report.

According to the report, three areas, identified as Area 1, Area 2 and Area 3, were remediated through excavation and off-site disposal. The report indicates that Areas 1 and 2 were excavated using a barge-mounted crane and clamshell. Area 3 was reportedly excavated using a typical land-based excavator. The report indicates that a total of 324 tons of PCB-contaminated media were shipped to the Chemical Waste Management facility in Model City, New York for landfill disposal. According to Tables 1 and 2 of the report, it appears that soil samples exhibiting concentrations below 10 ppm PCBs were left behind. Additional excavation was conducted in those areas where soil samples contained PCBs in excess of 10 ppm. This suggests that the remedial goal for this project was likely 10 ppm PCBs.

In the 2000 *Draft Remedial Action Plan for the Site* (GEI, 2000a), as reviewed in more detail in a following section), TRC identified a plan (Figure 2 - Bulkhead PCB Release Area Remediation Sample Location) showing the sample locations for the soil samples collected after the excavation activities described above. Based on the figure, it appears that Remediation Areas 1, 2 and 3 were located approximately 75 feet to the northwest of English Station, and directly adjacent to the former Transformer House. Based on the sample locations presented in the figure, it appears samples were collected on a 10-foot sample grid.

3.1.2 1998 *Phase I Environmental Site Assessment*, GEI Consultants, Inc. (GEI, 1998a)

In 1998, GEI completed a Phase I Environmental Site Assessment (ESA) on the Site for UI. According to the report, the Station B building was being used for storage at the time of GEI's Site reconnaissance. The report indicates that a bermed area was observed along the southern wall of the first floor of Station B that was reportedly used more than two years prior as a storage area for PCB-containing oil and soil. The area is referred to as an "Annex 3 PCB Storage Area" in the report (in later reports, it is described as Annex III). GEI reportedly did not observed any active storage in this area during their Site reconnaissance.

GEI noted that a 50,000-gallon vertical aboveground storage tank (AST), reportedly used for the storage of No. 6 fuel oil, was observed on the southern portion of the Site, to the south of English Station. In addition to the vertical AST, GEI noted two 5,000-gallon horizontal ASTs, reportedly used for the storage of No. 2 fuel oil, in the same area. All three tanks were located within brick and concrete containment dikes. GEI did not observe stains or leaking associated with the tanks during their Site reconnaissance.

GEI noted the following known and suspected PCB-containing equipment during their inspection of the Site:

- **Exterior Courtyard, Southwest Portion of English Station:** Former capacitor bank within a fenced enclosure with a gravel base. No staining of the area was noted by GEI.

- **Exterior Courtyard, Southwest Portion of English Station:** Two pad-mounted transformers with green labels, indicating a PCB content of less than 1.0 ppm. Located within a concrete berm, with no evidence of a release noted.

- **Along Western Exterior Wall of English Station:** Three pad-mounted transformers reportedly associated with the low-pressure boiler system. All three transformers were affixed with blue labels indicating PCB concentrations less than 50 ppm. Some staining on the transformer exteriors was noted.

- **Northwest Corner of English Station:** One large, pad-mounted transformer (Transformer "G"), situated above a concrete containment dike. The large transformer was affixed with a blue label indicating PCB concentrations less than 50 ppm. A tank associated with the transformer was labeled as containing less than 1.0 ppm PCBs. No staining or evidence of a release was noted in the GEI report.

- **Northwest Corner of English Station:** Two circuit breakers were present in this area and were affixed with green labels, indicating PCB concentrations less than 1.0 ppm. Both circuit breakers were located within a concrete containment dike.

- **English Station Interior, First Floor:** Five pad-mounted transformers reportedly containing "pure PCB oil" were observed by GEI. The transformers were reportedly located within concrete berms, with no evidence of releases noted.

- **Southern Portion of Coal Handling Area:** Three capacitor banks were observed in this area: two of the capacitor banks were reportedly located in a single enclosure at one location; a single capacitor bank was observed in another enclosure; and a third enclosure was observed to be empty. Tags reportedly indicated "No PCBs."

- **Bulkhead, Western, Southern and Eastern Sides:** Three cathodic protection relays were observed by GEI along the western, southern and eastern sides of the bulkhead. According to the GEI report, two of the relays were affixed with blue labels, indicating PCB concentrations less than 50 ppm. The third relay was affixed with a green label, indicating PCB concentrations less than 1.0 ppm.

In addition to the equipment noted above, GEI observed two tank trucks in the central portion of the former coal handling area that UI personnel reportedly noted contained transformer fluid from the large "G" transformer located at the northwest corner of English Station.

GEI made the following conclusions and identified the following areas of concern at the completion of the Phase I ESA (GEI, 1998a):

- Four underground storage tanks (USTs) were formerly located in an area adjacent to the west side of Station B. According to information obtained from CTDEEP files, two older, 2,000-gallon gasoline USTs were installed at this location and removed in June 1991, when they were both replaced by 1,000-gallon USTs. A CTDEEP spill report noted that a nominal petroleum sheen was observed on the water table during the tank removal, although groundwater samples did not

exhibit contamination. The 1,000-gallon USTs were reportedly removed in October 1996 and limited soil and groundwater sampling conducted at that time did not reveal the presence of contaminants.

- A 1967 CTDEEP inspection report (P-5) indicated that the Site was served by six separate septic tanks and associated leaching fields. The report notes that one of the septic systems was noted on a UI site plan, to the north of the coal conveyor system. The locations of the other septic systems were not indicated by GEI in their report.

- Spill reports on file with CTDEEP identified nineteen separate spills in connection with the Site. Of these spills, roughly half were releases to the Mill River. Several others involved spills or releases of PCB-containing oils to soil or other areas on-site, but generally did not identify specific locations.

- CTDEEP spill documents reviewed by GEI from 1979 indicated that oily soil was encountered during the installation of a transmission tower foundation located approximately 40 feet from the western bulkhead. Though the report does not specifically identify where on the Site the discovery was made, the spill report does indicate that it was somewhere within the former coal storage area between Station B and English Station. A past coal dust suppression practice of spraying the area with oil was noted by UI personnel interviewed by GEI as a potential source of the oil. Repair of the Site bulkhead in 1997 in the same general area reportedly encountered similar contamination. Analysis of the oil encountered during the bulkhead repair indicated a PCB concentration of 350 parts per million (ppm).

- A 1984 CTDEEP spill report indicated that a capacitor "blew up" at English Station. Based on information provided by UI, it appeared that the soil has been remediated to 50 ppm. Apparently there was also a similar 1981 release adjacent to an English Station capacitor. Remediation also occurred in which soils were removed to less than 50 ppm PCBs.

- A waste oil AST was formerly located adjacent to the southeastern corner of English Station.

- One 50,000-gallon No. 6 fuel oil and two 5,000-gallon No. 2 fuel oil ASTs were noted on the southern portion of the Site, adjacent to English Station.

- Several station transformers, large circuit breakers, capacitor banks, and cathodic protection relays were observed across the Site.

- Three former chemical storage areas were identified within English Station, though their exact locations were not described by GEI.

- A former industrial wastewater treatment system was located southeast of English Station. At the time of the 1998 Phase I, the system was no longer present, although GEI noted remnants of the former wastewater treatment system (concrete pads, etc.) present adjacent to the north of the high-pressure discharge point.

- GEI noted that based on their review of historic maps, aerial photographs and other documentation, the majority of the Site appears to be underlain primarily by fill material of an unknown quality and origin.

- Coal storage operations at the Site, south of Station B, were conducted over an extended period.

- The Site was identified as a Large Quantity Generator (LQG) of hazardous wastes. GEI noted that the Site may be considered an "Establishment" under the Connecticut Property Transfer Act. A 1992 CTDEEP Hazardous Waste Generation Report indicates 13,315 pounds and 966 gallons of hazardous waste were generated during deactivation of the Plant in 1991/1992.

3.1.3 1998 *Phase II/III Field Investigation*, GEI Consultants, Inc. (GEI, 1998b)

In July 1998, GEI returned to the Site to perform a Phase II and partial Phase III investigation. The purpose of the investigation was to assess soil and groundwater conditions in the AOCs identified in their earlier (May 1998) Phase I. GEI identified the following AOCs for the Site:

- **AOC 1: Station B.** Station B was identified as an AOC by GEI due to former chemical and petroleum product storage, and its status as an "Annex 3" PCB storage facility.

- **AOC 2: Station B USTs.** Four gasoline USTs were formerly located to along the west side of Station B. Two older 2,000-gallon gasoline USTs were removed from this area in 1991 and replaced with two 1,000-gallon gasoline USTs. The 1,000-gallon gasoline USTs were removed in 1996. Only limited sampling was completed in this area.

- **AOC 3: Former Septic Systems.** CTDEEP documentation indicated as many as six septic systems were previously in use at the Site. Only one septic tank was identified by GEI during their review of plans for the Site.

- **AOC 4: Past Spills.** Several spill reports reviewed by GEI indicated sheens and releases to the Mill River occurred via the storm sewer system on-site.

- **AOC 5: PCB Remediation Area.** GEI identified an area of PCB-contaminated soil along the western/central portion of the Site, in the vicinity of the bulkhead. At the time of the Phase I, this area was actively undergoing remediation by UI.

- **AOC 6: Capacitor Release.** Documentation reviewed by GEI identified a 1984 spill report that indicated a capacitor "blew up". Anecdotal information provided by UI personnel regarding similar incidents were also noted. The Phase II/III report indicates that cleanup of the area around the pad and soil continued until samples were non-detect for PCBs, contradicting GEI's Phase I report (GEI, 1998a) that stated remediation was conducted until soil concentrations dropped below 50 ppm. The release reportedly occurred at what GEI identified as Capacitor Bank No. 1, located to the north of English Station, adjacent to the coal conveyor system.

- **AOC 7: Waste Oil AST/Oil Pump House.** A former waste oil AST was identified by GEI as having been located next to the southeastern corner of English Station. An oil pump house that served high-pressure boiler units 7 and 8 was also located in this area.

- **AOC 8: Fuel Oil ASTs.** One 50,000-gallon No. 6 fuel oil AST and two 5,000-gallon No. 2 fuel oil ASTs were identified on the southern portion of the Site. All three tanks were located within secondary containment dikes; however, GEI noted surficial soil staining outside of the bermed area.

- **AOC 9: Transformers.** Several transformers, large circuit breakers capacitor banks, and cathodic relays were identified by GEI in various locations across the Site, primarily associated with English Station.

- **AOC 10: Former Interior Chemical Storage Areas.** Three former chemical storage areas were identified within the Plant building. (Note that the locations of these former chemical storage areas were not specifically identified in the report.)

- **AOC 11: On-Site Fill Material.** Historic information reviewed by GEI indicated that the majority of the Site is underlain by fill material of an unknown origin and quality.

- **AOC 12: Coal Storage.** The central portion of the Site, south of Station B and north of English Station, housed coal storage and handling operations for an estimated 40-year duration.

- **AOC 13: Former Wastewater Treatment Facility.** According to GEI, a former wastewater treatment system was located in the southeastern corner of the Site. Remnants of the treatment system, including concrete pads and a below grade pumping station, were observed by GEI during the Phase I.

GEI used a combination of soil borings, surface soil samples (including samples collected from sumps), concrete chip samples, sediment samples, deep and shallow groundwater monitoring wells (with deep wells carrying a "D" designation and shallow wells carrying an "S" designation where couplets were installed), and groundwater samples to evaluate each of the AOCs identified above. General observations regarding soil conditions encountered during investigation activities by GEI are included in Section 2.3.1. As part of the Phase II/III, GEI also completed hydraulic conductivity testing, a tidal groundwater survey, and an ecological survey. Relevant conclusions regarding the results of the hydraulic conductivity testing and tidal groundwater survey were discussed in Section 2.3.2.

Total petroleum hydrocarbons (TPH) were reportedly detected in six soil samples collected from AOC-1, but only one sample exhibited a concentration above the applicable Connecticut Remediation Standard Regulations (RSR) numerical criteria. (Note that at the time this investigation was conducted, AOC-1 included not only Station B, but its environs as well.) TPH was detected at a concentration of 4,397 ppm in a soil sample collected from TB-6, which was located to the south of Station B. According to the report, several polycyclic aromatic hydrocarbons (PAHs) were also detected in soil samples collected from several other borings in the vicinity of AOC-1, at concentrations below the applicable RSR criteria. GEI noted that no visible or olfactory evidence of contamination was observed in the soil borings from which the soil samples were collected, and concluded that the source of the TPH was not known. Based on the absence of a distinct source, the elevated TPH detection was attributed to the presence of fill in the area. GEI also collected a concrete chip sample from within Station B during the investigation. Laboratory analysis of the concrete sample indicated PCBs were present at 15 ppm. GEI concluded that the PCB detection in concrete was indicative of a past release in the Station B building.

Elevated concentrations of TPH above the applicable RSR criteria were detected in two soil samples collected from borings within AOC-2 and ranged in concentration from 1,212 ppm to 7,179 ppm. The samples were collected from depths ranging from 5 to 17 ftbgs, and the report indicates that petroleum odors and soil staining were observed in the borings. GEI concluded that residual contamination remained in soil in the vicinity of the former USTs associated with Station B.

Though historical CTDEEP documentation has suggested as many as six separate septic systems have previously been in use at the Site, GEI only identified a single septic tank located south of Station B. The report indicates that no evidence of a release was identified in the soil boring observations or in the analytical results for collected soil samples. Additionally, no evidence of a release from known or suspected septic system locations were detected in site-wide groundwater analyses, which were also used to evaluate AOC-3.

With respect to the documentation of past spills on the Site, AOC-4, GEI noted that many of the spill reports were for evidence of discharges to the Mill River (e.g. sheens, floating product) due mainly to unknown sources. Additionally, several other spill reports were for discreet events or areas of the Site evaluated during the investigation of other AOCs. GEI reasoned that the evaluation of historic spills on-site would be accomplished through sampling of groundwater monitoring wells across the Site and sediment samples collected from Site drainage structures. As such, no specific discussion was presented relative to an evaluation of AOC-4.

An evaluation of AOC-5 was not completed by GEI during their 1998 investigation of the Site. According to the Phase II/III report, PCB contamination discovered during the bulkhead repair project was being evaluated under a CTDEEP-approved plan, and remediation (by others) was on-going at the time of the report.

For AOC-6, GEI collected soil and concrete chip samples from Capacitor Banks 1, 2, and 3 to confirm that the 1984 capacitor release at Capacitor Bank No. 1 was remediated, and to confirm that similar releases had not occurred at the other capacitor banks. Low concentrations of PCBs (3.0 and 10.0 ppm) were detected in the two concrete samples (CS-1 and CS-2) collected from Capacitor Bank #1. PCBs were also detected at a concentration of 2.0 ppm in a soil sample PCB-17, collected along the east side of Capacitor Bank #1. PCBs were not detected above the laboratory reporting limit (1 ppm) at Capacitor Banks 2 and 3; however, relatively low concentrations of TPH were detected in soil samples PCB-13 (27 ppm) and PCB-14 (118 ppm) collected from the area between Capacitor Banks 2 and 3. Low concentrations of TPH were also detected in soil samples collected from an area immediately south of Capacitor Bank #1, at concentrations between 25 and 28 ppm.

GEI evaluated AOC-7 (Former Waste Oil AST) and AOC-13 (Former Wastewater Treatment Facility) together, based on the close proximity of these AOCs to one another. Elevated

concentrations of TPH were detected in several soil samples collected from seven locations (AST-1, MW-18, MW-21, TB-18, TB-109, TB-110 and TB-111) across this area of the Site, ranging from 238 ppm to 16,263 ppm. The detected concentrations of TPH in several of the samples were above the applicable RSR criteria. The highest concentration was detected in a shallow soil sample, AST-01, collected from below the former waste oil AST. Elevated PAH concentrations were detected in soil samples collected from three locations across the area (MW-21, TB-18, and TB-111). Concentrations of several of the PAHs in these samples were above the applicable RSR criteria. Lead was detected at a concentration of 2,160 ppm in boring TB-18, and was the highest concentration of lead detected in the samples collected from AOCs 7 and 13. GEI did not identify a specific source for the lead, but opined that it may be related to the presence of fill in the area. PCBs were detected in two samples from this area, AST-01 and SED-02, at concentrations of 2 and 1 ppm, respectively. Sediment sample SED-02 was collected from a sump reportedly associated with the former wastewater treatment system. No further discussion is presented in the Phase II/III report relative to sources of contamination associated with these AOCs.

TPH was detected in eleven of the soil samples collected in the vicinity of AOC-8, ranging in concentration from 30 ppm to 35,520 ppm. The highest concentration of TPH was detected in soil sample SS-01, a shallow soil sample. PCBs were also detected in SS-01 at a concentration of 14 ppm. PAHs were detected in five soil samples collected from this area. GEI attributed the TPH and PAH detections in this area to past oil releases or potentially contaminated fill.

In their Phase II/III report, GEI broke AOC-9 (Site Transformers) down into separate areas consisting of the Western Transformer Yard, (including the transformer to the northwest of English Station), Southwest Transformers, and Capacitor Bank #4. GEI evaluated AOC-9 by collecting shallow soil and sump sediment samples. In the Western Transformer Yard, PCBs and TPH were detected in soil sample PCB-9 at concentrations of 1.0 ppm and 32 ppm, respectively. Concentrations of TPH were detected at two soil sampling locations (PCB-3 and PCB-4) in the Western Transformer Yard. In the vicinity of the Northwest Transformers, PCBs and TPH were detected in sediment sample PCB-6 at concentrations of 4.0 ppm and 9,091 ppm, respectively. Based on the detections of PCBs and TPH at this location, GEI concluded that a release had occurred. PCBs were not detected above 1 ppm in sediment sample PCB-5, and only a relatively low concentration of TPH, (165 ppm) was detected. Elevated concentrations of PCBs were

detected in soil samples collected from both the Capacitor Bank #4 area and the Southwest Transformer area. Soil samples PCB-1, PCB-31 and PCB -32 exhibited PCB concentrations ranging from 53 ppm to 440 ppm. Soil sample PCB-2, collected just outside of the fenced portion of Capacitor Bank #4 exhibited a PCB concentration of 2,300 ppm. PCBs were not detected above the reporting limit of 1 ppm in soil samples PCB-20 and PCB-21 collected from inside the fenced area at the same location.

The report indicates that GEI evaluated AOC-10 (Former Interior Chemical Storage Areas), located inside of English Station, using monitoring wells and soil borings at exterior locations around the building. Based on the results of their investigation, GEI concluded that the detection of contaminants in the exterior sample locations, particularly TB-108, were likely attributable to releases outside the building or the presence of fill.

GEI addressed AOCs 11 (On-Site Fill Material) and AOC-12 (Coal Storage) together in their Phase II/III report. GEI reported that analytical data for samples collected within the former coal storage area consistently contained contaminants including arsenic, PAHs, and TPH. The detected concentrations of one or more of these constituents often exceeded the applicable RSR criteria.

With respect to Site groundwater, GEI concluded that no volatile organic compounds (VOCs), metals or PCBs were detected above the applicable RSR groundwater criteria. GEI noted that one up-gradient deep well, MW-04D, contained low levels of solvent-related VOCs that were attributed to an unnamed, off-site source. Several semi-volatile organic compounds (SVOCs), were detected in on-site wells sampled during the Phase II/III. GEI attributed the occurrence of these constituents to the widespread fill across the area and not to any one AOC.

In addition to providing the results of their investigation, GEI's report summarizes options with respect to each of the evaluated AOCs. A notable, general conclusion made in the report is that non-aqueous phase liquids (NAPLs) were not observed or encountered at the Site during investigation activities. With respect to AOCs 3 and 4, GEI did not recommend any further work, as no impacts associated with the former septic systems (AOC-3) were identified and contamination attributable to past spills (AOC-4) was addressed by other AOCs. With respect to AOC-5 (PCB Remediation Area), GEI indicates that a summary of ongoing remediation work would be submitted to CTDEEP under a separate cover and not addressed as part of the Phase

II/III. With respect to AOCs where PCBs were detected, GEI indicates that a determination of applicable cleanup standards would be needed from either the Environmental Protection Agency (EPA) or CTDEEP. This includes AOCs 1, where PCBs were detected in the Station B building; AOC-6, where PCBs were detected in the vicinity of Capacitor Bank No. 1; and AOC-9, where PCBs were detected in the vicinity of the Western Transformer Yard, Southwest Transformers, and Capacitor Bank #4. Conclusions regarding all other AOCs consisted of an evaluation of means to achieve compliance with the RSRs in place at the time of the investigation.

3.1.4 1999 *Preliminary Report #20210: Regarding Supplemental Environmental Investigation at the UI English Station*, Enviroshield, Inc. (Enviroshield, 1999)

The Enviroshield 1999 Preliminary Report documented tasks completed by Enviroshield during their investigation of the area adjacent to and around the PCB remediation area along the western side of the Site bulkhead. The report references an earlier summary report (Enviroshield Summary Report #18055) that was not available for review during development of this SOS. According to Preliminary Report #20210, Enviroshield drilled nine soil borings, identified as GP-20A, GP-30 through GP-33, and GP-38 through GP-41 on the Site. Soil samples were reportedly collected every two feet from the ground surface to a depth of 12 ftbgs and submitted for laboratory analysis of PCBs. No analytical data reports or sample results tables were included in the report. According to the report, all borings were completed as 1-inch diameter monitoring wells.

Though no analytical summary tables or copies of laboratory results were included, the report notes that a continuous oil film and strong petroleum odor was observed on the water table at GP-20A. Small globules of oil and a light petroleum odor were also noted in wells GP-30 through GP-32, GP-38 and GP-39.

3.1.5 2000 *Summary Report #20216: Regarding Additional Environmental Investigation at the UI English Station*, Enviroshield, Inc. (Enviroshield, 2000)

Due to reportedly erratic PCB results in silty groundwater samples collected from the previously installed 1-inch diameter monitoring wells, Enviroshield returned to the Site to install four additional 4-inch diameter monitoring wells (MW-50 through MW-53) to a depth of 12 ftbgs (except for MW-52, which met refusal at 8 ftbgs). Soil samples were again collected every two feet. After two rounds of well development one week apart and an additional week for

equilibration, the four wells were sampled. Although no analytical summary tables or copies of laboratory results were included in the Enviroshield report, the report notes that PCBs were detected at low concentrations (ranging from 1.4 milligram per kilogram or mg/kg to 2.6 mg/kg) in soil samples collected from well locations MW-50, MW-51 and MW-53. The report indicates that PCBs were not detected (laboratory reporting limits were not documented in the report) in the silt-free groundwater samples collected from the 4-inch wells.

3.1.6 2000 *Supplemental Field Investigation*, GEI Consultants, Inc. (GEI, 2000b)

In May 2000, GEI completed a supplemental field investigation to further define previously identified areas of contamination on the Site for use in preparation of a Remedial Action Plan (RAP). The supplemental field investigation was based on the results of GEI's earlier Phase II/III investigation of the Site completed in 1998. The supplemental investigation was performed based on the premise that a Site-wide environmental land use restriction (ELUR) would be implemented, restricting land use to non-residential and restricting the disturbance of soil greater than 4 feet below existing grade.

At AOC-1, GEI drilled soil boring TB-217 to further evaluate an elevated detection of TPH in a previous composite soil sample (collected from 1-7 ftbgs) collected from boring TB-6. Soil samples were collected every two feet to a depth of 8 ftbgs. The four samples were analyzed for extractable total petroleum hydrocarbons (ETPH), and all four samples exhibited concentrations below the applicable RSR criteria. Based on these results, GEI concluded that no further investigation or remediation was necessary at AOC-1. The previous detection of PCBs in an interior concrete chip sample was not addressed.

At AOC-2, TPH in excess of the applicable RSRs was previously identified in a soil sample collected from boring TB-01 near the former UST graves. To further evaluate this detection, GEI drilled five additional soil borings (TB-218, and TB-226 through TB-229). ETPH was detected in eight of the nine soil samples collected. The highest concentrations of ETPH were detected in TB-218 (534 ppm) and TB-227 (954 ppm). Additionally, elevated concentrations of several SVOCs were detected in TB-218, TB-226, TB-227, TB-228 and TB-229. According to GEI, the concentrations of SVOCs in TB-218 were reportedly high enough to indicate the presence of NAPL when the calculation presented in Section 22a-133k-2(c)(3) of the Regulations of

Connecticut State Agencies (RCSA) is applied. GEI noted that, aside from the NAPL calculation, there was no other evidence to suggest a NAPL source of SVOCs was present at AOC-2 (e.g., no free-phase product in area wells or soil borings, and no documented significant spills or releases). Based on the field screening results for TB-218 and the analysis of other nearby soil samples, GEI concluded that the SVOC impacts at AOC-2 were limited and did not warrant further investigation. GEI did note that soil remediation in the vicinity of TB-218 would be required.

To further evaluate detections of TPH, SVOCs, and PCBs in soil at AOC-7, GEI drilled four shallow soil borings (TB-207 through TB-210) in the immediate vicinity of the previous boring locations TB-110 and TB-111, where these constituents were detected during GEI's Phase II/III, and three borings (TB-223 through TB-225) to further evaluate impacts related to the former waste oil AST. Elevated concentrations of SVOCs were detected in TB-208 and TB-209, with some constituents exceeding applicable RSR criteria. Of the three soil borings advanced within and adjacent to the waste oil AST area, ETPH was detected in samples collected from TB-224 and TB-225. PCBs were also detected in four samples collected from soil borings TB-224 and TB-225. GEI concluded that the extent of SVOC and PCB impacts at AOC-7 were adequately defined and noted that soil remediation in the area of the waste oil tank would be required.

At AOC-8, shallow soil PCB and TPH impacts were found adjacent to the east of the former No. 6 fuel oil AST and containment dike during the Phase II/III. Additionally, soil samples collected from boring locations TB-113 and MW-16, adjacent to the north of the AST berms, exhibited elevated concentrations of SVOCs. To further evaluate these impacts, GEI drilled four soil borings (TB-219 through TB-222) and collected five surface soil samples (SS-04 through SS-08) from the area east of the tank and containment dike. Two shallow borings were also advanced in the area of TB-113 and MW-16 to evaluate shallow soil quality. ETPH was detected in soil samples collected from TB-212, TB-219, TB-220, TB-221 and TB-222. The highest concentrations of ETPH were detected in soil samples collected from TB-220. PCBs were detected in three of the five surface soil samples collected ranging in concentration from 1-3 ppm. GEI concluded that the extent of PCB impacts east of the former ASTs were well defined by the field sampling programs and noted that soil remediation would be required in the area of the identified PCB impacts.

In this report, GEI appears to have combined two previously separate AOCs: AOC-6 Capacitor Release and AOC-9 Site Transformers. Therefore, the Capacitor Release Area (Capacitor Bank 1) is discussed along with the other capacitor and transformer locations as part of AOC-9.

To further characterize the soil in the vicinity of Capacitor Bank 1, GEI collected additional soil samples oriented in a 10-foot grid, as required by EPA regulations and CTDEEP guidance. The additional samples, identified as SS-01, SS-02, SS-03 and HA-02, were collected to further delineate the PCB impacts at soil sample PCB-17, collected during GEI's previous Phase II/III. PCBs were detected in soil sample SS-02 only, at a concentration of 23 ppm. Arsenic was also detected in soil samples HA-2, SS-01 and SS-03 at concentrations ranging from 116 ppm to 230 ppm. In addition to Capacitor Bank 1, additional soil samples HA-1, TB-214 and TB-215 were collected in the vicinity of the southwest transformer area, where elevated concentrations of PCBs were detected during the previous Phase II/III. PCBs were detected in all three samples, with the highest concentration (29 ppm) being detected HA-1. According to the report, no additional samples were collected from Capacitor Bank No. 4 due to the presence of underground utilities. GEI concluded that the additional characterization of PCB impacts in the vicinity of Capacitor Bank #1 and the Southwest Transformer Area had revealed more extensive PCB contamination than was previously identified. GEI noted that soil remediation to address the PCB and TPH contamination in these areas would be required to address impacted soils. No mention was made of Capacitor Bank No. 4, where high concentrations of PCBs were previously detected during the Phase II/III.

Arsenic concentrations above the applicable RSR criteria were identified in soils throughout AOC-12, the former coal storage and handling area, at depths ranging from 0 - 13 ftbgs. According to the report, the source of the contamination is attributed to the former storage/use of coal. Initially during the Supplemental Field Investigation, thirteen soil borings were completed within the former coal storage and handling area specifically to evaluate arsenic concentrations. However, additional arsenic analyses were run on soil samples collected from other nearby areas of the Site to provide a better definition of the extent of arsenic in soils.

Arsenic concentrations in excess of applicable RSR criteria were detected in soil samples collected form TB-231 through TB-235 and HA-3. Soil samples collected from other adjacent

AOCs identified significant arsenic exceedances adjacent to Capacitor Bank 1 and the Southwestern Transformer Area. GEI concluded that the occurrence of arsenic in association with the former coal storage and handling area was "fairly well delineated", and goes on to note that remediation to address arsenic-containing soils in the vicinity of the former coal handling and storage area and in the vicinity of the former Station B boiler house would be required. GEI did not render an opinion on the other areas of the Site where high concentrations of arsenic were detected in soils, such as Capacitor Bank 1 or the Southwestern Transformer Area.

To further evaluate the former wastewater treatment system (AOC-13) where lead, SVOCs and TPH were previously detected in soils, GEI collected soil samples from five additional soil borings (TB-202 through TB-206) in the area. Additionally, to provide further screening of shallow soils in the area, GEI collected soil samples from two soil borings (TB-200 and TB-201) drilled further north of AOC-13. Relatively low concentrations of SVOCs, ETPH and metals were detected in soil samples collected from soil borings TB-200 and TB-201, with no apparent exceedances of applicable RSR criteria being noted by GEI. However, high concentrations of one or more SVOCs, were detected in soil samples collected from soil borings TB-202 through TB-206. According to GEI, the concentrations of SVOCs in the soil samples collected from these borings were high enough to indicate the potential presence of NAPL when the calculation presented in Section 22a-133k-2(c)(3) is applied. GEI subsequently concluded that delineation of the SVOC-impacted soil in the vicinity of the former wastewater treatment plant was adequate and noted that remediation of these soils would be required.

3.1.7 2000 *Draft Remedial Action Plan*, GEI Consultants, Inc. (GEI, 2000a)

The 2000 GEI Draft RAP summarizes environmental investigative work completed up to that point, provides an evaluation of RSR compliance, and presents remedial actions and objectives for several areas of the Site. The RAP presents actions GEI determined were required to bring the Site into compliance with the industrial standards of the RSRs and to perform a self-implementing on-site cleanup of PCBs under the federal regulations (40 CFR 761.6l(a)). Remedial actions proposed by GEI in their Draft RAP were based primarily on their earlier Phase I ESA (1998), Phase II/III (1998), and Supplemental Environmental Investigation (2000), summarized previously.

Of the thirteen previously identified AOCs at the Site, GEI's Draft RAP concluded that no remediation was required for AOC-1 (TPH Release associated with Station B). The Draft RAP indicates that remediation would be required at AOCs 2, 5, 7, 8, 9, 12 and 13. No mention of AOCs 3, 4, 6, 10 or 11 is made, although previous GEI reports had recommended no further work was necessary at AOCs 3 or 4 and that there was no exterior evidence of interior sources of contamination for AOC 10. Also, GEI appeared to have combined AOC 6 with AOC 9 and AOC 11 with AOC 12 in previous reports, possibly explaining the absence of any specific discussions of these two AOCs. To address contaminants in soil at concentrations above the Residential (RES) Direct Exposure Criteria (DEC), GEI indicated that a Site-wide ELUR would be recorded, allowing compliance with the Industrial/Commercial (I/C) DEC and the groundwater Class GB Pollutant Mobility Criteria (PMC). At those AOCs where contaminants in soil exceeded the GB PMC, excavation to the seasonal high water table and off-site disposal was the remedial method specified. Contaminants detected in soil at concentrations above the I/C DEC only would be rendered inaccessible through the placement of 2 feet of clean fill and capping with three inches of asphalt. With respect to those AOCs where PCB contamination was identified, soil with PCB concentrations greater than 1.0 ppm but less than 10 ppm would be covered with a cap consisting of a minimum of 6-inches of asphalt, and soils with PCB concentrations greater than 10 ppm would be excavated and disposed of off-site.

Though SVOCs in soil at the former Station B USTs (AOC-2) and the former wastewater treatment system (AOC-13) were detected at concentrations indicative of potential NAPL, GEI reasoned that recoverable NAPL that requires remediation under Section 22a-133K-2(g) was not believed to be present at the Site for the following reasons:

- a review of the Site history did not indicate the release of any significant quantities of NAPL;
- free phase NAPL layers had not been detected in any of the monitoring wells at the Site;
- elevated SVOCs were present in part due to coal ash, not due to the release of liquids containing SVOCs;
- concentrations of SVOCs in groundwater did not indicate that the presence of NAPL is likely; and

- the equation to predict the presence of calculated NAPL includes a factor of safety and is only one of several general indications that are used to suggest the possible presence of NAPL.

Additionally, GEI noted that no groundwater remediation was required, though continued groundwater monitoring would likely be required to demonstrate compliance with the RSRs, specifically the Surface Water Protection Criteria (SWPC).

3.1.8 2001 *Remedial Action Plan for Former Coal Yard Area*, Advanced Environmental Interface, Inc. (AEI, 2001)

Shortly after the Site was sold to QE, AEI was retained to prepare and implement a RAP for the former coal yard (AOC-12). According to the plan, the former coal yard was being considered for remediation ahead of planned construction activities associated with the potential re-powering of the Site.

AEI's RAP was based solely on previous Site investigations and relied heavily on the early work completed by GEI and Enviroshield. Based on AEI's review of the existing data for the former coal yard, they determined that soil within the former coal yard generally contained concentrations of arsenic above the I/C DEC and that smaller areas contained PCBs at concentrations that also exceeded the I/C DEC. Groundwater that contained lead and PAHs above the SWPC was also identified in monitoring wells along the eastern property boundary.

According to AEI's analysis, there was no particular apparent pattern to arsenic distribution, except that most of the detected arsenic concentrations were in the shallow soils in and around the former coal storage/handling area. AEI acknowledged a "hot spot" in the south portion of the former coal yard, north of the Plant, that had high levels of arsenic and PCBs. Based on the figures included in the plan, this area appears to correspond with former Capacitor Bank 1. AEI notes that the PCB-contaminated soil was scheduled for excavation.

In order to achieve compliance with the RSRs, AEI proposed to use planned construction activities to render soils inaccessible (e.g., covered with 2 feet of fill with asphalt cap or four feet of fill with no cap) and environmentally isolated (e.g. concrete building floors and pads), record an ELUR to prevent future disturbance of soil, and where necessary, excavate and dispose of contaminated soil. AEI also planned additional sampling across the former coal yard and

surrounding area (23 soil borings) and the area around former Capacitor Bank 1 (8 shallow soil samples with hand tools).

3.1.9 2002 *Site-Wide PCB Characterization and Cleanup Plan*, AEI (AEI, 2002)

In 2002, AEI produced a Site-Wide PCB Characterization and Cleanup Plan for QE to document the status of characterization and planned cleanup of Site soils, and porous and non-porous surfaces contaminated with PCBs at the Site. While acknowledging that a number of non-PCB-related remediation issues were present, AEI indicated that the plan was assembled to "keep the PCB issues clear and separate", and noted that the plan only discussed PCB contamination at the Site.

The plan summarizes the investigations (including those completed by AEI) and remediation activities that had occurred at the Site with respect to PCBs. The plan also breaks out and identifies five PCB Areas associated with the Site that were known or suspected to be PCB contaminated and include the following:

- PCB Area 1: Station B Building
- PCB Area 2: Former Coal Yard Area
- PCB Area 3: Excavation Area/Electrical Infrastructure Area
- PCB Area 4: Southwest Area
- PCB Area 5: Southeast Area

The plan notes that no further characterization work was planned for PCB Area 1 based on the characterization and cleanup that had occurred at that location up to that point. Characterization sample locations results for the Annex III area (concrete samples), the basement (soil samples), and overhead crane (wipe samples) were also presented in the report.

Similarly, no additional characterization work was planned for PCB Area 2. AEI noted that the numerous rounds of soil characterization sampling conducted in the vicinity of the former coal yard were sufficient to characterize the area.

PCB Area 3 encompasses several areas of the Site called out as AOCs in earlier reports and consists of the three former Capacitor Banks located to the north of English Station and two transformers located at the northwest corner of English Station. Though extensive sampling had

been completed for at least portions of this area, AEI proposed additional samples to further characterize PCB impacts around Capacitor Bank No.1 and the transformer pads located at the northwest corner of English Station.

PCB Area 4 encompasses the area of the Site called out as AOC 9 in earlier reports and consists of the transformers and electrical equipment located along the western wall of the English Station, the Southwest Transformers and containment tub, and the former Capacitor Bank No. 4. According to the plan, QE had poured a concrete slab over a portion of the area where the West Transformers were located. The slab reportedly was 6 inches thick and supported a micro-turbine. It is unclear whether or not the area covered by the slab was previously characterized and/or required remediation. AEI indicated that PCB Area 4 was not well characterized, and therefore proposed additional characterization of the area, including shallow and deep soil samples, concrete samples, and wipe samples.

PCB Area 5 encompasses the area of the Site called out as AOC 8 in earlier reports and consists of the area around the former 50,000-gallon and 5,000-gallon fuel oil ASTs and containment dike and the former waste oil AST to the southeast of English Station (AOC 7). Much like PCB Area 4, additional characterization was proposed by AEI in PCB Area 5.

A summary of the previous investigation work completed within each of the newly-defined PCB Areas, consisting of figures showing sample locations and data tables summarizing laboratory analytical results, was included in the plan. The report also describes cleanup activities previously conducted at the western bulkhead wall (AOC 5), and identifies proposed supplemental characterization activities, decontamination methods, and disposal protocols.

3.1.10 2005 *Interim PCB Report for Station B Parcel Sale*, AEI (AEI, 2005)

In 2005, AEI issued an interim report summarizing work completed on what is now identified as the "Parcel A" portion of the Site. The purpose for issuing the interim report was to provide a summary of all PCB-related work completed for the northern portion of the Site, in advance of the subdivision and sale of that portion of the Site. According to the report, the additional investigative work and remedial options previously discussed in AEI's July 2002 *Site-Wide PCB Characterization and Cleanup Plan* were greatly expanded after it was discovered that PCB contamination on the Site was more widespread than initially thought.

The report indicates that the previously identified "PCB Areas" (AEI, 2002) were further divided into "sub areas" on a Site-wide basis. The areas covered in the report include the following:

PCB Area 1 – Station B Building

- PCB Area 1.1: Mezzanine and First Floor of Station B (except Annex III);
- PCB Area 1.2: Annex III of Station B; and
- PCB Area 1.3: Basement of Station B.

PCB Area 2 – Former Coal Yard

- PCB Area 2.1: Elevated Concrete Supports and Railroad Tracks, and Turntables; and
- PCB Area 2.2: Former Coal Yard Storage Areas.

PCB Area 6 – Balance of Site, Except English Station

- PCB Area 6.1 – Former Station B Boiler House and Coal Yard Area; and
- PCB Area 6.2 – Mill River East Branch Area.

According to the report, the investigation of PCB contamination in the northern portion of the Site was complete and that portion of the Site was fully characterized with respect to PCBs. The report indicates that the Station B interior was remediated to less than 1 mg/kg PCBs in affected concrete or other porous materials, and to less than 10 µg/100 cm^2 on stained, impervious surfaces. In addition, the earthen basement floor had been previously sampled and no PCBs were detected. In order to satisfy other regulatory requirements related to arsenic, lead and PAHs (and not PCBs), a concrete cap was subsequently poured over the entire earthen basement to render the soils inaccessible.

PCB levels in soil and pavement in the yard (i.e., Former Coal Yard) exterior to the building were reportedly below 10 mg/kg. Leachable PCBs were not detected above the reporting limit of 0.5 ppb in those soil samples analyzed by the synthetic precipitation leachate procedure (SPLP). PCB contamination of groundwater was not detected above the reporting limit of 0.5 ppb in any of the monitoring wells located in the area.

PCBs were detected in sediment in a catch basin identified by AEI as "CB-2," located in the central portion of the former coal yard. Additionally, PCBs were also detected in soil in a small area to the southeast of CB-2. Concentrations of PCBs in both areas were below 10 mg/kg. The report notes that catch basins CB-1 and CB-2 tie into a cooling water discharge tunnel that runs from Station B to an unidentified termination point on the southern portion of the Site. According to the report, the tunnel is approximately 3 feet tall and 4 feet wide, and is buried approximately 1 foot below grade. The tunnel is reportedly sealed off at both ends and no outfall to the Mill River.

The report indicates that the catch basins in the coal yard area would be pumped out, with the material disposed of properly. Sampling of the tunnel sediments and concrete were planned, and AEI indicates that the tunnel would be remediated, as needed, based on the results of that sampling. Re-grading of the coal yard area and subsequent application of 3-inches of asphalt was planned to render soils across the area inaccessible.

3.1.11 2006 *Station B Parcel PCB Cleanup Plan*, AEI (AEI, 2006)

In March 2006, on behalf of QE, AEI formally submitted the *Station B Parcel PCB Cleanup Plan* to the EPA in order to satisfy the notification and certification requirements of 40 CFR 761.61 (a)(3) for cleanup of the Station B parcel. Cleanup of the parcel was to be done under the self-implementing option at 40 CFR 761.61(a). This plan presents information very similar to the previous 2005 Interim PCB Report for Station B Parcel Sale.

The stated cleanup objective for the parcel is $\leq$ 1 mg/kg for PCB residuals in PCB remediation wastes (i.e. soil, concrete and other porous surfaces), and $\leq$ 10 µg/100 cm^2 for non-porous surfaces (steel and painted materials). The intent of these cleanup objectives was to be consistent with the requirements of a self-implementing cleanup for achieving unrestricted access to high occupancy areas without further conditions.

The plan documents the results of additional soil sampling that was conducted in the vicinity of a small area located in the former coal yard that was mentioned in the previous interim PCB report (AEI, 2005) for the Station B parcel. The apparent purpose of the additional sampling was to better define PCB contamination in that area. Results of this sampling did not identify PCBs in the soil at concentrations greater than 1 mg/kg.

The remainder of the plan describes the remedial activities that would be utilized to achieve the PCB remedial goals.

3.1.12 2007 *Parcel A PCB Cleanup Plan*, AEI (AEI, 2007)

In April 2007, on behalf of QE, AEI again submitted a PCB Cleanup Plan to the EPA in order to satisfy the notification and certification requirements of 40 CFR 761.61 (a)(3) for cleanup of the Station B parcel. At the time this report was prepared, the northern portion of the Site was clearly identified as "Parcel A" and had been formally sub-divided from the rest of the Site. This plan supersedes the previous 2006 PCB cleanup plan, as the parcel had been reconfigured and additional PCB characterization sampling had been completed.

Cleanup of the parcel was to be done under the self-implementing option at 40 CFR 761.61(a). The plan notes that extensive additional investigation work had been completed since July 2002 and had resulted in re-mapping of the boundaries of several of the PCB Areas initially identified on the property. The numbering system used to identify possibly-affected areas of Parcel A reportedly remained consistent with past usage, with the addition of a couple of new areas. Specifically, PCB Areas covered by this plan included:

- Area 1 is the interior of the Station B Building. It includes a first floor with a mezzanine (Area 1.1), an Annex III storage area (Area 1.2), a basement (Area 1.3), and an overhead crane (Area 1.1).
- Area 2.1 is the elevated hopper track system for the former coal handling equipment.
- Area 2.2 is the area where coal was stored between and around the hopper tracks.
- Area 3.1 is a small section (of Parcel A) where electrical infrastructure (e.g., prior UI capacitor banks) may have been a source of ground contamination.
- Area 3.2 is a portion of the coal yard area at the southwestern corner of Parcel A that is adjacent to a PCB spill area excavated by UI in 1998, where excavation equipment may have carried PCBs.
- Area 6.1 is the yard area immediately adjacent to Station B, to its south and west. The steam boiler section of the old power plant occupied a portion of this yard.
- Area 6.2 is the Site access driveway to the east of the coal yard.

New information presented in this plan that was not included in the earlier reports includes the following:

- The paint on the overhead crane was noted as having low PCB concentrations (< 50 mg/kg) based on the collection of paint chip or scrape samples. PCB concentrations in the paint ranged from 4.5 to 22.0 mg/kg.

- Portions of the concrete and wooden floors on the 1st floor and mezzanine of the Station B building, outside of the previously remediated Annex III, were found to contain PCBs at concentrations > 1.0 mg/kg. AEI indicates that the floor areas will be remediated.

- A small area of affected asphalt in the 1 to 10 mg/kg range exists in Area 2.2 adjacent to Area 3.2, but the underlying soil was not affected. According to the plan, the asphalt will be removed.

- A larger area along the south border of the west side of Parcel A in Area 3.2 contains soil PCBs generally in the 1 to 10 mg/kg range, with a few borings above 10 mg/kg. Soil contaminated above 10 mg/kg in this area will be excavated and removed, with a cap and deed restriction for areas left in place above 1 mg/kg PCB.

- PCBs at concentrations above 1 mg/kg were not detected in any of the soil samples collected adjacent to the elevated coal hopper tracks.

- For Area 6.2 (east access drive), there was no reason to suspect the presence of PCBs. Historically that area was simply a roadway to the Plant on the south part of the island. The PCB items stored in the Annex III storage area in Station B were brought in and taken out via that building's loading docks, which were located at the north side of the west end of the building, at Grand Avenue). No PCBs were detected during prior sampling of soil borings in this area. PCB results for soil samples collected during follow-up test borings on a 50-foot grid (with locations limited by the presence of buried gas, water and sewer lines) were mostly below detection limits, and no PCBs were detected at concentrations greater than 1 mg/kg.

3.1.13 2008 *Interim Status Report / Quinnipiac Energy English Station Parcel A PCB Cleanup Plan*, AEI (AEI, 2008)

In May 2008, AEI submitted an Interim Status Report to Quinnipiac Energy regarding the status of the PCB cleanup of Parcel A. Apparently, funding for the cleanup established through an escrow had been depleted and AEI was unable to complete the PCB remediation activities

specified in their 2007 Parcel A PCB Cleanup Plan. In order to document the status of the work completed and the condition of Parcel A to that point, AEI drafted the interim report.

According to the report, several floor areas of the first floor of Station B (PCB Area 1.1) were scarified, but verification concrete sample results indicated that the scarification did not meet the remedial goal of <1 mg/kg PCBs. Though PCB concentrations in the concrete were generally in the 1 to 2 mg/kg range, some were in the 2 to 6 mg/kg range, and one verification sample was found to contain 16,600 mg/kg PCBs.

Remediation of the former cooling water discharge tunnel that runs beneath the former coal yard (PCB Area 2.2) was completed as specified in the 2007 plan; however, additional sediments containing PCBs >1 mg/kg were identified just outside the area that was remediated by AEI. Sampling of the concrete walls and floor of the tunnel did not identify the presence of PCBs. AEI noted that the tunnel was deeper and contained more sediment than initially thought, and recommended the entire length of the tunnel be cleaned during any future cleanup work at the Site.

Two small areas in the vicinity of former coal hopper Track C and Track B (PCB Area 2.2) were successfully remediated by removing impacted soil and asphalt above the remedial goal of 1.0 mg/kg and backfilled. Verification samples demonstrated that the remedial goal had been achieved.

A small area that previously contained PCBs above 10 mg/kg located in the southwest portion of the coal yard, north of Track A (PCB Area 3.2), was also excavated. According to the interim report, the remedial goal in this area was 10 mg/kg PCBs and soil exceeding this goal was removed through excavation to a depth of 6 to 7.5 ftbgs. PCB concentrations in all verification samples were reportedly below the remedial goal and the excavation was subsequently backfilled. The report notes that no cap was placed over the excavated area, as was planned. No other investigation or remediation activities were discussed in the interim report.

3.1.14 2012 *Conceptual Remedial Action Plan for PCB Impacted Soil*, Stantec (Stantec, 2012)

Subsequent to a Cease and Desist Order (CDOWSUST 12-001) issued to ASNAT Realty, LLC / Evergreen Power, LLC by CTDEEP on February 12, 2012, Stantec Consulting Services, Inc. (Stantec) was hired by ASNAT to prepare a Conceptual Remedial Action Plan (the "Plan") for removal and management of soils containing PCBs at the Site. Chief among the concerns

behind the issuance of the Order was the concern that PCBs present in Site buildings and shallow soils were being tracked from impacted areas of the Site to those that had historically been clean. The Order and recent Site timelines are discussed in greater detail in Section 2.2.

Based on tracking concerns, Stantec drafted the Plan to address data gaps in the characterization of the Site, re-characterization of those areas of the Site where tracking was suspected, and to present remedial measures to achieve compliance with the RSRs and the applicable federal regulations at 40 CFR 761.

In their Plan, Stantec presented the following data gaps with respect to the environmental investigation/remediation completed at the Site up to that point (note that those data gaps identified by Stantec that relate to issues or potential issues not germane to the Site as defined in the CO are not included herein):

- Vertical soil characterization was not adequate to determine the nature and extent of release areas. In many areas, only surficial soil samples were collected. Vertical soil sampling was needed to characterize the nature and extent of releases at the Site.

- Horizontal soil characterization did not exist in some portions of the Site. Additional soil sampling was deemed necessary in several areas.

- The terminal or bottom depth of each release area was not known. Stantec surmised that the release areas are anchored to a clay/silt interface beneath marine deposits.

- The depth to bedrock had not been determined.

- Additional leachability analysis was needed to confirm that PCB-impacted soil was in compliance with the GB PMC.

- The data did not meet the RCP requirements. As a result, a formal evaluation of the data set was deemed necessary to determine that it is comparable and suitable for remedial decision making.

- The remaining amount of asbestos in English Station was not known since access to the interior of English Station was prohibited at the time.

- Only limited porous media sampling had been conducted for brick, concrete, and other structures. Additional non-porous media sampling could also be required.

- The full scope of drainage from both Station B and English Station was not well understood. Stantec noted that floor drains, sumps, and the drainage trench on Parcel A had not been fully investigated.

- Re-characterization of soil areas adjacent to PCB source areas was needed to evaluate the potential for PCB tracking. Stantec indicated this concern needed to be addressed through additional sampling.

- The number, content, and source of drums that remained in the Plant needed to be determined. Drummed waste disposal would also be required. (Note that at least a portion of this was accomplished as part of the subsequent USCG activities conducted in 2014, as described in Sections 2.2 and 4.1.15)

- Additional groundwater data were needed to confirm that PCBs and other contaminants had not adversely impacted groundwater.

Based on the data gaps identified above, Stantec indicated that the historical data were sufficient for the development of a conceptual remediation plan. However, Stantec also noted that the data did not meet the requirements specified in the CTDEEP's Site Characterization Guidance Document (CTDEEP, 2010a) and/or the requirements for investigation contained in 40 CFR Part 761.

3.1.15 2015 *Draft Section 4 Subsurface Investigation for the Former English Station*, HRP (HRP, 2015)

In 2015, HRP completed a subsurface investigation on behalf of UI to characterize the distribution of soil and groundwater contamination in the vicinity of select AOCs identified for the Site. The subsurface investigation was completed in accordance with a Generalized Scope of Work Plan submitted to the CTDEEP in February 2014. The investigation activities were completed to provide a preliminary evaluation of the distribution of contamination in select AOCs and were not meant to fully characterize the Site. Areas of the Site investigated at this time included the following:

- AOC-1: Station B Building (including PCB Area 1);

- AOC-7: Above Ground Waste Oil Storage Tank and Oil Pump House (including PCB Areas 5.3, 5.4, 5.5 and 5.6);

- AOC-8: Above Ground Fuel Oil Storage Tanks (including PCB Area 5.7);

- AOC-12: Cooling Water Discharge Tunnel (including PCB Area 6.1);

- AOC-13: Former Wastewater Treatment Facility (including PCB Areas 5.1 and 5.2);
- Various exterior areas of Parcel B; and
- Groundwater monitoring wells (sampling of existing wells) at various locations across the Site.

Investigation activities completed by HRP in AOC-1 were focused on the soil beneath the basement floor of the Station B building. HRP collected soil samples from 10 locations (identified as BS-111714-1 through BS-111714-10) beneath the former Annex III area on the first floor of the building. Of the 10 samples collected, PCBs were detected in only 3 soil samples at concentrations below 1.0 mg/kg.

HRP collected a single sediment sample (identified as DT-111914-1) from the former cooling water discharge tunnel near the eastern terminus of the tunnel. Laboratory analytical results on sediment sample DT-111914-1 indicated that it contained PCBs at a concentration of 1.78 mg/kg.

HRP's evaluation of AOCs 7, 8, and 13, all located in the southwest portion of the Site, involved the drilling of twenty soil borings and the collection and laboratory analysis on 40 soil samples. Photoionization detector (PID) readings were detected in several soil samples ranging to 108.3 mg/kg, with the maximum reading detected at a depth of 13-15 ftbgs in soil boring SB-092914-109. Additionally, a sheen was observed at 8.5 to 10 ftbgs and 14 to 15 ftbgs in soil borings SB-093014-112 and 113, respectively. A slight petroleum odor was also detected in SB-093014-112 and SB-111814-127. VOCs were detected below the applicable RSR numeric criteria in 9 of the 40 samples analyzed. ETPH was detected in 39 of the 40 soil samples, with 11 samples exceeding one or more RSR numeric criteria. Of those, only three samples (SB-111814-127B 13-15', SB-111814-130A 0-2', and SB-111814-130B 2-4') had ETPH concentrations exceeding the I/C DEC. None of these soil samples exceeded ten times (10x) the groundwater protection criteria (GWPC) when analyzed using SPLP methodology. PCB concentrations exceeded the RES DEC in three soil samples (SB-111814-125A 3-5', SB-111814-127B 13-15' and SB-111814-130A 0-2'). PCBs were also detected below the applicable RSR numeric criteria in 9 of the 40 soil samples.

To evaluate the extent of surficial PCBs across the Parcel B exterior (presumably driven by reports of tracking), HRP collected a total of 360 soil/asphalt samples from 120 shallow soil

borings and submitted them to the laboratory for PCB analysis. PCBs exceeded the I/C DEC of 10 mg/kg in 2 samples (SB-091714-16A 0-1' and SB-092414-74A 0.0-0.5') and exceeded the RES DEC but not the I/CDEC in 20 other samples. Soil boring SB-091714-16A was installed to the west of the Plant toward the northern portion of the building (AOC-9), reportedly near the remains of a former chlorination tower. Soil boring SB-092414-74A was also installed in AOC-9 to the west of the Plant, west of a former transformer area that was previously identified as a significant environmental hazard (SEH) area. PCBs were not detected above the reporting limit of 0.1 ppm or 0.11 ppm in the deepest sampled interval in either of these borings, consistent with a surface release. Analytical results from the sampling activities expanded the areas of known PCB impacts along the western, southwestern, and eastern sides of the Plant. The majority of samples that exceeded 1 mg/kg were collected near areas of previously identified PCB impacts greater than 1 mg/kg.

3.2 Previously Approved Variances and Alternate Work Practices

3.2.1 2003 Request for Widespread Polluted Fill Variance, AEI (AEI, 2003)

On behalf of QE, AEI submitted a report to the CTDEEP titled *Request for Widespread Polluted Fill Variance* in 2003. The specific variance requested was a determination that the PMC put forth in the RSRs, as stated in RCSA Section 22a-133k-2, do not apply to the Site because the subsurface consists of widespread polluted fill from historic dredging operations conducted prior to QE's ownership of the Site. The variance requested was to be applied to the entire Site, and was based on the demonstration of six provisions in RCSA 22a-133k-2(f)(1) and the proposed compliance plan for meeting the RSR DEC. Through documentation provided in the variance request, AEI was able to successfully demonstrate that the Site met the conditions required to qualify for the Widespread Polluted Fill variance. In a letter from the CTDEEP to QE dated March 27, 2003, the Department formally approved the use of the Widespread Polluted Fill Variance for exemption from the PMC.

3.2.2 2010 Application for Approval of Alternate Work Practices, HRP (HRP, 2010)

In April 2010, HRP submitted an Application for Approval of Alternative Work Practices related to removal of asbestos-containing materials in the Lower Level of the Turbine Building.

The application requested the use of critical barriers only in lieu of covering wall and floor surfaces throughout the building with polyethylene sheeting. This application received approval from CT DPH on April 23, 2010. Abatement activities described in this Application for Approval of Alternative Work Practices were conducted in 2010.

3.2.3 2011 Application for Approval of Alternative Work Practices, ATC Associates, Inc. (ATC, 2011)

In April 2011, ATC submitted an Application for Approval of Alternative Work Practices related to removal of asbestos-containing materials in the Boiler Room. The application requested the use of critical barriers only in lieu of covering wall and floor surfaces throughout the Boiler Room with polyethylene sheeting. This application received approval from CT DPH on April 16, 2011. Abatement activities described in this Application for Approval of Alternative Work Practices were conducted in late 2011 through early 2012.

3.2.4 2015 Application for Approval of Alternative Work Practices, Partner (Partner, 2015)

In April 2015, Partner submitted an Application for Approval of Alternative Work Practices related to work activities to accomplish certain tasks stated in their *Revised Equipment Decontamination Work Plan* dated March 15, 2015 (Partner, 2015). The stated tasks included the re-installation of critical barriers, installation of warning signs at each point of access to asbestos-contaminated portions of the building, removal of asbestos waste from the storage trailer, and decontamination and removal of various equipment, including the personnel decontamination trailer, air filtration devices, excavator, task lights, cords, and hoses. This application received approval from CT DPH on April 21, 2015. Abatement activities described in this Application for Approval of Alternative Work Practices have not been conducted to date.

3.3 Historic Data Quality Assessment

Data for soil, sediment, asphalt, and groundwater samples collected between 1996 and 2014 were reviewed with respect to data quality. The following steps were performed during this review process:

- A table summarizing the available data was created and consisted of the following information: sample IDs, matrix, analytical parameters, level of QC included in the laboratory report, and any issues noted during the review.

- The following parameters were reviewed in each laboratory report, when available and as applicable to the method: holding times, blanks, laboratory control sample (LCS) recoveries, surrogate recoveries, and matrix spike (MS) recoveries.

- Sensitivity was also evaluated using project screening criteria listed on historical data tables. Non-detect results were reviewed to determine if the reporting limits were below the project screening criteria. Sensitivity was not evaluated for results not included on the historical data tables.

It should be noted that there were results presented on data summary tables for select samples where no laboratory report was available for review. This included select PCB soil/asphalt samples from 1997, 1998, 1999, 2007, and 2014; select PCB groundwater samples from 1998, 2007, 2008, and 2014; select PAH, VOC, metals and ETPH groundwater samples from 1998; select PAH, VOC, metals and ETPH soil samples from 2001 and 2002; and select VOC and ETPH soil samples from 2014.

The results of the data evaluation indicated that, in general, data are usable for project decisions based on a review of accuracy, precision, and sensitivity of the data. In general, the data are valid as reported and may be used for decision-making purposes. Although there were some potential biases and uncertainty noted during the review process, the effect on the overall usability of the data was minor. However, there were two issues noted that resulted in unusable data for decision-making purposes.

- The non-detect results for total selenium in June 1998 groundwater samples GW-17S, GW-13, GW-12, GW-14S, GW-20, GW-10, GW-16, GW-15, GW-21, and GW-19 (from Connecticut Testing Laboratories, Inc. (CTL) report 698345) were rejected since selenium exhibited a significantly low recovery (18%) in the MS performed on sample GW-17S.

- The non-detect results for SPLP silver in June 1998 soil samples ES-MW3 (15-17), ES-TB5 (4-6), ES-TB6 (1-7), ES-TB8A (1-3), ES-TB-8B (15-17), ES-TB7A (7-9), ES-TB9 (3-7), ES-TB10 (11-13), and ES-MW7 (7-9) (from CTL report 698067) were rejected since silver exhibited a significantly low recovery (13%) in the MS performed on sample ES-MW3 (15-17).

The analysis of sensitivity showed that there were several non-detect results for select PAHs in soil (1998), PCBs in soil (2007), PCBs and arsenic in groundwater (1998), and bromomethane and acrylonitrile in groundwater (2014) that were found to be above the project

screening criteria provided on the data tables. However, this occurred on a small percentage of the samples.

3.4 Previous Building Studies and Assessments

Buildings at the Site (English Station and ancillary buildings, and Station B) have undergone previous inspections to identify and quantify asbestos and hazardous materials required to be removed prior to building demolition. A brief discussion of the information provided in previous survey report follows. Information provided by this previous survey report is referenced throughout this report.

3.4.1 1999 Asbestos and Hazardous Materials Survey, GEI Consultants, Inc. (GEI, 1999)

In 1999, GEI conducted an Asbestos and Hazardous Materials Survey of English Station, Station B, and ancillary buildings on the site for TLG Services, Inc. According to the report, the survey identified significant amounts of asbestos-containing materials in the Site buildings. The survey identified various building materials, equipment, and sludges/sediments/oils as hazardous or having the potential to be classified as hazardous. Lead was detected in samples collected from various building components.

GEI conducted extensive sampling of suspect materials for asbestos throughout the buildings. Identified asbestos-containing materials in English Station and ancillary buildings include thermal system insulation on boilers and piping, ebonized asbestos board, Transite panels, roofing materials, corrugated Transite siding, and floor tiles. Identified asbestos-containing materials in Station B include flooring materials, roofing materials, door and window caulking and glazing, and hard-pack pipe fitting insulation. A cumulative quantity of asbestos-containing materials was provided in the report. Specific locations and assessment of condition of asbestos-containing materials were not provided.

GEI conducted inspections throughout the buildings to assess building materials, equipment, and sludges/sediments/oils that are known or suspected to contain hazardous materials. These items included mercury-containing switches, PCB-containing equipment, oil-filled piping, coal ash, and stained concrete. Various analytical procedures were utilized to characterize these materials, depending on the nature of the sample collected and usage of the specific equipment.

The report identified the presence of hazardous materials or materials having the potential to be classified as hazardous, including PCB transformer oils, non-PCB transformer oils, fuel oils, mercury-containing switches/reservoirs/thermometers, light ballasts, and drain sediments.

Lead testing by GEI was limited to the collection and analysis of painted building materials utilizing the Toxicity Characteristic Leaching Procedure (TCLP) (EPA Method 1311) to determine whether the future building debris with the attached paint would be classified as hazardous waste. These building materials consisted of structural steel, brick, concrete, and wood from wall, ceiling, and/or floor surfaces. Direct testing of paints to determine lead content was not conducted.

3.4.2 2012 Interior Survey of Potential PCB Containing Concrete, GeoQuest, Inc. (GeoQuest, 2012)

In 2012, GeoQuest conducted a concrete sampling program to determine if PCBs were present in the concrete decking of the Mezzanine Level in the Turbine Room at English Station, prior to demolition activities to remove the decking. According to their report, GeoQuest collected concrete samples from the mezzanine floor alongside each piece of installed equipment and from the floor area most likely to be used for the transportation of any containers of PCB oil. Per the report, 20 samples were collected; laboratory results showed that no PCBs were detected above the minimum detection limits.

3.4.3 2015 Revised Equipment Decontamination Work Plan, Partner Engineering and Science, Inc. (Partner, 2015)

In 2015, Partner developed a decontamination work plan to facilitate removal of PCB-impacted equipment that remains at the site. Partner's site reconnaissance and subsequent report provided information relative to potential tracking of PCBs.

4.0 CONCEPTUAL SITE MODEL

Development of a CSM for the Site requires a thorough understanding of each of the AOCs. Therefore, each of the AOCs as originally identified by GEI is discussed individually below. Where applicable, the PCB Areas defined in previous AEI reports are cross-referenced. In addition to the 13 AOCs originally identified by GEI in their Phase II/III report (GEI, 1998b), TRC has identified 5 other AOCs on the basis of available information. The AOC descriptions are followed by the presentation of the CSM and identification of data gaps. Table 4-1 presents the CSM for the Site. AOCs and PCB Areas identified for the Site are depicted on Figure 4-1. Past investigation locations across the Site are shown on Figures 4-2A and 4-2B. To better facilitate discussion of each of the AOCs below, smaller scale figures showing past investigation activities are referenced throughout the Sections that follow.

4.1 Areas of Concern (AOCs)

Due to the division of the Site into two parcels and the environmental investigation and remediation efforts that have been undertaken in advance of, or as a result of that division, Parcel A is somewhat further along in its cleanup. This is especially true of Station B, which has undergone PCB remediation under an EPA-approved Self-Implementing Plan (SIP). As such, the AOCs presented in the Sections that follow are organized by Parcel. Based on the rather significant issues associated with the partial asbestos abatement and demolition activities within English Station, the proposed investigation/remediation of Parcel A may occur first.

AOCs Associated With Parcel A (Station B)

4.1.1 AOC-1 Station B - Building Interior (Including PCB Areas 1.1, 1.2 and 1.3)

Station B's use as a power plant reportedly ceased in the 1920s, which was before PCBs were brought into commercial use in the electrical power industry. However, PCB equipment destined for disposal was stored in an Annex III area in that building after the initial PCB regulations were promulgated in 1978.

A single concrete “chip” sample was collected from the floor of the Annex III area inside Station B during GEI’s 1998 Phase II/III of the Site (GEI, 1998b). Laboratory analysis of the

concrete sample indicated PCBs were present at 15 ppm. GEI concluded that the PCB detection in concrete was indicative of a past release in the Station B building.

As part of the 2002 *Site-Wide PCB Characterization and Cleanup Plan (AEI, 2002)*, the interior of the Station B building was further identified as "PCB Area 1" by AEI. As described in their plan, the entirety of the Annex III area inside Station B was sampled on a five-foot sample grid by AEI, resulting in the collection and analysis of 28 concrete samples. Of the 28 samples collected, 5 were found to have PCB concentrations greater than the remedial goal of 1.0 mg/kg. According to AEI, a 10-foot by 15-foot area of the concrete floor in the area where the exceedances were detected was scarified and verification samples were collected. Of the 12 verification samples collected, two exceeded the remedial goal. Additional scarification was completed in the vicinity of the two verification samples that failed to meet the remedial goal. When another set of verification samples failed after the second scarification, that area of the floor was cut out and disposed of (AEI, 2005). The remaining areas of the Annex III area (now identified as PCB Area 1.2) met the remedial goal and contain PCB concentrations <1 mg/kg.

According to a 2008 Interim Status Report (AEI, 2008), efforts to remediate various areas of the 1st floor of Station B consisted of scarification of the concrete floor and removal of portions of the wooden floor with PCBs above the remedial goal. The report notes that scarification of the concrete floor was not successful in all areas and several verification concrete samples failed to meet the remedial goal. One of the verification samples exhibited a PCB concentration of 16,600 mg/kg. In addition, 43 wipe samples were collected from steel beams in the vicinity of the scarification. PCBs were detected in only 2 samples at concentrations below the remedial goal of 10 µg/100 cm^2.

Oil-containing equipment in Station B was limited to an overhead crane, which was found to contain low levels of PCBs in lubricating oil in a motor (AEI, 2002). Based on sampling completed by AEI, the PCB concentration in the oil was 6.6 mg/L. This oil was drained from the crane and properly disposed off-site. AEI subsequently collected 47 wipe samples (1 sample every 1 to 4 meters) to characterize the entire crane. Based on the wipe sample results, all but one sample met the remedial goal of 10 µg/100 cm^2. The area of the crane with the exceeding sample (25 µg/100 cm^2) was decontaminated, re-sampled and the resulting concentrations were below the remedial goal. In the 2005 *Interim PCB Report for Station B Parcel Sale* (AEI, 2005), the overhead

crane is noted as being within "PCB Area 1.1," along with the first floor and mezzanine. Samples of the paint on the overhead crane were collected by AEI in 2006. Of the 17 paint samples collected, all 17 exhibited PCB concentrations ranging from 4.5 to 22 mg/kg (AEI, 2007).

Concrete from the first floor (outside of the Annex III area) of the Station B building was sampled by AEI during their work on the Site. Reportedly, all concrete samples were collected in accordance with the EPA Region 1 *Draft Standard Operating Procedure for Sampling Concrete in the Field*. Samples were collected using a randomized grid, plus biased samples were collected under the crane and in other areas where stains were observed. The mezzanine floor that was used for storage reportedly had no indication of staining on its concrete surface and was not sampled. A wooden platform on the first floor and wooden shelves on the mezzanine also were also sampled and tested. None of the samples exhibited PCB concentrations above the remedial goal of <1 mg/kg. Despite the apparent absence of PCB impacts on the first floor of the building, the 2007 Parcel A Cleanup Plan (AEI, 2007) indicates an additional 96 samples were collected from the first floor (outside of Annex III) to further characterize PCB impacts. As the 2007 plan supersedes an older 2006 plan, it is likely that the EPA requested additional characterization. The results of the sampling indicated that 30 of the 96 samples exceeded the remedial goal of <1 mg/kg PCBs. The PCB concentrations in these samples ranged from 1 to 43 mg/kg.

AEI collected seven soil samples from the earthen floor of the basement of Station B (identified as PCB Area 1.3 in later reports). According to the 2005 Interim PCB Report for Station B (AEI, 2005), none of the soil samples collected exhibited PCB concentrations above the remedial goal of 1 mg/kg. After soil samples were collected from the earthen floor of the basement, a concrete cap was poured to cover the earthen portion of the basement and render those soils inaccessible. Installation of the cap reportedly had nothing to do with PCBs and was done solely to satisfy DEC under the RSRs.

Investigation activities completed by HRP in 2014 involved the collection of 10 additional soil samples from beneath the concrete cap in the basement of Station B (HRP, 2015). Of the 10 samples collected, PCBs were detected in only 3 soil samples at concentrations below 1 mg/kg.

Sample locations and remediated areas within Station B, with the exception of the sampling of the overhead crane, are depicted on Figure 4-3.

4.1.2 AOC-2 Station B Former UST Area (Overlaps a portion of PCB Area 6.1)

Four USTs were formerly located in an area adjacent to the west side of Station B. According to information reviewed in the 1998 Phase I ESA (GEI, 1998a), two older, 2,000-gallon gasoline USTs were installed at this location and removed in June 1991 when they were both replaced by 1,000-gallon USTs. Although only limited soil and groundwater sampling was conducted, the documentation reviewed did not indicate that soil or groundwater contamination was detected at the time of the replacement, with the exception of a CTDEEP spill report that noted a nominal petroleum sheen on the water table during tank removal. The 1,000-gallon USTs were reportedly removed in October 1996 with no additional soil or groundwater testing noted.

GEI evaluated AOC-2 as part of their 1998 Phase II/III and 2000 Supplemental Field Investigation (GEI, 1998b and GEI, 200b). Elevated concentrations of TPH above the RES DEC but below the I/C DEC and GB PMC were detected in soil samples collected from borings MW-01 and MW-2 (later converted to monitoring wells). TPH was detected above the RES DEC, I/C DEC and GB PMC in a soil sample collected from TB-01. Soil sample depths in these samples ranged from 5 to 17 ftbgs. Low concentrations of arsenic, barium, chromium, lead, mercury and selenium were also detected in soil samples collected from AOC-2, at concentrations below the applicable RSR criteria.

To further evaluate this detection, GEI drilled five additional soil borings (TB-218, and TB-226 through TB-229) (GEI, 2000b). ETPH was detected in eight of the nine soil samples collected. The highest concentrations of ETPH were detected in TB-218 (534 mg/kg) and TB-227 (954 mg/kg). Additionally, elevated concentrations of several SVOCs were detected in TB-218, TB-226, TB-227, TB-228 and TB-229. According to GEI, the concentrations of SVOCs in TB-218 were reportedly high enough to indicate the presence of NAPL when the calculation presented in Section 22a-133k-2(c)(3) of the Regulations of Connecticut State Agencies (RCSA) is applied. GEI noted that aside from the NAPL calculation, there was no other evidence to suggest a NAPL source of SVOCs was present at AOC-2 (e.g. free-phase product in area wells or soil borings, documented spills or releases). Based on the field screening results for TB-218 and the analysis of other, nearby soil samples, GEI concluded that the SVOC impacts in at AOC-2 were limited and did not warrant further investigation. GEI did note that soil remediation in the vicinity of TB-218 would be required.

According to later reports by AEI and HRP, it appears the soils exhibiting elevated concentrations of TPH/ETPH were excavated from this area and confirmatory samples collected. The date of excavation and the excavation limits are shown on historic Site figures developed by AEI and indicate the soil was removed in January 2002. Confirmatory soil samples CS-1 through CS-7 were collected and exhibited elevated concentrations of one or more PAHs. PCBs have not been detected in soil samples collected from within AOC-2 (or this portion of PCB Area 6.1) to date. No VOCs or PCBs were detected in monitoring wells MW-J or MW-K during HRP's September 2014 groundwater sampling event (HRP, 2015). Past sample locations and the approximate limits of excavation associated with the remediation of the former USTs at AOC-2 are shown on Figure 4-4.

4.1.3 AOC-3 Former Septic Systems

According to information in the 1998 Phase I ESA (GEI, 1998a), a 1967 CTDEEP inspection report (P-5) indicated that the Site was served by six separate septic tanks and associated leaching fields. The report notes that one of the septic systems was noted on a UI site plan, to the north of the coal conveyor system. The locations of the other septic systems were not indicated by GEI in their report. GEI collected soil samples from two soil borings advanced in the area of the former septic system. Elevated concentrations of arsenic (23.1 mg/kg) and lead (807 mg/kg) above the RES DEC were detected in a shallow soil sample collected in this area. SPLP results for arsenic and lead on the same soil sample indicated the leachable concentrations of these metals were below the GB PMC. Analytical results for a deeper soil sample collected from a second boring in the area did not exhibit the same elevated concentrations of metals.

Because AOC-3 is also located within PCB Area 6.1 (Former Station B Area) AEI collected several soil samples for PCB analysis during their work on the Site in 2002. PCBs were not detected above the reporting limit of 0.5 ppm in any of the soil samples collected from within AOC-3 by AEI. No further sampling of AOC-3 has been conducted to date. Past sample locations within AOC-3 are shown on Figure 4-5.

No groundwater monitoring wells are located within AOC-3. Sampling of Site groundwater monitoring wells has not specifically identified AOC-3 as a source of groundwater contamination at the Site.

4.1.4 AOC-12 Former Coal Storage Yard (Including PCB Areas 2.1, 2.2, and 6.1)

Coal storage began as early as the late 1880s, and Station B operated as a coal-fired power plant from the 1890s until 1903. English Station burned coal from the early 1900s to the mid-1950s to early 1960s. Fill beneath the former coal storage area reportedly included a 1 to 2-foot layer of fine coal dust. As noted by GEI, the granular fill beneath the majority of the Site is assumed to contain bottom ash and fly ash as well as other foreign material such as cinders, brick, wood, glass, metal, and or plastic fragments. Arsenic is a natural constituent of coal, and also appears in coal ash, predominantly in fly ash. Arsenic detected in Site soil samples (at concentrations that exceed DEC) is elevated above naturally-occurring levels in native soils for this area. PAH concentrations detected in certain soil samples and groundwater samples also may be related to the fill beneath the Site.

Early investigations of the former coal yard by GEI routinely identified soils that exceeded applicable RSR criteria for PAHs and several metals. In most cases, the detection of these constituents in soil samples was tied to the widespread use of polluted fill material to construct/expand much of the island on which the Site rests. As discussed in Section 3.2.1 of this plan, a Widespread Polluted Fill variance for the entire Site was granted by the CTDEEP in 2003.

Later investigations of the Site by AEI and others further divided AOC-12 into smaller sections based on operational history and ease of discussion. Thus, AOC-12 encompasses those areas identified in previous investigations as AOC-12N, AOC-12E and AOC-12W. In addition, later investigations of the Site by AEI further subdivided AOC-12 into the following PCB Areas:

- PCB Area 2.1 which consists of the elevated hopper track system for the former coal handling equipment.
- PCB Area 2.2 covers the area where coal was stored between and around the hopper tracks.
- A portion of PCB Area 3.2 covers the coal yard area at the southwestern corner of Parcel A, adjacent to a PCB spill area excavated by UI in 1998 (addressed herein as AOC-5). Excavation equipment may have carried PCBs into the coal yard portion of PCB Area 3.2. This area is discussed in Section 4.1.15.
- PCB Area 6.1 consists of the coal yard area immediately adjacent to the Station B Building to its south and west. The former boiler house for Station B occupied a substantial portion of this area.

- PCB Area 6.2 consists of the Site access driveway to the east of the coal yard.

4.1.4.1 AOC-12N (PCB Area 6.1-Former Station B Area)

As previously described, the consistent detection of metals, PAHs and TPH in soil by GEI during their early Site investigations led them to conclude that the contamination was primarily related to the presence of polluted fill, particularly in the northern portion of the coal storage area that was later designated as AOC-12N. As such, GEI did not perform significant additional investigation at AOC-12N during their 2000 Supplemental Field Investigation (GEI, 2000b).

During AEI's early investigations of the Site (i.e. 2001-2002), they collected asphalt samples from 15 locations across AOC-12N and analyzed them for PCBs. None of the asphalt samples exhibited detectable concentrations of PCBs. Additionally, AEI collected soil samples from multiple depth intervals at 18 locations across AOC-12N. None of the soil samples exhibited detectable concentrations of PCBs. AEI also collected a sediment and concrete sample from a catch basin in this area, identified as CB-1. CB-1 reportedly ties into the former cooling water discharge tunnel (AOC-14). Neither the concrete sample nor the sediment sample exhibited detectable concentrations of PCBs.

Numerous soil samples collected from within AOC-12N during investigation of the Site by GEI and AEI exhibited concentrations of arsenic above both the RES DEC and I/C DEC. Additionally but to a lesser extent, soil samples from this area also exhibited concentrations of PAHs above RES DEC and I/C DEC. Historic sample locations for AOC-12N are shown on Figure 4-5.

4.1.4.2 AOC-12W (PCB Area 2.1-Elevated Railroad Tracks and Foundations)

As part of their investigations of the Site, AEI collected samples from the elevated railroad track system associated with historical coal storage and handling. AEI identified the former coal handling tracks as PCB Area 2.1. AEI also identified each spur of the track system as Tracks A through E, as shown on Figure 4.1.

AEI collected 30 shallow soil samples from 20 locations across the former coal transportation track area and submitted them for PCB laboratory analysis. PCBs were detected in 6 of the 30 samples, at concentrations below 1.0 mg/kg. The locations of samples collected from AOC-12W/PCB Area 2.1 are shown on Figures 4-2A, 4-5, and 4-6.

4.1.4.3 AOC-12W (PCB Area 2.2 – Former Coal Storage Area)

In PCB Area 2.2, AEI used a 50-foot sampling grid to conduct initial PCB characterization sampling in the former coal yard. Most samples were below detection limits. Only a single boring (TB-206) located along the southeast side of Track C was found to contain PCBs at 3.0 mg/kg at the surface and 1.4 mg/kg at a 4 to 6 foot depth during the initial characterization. A 10-foot sampling grid was subsequently established around TB-206 and additional soil samples from ten boring locations were collected and analyzed, but no samples exhibited PCB concentrations >1 mg/kg. According to AEI, this small area of soil contamination appeared to be incidental, as no electrical infrastructure was present nearby.

The area of soil around boring location TB-206 was subsequently excavated during remedial activities conducted between 2007 and 2008. The small area of contaminated soil along the southeast side of Track C was excavated to a depth of approximately 6 ftbgs (below the water table). Verification sampling on a 5-ft grid, with perimeter samples of the surrounding asphalt surface, was performed following the methods and procedures specified in a 2007 EPA-approved PCB Cleanup Plan. Results of the PCB verification sampling indicate the area was successfully cleaned up to the 1 mg/kg remedial goal. The excavation was backfilled with clean fill from offsite (AEI, 2008). The limits of excavation are shown on Figure 4-6.

A small area of contaminated asphalt with PCB concentrations in the 1 to 10 mg/kg range was identified in PCB Area 2.2, along the northwest side of Track B. Sample data from soil beneath the asphalt indicated that PCB contamination did not extend to the underlying soils. Removal and off-site disposal of the contaminated asphalt continued until verification sampling indicated PCB concentrations were below the remedial goal of 1 mg/kg. The limits of excavation are shown on Figure 4-6.

Numerous soil samples collected from within AOC-12WN during investigation of the Site by GEI and AEI exhibit concentrations of arsenic above both the RES DEC and I/C DEC. Additionally but to a lesser extent, soil samples from this area also exhibited concentrations of PAHs above RES DEC and I/C DEC. Historic sample locations for AOC-12W/PCB Area 2.2 are shown on Figures 4-6 and 4-16.

4.1.5 AOC-14 Former Cooling Water Discharge Tunnel

Historical drawings obtained from UI indicate that a former cooling water discharge tunnel, possibly associated with the former Station B Boiler House, runs from the south side of Station B through the former coal yard and to an unidentified discharge point at some location along the eastern side of the Site. The tunnel is approximately 3 feet tall and 4 feet wide, and is buried approximately 1 foot below grade (AEI, 2002). The tunnel is reportedly sealed off at both ends and no longer discharges to the Mill River. Previous investigations by AEI noted that at least two catch basins, identified as CB-1 and CB-2, located within the former coal yard, tie into this tunnel. PCBs were previously detected at a concentration of 3.8 mg/kg in sediment in catch basin CB-2 located in the central portion of the former coal yard. The former cooling water discharge tunnel is shown on Figure 4-1.

Remediation of the former cooling water discharge tunnel in the vicinity of Catch Basin CB-2 was reportedly conducted as specified in the 2007 *Parcel A PCB Cleanup Plan* (AEI, 2007), however, two additional sediment samples containing PCBs >1 mg/kg were subsequently identified just outside the area that was cleaned by AEI. Concrete samples collected from the walls and floor of the tunnel where it was cleaned did not exhibit PCBs. AEI noted that the tunnel was deeper and contained more sediment than initially thought and recommended the entire length of the tunnel be cleaned during any future cleanup work at the Site. A sediment sample (DT-111914-1) later collected by HRP from the base of the tunnel near its eastern end (northwest of MW-5) exhibited PCBs at a concentration of 1.78 mg/kg (HRP, 2015)

Based on previous investigation and remediation completed in the former cooling water discharge tunnel, additional sediments containing PCBs over the numerical regulatory criteria remain in the tunnel. Additional investigation and remediation of this structure appear warranted.

AOCs Associated With Parcel B (English Station)

4.1.6 AOC-3 Former Septic Systems

Features included on historical plans and figures for the Site depict structures labeled "Septic East" and "Septic West" on the east and west sides of English Station. These structures will be evaluated as part of the investigation of the AOCs and PCB Areas in which they are located

(AOC-13 for Septic East; AOC-9 for Septic West). Septic West is shown on Figure 4-12, while Septic East is shown on Figure 4-19.

No groundwater monitoring wells are located within AOC-3. Sampling of Site groundwater monitoring wells has not specifically identified AOC-3 as a source of groundwater contamination at the Site.

4.1.7 AOC-4 Past Spills

Spill reports on file with CTDEEP identified nineteen separate spills in connection with the Site. Of these spills, roughly half were releases to the Mill River. Several others involved spills or releases of PCB-containing oils to soil or other areas on-site, but generally did not identify locations. Areas that have been impacted by known releases or spills have historically been identified as separate and distinct AOCs or PCB Areas. As such, the impact of the many documented and undocumented spills are evaluated based on groundwater monitoring data or as part of other AOCs/PCB Areas.

4.1.8 AOC-5 Bulkhead PCB Remediation Area

In late 1997, a portion of the bulkhead wall along the western side of the Site collapsed and revealed an area of oil-contaminated soil that was determined to contain PCBs. This area was evaluated by UI, a spill cleanup contractor, American Environmental Technology (AET), and an environmental consultant, Enviroshield, Inc. The objectives were to define the area of soil contamination, remove it, and confirm the remaining area was below 10 mg/kg PCBs, per CTDEEP and EPA requirements (AEI, 2002).

The scope of that effort was limited to the contaminated soil area. Soil sampling and PCB testing procedures were reportedly performed in accordance with a formal UI Subsurface Investigation and Remediation Plan dated March 1998 and submitted to CTDEEP prior to cleanup. Characterization soil samples were collected at discrete sample intervals from grade to varying depths, up to seventy feet at certain locations (Ibid.).

Remediation activities were conducted in June and July 1998, and resulted in the removal and disposal of 324 tons of PCB-contaminated soil from UI-defined Areas 1, 2 and 3. Pre-excavation sampling and testing was used to determine what soil in 10-foot square grid areas

required excavation and disposal per the cleanup requirements. UI reported that the soil was disposed of at the PCB landfill in Model City, New York (Ibid.).

Generally, characterization and verification samples were collected for PCB testing to determine the extent of the excavation. Groundwater samples were collected from the excavation and other locations in the area at various times throughout the remediation. Characterization and confirmatory soil and groundwater samples were reportedly analyzed for PCBs by the UI state-certified in-house laboratory and/or Complete Environmental Testing, Inc. (CET), also a state-certified laboratory, using EPA Method 8080A or 8082. Twenty-eight soil samples collected from above or at/near the groundwater table in the vicinity of the excavation also were tested for leachable PCBs using the SPLP method. Leachable PCBs were not detected above the reporting limit of 0.5 ppb in any sample tested (Ibid.). Though no analytical summary tables or copies of laboratory results were included, a report generated by Enviroshield (Enviroshield, 1999) notes that a continuous oil film and strong petroleum odor was observed on the water table at GP-20A. Small globules of oil and a light petroleum odor were also noted in wells GP-30 through GP-32, GP-38 and GP-39.

The available analytical results do not indicate whether the detected PCB concentrations were reported as dry weight. In addition, UI's laboratory reports did not always show method minimum detection limits (MDLs). An MDL of 1 mg/kg was shown for several soil samples. CTDEEP has indicated that UI's in-house laboratory typically used a 1 mg/kg MDL for PCBs in soil and that an ND (< 1 mg/kg) on a UI laboratory report indicated a "flatline on the chromatogram" (Ibid.).

AEI's review of UI's clean-up report and other reports on file with the CTDEEP and EPA, coupled with follow-up soil borings in the area, indicated that soil cleanup to a criterion of 10 ppm was successful, except for two concentrations of 15 mg/kg PCBs detected in one follow-up boring on the southern edge of the excavated area.

Results of four rounds of post-remediation groundwater monitoring performed in 1999/2000 indicated that PCBs were not detected (via EPA Method 8082) in groundwater samples collected using dedicated bailers from monitoring wells MW-50 through MW-53. In addition, PCBs (via EPA Method 8082) were not detected above the reporting limit of 0.5 ppb in groundwater samples collected from monitoring wells MW-50 through MW-53 using a low-flow

sampling methodology in May and September 2001. AEI's examination of the gas chromatograms for those groundwater samples indicated that PCB congeners were unlikely to be present. AEI reported that UI was not able to retrieve the gas chromatograms for the soil or groundwater samples they tested, and believed those records had been destroyed (Ibid.).

Based on the remedial goal of <10 mg/kg PCBs established for the Bulkhead PCB Remediation Area, it is unclear whether soil containing PCB concentrations > 1 mg/kg but <10 mg/kg remains. The approximate limits of the bulkhead PCB excavation are depicted on Figure 4-7.

4.1.9 AOC-6 Capacitor Release / Outdoor Capacitor Banks 1-3 (Includes PCB Area 3.1)

The 1998 Phase I ESA (GEI, 1998a) described a 1984 spill report that indicated a capacitor "blew up" at an unspecified location on the Site. Anecdotal information provided by UI personnel regarding similar incidents was also noted in the Phase I. According to UI personnel, cleanup of the soil around the pad associated with the 1984 incident continued until samples exhibited PCB concentrations less than 50 mg/kg. The release reportedly occurred at what GEI identified as Capacitor Bank No. 1, located to the north of English Station, adjacent to the coal conveyor system. Although the release associated with Capacitor Bank 1 was the initial reason for conducting an investigation in this area of the Site, GEI later grouped all of the former Capacitor Banks into AOC-6. Therefore, AOC-6 included former Capacitor Banks 1, 2 and 3 located to the north of English Station, as well as Capacitor Bank 4, which is located at the southwest corner of English Station. Later investigation by AEI and others also identified the locations of the capacitor banks as PCB Areas 3.1 (Capacitor Banks 1, 2, and 3) and PCB Area 4.3 (Capacitor Bank 4). For the purposes of this SOS, PCB Area 4.3 (Capacitor Bank 4) is addressed as part of AOC 9.

During their 1998 Phase II/III, GEI collected nine soil samples, identified as PCB-11 through PCB-19 from the area around Capacitor Banks 1, 2, and 3, and four concrete samples, identified as CS-1 through CS-4 (1 sample each from Capacitor Banks 2 and 3, and 2 from Capacitor Bank 1) (GEI, 1998b). PCBs were not detected above the reporting limit of 1 ppm in the soil and/or concrete samples collected from in and around Capacitor Banks 2 and 3. PCBs were detected in both concrete samples collected from Capacitor Bank 1 (CS-1 and CS-2) at concentrations of 3 and 10 mg/kg and in soil sample PCB-17 collected from the eastern side of

Capacitor Bank 1 at a concentration of 2 mg/kg. Low concentrations of TPH were detected in soil samples collected from the area between Capacitor Banks 2 and 3 (PCB-13 and PCB-14), and from a soil sample collected from the western side of Capacitor Bank 1 (PCB-19).

GEI completed additional delineation of PCB impacts related to the former capacitor banks in their 2000 Supplemental Investigation (GEI, 2000b). The additional samples, identified as SS-01, SS-02, SS-03 and HA-02, were collected to further delineate the PCB impacts at soil sample PCB-17, collected during GEI's previous Phase II/III. PCBs were detected in soil sample SS-02 only, at a concentration of 23 mg/kg. Arsenic was also detected in soil samples HA-2, SS-01 and SS-03 at concentrations ranging from 116 mg/kg to 230 mg/kg.

Additional soil sampling completed by AEI between 2000 and 2002, confirmed the presence of PCB contamination along the eastern side of Capacitor Bank No.1 (AEI, 2002). Under AEI's direction, an area of PCB-impacted soil along the eastern side of Capacitor Bank 1 was excavated and disposed of offsite. Approximately 27 cubic yards of soil were removed. The excavation extended to a depth of 2.5 ft. Several confirmatory soil samples collected from the southern, eastern, western sides and the bottom of the excavation exhibited PCB concentrations >1 mg/kg but < 10 mg/kg. AEI collected an additional 31 concrete and asphalt samples from the pad and berm at Capacitor Bank 1. Results of the concrete and asphalt sampling indicated that PCBs remained present in the asphalt berm at concentrations ranging from 1.8 mg/kg to 55 mg/kg and in the concrete foundation at concentrations ranging from 1.2 mg/kg to 240 mg/kg. An additional four concrete samples each were collected from Capacitor Banks 2 and 3. None of the concrete samples from Capacitor Banks 2 or 3 exhibited detectable concentrations of PCBs.

Historic sample locations and the approximate limits of past excavation within AOC-6 are shown on Figures 4-8, 4-8A and 4-8B.

4.1.10 AOC-7 Former Waste Oil AST / Oil Pump House Area (Includes PCB Areas 5.3 through 5.6)

A former waste oil AST was identified by GEI during their 1998 Phase I ESA as having been located next to the southeastern corner of English Station (GEI, 1998a). An oil pump house that served high-pressure boiler units 7 and 8 was also located in this area. AOC-7 also encompasses PCB Areas 5.3 through 5.6, as identified by AEI and others during later

investigations of the Site. Historic sample locations at AOC-7 are depicted on Figures 4-9 and Figures 4-9A through 4-9C.

During their 1998 Phase II/III, GEI evaluated AOC-7 (Former Waste Oil AST) and AOC-13 (Former Wastewater Treatment Facility) together based on the close proximity of these AOCs to one another (GEI, 1998b). Investigation activities completed by GEI with respect to AOC-7 and AOC-13 included the following:

- Drilling of soil borings and collection of soil samples from locations AST-1, MW-18, MW-21, TB-18, TB-109, TB-110, TB-111; and
- Collection of sediment sample SED-02.

Elevated concentrations of TPH were detected in several soil samples collected from seven locations (AST-1, MW-18, MW-21, TB-18, TB-109, TB-110 and TB-111) across this area of the Site, ranging from 238 mg/kg to 16,263 mg/kg. The detected concentrations of TPH in several of the samples were above the one or more applicable RSR criteria. The highest concentration was detected in a shallow soil sample, AST-01, collected from below the former waste oil AST. Elevated PAH concentrations were detected in soil samples collected from three locations across the area (MW-21, TB-18, and TB-111). Concentrations of several of the PAHs in these samples were above the applicable RSR criteria. Lead was detected at a concentration of 2,160 mg/kg in boring TB-18, and was the highest concentration of lead detected in the samples collected from AOCs 7 and 13. GEI did not identify a specific source for the lead, but opined that it may be related to the presence of fill in the area. PCBs were detected in two samples from this area, AST-01 and SED-02 at concentrations of 2 and 1 mg/kg, respectively. Sediment sample SED-02 was collected from a sump reportedly associated with the former wastewater treatment system.

During GEI's 2000 Supplemental Field Investigation, AOCs 7 and 13 were evaluated separately (GEI, 200b). Investigation activities completed at this time by GEI with respect to AOC-7 included the following:

- Drilling of shallow borings and collection of soil samples from locations TB-207 through TB-210 to further evaluate concentrations of TPH, SVOC and PCBs detected at TB-110 and TB-111; and
- Drilling of soil borings and collection of soil samples from locations TB-223 through TB-225 to further evaluate impacts related to the former waste oil AST.

According to the Supplemental Field Investigation Report, elevated concentrations of SVOCs were detected in TB-208 and TB-209, with some constituents exceeding applicable RSR criteria. Of the three soil borings advanced within and adjacent to the waste oil AST area, ETPH was detected in samples collected from TB-224 and TB-225. PCBs were also detected in four samples collected from soil borings TB-224 and TB-225.

Investigations of the Site by AEI between 2001 and 2008 largely focused on evaluation and delineation of PCBs in various media. As such, sample data generated during this time consists primarily of PCB analytical results. AOC-7 encompasses the following AEI PCB Areas:

- PCB Area 5.3 – Exterior Area Adjacent to Oil Pump Room
- PCB Area 5.4 – Former Waste Oil Tank Area (including concrete structures identified as P09)
- PCB Area 5.5 – Tower GH-4 Area (including concrete structures identified as P05 and P06)
- PCB Area 5.6 – Former Storage Building Area (including concrete structures P07 and P08)

4.1.10.1 AOC-7 (PCB Area 5.3 – Exterior Area Adjacent to Oil Pump House)

AEI collected asphalt and soil samples from multiple depths at 21 locations across PCB Area 5.3. PCBs at concentrations >1 mg/kg and <10 mg/kg were detected in 6 of the 14 asphalt samples collected. Soil samples collected from 12 of the 21 sampling locations exhibited PCB concentrations >1 mg/kg, but only 3 of those 12 locations exhibited PCB concentrations >10 mg/kg. None of the samples collected from PCB Area 5.3 exhibited PCB concentrations >50 mg/kg. The results of the asphalt and soil sampling completed by AEI within PCB Area 5.3 indicates that most of that area contains soil with PCB concentrations >1 mg/kg and <10 mg/kg. Sample results from multiple depths indicate that the contamination is located within the top six feet of soil. An area of soil in the vicinity of locations 5TB-019, 5TB-171, and 5TB-173 also contains PCB concentrations >10 mg/kg but <50 mg/kg.

4.1.10.2 AOC-7 (PCB Area 5.4 - Former Waste Oil AST Area)

AEI collected 9 concrete samples from concrete structure P09, located to the immediate south of the Oil Pump Room. Analytical results for these samples indicate that PCBs were not

detected above the reporting limit of 0.5 ppm. A portion of a pipe trench that runs from the former fuel oil storage tanks to the Oil Pump House extends through PCB Area 5.4. The trench is covered with a series of pre-fabricated concrete covers that can be removed to provide access to the pipe trench. AEI collected 5 concrete samples from the panels and of the 5 samples collected, only 1 sample (5CO-029) exhibited PCB concentrations >1 mg/kg but <10 mg/kg. This sample was located in close proximity to the Oil Pump House and the former waste oil AST. Concrete samples collected from an unidentified concrete pad adjacent to the pipe trench indicate that PCBs are present at concentrations >1 mg/kg but <10 mg/kg at sample locations 5CO-037 and 5CO-038. These samples are also located in close proximity to the Oil Pump House. Results for soil samples collected from within PCB Area 5.4 indicate an area of PCB contamination in soil at concentrations >50 mg/kg around sample location 5TB-029. Limited areas of soil with PCB concentrations >10 mg/kg but <50 mg/kg remain present in the area of soil samples 5TB-027 and TB-225 which are located immediately adjacent to southern wall of the Oil Pump House. A limited area of soil with PCB concentrations >1 mg/kg but <10 mg/kg is present around soil sample locations TB-224, 5TB-025, and 5HA-235. Historic concrete, sediment and soil samples collected from around the former waste oil AST location are shown on Figure 4-9A.

4.1.10.3 AOC-7 (PCB Area 5.5 - Tower GH-4 Area)

According to plans and analytical results from work completed by AEI, an area within AOC-7, PCB Area 5.5 to the immediate east of the GH4 High Tension tower was excavated and removed from the Site. Concrete samples (identified as C1 through C5) collected from the base of the GH4 High Tension tower base did not exhibit detectable concentrations of PCBs. Though the depth of excavation is unclear, soil samples collected from within the northern portion of the excavation indicate that at depths greater than 4 ftbgs, PCB concentrations were below 10 mg/kg. Soil samples collected from within the southern portion of the excavation, indicate that PCB concentrations above 10 mg/kg area generally extended to a depth of 8 ftbgs. Based on soil sample data generated by AEI, soil with PCB concentrations >1 mg/kg and <10 mg/kg remains in the vicinity of the GH4 Tower. An area of soil around samples 5TB-168 and 5TB-032 contains PCB concentrations >10 mg/kg, and a soil sample from 5TB-032 exhibited a PCB concentration >50 mg/kg. Four samples were collected from concrete pad P05, located to the northwest of the GH4

tower. PCB analytical results for these four samples indicates that PCBs were not detected above the reporting limit of 0.5 ppm. Asphalt, concrete and soil sample locations, as well as the approximate limits of excavation in the Tower GH-4 area are shown on Figure 4-9B.

Soil borings were advanced across AOC 7 by HRP during their investigation of the Site in 2014. Two of the borings, SB093014-112 and SB093014-113 reportedly exhibited mild petroleum-like impacts at depths of 8.5 to 10 ftbgs and 14 to 15 ftbgs, respectively. Analytical results presented in the data tables included as part of HRP's 2015 report indicate that soil samples collected from 8-10 ftbgs in SB093014-112 and from 4-5 ftbgs in SB093014-113 exhibited elevated concentrations of ETPH, but no VOCs.

4.1.10.4 AOC-7 (PCB Area 5.6 - Former Storage Building Area)

Sampling completed by AEI within PCB Area 5.6 included concrete structures identified as P07 and P08. Concrete pad P07 was not sampled. According to figures and tables generated by AEI, 47 concrete samples were collected from pad P08. PCBs were detected in only two samples, at concentrations below 1 mg/kg. Two soil samples collected from along the southern bulkhead exhibited PCB concentrations above 1 mg/kg but below 10 mg/kg. Concrete and soil sample locations associated with pad P08 are shown on Figure 4-9C.

Elevated concentrations of TPH were detected in soil samples collected from an area between concrete pad P08 and the containment dike for the former fuel oil ASTs (AOC 8) by GEI during their 1998 Phase II/III investigation. The highest concentration of TPH, 35,520 mg/kg, was detected in soil sample SS-01, a shallow soil sample. PCBs were also detected in SS-01 at a concentration of 14 mg/kg.

As part of their 2014/2015 investigation of the Site, HRP collected 25 soil samples from 12 boring locations across AOC-7 (HRP, 2015). Generally, a shallow and a deep soil sample were collected from each boring location with soil sampling depths varying depending on field observations. PCBs were detected in 7 of the 25 soil samples collected. Of the 7 soil samples that exhibited detectable concentrations of PCBs, only soil sample SB-111814-125A (3.0-5.0 ftbgs) exhibited PCB concentrations >1 mg/kg but <10 mg/kg.

4.1.11 AOC-8 Former Fuel Oil ASTs (Includes PCB Area 5.7)

One 50,000-gallon No. 6 fuel oil and two 5,000-gallon No. 2 fuel oil ASTs were formerly located on the southern portion of the Site, adjacent to English Station. At some point in the mid-1950s or early 1960s, after the high pressure boiler systems were completed, English Station ceased using coal as a fuel source and instead began using No. 6 fuel oil.

GEI first identified the former ASTs as an AOC for the Site and evaluated potential releases related to the storage and usage of fuel oil during their 1998 Phase II/III Field Investigation (GEI, 1998b). At AOC-8, PCB and TPH impacts were found in shallow soil (i.e., 0-4 ftbgs) adjacent to the eastern end of the former No. 6 fuel oil AST and containment dike. PAHs were detected in five soil samples collected from within AOC-8; however, the highest detections of PAHs occurred in soil samples with relatively low or no detectable levels of TPH.

To further evaluate these impacts, GEI drilled four soil borings (TB-219 through TB-222) and collected five surface soil samples (SS-04 through SS-08) from the area east of the tank and containment dike during their 2000 Supplemental Field Investigation (GEI, 2000b). ETPH was detected in soil samples collected from TB-212, and TB-219 through TB-222. The highest concentrations (1,050 and 1,115 mg/kg) of ETPH were detected in soil samples collected from TB-220. The vertical distribution of ETPH across soil samples collected from multiple depths at single boring locations confirmed that TPH/ETPH impacts were found within the top 4 or 5 ftbgs. PCBs were detected in three of the five surface soil samples collected, and ranged in concentration from 1-3 mg/kg.

Investigations of the Site by AEI between 2001 and 2008 largely focused on the evaluation and delineation of PCBs in various media. As such, sample data generated during this time consists primarily of PCB analytical results. AOC-8 encompasses AEI PCB Area 5.7.

AEI collected 17 asphalt samples, identified as 5AS-020, 5TB-060 through 5TB-064, 5TB-066, 5TB-067, 5TB-154 through 5TB-157, 5TB-160 through 5TB-163, 5TB-227 and 5AS-020. According to analytical results, 5 of the asphalt samples had concentrations of PCBs ≥1 mg/kg but <10 mg/kg.

A total of 160 soil samples were collected from 45 separate locations during AEI's investigations of the Site. Analytical results for these samples indicate that high concentrations of PCBs were detected in soil immediately behind (i.e., on the northern side of) the southern

bulkhead. Soil samples 5HA-054, 5HA-057, 5HA-058, 5HA-059, 5HA-144, and 5HA-232 exhibited PCB concentrations ≥10 mg/kg. In the case of soil samples 5HA-058, 5HA-059, 5HA-144, and 5HA-232, PCB concentrations were >50 mg/kg and were some of the highest concentrations of PCBs (190 mg/kg – 13,000 mg/kg) detected in soil in the southern portion of the Site. In the vicinity of the highest PCB concentrations, the vertical extent of impacts was not well delineated. HRP's 2015 Section 4 Report (HRP, 2015) indicated that the areas around sample locations 5HA-058 and 5HA-059 and locations 5HA-144 and 5HA-232 would be classified as SEHs based on the historical concentrations of PCBs in these areas.

Outside of the bulkhead area, several soil samples collected from throughout AOC-8 exhibited concentrations >1 mg/kg but <10 mg/kg and were generally shallow (i.e. the top 2-3 feet of soil). One soil sample collected from TB-EEEEEE exhibited a PCB concentration of 42 mg/kg and was reportedly collected from a depth of 0.3-2.3 ftbgs. Deeper samples collected from the same location had PCB concentrations >1 mg/kg but <10 mg/kg.

AEI collected a number of sediment samples from a number of structures within AOC-8 including 4 samples collected from within the fuel oil piping trench (identified as 5SD-003 through 5SD-005 and 5SD-008), 1 sample from a catch basin identified as CB-05, and 1 sample (identified as 5SD-006) from a sump located along the western wall of the AST containment dike identified as "Sump 3". Neither the catch basin sample nor the sump sample exhibited PCB concentrations >1 mg/kg. However, all four of the sediment samples collected from the pipe trench exhibited PCB concentrations >1 mg/kg. Sediment samples 5SD-003 and 5SD-004 had PCB concentrations <10 mg/kg and in sample 5SD-004 PCBs were detected at 130 mg/kg.

AEI collected concrete samples from a number of structures located within AOC-8 during their investigations of the Site as follows:

- 12 concrete samples, identified as 5CO-168 through 5CO-175 and 5CO-505 through 5CO-508, were collected from the containment dike in which the former 50,000-gallon No. 6 fuel oil AST was situated (identified as "EN09" on AEI drawings);

- 6 concrete samples, identified as 5CO-162 through 5CO-167, were collected from the containment dike that formerly held the two 5,000-gallon No. 2 fuel oil ASTs;

- 4 concrete samples, identified as 5CO-114 through 5CO-117, were collected from the pre-fabricated concrete panels that cover the fuel oil piping trench; and

- 1 concrete sample, identified as 5CO-110, was collected from a pad identified as "P25" on AEI drawings.

PCB concentrations >1 mg/kg were not detected in the concrete samples described above.

As part of their 2014/2015 investigation of the Site, HRP collected 28 soil samples from 11 boring locations across AOC-8 (HRP, 2015). Generally, shallow (0-0.5 ftbgs), intermediate (1-2 ftbgs) and deeper (3-4 ftbgs) soil samples were collected from each boring location and analyzed for PCBs. PCBs were detected in 8 of the 28 soil samples collected. Of the 8 soil samples that exhibited detectable concentrations of PCBs, only soil sample SB-092914-97A (0-0.5 ftbgs) exhibited PCB concentrations >1 mg/kg. Historic sample locations associated with AOC-8 are depicted on Figure 4-10.

4.1.12 AOC-9 Transformer Areas (Includes PCB Areas 3.3, 4.1 and 4.3)

GEI noted several known and suspected PCB-containing equipment during their 1998 Phase I ESA of the Site (GEI 1998a):

- **Exterior Courtyard, Southwest Portion of English Station:** This area included two transformers (identified as 7A TFX and 37A TXF) situated atop a stone-filled base. These transformers were located along the southern exterior wall, outside of the Screen House. The transformers had green labels indicating a PCB content of less than 1.0 ppm. Also identified in this area was a capacitor bank (identified as Capacitor Bank 524) within a fenced enclosure with a gravel base. In later reports by AEI and others, the capacitor bank at this location is referred to as "Capacitor Bank #4." This capacitor bank and Capacitor Banks 1, 2 and 3 are discussed under Section 4.1.6 of this plan.

- **Along Western Exterior Wall of English Station:** Three pad-mounted transformers (identified as Service Transformers #1, 2, and 3) reportedly associated with the low-pressure boiler system were observed in this area by GEI. All three transformers were affixed with blue labels indicating PCB concentrations less than 50 ppm. Some staining on the transformer exteriors was noted.

- **Northwest Corner of English Station:** One large, pad-mounted transformer (Transformer "G"), situated above a concrete containment dike. The large transformer was affixed with a blue label indicating PCB concentrations less than 50 ppm. A tank associated with the transformer was labeled as containing less than 1.0 ppm PCBs. No staining or evidence of a release was noted. Two circuit breakers were also present in this area and were affixed with green labels,

indicating PCB concentrations less than 1.0 ppm. Both circuit breakers were located within a concrete containment dike.

- **English Station Interior, First Floor:** Five pad-mounted transformers reportedly containing "pure PCB oil" were observed by GEI inside English Station. The transformers were reportedly located within a bermed concrete area, with no evidence of releases noted.

- **Southern Portion of Coal Handling Area:** Three capacitor banks were observed in this area: two of the capacitor banks were reportedly located in a single enclosure at one location; a single capacitor bank was observed in another enclosure; and a third enclosure was observed to be empty. Tags on the capacitors reportedly indicated "No PCBs." In later reports by AEI and others, these capacitor banks are identified as Capacitor Banks 1, 2 and 3. Capacitor Banks 1, 2 and 3 are discussed under Section 4.1.6 of this plan.

- **Bulkhead, Western, Southern and Eastern Sides:** Three cathodic protection relays were observed by GEI along the western, southern and eastern sides of the bulkhead. According to the GEI report, two of the relays were affixed with blue labels, indicating PCB concentrations less than 50 mg/kg. The third relay was affixed with a green label, indicating PCB concentrations less than 1.0 mg/kg.

As noted previously, capacitors initially identified by GEI were subsequently broken out into separate AOCs and PCB Areas and, therefore, will not be discussed in this section. Transformer locations were further refined by AEI during their investigations of the Site, resulting in the addition of the following PCB Areas, which are discussed here:

- PCB Area 3.3 – Northwest Transformer and Capacitor Area;

- PCB Area 4.1 – Former Transformer Area West Side of English Station; and

- PCB Area 4.3 – Transformer and Capacitor Area at Southwest Corner of English Station.

The following discussions present general sample results from each of these areas, followed by discussions of sampling events that were focused on specific features, such as concrete enclosures and pads located in the areas. Historic sample locations within AOC-9/PCB Area 3.3 are shown on Figures 4-11, 4-11A, and 4-11B.

4.1.12.1 AOC-9 (PCB Area 3.3 - Northwest Transformer Area)

Several soil borings were completed after the remediation of soils in AOC-5 by UI during bulkhead repair activities. Soil samples collected from the borings were reportedly analyzed by UI. Multiple soil samples were collected from the boring locations and analyzed for PCBs only. Several of the post-remediation soil samples were collected from borings drilled in within the AOC-9 / PCB Area 3.3 portion of the Site are discussed here. A total of 8 soil borings, identified as GP-01 through GP-04, GP-09, GP-10, GP-11 and GP-15 were advanced in this area of the Site. Soil samples collected from GP-01, GP-02, GP-04 and GP-15 exhibited PCB concentration >1 mg/kg but <10 mg/kg. The soil samples exhibiting these concentrations were generally collected from depths of 8 to 12 ftbgs.

During their 2015 investigation of the Site, HRP collected soil samples from 28 locations within PCB Area 3.3 (HRP, 2015). Generally, shallow (0-0.5 ftbgs), intermediate (1-2 ftbgs) and deeper (3-4 ftbgs) soil samples were collected from each boring location and analyzed for PCBs. Soil samples collected from locations SB-091714-10, SB-091714-11, SB-091714-13, SB-091714-14 and SB-091714-16 exhibited PCB concentrations >1 mg/kg. The detected concentration of PCBs in a soil sample from SB-091714-16 was 13 mg/kg.

Within PCB Area 3.3, AEI collected 4 concrete (3CO-182 through 3CO-185) and 2 asphalt (3AS-40 and 3AS-41) samples from pad P22. None of the concrete or asphalt samples collected from P22 exhibited detectable concentrations of PCBs. AEI collected shallow (i.e. 0-2 ftbgs) soil samples from 5 locations within PCB Area 3.3, identified as 3GP-254, 3HA-114, 3HA-115, 3HA-116 and 3HA-231. PCBs were detected at locations 3GP-254, 3HA-115 and 3HA-231 at concentrations >1 mg/kg. At 3HA-115, PCBs were detected at 11.3 mg/kg. AEI collected deeper (i.e. 3-7 ftbgs) at locations TB-AAA and TB-BBB. PCBs at a concentration of 15 mg/kg were detected in soil sample collected from a depth of 5-7 ftbgs at TB-BBB. Analysis on deeper soil samples from this same boring did not exhibit detectable concentrations of PCBs. GEI collected a soil sample during installation of monitoring well MW-12, in AOC-9. Analytical results indicate that PCBs were not detected above 1 mg/kg. Sample locations at and around P22 are shown on Figure 4-11.

GEI collected a sediment sample (PCB-06) from a sump located within a structure later identified as Enclosure EN02 by AEI. The EN02 designation has been retained for this plan. Both

TPH (9,091 mg/kg) and PCBs (4.0 mg/kg) were detected in PCB-06. Later investigation of EN02 by AEI involved the collection of 29 concrete samples identified as TXP1-A1 through A5, TXP1-B1 through B5, TXP1-C1 through C5, TXP1-D1 through D4, TXP1-E1 through E5, and TXP1-F1 through F-5. Based on sample locations documented by AEI, it appears that the concrete samples collected from EN02 were collected on a 5-foot sampling grid. AEI also collected 4 wipe samples identified as TXFP-1 through 4 from an elevated steel deck atop EN02. Based on the analytical results for the AEI concrete samples, 13 of the 29 concrete samples exhibited PCB concentrations >1 mg/kg by <10 mg/kg. PCBs were not detected in any of the wipe samples. Sample locations collected from EN02 by GEI and AEI are shown on Figure 4-11A.

During their investigation of the Site, GEI collected a sediment sample (PCB-5) from within the concrete containment tub around Transformer G. AEI later refers to this concrete containment tub as Enclosure EN03, and that designation is retained in this plan. TPH was detected in PCB-5, at a concentration of 165 mg/kg. No PCBs were detected in sample PCB-5. Later investigation by AEI at EN03 focused on PCBs and included the collection of 25 concrete samples, identified as 3CO-041 through 3CO-064 and 3CO-503; 6 wipe samples, identified as 3HX-001 through 3HX-006; and 1 sediment sample, identified as 3SD-001. The concrete samples were collected from areas within the concrete containment surrounding Transformer G, the pedestal on which Transformer G is situated, and from the concrete containment area around the two circuit breakers in the eastern side of the containment. All 6 wipe samples were collected from the side of transformer G where staining was observed. Sediment sample 3SD-001 was collected from the western side of the enclosure, where accumulated sediment was observed. Of all the samples collected by AEI from EN03, PCBs were detected at 3SD-001 only, at a concentration of 2.6 mg/kg. Samples collected from EN03 by both GEI and AEI are shown on Figure 4-11B.

Concrete samples identified as 3CO-076 and 3CO-077 were collected by AEI from two smaller concrete structures identified as P20 and P21 in this area. Sample results indicate that PCBs were not detected above the reporting limit of 0.5 ppm in either of the samples.

4.1.12.2 AOC-9 (PCB Area 4.1 - Former Transformer Area on West Side of English Station)

This portion of the Site was referred to by GEI as the Western Transformer Yard. In this area, GEI collected 9 soil samples, identified as PCB-3, PCB-4, PCB-7 through PCB-10 and PCB-33 through PCB-35 (GEI, 1998b). PCBs and TPH were detected in soil sample PCB-9 concentrations of 1.0 ppm and 32 mg/kg, respectively. PCBs were not detected above the reporting limit of 1 ppm in any of the other soil samples GEI collected from this area at that time. Elevated concentrations of TPH were detected at soil sampling locations PCB-3 (9,203 mg/kg), PCB-4 (11,235 mg/kg) and PCB-7 (600 mg/kg) in the Western Transformer Yard.

During their investigation of AOC-9 / PCB Area 4.1, AEI collected asphalt samples from 17 locations, identified as 4AS-18, 4AS-19, 4AS-42 through 4AS-52, 4GP-245, 4HA-145, 4TB-210, and 4TB-218. PCBs were detected at concentrations >1 mg/kg but <10 in only 3 samples.

AEI collected soil samples from 36 locations across PCB Area 4.1. High concentrations of PCBs >50 mg/kg were detected at locations 4GP-246, 4HA-089, 4HA-124, 4HA-129, 4HA-505 and 4HA-512. The highest concentration of PCBs in these samples was detected in a sample collected from 4-6 ftbgs at 4GP-246 (700 mg/kg). Soil samples exhibiting PCB concentrations >10 mg/kg but <50 mg/kg included 4HA-088, 4HA-90, 4HA-125, 4HA-128 and 4HA-145. Soil samples exhibiting PCB concentrations >1 mg/kg but <10 mg/kg included 4GP-245, 4HA-086, 4HA-087, 4HA-121 through 4HA-123, 4HA-126, 4HA-127, 4HA-513, 4TB-091, 4TB-208, 4TB-209 and 4TB-211 through 4TB-214. Historic sampling locations within AOC-9/PCB Area 4.1 are shown on Figure 4-12.

During their 2014 investigation of the Site, HRP collected soil samples from 13 locations within PCB Area 4.1 (HRP, 2015). Generally, shallow (0-0.5 ftbgs), intermediate (1-2 ftbgs) and deeper (3-4 ftbgs) soil samples were collected from each boring location and analyzed for PCBs. Forty five asphalt samples were collected. A single asphalt sample collected from location SB-091914-36 exhibited PCB concentrations >1 mg/kg. All other samples were found to be <1 mg/kg PCBs.

Limited concrete sample was completed by AEI within PCB Area 4.1, and focused on a concrete structure identified as Enclosure EN04. AEI collected 6 concrete samples from this

structure, 4CO-078 through 4CO-081 and TXFP2-1 and TXFP2-2. PCBs were detected in sample TXFP2-1 only at a concentration of 8.1 mg/kg.

4.1.12.3 AOC-9 (PCB Area 4.3 – Southwest Transformer and Former Capacitor Area)

GEI collected three soil samples (PCB-02, PCB-20 and PCB-21) and one concrete sample (CS-6) in the vicinity of Capacitor Bank 4 during their Phase II/III investigation. PCBs were detected in soil sample PCB-02 at a concentration of 2,300 mg/kg. PCBs were not detected above 1 ppm in the other two soil samples or concrete sample (GEI, 1998b.). No additional samples were collected from Capacitor Bank No. 4 during GEI's 2000 Supplemental Field Investigation, reportedly due to the presence of underground utilities. Later sampling by AEI in 2004 in PCB Area 4.3 confirmed that the presence of high concentrations of PCBs adjacent to Capacitor Bank 4 were high enough to trigger notification to CTDEEP that the area qualified as a SEH. Historic sample locations within AOC-9/PCB Area 4.3 are shown on Figure 4-13. Historic sample locations around Capacitor Bank 4 are shown on Figure 4-13A.

GEI collected soil samples PCB-1, PCB-31 and PCB-32 from the containment tub in which transformers 7A TFX and 37A TXF were formerly located. This structure was later identified as Enclosure EN05 by AEI during their investigations of PCB Area 4.3. The EN05 designation will be maintained for this plan. All three samples exhibited PCB concentrations ranging from 53 mg/kg to 440 mg/kg. A low concentration (120 mg/kg) of TPH was also detected in soil sample PCB-32. GEI later collected another soil sample (HA-1) from EN05 and that sample exhibited a PCB concentration of 29 mg/kg. AEI collected soil samples from location 4HA-511 and confirmed the high concentrations initially identified by GEI within EN05. The detected concentrations of PCBs inside EN05 were high enough to consider this area a SEH. Soil samples collected by AEI at 4HA-511 exhibited PCB concentrations ranging from 130 to 1,100 mg/kg. AEI collected three concrete sample from along the wall of English Station, behind the two transformers at this location. PCBs were not detected above 0.5 ppm in any of the three samples. AEI also collected 6 wipe samples (4HX-08 through 4HX-13) from the two transformers. Analytical results from a wipe sample (4HX-11) collected from transformer 37A indicated PCBs were detected at a concentration of 120 µg/100 cm^2. PCBs were also detected, though at a much

lower concentration (7.9 µg/100 cm^2) in wipe sample 4HX-09 collected from transformer 7A. Sample locations for EN05 are shown on Figure 4-13B.

Outside of structure EN05, GEI collected soil samples from locations identified as TB-115, TB-116, TB-214 and TB-215. PCBs were detected in soil samples from TB-214 and TB-215, at concentrations >1 mg/kg but <10 mg/kg. AEI collected soil samples from 28 locations during their investigation of AOC-9 / PCB Area 4.3. Soil samples collected from locations 4GP-247, 4TB-068 through 4TB-075, 4TB-079, 4TB-83, 4TB-146, 4TB-148, 4TB-150, and 4TB-152 exhibited PCB concentrations >1 mg/kg but <10 mg/kg. Soil samples 4TB-076 through 4TB-078 and 4TB-082 exhibited PCB concentrations >10 mg/kg but <50 mg/kg. Soil sample 4GP-248 was the only sample outside of enclosure EN05 to exhibit a PCB concentration >50 mg/kg. Soil sample locations for AOC-9 / PCB Area 4.3 are shown on Figure 4-13.

During their 2015 investigation of the Site, HRP collected soil samples from 26 locations within PCB Area 4.3 (HRP, 2015). Generally, shallow (0-0.5 ftbgs), intermediate (1-2 ftbgs) and deeper (3-4 ftbgs) soil samples were collected from each boring location and analyzed for PCBs. Soil samples collected from locations SB-092314-58, SB-092314-61, SB-092414-66, SB-092414-68, SB-092414-69, SB-092414-73 and SB-092414-74 exhibited PCB concentrations >1 mg/kg but <10 mg/kg.

Other structures that were sampled during investigation of AOC-9 / PCB Area 4.3 include concrete pads identified as P15, P13A and P13B. AEI collected two concrete samples, identified as 4CO-124 and 4CO-125 from pad P15. PCBs were not detected above 0.5 ppm in either sample. AEI collected 17 concrete samples, identified as 4CO-113 and 4CO-132 through 4CO-147, from pad P13A. Of the 17 samples, PCBs were detected in one sample, 4CO-113, at a concentration of 1.6 mg/kg. Sample locations at pad P13A are shown on Figure 4.13C. AEI collected 5 concrete samples, identified as 4CO-119 to 4CO-123, from pad P13B. PCBs were not detected at concentrations above 1.0 mg/kg in any of the samples collected from P13B.

4.1.13 AOC-10 Former Interior Chemical Storage Areas Excluding English Station (Includes the Foam House and PCB Areas 4.2 and 4.4)

Although interior chemical storage within English Station and the adjacent buildings was identified by GEI during their Phase I ESA of the Site (GEI, 1998a), very little significant investigation with respect to releases has been completed within the interior chemical storage areas

in the Plant. Previous investigations of AOC 10 focused on the exterior investigation of interior releases that potentially had reached the exterior of the building. Consistent with the previous investigations, and given the current conditions present inside English Station and the lack of historical interior data, AOC-10 covers the out-buildings located along the western side of the Plant, including the Storage Building (PCB Area 4.2) and the Assembly Hall (PCB Area 4.4). The interior of English Station is discussed in more detail in Section 4.1.16.

The Storage Building is comprised of five individual rooms (identified as Rooms 1 through 5). AEI collected 16 concrete samples from the floor of the Storage Building. Concrete samples 4CO-082 through 4CO-091 were collected from Room 5. All but 2 of the 10 samples contained PCB concentrations above 1.0 mg/kg. The highest PCB concentrations detected in Room 5 were at sample locations 4CO-084 (94 mg/kg) and 4CO-085 (17 mg/kg). Samples collected from Rooms 1, 2, 3 and 4 all exhibited PCB concentrations above 1.0 mg/kg, and in the case of Rooms 1, 3 and 5, several samples exhibited concentrations of PCBs >50 mg/kg. The highest detected concentrations of PCBs were found in samples 4CO-157 (36,000 mg/kg) collected from Room 3, 4CO-161 (4,900 mg/kg) collected from Room 1.

In addition to the concrete samples collected from within the Storage Building, AEI collected several soil samples outside of the building along its southern and western sides. Soil samples 4HA-512, 4HA-505 and 4GP-246 collected from the south side of the building exhibited the highest concentrations of PCBs (67-9,200 mg/kg). The detected concentrations of PCBs in soil along the southern side of the Storage Building are high enough to classify these areas as SEHs. Soil Sample 4HA-513, the only soil sample collected on the west side of the building, exhibited a relatively low concentration of PCBs at 3.4 mg/kg. Sample locations for the Storage Building are depicted in Figure 4-14.

Eleven concrete samples were collected from the Assembly Hall building. PCBs were detected in 3 of the 11 samples collected at concentrations >1 mg/kg but <10 mg/kg. The three samples were collected in a storage room and bathroom located in the southern portion of the building. Sample locations for the Assembly Hall are depicted in Figure 4-15.

AOC-10 includes a small structure on the southern portion of the Site identified as the Foam House. To date, only limited wipe sampling has occurred inside this structure, with no PCBs having been detected. Sample locations in and around this structure are shown on Figure 4-10.

4.1.14 AOC-11 On-Site Fill Material

As indicated in Section 2.3.1, Ball Island, on which Station B and English Station were constructed, is a man-made island in the middle of the Mill River. As such, the subsurface materials from the ground surface to a maximum depth of up to approximately 20 feet below grade are comprised entirely of fill materials. Specifically, the fill materials were derived from dredging the Mill River (primarily from 1900 through the late 1930s, although on a more limited basis in later years as well) to maintain navigable shipping channels (AEI, 2003). As indicated in GEI's 1998 Phase II/III investigation report, the surficial fill materials underlying the Site are a combination of granular materials to moderately dense, slightly plastic silty clay. Cross-sections prepared by AEI as part of the 2003 Request for Widespread Polluted Fill corroborate this physical characterization of the fill. Specifically, the materials are reported by AEI to consist of coal dust/fragments (in the area of the former coal storage yard, AOC 12, as discussed in the next sections), a limited amount of cinders, some concrete and construction debris fragments, silt/sand/gravel mixtures, and silt and very fine sand mixtures overlying the organic silt of the marsh and tidal flats on which the island was created.

Over the course of the investigations of the Site, it was determined that PAHs, ETPH and metals are inherent to the fill material (although present in the fill material, PCBs are the result of releases to the fill). Likewise, the fill itself does not contain VOCs; any VOCs detected are the result of a release to the fill material. According to historical information presented in support of their request for the CTDEEP to grant a widespread polluted fill variance, AEI indicated that the Mill River bottom sediments that were ultimately dredged and used for creation of the island were heavily impacted by wastes from local industries discharging into the river. Specifically, AEI noted the presence of a manufactured gas plant adjacent to the site to the southwest, from which wastes had emanated historically, along with paper manufacturing and metal-works wastes from other industries formerly lining the river banks. Further, AEI went on to note that due to the tidal influence in the Mill River, sediments that were ultimately dredged would have been subject to transport both upstream and downstream under the various hydraulic scenarios (AEI, 2003).

By 2003, when AEI prepared the request for the widespread polluted fill variance for the Site, over 200 soil borings had been drilled on the Site and hundreds of soil samples analyzed for a variety of potential contaminants. Of particular note are soil samples that underwent a forensic

evaluation by Battelle in 2002 to evaluate the nature of the petroleum hydrocarbons found in the fill materials, such that there could be a determination made as to whether they were inherent to the fill or the result of a release to the fill. Specifically, groups of soil samples from the northern portion of the Site were evaluated separately from soil samples collected from the southern portion of the Site (by petrographic means and an expanded PAH analysis / "fingerprinting"). Although not specifically stated in either Battelle report prepared to document the forensic evaluation findings (Battelle, 2002a and Battelle, 2002b), it is likely that the samples from the northern portion of the Site were evaluated separately from those from the southern portion of the Site based on the expansion of the island over time to accommodate the building of English Station and its later addition and thus the different ages of the dredged material in the two areas.

The findings of the evaluation, as documented in two reports published by Battelle in 2002 and as summarized in AEI's 2003 request, indicated that in the majority of both sections of the Site, the petroleum hydrocarbons detected in the fill were not derived from releases of oil (distillate or residual); rather, they were associated with coal tar pitch or residuals associated with coal tar gasification. Battelle concluded that these contaminants came primarily from the river bottom dredge spoils, with the following exceptions. Battelle identified petroleum hydrocarbons consistent with what they characterized as small petroleum spills in the southeastern, southwestern and northwestern corners of the Site. In addition to the petroleum hydrocarbons inherent in the fill materials, Battelle's findings indicated the presence of coal-related constituents (primarily arsenic and PAHs) in the fill in the area of the former coal storage area (AEI, 2003; Battelle, 2002a and Battelle, 2003b).

4.1.15 AOC-12 Former Coal Storage Yard (Includes PCB Areas 3.2 and 6.1)

Portions of AOC-12 including PCB Areas 2.1, 2.2, and 6.1 are discussed in Section 4.1.4 of this Plan, along with other Site AOCs that are located on Parcel A.

4.1.15.1 AOC-12W (PCB Area 3.2 – Area Adjacent to PCB Bulkhead Remediation)

In PCB Area 3.2, AEI established a 10-foot sampling grid to further delineate PCB contaminated soil in the southwest corner of the coal yard, outside of the Bulkhead PCB

Remediation Area. Subsequent to the bulkhead remediation, soil sampling by Enviroshield had identified the presence of soil within PCB Area 3.2, with PCB concentrations >10 mg/kg.

During their investigation of the Site, AEI collected over 300 soil samples and identified an extensive area of soil exhibiting PCB concentrations >1 mg/kg but generally <10 mg/kg in the southwest portion of the former coal yard, between Tracks A and B. AEI also oversaw removal of a portion of soil north of Track A that was excavated to approximately 6 ftbgs, below the water table, and further excavated in its westernmost reach to 7.5 ftbgs. Verification samples collected on a 5-ft grid, with perimeter samples of the asphalt surface, were analyzed for PCBs on a dry weight basis. Verification sample results indicated that PCB concentrations in the soil samples were below the remedial goal of 10 mg/kg. The excavation was backfilled with clean fill from off site; however, a cap was not installed over the excavated area. Based on the results of the verification soil sampling in the vicinity of the excavation and the results for soil samples collected from numerous borings to the northeast of the excavation area, soil with PCB concentrations >1 mg/kg but <10 mg/kg remains in this area. Historic sample locations and past excavation limits are shown on Figure 4-16.

4.1.15.2 AOC-12E (PCB Area 6.2 – Mill River East Branch Area)

Early investigation of the area of the Site later identified as AOC-12E attributed the regular detections of metals and PAHs to the widespread presence of fill across the Site and to former coal handling operations. Subsequent investigations completed within AOC-12E by AEI and others have identified the presence of PAHs and metals at concentrations above the I/C DEC across most of the area. In addition, ETPH was detected in a single shallow (0-2 ftbgs) soil sample collected from a boring identified as TB-X by AEI during their investigation of AOC-12E. The detected concentration of ETPH at this location was above the I/C DEC. The location of this area is depicted on Figure 4-17.

While PAHs and metals are widespread throughout AOC-12E, PCBs are generally absent, with the exception of an area to the immediate north of English Station. In 2012, GeoQuest completed an investigation of AOC-12E (PCB Area 6.2) that included the collection of soil samples from the entire length of the paved access road, from the Site gate along Grand Avenue to the main entrance to English Station. PCB concentrations detected in the samples collected

along the access road were below 1.0 mg/kg. However, PCBs were detected at concentrations >50 mg/kg in a number of soil samples (identified as EXT-13A, B, D, F G, J, W, X) collected from in front of English Station during the same GeoQuest investigation. Several of the detected concentrations were high enough to qualify as a SEH. Samples collected by GeoQuest in 2012 are shown on Figures 4-2A and 4-18.

4.1.16 AOC-13 Former Wastewater Treatment System (Includes PCB Areas 5.1 and 5.2)

According to the 1998 Phase I by GEI (GEI, 1998a), a former wastewater treatment system was located in the southeastern portion of the Site. Remnants of the treatment system, including concrete pads and a below grade pumping station, were observed by GEI during the Phase I. Only limited investigation of this area was completed by GEI during their 1998 Phase II/III investigation of the Site (GEI, 1998b), and no significant levels of contamination were identified. Historic sample locations within AOC-13/PCB Areas 5.1 and 5.2 are shown on Figure 4-19.

During AEI's investigation of the Site, they split AOC-13 into two PCB Areas as follows:

- PCB Area 5.1 – Former Dumpster Area; and
- PCB Area 5.2 – Former Wastewater Treatment Area.

4.1.16.1 AOC-13 (PCB Area 5.1 - Former Dumpster Area)

Three concrete structures identified as having been used to stage waste dumpsters are located on the eastern side of English Station and were identified by AEI as P01A, P01B, and P01C. AEI collected 6 concrete samples from P01A, identified as 5CO-001 through 5CO-006. All six samples were found to have PCB concentrations >10 mg/kg. Samples 5CO-001, 5CO-003, 5CO-005 and 5CO-006 exhibited PCB concentrations >50 mg/kg.

Five concrete samples, identified as 5CO-007 through 5CO-010 and 5CO-501 were collected from P01B. All five samples were found to have PCB concentrations >1 mg/kg. Concrete samples 5CO-008 and 5CO-009 exhibited PCB concentrations >10 mg/kg but <50 mg/kg.

Two concrete samples, identified as 5CO-011 and 5CO-012 were collected from P01C. PCBs were not detected above 0.5 ppm in either of these two samples. The locations of all concrete samples collected from P01A, P01B and P01C are shown on Figure 4-19A.

Outside of the concrete pads, AEI collected asphalt samples from 17 boring locations identified as 5TB-001 through 5TB-011 and 5TB-175 through 5TB-180. PCBs were detected at concentrations >1 mg/kg but <10 mg/kg at locations 5TB-004, 5TB-006 through 5TB-011.

AEI collected 72 soil samples from 20 boring locations across PCB Area 5.1. Generally, soils were sampled to a maximum depth of approximately 6 ftbgs. Of the 72 soil samples collected, PCBs were detected in soil samples collected from 3 locations: 5TB-005, 5TB-011 and TB-WWWWW. The detected concentrations of PCBs in samples 5TB-005 and 5TB-011 were >1 mg/kg but <10 mg/kg. The detected concentration of PCBs in sample TB-WWWWW (53 mg/kg) was >50 mg/kg. All of the soil samples that exhibited detectable concentrations of PCBs were collected from the top 5 feet of soil.

During their 2015 investigation of the Site, HRP collected soil samples from 9 locations within PCB Area 5.1 (HRP, 2015). Generally, shallow (0-0.5 ftbgs), intermediate (1-2 ftbgs) and deeper (3-4 ftbgs) soil samples were collected from each boring location and analyzed for PCBs. Select soil samples were also analyzed for ETPH, SPLP ETPH, and VOCs. Soil samples collected from locations SB-111914-130 and SB-111914-134 and an asphalt sample collected from SB-111914-135 exhibited PCB concentrations >1 mg/kg but <10 mg/kg. Elevated concentrations of ETPH were also detected in soil samples collected from SB-111814-130 (2,800 mg/kg). Historic sample locations within AOC-13/PCB Area 5.1 are shown on Figure 4-19.

4.1.16.2 AOC-13 (PCB Area 5.2–Former Wastewater Treatment System Area)

Two concrete structures identified by AEI as P02 and P04 are located with PCB Area 5.2. Six concrete samples, identified as 5CO-013 through 5CO-018 were collected from P02 and analyzed for PCBs. None of the concrete samples collected from P02 exhibited detectable concentrations of PCBs. 17 asphalt samples, identified as 5AS-014 through 5AS-016 and 5AS-026 through 5AS-039, and two concrete samples identified as 5AS-016 and 5AS-039 were collected from P04. Of the 17 asphalt samples collected, samples 5AS-016, 5AS-029 through 5AS-031, and 5AS-035 exhibited PCB concentrations >1 mg/kg but <10 mg/kg. Neither of the two concrete samples exhibited detectable concentrations of PCBs. Sample locations for structures P02 and P04 are shown on Figure 4-19B.

A sediment sample, 5SD-007, was collected from a structure identified by AEI as Sump 4. PCBs were detected in this sample at a concentration of 1.8 mg/kg. A sludge sample, SEPTIC EAST, was collected by AEI from a structure identified as Septic East within PCB Area 5.2. No PCBs were detected in the sludge sample collected from this structure. Sediment and sludge sample locations are shown on Figure 4.19.

Asphalt samples were collected from 9 locations, identified as 5AS-023 through 5AS-026, 5GP-038, 5TB-013, 5TB-014, 5TB-220 and 5TB-225. The asphalt samples collected from 5TB-014 and 5TB-220 exhibited concentrations of PCBs >1 mg/kg but <10 mg/kg. None of the other asphalt samples exhibited detectable concentrations of PCBs.

A total of 44 soil samples were collected by AEI from 13 locations across PCB Area 5.2. Soil sampling locations within PCB Area 5.2 include 5GP-026, 5GP-038, 5HA-141 through 5HA-143, 5TB-012 through 5TB-014, 5TB-220 and 5TB-225, TB-PPPPP, TB-YYYYY and TB-ZZZZZ. Soil samples collected from 5GP-026, 5GP-038, 5HA-141, 5HA-142, 5TB-014 and 5TB-220 exhibited PCB concentrations above 1 mg/kg. Soil samples from locations 5HA-141, 5HA-142 and 5TB-014 exhibited PCB concentrations >10 mg/kg but <50 mg/kg. These soil samples were generally shallow, with the maximum sample depth being approximately 4 ftbgs.

During their 2015 investigation of the Site, HRP collected soil samples from 3 locations, identified as SB-111814-126, SB-111814-127, and SB-111814-128, within PCB Area 5.2 (HRP, 2015). Generally, shallow (0-0.5 ftbgs), intermediate (1-2 ftbgs) and deeper (3-4 ftbgs) soil samples were collected from each boring location and analyzed for PCBs. Select soil samples were also analyzed for ETPH, SPLP ETPH, and VOCs. PCBs at a concentration of 1.2 mg/kg and ETPH at a concentration of 10,000 mg/kg were detected in a deep (i.e. 13-15 ftbgs) soil sample collected from location SB-111814-127. Soil samples collected from the other two locations within PCB Area 5.2 contained low concentrations of ETPH (100-200 mg/kg) and no detectable levels of PCBs. Asphalt and soil sample locations for PCB Area 5.2 are shown on Figure 4-19.

4.1.17 AOC-15 Oil Stained Area North of English Station / Release to Catch Basin 4

During a visit to the Site in August 2014, Partner observed pavement staining beneath an asbestos abatement decon trailer, the asbestos waste trailer, and a supply Connex box. The staining appeared to emanate from the building, but the specific source of the staining and mechanism of

deposition could not be determined at the time (Partner, 2015). The source of the staining was subsequently identified to be leaking drums and oil ASTs in an adjacent "Oil Room" located inside English Station.

When asbestos abatement activities were underway in 2011/2012, Classic Environmental built their asbestos waste "bag-out" unit at the exterior door located in the Oil Room. As a result, Classic Environmental was carrying bagged asbestos waste by hand through the Oil Room to the exterior door, where it was removed from the building and loaded onto the asbestos waste trailer. It is not known if this activity disturbed tanks and containers in the Oil Room and contributed to a release of oil to the floor of the room (Ibid.).

A sediment sample, identified as CB-091514-1, was collected from a nearby catch basin (Catch Basin CB-4) by HRP Associates during their 2014 investigation (HRP, 2015), at the request of CTDEEP. PCBs were measured at <1 mg/kg in that sample; however, ETPH was measured at 160,000 mg/kg. The catch basin is located immediately adjacent to the asbestos waste trailer. The staining leads from the exterior of the Oil Room to the catch basin. HRP also collected soil samples at a location approximately 18 feet northeast of the catch basin (SB-111914-139) in September 2014. PCBs were not detected above the reporting limit 05 0.5 ppm in samples collected at SB-111914-139 from the surface to 4 ftbgs.

Due to the presence of the oil staining and the potential presence of uncontained liquids and/or releases associated with conditions in the Oil Room, the USCG issued Administrative Order 002-14 to the property owner and UI on September 19, 2014. The Order required a response plan to be submitted by September 24, 2014, and commencement of removal actions by September 26, 2014. When this did not happen, the USCG initiated response activities, which included deployment of a 3,000-foot boom around the Site in the Mill River, and removal of free liquid wastes and drummed materials adjacent to the Oil Room.

Historical drawings obtained from UI indicate that Catch Basin CB-4 and two other catch basins beneath the Ash Bunkers along the northern exterior wall of English Station are piped to a discharge point along the eastern side of the Site. Based on the releases in the vicinity of the oil room and Catch Basin CB-4, and the limited data available, this area will need to be evaluated further. The location of the catch basins and their discharge locations are depicted on Figure 4-1. The location of catch basin sample CB-091514-1 is shown on Figure 4-20.

4.1.18 AOC-16 English Station Interior (Includes PCB Area 7)

Limited investigation inside English Station has occurred since it ceased operation in the early 1990's. Several areas inside the building are known (e.g. Oil Storage Room, Oil Pump Room) or suspected (e.g. Machine Shop, Chemical Storage Area) to have used/stored petroleum products and chemicals. Additionally, electrical equipment in various locations of English Station are known or suspected to contain PCB oils. While a thorough evaluation of interior releases at English Station is planned, activities conducted in recent years have left much of the building in disrepair. Most notably, asbestos abatement and demolition activities that were halted as a result of a Cease and Desist Order (refer to Section 2.1.3 for details) have rendered much of the building inaccessible for the purposes of evaluation. Additionally, several areas of the Plant have been found to be structurally unsafe to work in/around. Asbestos abatement, cleanup of demolition debris, and efforts to stabilize certain areas of the Plant are scheduled to occur in advance of any evaluation of releases inside English Station. Evaluation of the interior spaces of English Station will be detailed in a future Addendum to this Plan.

4.1.19 AOC-17 Drainage Structures Associated With/Beneath English Station

As with AOC-16 above, a thorough evaluation of releases and the migration of any such releases via drainage structures beneath English Station is planned. However, a thorough investigation/evaluation of the drainage structures will be deferred until such time as asbestos abatement, cleanup of demolition debris, and efforts to stabilize certain areas of the Plant are completed, as interior drainage structures may currently be hidden by existing debris. Investigation/evaluation of the drainage structures beneath English Station and the migration of possible releases to them will be detailed in a future Addendum to this Plan.

4.1.20 AOC-18 Loading Docks and Overhead Doors

Exterior areas around loading docks and overhead doors associated with the on-site buildings, and particularly English Station, have been evaluated as part of the investigation of other AOCs and PCB Areas. As such, no specific investigative activities for these previously investigated areas are proposed. However, investigation activities proposed for other AOCs and PCB Areas in which loading docks and overhead doors are present but were not previously

investigated will be designed to evaluate potential spills and releases that may have occurred as a result of the handling of petroleum products and chemicals at these locations.

4.1.21 Site-Wide Groundwater Conditions

Groundwater beneath the Site was initially characterized during the 1998 GEI Phase II/II. At that time, 20 overburden monitoring wells were installed across the Site, generally to depths of 15 ftbgs, with three additional deeper monitoring wells (identified with a "D" in the well nomenclature) installed to depths of approximately 40 ftbgs. Monitoring wells installed during GEI's investigation of the Site were identified as MW-01 through MW-07, MW-09A, MW-10, MW-12 through MW-22, MW-04D, MW-14D, and MW-17D. All wells were reportedly constructed of 2-inch diameter polyvinyl chloride (PVC) well screen and riser, and utilized a 0.01-inch slot screen size. Analytical results for groundwater samples obtained as part of GEI's investigation did not exhibit concentrations of PAHs, metals or PCBs above the SWPC or VC numerical values. Low concentrations of VOCs, below RSR numerical criteria, were detected in some of the monitoring wells sampled. During their investigation of the Site, GEI conducted hydraulic conductivity testing and an evaluation of the effects of the tides on Site groundwater. The results of these evaluations are discussed in Section 2.3.2 of this Plan.

At about the same time as GEI's investigation of the Site, Enviroshield was conducting an environmental investigation of an area adjacent to the bulkhead remedial excavation on behalf of UI. As part of their investigation, Enviroshield installed several groundwater monitoring wells to the north of the bulkhead remediation area, including four 4-inch diameter monitoring wells identified as MW-50 through MW-53. All four of these wells were shallow and installed to depths ranging from 7.5 ftbgs to 13 ftbgs. Subsequent sampling of these wells by Enviroshield did not identify the presence of detectable concentrations of PCBs (Enviroshield, 2000).

According to the 2001 Remedial Action Plan (RAP) for the Former Coal Yard Area, AEI installed and sampled an additional 12 groundwater monitoring wells as part of their evaluation of groundwater during their work on the Site in 2001. No other details regarding the new wells were included in the RAP. In AEI's 2002 Site Wide PCB Characterization and Cleanup Plan, specifically Volume 2 - Appendix I, analytical data is presented for groundwater samples collected from wells MW-A, MW-BS, MW-BD, MW-C, MW-D, MW-E, MW-F, MW-G, MW-H, MW-I

MW-J, and MW-K. These appear to correspond to the 12 additional monitoring wells referred to in the earlier AEI RAP. Analytical data is also presented for groundwater samples collected from all 24 previously-installed monitoring wells. According to the laboratory analytical reports for two separate rounds of sampling conducted in 2001 (various dates from May 29, 2001 through July 25, 2001 and from September 11 – 14, 2001) included as Appendix I of the Site Wide PCB Characterization and Cleanup Plan, groundwater samples collected from these wells were analyzed for ETPH, metals, PCBs, VOCs and SVOCs/PAHs. The analytical results from both rounds of sampling are generally consistent and indicate that select metals (including copper, arsenic, lead, selenium and zinc) were present in the groundwater at various well locations in excess of the SWPC. In addition, one or more PAHs were also detected in the groundwater at various locations in excess of the SWPC. There were detections of VOCs noted, however, none of the reported concentrations exceeded the applicable RSR criteria. Most notable, there were no PCBs detected above reporting limits in any of the groundwater samples collected as part of AEI's 2001 sampling events.

As part of their investigation of the Site in 2014/2015, HRP collected a round of groundwater samples from 21 of the existing monitoring wells on the Site, including MW-4S, MW-5, MW-7, MW-9A, MW-12, MW-16, MW-17D, MW-18, MW-19, MW-21, MW-22, MW-A, MW-BD, MW-BS, MW-C, MW-D, MW-E, MW-H, MW-J, MW-K and MW-P. Groundwater samples collected from these wells were reportedly analyzed for VOCs and PCB homologs. Analytical results for the groundwater samples indicate that PCBs were detected in three wells only (MW-16, MW-17 and MW-21), at concentrations below the SWPC. Trace concentrations of VOCs were detected at concentrations below the applicable RSR criteria in monitoring wells MW-12, MW-16, MW-18, and MW-BD.

Historic analytical results for groundwater samples collected from the Site have indicated that ETPH, several metals, VOCs, and SVOCs/PAHs are present at several well locations, generally at levels below the applicable RSR criteria. Although many of the existing wells were sampled by HRP during their work on the Site in 2014/2015, the current condition and viability of the wells is not known. A well condition survey will be required as an initial part of the investigation to determine the need for the installation of additional wells to constitute a proper well network for this Site (see Table 5-1A).

4.2 Presentation of the Conceptual Site Model (CSM) and Data Gap Identification

The CSM is presented in table format in Table 4-1. The CSM was prepared on an AOC-specific basis. For each AOC discussed in Section 4 and, as applicable, for each sub-area (such as PCB Areas), the following information is summarized:

- the known or potential contaminants of concern (COCs);
- the status of known releases to various environmental media (soil, on-site sediment or groundwater);
- known or potential release mechanisms;
- media affected or potentially affected;
- fate and transport considerations; and
- associated data gaps.

5.0 FIELD INVESTIGATION PLAN FOR ENVIRONMENTAL MEDIA

5.1 Approach

The following sections provide a description of the approach that will be used to conduct the Site investigations, including a discussion of data quality objectives, sampling methodologies, and QA/QC procedures. Information on proposed sample locations is provided in Tables 5-1A through 5-1C. Proposed sample locations for each AOC/PCB Area are shown on Figures 5-1 through 5-18.

5.2 Site Preparation and Subsurface Investigation Considerations

In an effort to reduce on- and off-site cross contamination due to personnel and equipment mobilizations, all on-site personnel, subcontractors and equipment that is to be used on the Site will enter and exit the Site from one designated point of access. Prior to the initiation of equipment mobilization activities, polyethylene tracking pads will be secured to the asphalt along the Site access point and in areas of the Site that were identified as SEHs in previous investigations. An investigation-derived waste (IDW) storage area will be established and polyethylene tracking pads will be secured to the asphalt in this area as well. In addition, on-site personnel, subcontractors and equipment mobilizations will be instructed to avoid or cover (polyethylene sheeting) areas of observed surface staining.

A worker and equipment decontamination area will be constructed on the Site, likely in an area between the areas of investigation and IDW storage, and the Site access point. Decontamination procedures are discussed in more detail in Section 5.10.7.

A consideration in the performance of subsurface investigations at the Site is the existing bulkhead system and it structural stability. The entire water edge perimeter of the site is supported by an interlocking steel bulkhead system that varies in design and construction at various locations around the site. The bulkhead was installed in three separate phases starting in 1998, in response to a partial failure of an original wood bulkhead along a portion of the east side of the site. Due to the various designs for the steel bulkhead, excavation and off-site disposal of Site soils was required in some areas to support the installation and support of the bulkhead system. The bottom of the steel sheeting also varies, due to varying structural factors. The bulkhead design can be

generally be broken down into the following categories, with the locations and details for each installation type shown on drawings provided by COWI Marine North America:

1. Drilled soil anchor system consisting of steel wire cable or steel rod, with the anchors extending approximately 100 feet back from the bulkhead face and angled down at a steep angle. The exposed ends of the cable/rod secure a structural steel whaler that runs along the outside of the steel sheet piles in a continuous line several feet below the top of the bulkhead;

2. Concrete relieving platform poured directly along the top of the bulkhead and extending down 6-8 feet and back 10-15 feet from the back of the sheet piles. Anchors for the steel whaler are fastened into the relieving platform. The width of the relieving platforms vary by location, depending upon the interference that was being avoided. Soil was removed and disposed to construct the relieving platforms;

3. Steel rod/wire cable tieback holding the steel whaler and anchored to the original wooden bulkhead concrete deadman. This method was used in an area along the west side where the wood bulkhead collapsed. This area was excavated and the original concrete deadman uncovered. Clean soil was used as backfill within the area excavated;

4. Soldier piles driven to a deeper depth to support the bulkhead in a cantilever fashion with no tiebacks. This method was used along the south face, in the vicinity of the former oil tank; and

5. Horizontally-angled tiebacks extending from two faces of the bulkhead angled with each other. This method was used in the northwest corner along Station B, where the bulkhead is angled.

To maintain the integrity of the bulkhead, all of these various bulkhead support elements will need to be considered when performing the work necessary to collect soil samples, install monitoring wells and perform soil excavation. In particular, soil anchors, tiebacks and deadmen will need to be carefully located in the field to ensure that drilling and sampling activities don't strike these elements. Excavation activities may require engineering design and analysis to ensure protection of bulkhead integrity. In addition to the newer bulkhead system, there are remnants of the original wood bulkhead and its support tieback/deadmen elements that will also interfere with subsurface activities. Damage to these should not impact the newer bulkhead, but may require additional effort to advance borings and excavations to the desired depth where they are encountered.

5.3 Soil Investigation

5.3.1 Data Quality Objectives (DQOs) for Soil Samples

Data collected during the soil investigations are intended to evaluate the current contaminant concentrations for the purpose of creating a soil remedial strategy to complete the requirements of the CO. The number of environmental sampling locations proposed in each AOC was determined based on previously collected soil data and Site observations (i.e., the presence of areas of staining, cracks in asphalt or concrete and low-lying areas), in combination with an evaluation of likely release mechanisms. Based upon the past use of the property and historic generation of hazardous waste, the property was deemed to be an Establishment as defined in the Connecticut Transfer Act Section 22a-134 and thus, is subject to the requirements of the Connecticut RSRs. The overall quality assurance objective for laboratory analysis of soil samples is to provide a laboratory QA/QC program that is sufficient to ensure that data quality objectives are achieved. The data collected from the property will be subjected to the Reasonable Confidence Protocol (RCP) (CTDEEP, 2010b) as well as additional data quality assessment and data usability evaluations conducted in accordance with the CTDEEP's *Laboratory Quality Assurance and Quality Control Data Quality Assessment (DQA) and Data Usability Evaluation (DUE)* (CTDEEP, 2010c).

5.3.2 Soil Sampling Methodology

The soil investigation activities will include the collection of soil samples using several different methods. Surface and/or shallow soil samples will be collected utilizing a hand/bucket auger, while deeper soil samples will be collected by means of direct-push GeoProbe® Macro-Core methods. In addition, in the event that soils samples need to be collected from beneath an area covered by a concrete surface, a concrete coring machine will be utilized to access sub-slab soils.

A hand or bucket auger may be employed for the purpose of collecting surface or shallow soil samples. Hand or bucket auguring is conducted utilizing a four-inch diameter stainless steel auger bucket with cutting heads which are attached to a stainless steel t-handle with extensions (as needed). Auger holes will be advanced one bucket at a time until the appropriate sample depth is achieved. Once the sample depth is reached, the bucket used to advance the hole will be removed

and a decontaminated or clean bucket will be attached, placed in the hole, filled with soil, and then carefully removed. If VOC analysis is to be performed, the associated sample will be collected directly from the bottom of the boring and not from the auger bucket. If not within reach, the sample will be collected directly from the auger bucket or from minimally disturbed material immediately after the auger bucket is emptied.

For the collection of soils from depths greater than that which is practicable with the use of a hand-auger, direct-push sampling methods will engage a GeoProbe® Macro-Core. The Macro-Core sampler is a solid barrel, direct-push sampler equipped with a piston-rod point assembly used primarily for collection of either continuous or depth-discrete subsurface soil samples. A driller will advance the Macro-Core to the desired sample depth, at which time, a discrete sample will be collected from that interval. The Macro-Core will be split open by the driller and the soils contained within will be observed and characterized for amount of recovery, color, grain size, moisture content, odors and stains. All soils will be screened with a PID for volatile vapors being emitted from soils.

Soil samples submitted to the laboratory for VOC analysis will be collected in accordance with EPA Method 5035 and the CTDEEP's *Guidance for Collecting and Preserving Soil and Sediment Samples for Laboratory Determination of VOCs* (February 28, 2006). This method outlines the collection of soil samples (without homogenization and with minimal disturbance) into extraction solvents. Soil samples collected for all other analytical methods will be transferred from the hand-auger or Macro-Core to a dedicated, decontaminated stainless-steel bowl. The soil will then homogenized by mixing with a dedicated, laboratory-decontaminated stainless-steel spoon prior to placement in the appropriate laboratory-supplied sample containers. All samples will be placed on ice in a cooler for delivery to the laboratory under proper chain-of-custody protocols.

5.4 On-Site Sediment Investigation

5.4.1 DQOs for Sediment Samples

Data collected during the sediment investigations are intended to evaluate the current contaminant concentrations in sediments for the purpose of ultimately creating a sediment disposal plan. In the case of this Site, sediments are considered as any sediment-like materials located

within discharge or run-off collection units or bermed areas located on the Site. Sediment samples will be collected from those areas in which sediments are observed. Sediment sample analytical results will be used for waste characterization for waste disposal purposes.

5.4.2 Sediment Sampling Methodology

Sediment samples will be collected by means of a spade, shovel, trowel or scoop. The sediment sampling device will be chosen based on the depth of water at each specific sampling location. Once the appropriate sampling device is chosen, a sediment sample will be collected from a location that is representative of a sediment depositional area or in accordance with the site-specific work plan. Sediments will be characterized based on color, grain size, odors and stains. For sediment samples collected for VOC analysis, the sample will be placed directly into the appropriately preserved VOA vials. An aliquot will also be placed in an unpreserved glass container for moisture content analysis. For samples not being analyzed for VOCs, the sample will be transferred from the sampling device into a decontaminated stainless-steel bowl for homogenization. In the bowl, excess water will be decanted using measures that maintain fine sediments within the sample. Once the sample is homogenized, it will be placed in the appropriate laboratory-provided glassware and placed on ice in a cooler for delivery to the laboratory under proper chain-of-custody protocols.

5.5 Groundwater Investigation

5.5.1 DQOs for Groundwater Samples

Data collected during the groundwater investigation are intended to evaluate the current groundwater contaminant concentrations for the purpose of creating a groundwater remedial strategy to complete the requirements of the PCO. The number of monitoring wells to be installed at the Site as well as the number of groundwater samples to be collected will be based on former groundwater sampling results, spatial site representation and current data gaps. The data collected from the property will be subjected to the CTDEEP RCP as well as additional DQA/DUE conducted in accordance with CTDEEP guidance (CTDEEP, 2010c).

5.5.2 Groundwater Sampling Methodology

Both the installation and sampling of groundwater monitoring wells are described below.

5.5.2.1 Monitoring Well Installation

A number of groundwater monitoring wells were installed on the property during previous environmental investigation activities. As a part of the groundwater investigation program, a monitoring well reconnaissance will be conducted in order to evaluate the integrity of the existing wells and determine which on-site monitoring wells are suitable for use in an updated groundwater monitoring program. Following the reconnaissance, additional monitoring wells will be installed at the Site. Monitoring wells will be installed utilizing a hollow-stem auger drill rig. Well screen and riser lengths may vary for each well. Screen lengths for wells will be a maximum of 10-feet in length. Well riser lengths will be field-determined to accommodate either a flush-mounted or stick-up protective casing. The driller and drilling oversight personnel will maintain accurate written logs of the well construction details.

Once completed, the wells will be developed using a surge block and pump. Fine-grained material around the well screen will be drawn into the well and removed by agitating the well water with a surge block and simultaneously pumping water from the well using a centrifugal suction pump at a low discharge rate. A centrifugal pump outfitted with ASTM drinking water grade polyethylene tubing will be used for removing the water from the well. The polyethylene tubing will be replaced between each well. The dedicated new tubing will be rinsed with deionized water prior to its use. The volume of groundwater extracted from each monitoring well during development will be recorded and the progress of development will be determined by periodically monitoring turbidity. Development will continue until turbidity is 30 nephelometric turbidity units (NTUs) or less. If the 30 NTU criterion is not achievable, a goal of 10% of the turbidity value on successive well volumes will be used.

5.5.2.2 Groundwater Sampling

A period of at least two weeks will elapse between well development and groundwater sampling. Prior to the initiation of sampling activities, the water level in each monitoring well will be measured to the nearest 0.01 ft with an electronic water-sensing device and recorded in a field

notebook. The water level indicator will be decontaminated with deionized water prior to each use, unless visual observations (e.g., oil, odors) indicate additional decontamination is necessary.

Sampling of each well will be completed using a peristaltic pump outfitted with new silicon and polyethylene tubing (dedicated to each location to minimize the potential for cross-contamination) and a properly calibrated multi-parameter monitoring device attached to a flow-through cell. Field parameters, including pH, temperature, specific conductance, dissolved oxygen, turbidity, and oxidation/reduction conditions will be monitored in accordance with low-flow purging and sampling procedures. Once the parameters have stabilized to within the prescribed tolerances on three successive readings recorded at three to five-minute intervals, samples will be collected directly into the appropriate laboratory-supplied containers and placed on ice in a cooler for delivery to the laboratory under proper chain-of-custody protocols.

5.6 On-Site Surface Water Investigation

5.6.1 DQOs for Surface Water Samples

Data collected during the surface water investigation are intended to evaluate the current contaminant concentrations in on-site surface water for the purpose of creating a surface water disposal plan. In the case of this Site, surface waters are considered to be any ponded, pooled or sitting water that has collected in on-site structures that are able to retain water (e.g., former wastewater treatment facility containment area). Surface water samples will be collected in those areas in which sitting water is observed on-site. Surface water analytical results will be used for waste characterization for waste disposal purposes.

5.6.2 Surface Water Sampling Methodology

Surface water samples will be collected utilizing a dip sampler, a peristaltic pump outfitted with dedicated tubing or directly into the laboratory-provided container. If not collected directly into the laboratory-provided container, the collected sample will be poured or pumped into the appropriate laboratory provided container from the sampling device and placed on ice in a cooler for delivery to the laboratory under proper chain-of-custody protocols.

5.7 Concrete Sampling

5.7.1 Data Quality Objectives for Concrete Sampling

A concrete investigation of exterior concrete surfaces and slabs will be conducted as a part of the on-site investigation and remedial activities. The purpose of the concrete sampling will be to identify PCB-contaminated areas of concrete as well as to verify PCB concentrations in concrete that was characterized during previous environmental investigations. Under the regulations at 40 CFR 761, the concrete at the Site that has been contaminated with PCBs would be considered a PCB remediation waste, as defined at 40 CFR 761.3.

5.7.2 Concrete Sampling Methodology

All concrete samples will be collected in accordance with the procedures described in the EPA Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs)* (EPA, 2011). Each concrete sample will be collected from the surface of the floor to a depth of 1/2–inch into the floor utilizing a hammer-type drill to pulverize the concrete. Clean, dedicated plastic sample spoons will be used to scoop up the pulverized concrete, which will then be placed into properly labeled, laboratory-supplied sample jars and placed in a cooler with ice. The same sampling methodology will be used for sampling other solid media, such as asphalt and wood.

5.8 PCB Wipe Sampling

5.8.1 Data Quality Objectives for PCB Wipe Sampling

PCB wipe sampling will be conducted as part of the on-site environmental investigation in order to identify possible release areas at the Site. In addition to identifying new on-site release areas, wipe sampling will also aid in verifying previously identified release areas. Wipe samples will be collected from non-porous surfaces located on the exterior portions of the Site.

5.8.2 Wipe Sampling Methodology

All wipe samples will be collected using the standard wipe test as defined at 40 CFR 761.123. Specifically, at each location selected for sampling, a disposable 10 centimeter (cm) by 10 cm template will be affixed to the location and the 10 cm x 10 cm section of the non-porous

surface being sampled will be wiped with a gauze pad saturated with hexane. Once the surface is wiped completely, the gauze pads will be placed in clean, laboratory-supplied glass vials, capped and labeled.

5.9 Investigation-Derived Waste (IDW) Management

IDW generated during field investigations activities are anticipated to include used personal protective equipment (PPE), plastic sheeting, and decon fluids. IDW containing PCBs will be handled and disposed of in accordance with the requirements of 40 CFR 761.

5.9.1 Decontamination Solutions

Decontamination solutions generated as a result of cleaning investigation or sampling equipment that may come into contact with hazardous materials and PPE decontamination solutions will be segregated and then collected in U.S. Department of Transportation (USDOT) approved 55-gallon drums and shipped off-site for disposal following any necessary waste characterization by the receiving disposal facility.

5.9.2 Expendable Equipment

Used PPE that has been decontaminated will be collected and disposed of as a nonhazardous solid waste. PPE that cannot be decontaminated will be placed in a separate USDOT approved 55-gallon drum and disposed of in the same manner as the waste in which it has come into contact. Used disposable sample equipment will also be disposed of in the same manner as the waste in which it has come into contact. All used PPE and disposable sample equipment will be disposed of in accordance with all local, state and federal requirements.

All decontamination wastes, PPE, and polyethylene that comes in contact with PCB Remediation Wastes will be disposed of as PCB Remediation Wastes. These wastes will be segregated as to matrix (e.g., aqueous, non-aqueous liquids, or solid materials) and stored in drums or lined containers prior to transport from the Site for disposal.

5.10 Quality Assurance/Quality Control (QA/QC) Procedures

QA/QC procedures are discussed in the following sections. For the purpose of the discussions, the party conducting the sampling is referred to as the environmental consultant while

the party conducting the chemical analyses is referred to as the laboratory. The discussion also includes references to the environmental consultant's Project Manager and Field Team Leader and to the laboratory's Project Manager, Section Leader and analyst or technician.

5.10.1 Measurement Quality Objectives

5.10.1.1 Precision

Precision is the agreement among a set of replicate measurements without consideration of the "true" or accurate value (i.e., variability between measurements of the same material for the same analyte). Precision is measured in a variety of ways including statistically, such as calculating variance or standard deviation. Field work and laboratory precision will follow the precision guidelines laid out in the CTDEEP Laboratory Quality Assurance and Quality Control Guidance Reasonable Confidence Protocols (RCP) Guidance Document dated November 2007 and revised December 2010 (CTDEEP, 2010b).

Field precision is assessed through the collection and measurement of field duplicates (one extra sample in addition to the original field sample). Field duplicates will be collected at a frequency of one per twenty investigative samples per analytical parameter for each environmental medium sampled. Precision will be measured through the calculation of relative percent difference (RPD). The resulting information will be used to assess sampling and analytical variability. Field duplicate RPDs must be <30% for aqueous samples and <50% for solid samples. These criteria apply only if the sample and/or duplicate results are >5x the reporting limit; if both results are <5x the reporting limit, the criterion will be doubled.

Laboratory precision will be assessed through the analysis of MS/matrix spike duplicate (MSD) samples and/or field duplicates. MS/MSD samples will be performed at a frequency of one per twenty investigative samples per matrix per parameter. Laboratory duplicate samples will be performed at a frequency of one per twenty investigative samples per matrix per parameter.

5.10.1.2 Accuracy

Accuracy is the closeness of agreement between an observed value and an accepted reference value. The difference between the observed value and the reference value includes components of both systematic error (bias) and random error.

Accuracy in the field is assessed through the adherence to all field instrument calibration procedures, sample handling, preservation, and holding time requirements, through the collection of equipment blanks prior to the collection of samples for each type of equipment being used, and through the use of trip blanks with each shipment of samples for VOC analysis.

Laboratories assess the overall accuracy of their instruments and analytical methods (independent of sample or matrix effects) through the measurement of "standards", materials of accepted reference value. Accuracy will vary from analysis to analysis because of individual sample and matrix effects. In an individual analysis, accuracy will be measured in terms of method blank results, the percent recoveries (%Rs) of surrogate compounds in organic analyses, or %Rs of spiked compounds in MSs and/or MSDs and/or LCSs in all analyses. This gives an indication of expected recovery for analytes tending to behave chemically like the spiked or surrogate compounds. Upon selection of a laboratory for this project, the laboratory will be asked to provide their accuracy control limits.

5.10.1.3 Representativeness

Representativeness is a qualitative parameter which expresses the degree to which data accurately and precisely represent either a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition within a defined spatial and/or temporal boundary. To ensure representativeness, the sampling locations have been selected to provide coverage over a wide area and to highlight potential trends in the data.

Representativeness in the field is dependent upon the proper design of the sampling program and will be satisfied by ensuring that the work plan is followed, that proper sampling, sample handling, and sample preservation techniques are used, and the use of field screening to allow for the collection of more samples in a specified area.

Representativeness in the laboratory is ensured by using the proper analytical procedures, appropriate methods, and meeting sample holding times.

5.10.1.4 Completeness

Completeness is a measure of the amount of valid data obtained from a measurement system compared to the amount that was expected to be obtained under normal conditions.

"Normal conditions" are defined as the conditions expected if the sampling plan was implemented as planned.

Field completeness is a measure of the amount of (1) valid measurements obtained from all the measurements taken in the project and (2) valid samples collected. The field completeness objective is greater than 90 percent.

Laboratory completeness is a measure of the amount of valid measurements obtained from all valid samples submitted to the laboratory. The laboratory completeness objective is greater than 95 percent.

5.10.1.5 Comparability

Comparability expresses the confidence with which one data set can be compared to another. Field comparability is dependent upon the proper design of the sampling program and will be satisfied by ensuring that the work plan is followed and that proper sampling techniques are used. Maximization of comparability with previous data sets is expected because the sampling design and field protocols are consistent with those previously used.

Comparability in the laboratory is expected due to the use of recognized EPA or equivalent analytical methods and the reporting of data in standardized units.

5.10.1.6 Sensitivity

Sensitivity is the ability of the method or the instrument to detect the contaminants of concern at the level of interest. Project reporting limits (RLs) will be based on the lowest concentration calibration standard for organic parameters and the analysis of a low-level standard for metals analyses, as required by the analytical methods. The laboratory will utilize RCP methods, which should ensure that all laboratory RLs meet the Connecticut RCP and the most stringent levels of the applicable CT RSRs. For samples analyzed for waste characterization purposes, the RLs must meet the RCRA limits for hazardous waste determination (defined at 40 CFR 261.24).

5.10.2 Field Quality Control Samples

Field QC samples will include equipment blanks, field duplicates, MS/MSDs, cooler temperature blanks and trip blanks.

5.10.2.1 Equipment Blanks

Equipment blanks will be collected in order to determine the cleanliness of sample collection equipment. Equipment blanks will consist of pouring analyte-free water over decontaminated sampling equipment and will be used to check for procedural contamination at the Site that may cause sample contamination and to ensure that the decontamination procedure has been adequately carried out. The equipment blank will be collected by pouring laboratory-supplied, high performance liquid chromatography (HPLC)-grade, American Society for Testing and Materials (ASTM) Type II water over the decontaminated sample collection equipment and into the appropriate sample containers. Equipment blanks will be collected from equipment that is used for sample collection. One equipment blank will be collected for each type of equipment used, each day a field decontamination event is conducted. Equipment blanks will be collected at the beginning of the day's sampling event and will accompany the samples collected that day. Equipment blanks will be submitted for the same parameters as the associated sample matrix.

5.10.2.2 Field Duplicates

Field duplicates are an additional aliquot of the same sample submitted for the same parameters as the original sample. Field duplicates will be used to assess the sampling and analytical reproducibility. The procedure for collecting field duplicate samples consists of alternating the collection of the sample between the sample collection bottle and the duplicate bottle. Field duplicates will be submitted at a frequency of one per twenty investigative samples for each sampled medium for all parameters.

5.10.2.3 MS/MSDs

MSs and/or MSDs are an additional aliquot of the same sample submitted for the same parameters as the original sample. However, the additional aliquot is spiked with the compounds of concern. Matrix spikes provide information about the effect of the sample matrix on digestion

and/or measurement methodology. MS/MSDs will be submitted at a frequency of one per every twenty investigative samples per matrix for each parameter.

5.10.2.4 Temperature Blanks

Cooler temperature blanks consist of a laboratory-supplied sample container filled with non-preserved water (potable or distilled) and are included in all coolers. The laboratory uses these temperature blanks to ensure that proper preservation of the samples has been maintained during sample shipment. The temperature of these blanks must be 4 º Celsius (C) ±2º to demonstrate that proper preservation has been maintained. The laboratory records the results of the temperature blanks on the chain-of-custody immediately upon receipt of the samples at the laboratory, prior to inventory and refrigeration.

5.10.2.5 Trip Blanks

Trip blank samples will be supplied by the laboratory and will consist of pre-preserved vials containing methanol. Trip blanks samples will be submitted to the laboratory with every cooler containing VOC soil samples and will only be analyzed for VOCs. Trip blanks will be used to evaluate contamination introduced during shipment.

5.10.3 Sample Sequence

An attempt will be made to coordinate a sampling sequence hierarchy from less likely to more likely contaminated locations to reduce the potential for cross-contamination between locations. Additionally, surface water and sediment samples will generally be collected in a downstream to upstream fashion to minimize impacts of water/sediment disturbances on subsequent sampling locations.

5.10.4 Sample Documentation Requirements

5.10.4.1 Field Notes

Field team members will keep a field logbook to document all field activities. Field logbooks will provide the means of recording the chronology of data collection activities performed during the investigation. As such, entries will be described in as much detail as possible so that a particular situation could be reconstructed without reliance on memory.

The logbook will be a bound notebook with water-resistant pages. Logbook entries will be dated, legible, and contain accurate and inclusive documentation of the activity. The title page of each logbook will contain the following:

- Person to whom the logbook is assigned,
- The logbook number,
- Project name and number,
- Site name and location,
- Project start date, and
- End date.

Entries into the logbook will contain a variety of information. At the beginning of each entry, the date, start time, weather, and names of all sampling team members present will be entered. Each page of the logbook will be signed and dated by the person making the entry. All notebooks will have consecutively numbered pages. All entries will be made in permanent ink, signed, and dated and no erasures or obliterations will be made. If an incorrect entry is made, the information will be crossed out with a single strike mark which is initialed and dated by the sampler. The correction shall be written adjacent to the error.

Field activities will be fully documented. Information included in the logbook will include, but may not be limited to the following:

- Chronology of activities, including entry and exit times;
- Names of all people involved in sampling activities;
- Level of personal protection used;
- Any changes made to planned protocol;
- Names of visitors to the Site during sampling and reason for their visit;
- Sample location and identification;
- Changes in weather conditions;
- Dates (month/day/year) and times (military) of sample collection;

- Measurement equipment identification (model/manufacturer) and calibration information;
- Sample matrix (e.g., soil, sediment, surface water, etc.);
- Sample collection methods and equipment;
- Sample depths;
- Whether grab or composite sample collected;
- How sample is composited, if applicable;
- Sample description (color, odor, texture, etc.);
- Sample identification code;
- Tests or analyses to be performed;
- Sample preservation and storage conditions;
- Any field measurements made such as pH, temperature, conductivity, etc.;
- Equipment decontamination procedures;
- QC sample collection;
- Unusual observations;
- Record of photographs;
- Sketches or diagrams; and
- Signature of person recording the information.

Field logbooks will be reviewed on a daily basis by the environmental consultant's Field Team Leader. Logbooks will be supported by standardized forms. Documents that may be included in the project file for the investigations include: field documents, correspondence, photographs, laboratory data, reports, subcontract agreements, authorizations, logs, and sketches.

5.10.4.2 Chain-of-Custody Records

Chain-of-custody records are initiated by the samplers in the field. A chain-of-custody record will accompany the sample from initial sample container selection and preparation at the

laboratory to the field for sample containment and preservation and through its return to the laboratory. If samples are split and sent to different laboratories, a copy of the chain-of-custody record will be sent with each sample. The environmental consultant will retain one copy of the chain-of-custody upon relinquishing the sample. The field portion of the custody documentation should include: (1) the project name; (2) signatures of samplers; (3) the sample number, date and time of collection, and whether the sample is grab or composite; (4) signatures of individuals involved in sampling; and (5) if applicable, air bill or other shipping number.

On a daily basis, samples will be transferred to the custody of the respective laboratories, via third-party commercial carriers or via laboratory courier service.

5.10.4.3 Sample Labeling

Each sample collected during field activities will be assigned a unique ID that distinguishes it from samples collected during previous field investigation activities. The sample identification will include information that reflects the general area from which the sample was collected, a sample number, the sample matrix, and reference to the depth interval from which the sample was collected.

The sample identification will first include a two or three letter abbreviation that refers to the consultant/entity collecting the sample. The remainder of the sample identification will include information that reflects the general area from which the sample was collected, a sample number, the sample matrix, and reference to the depth interval from which the sample was collected. For example, a soil sample collected by TRC from the location identified as number 3 within the confines of AOC-1 as identified on the Site mapping (see Figures 4-1, 4-2A and 4-2B) would be designated as TRC-AOC1-SO-3 where the terminology indicates:

TRC: indicates that TRC is the consultant collecting the sample

AOC1: indicates a sample collected from AOC-1

SO: indicates a soil sample

3: indicates the 3rd sequential sample of this media collected from AOC-1 as part of the current investigation

Where samples will be used to evaluate conditions at more than one AOC, the sample name shall bear the AOC number associated with the primary AOC being evaluated.

Should supplemental investigations be conducted within an AOC already investigated, supplemental samples will simply continue to be numbered sequentially (e.g., TRC-AOC1-4, TRC-AOC1-5, TRC-AOC1-6, etc).

Where samples will be used to evaluate conditions at more than one AOC, the sample name shall bear the AOC number associated with the primary AOC being evaluated. The sample media elements of the nomenclature to be utilized for samples collected as part of the investigation are included as follows:

Sample Media:

SO: Soil

SED: On-Site Sediment

GW: Groundwater

SW: On-Site Surface Water

CO: Concrete

AS: Asphalt

WP: Wipe Sample

QA/QC samples will also require specific identification and labeling. The following approach will be used when identifying QA/QC samples during the investigation:

- Field duplicate samples will be labeled as blind duplicates by giving them sample numbers indistinguishable from a normal sample.
- Cooler temperature blanks will be spelled out and included on one line of the chain-of-custody.
- Equipment blanks will be spelled out and the associated matrix will be identified (e.g. Equipment Blank, Sediment).
- Trip blanks will be spelled out and will include the date shipped (e.g., Trip Blank - 040104).
- MS/MSDs will be noted in the "Remarks" column of the chain-of-custody.

5.10.5 Sample Handling and Shipping

Appropriate sample containers will be used so no chemical alteration occurs between the collection of samples in the field and the receipt of samples at the laboratory. The sample bottles will be prepared and shipped to the field by the subcontracted analytical laboratory(ies) under the direction of the Laboratory QC Coordinator. The sample bottles will be transported to the Site within a sealed shipping cooler.

Sample containers will be selected to ensure compatibility with the potential contaminants and to minimize breakage during transportation. Sample bottles, holding times and preservation requirements for aqueous, soil and sediment samples are listed on Table 5-2. Other solid samples (e.g., concrete and asphalt) will meet the criteria specified for soil samples.

Sample labels will be filled out at the time of sampling and will be affixed to each container to identify the project name and/or sample location, sample number, sampler's initials, date and time of collection, number of containers per parameter (e.g., 1 of 2, etc.), preservatives added, and analyses requested for the sample. Sample labels will be completed for each sample using waterproof ink unless prohibited by weather conditions. For example, a logbook notation would explain that a pencil was used to fill out the sample label because the pen would not function in wet weather.

After the bottles for a given sample location have been filled, they will be immediately preserved and placed in a shipping cooler. Samples will be stored in such a way as to protect them from temperature extremes, light, breakage and water damage. Each glass sample container will be placed in an individual bubble wrap bag before being placed in the cooler. Field personnel will add bags of crushed ice or ice packs to the shipping coolers as the samples are collected.

Samples will be delivered to the laboratory for analysis as soon as practical after the number of samples and sample containers are sufficient to comprise a shipment, preferably the same day the samples are collected. However, in most cases, surface water, soil, sediment and groundwater samples will be shipped within 24 hours of collection. Samples will be stored in coolers at a temperature of 4º C. During sampling and sample shipment activities, the environmental consultant's Project Manager (or his/her designee) will contact the laboratory daily to provide information about impending shipments.

5.10.6 Sample Custody

Custody is one of several factors that are necessary for the admissibility of environmental data as evidence in a court of law. Custody procedures help to satisfy the two major requirements for admissibility: relevance and authenticity. Sample custody is addressed in three parts: field sample collection, laboratory analysis, and final evidence files. A sample or evidence file is considered to be under a person's custody if:

- the item is in the actual possession of a person;
- the item is in the view of the person after being in actual possession of the person;
- the item was in the actual physical possession of the person but is locked up to prevent tampering; or
- the item is in a designated and identified secure area.

5.10.6.1 Field Custody Procedures

Samples will be collected following the sampling procedures documented earlier in Section 5.3 through 5.8 of this document. Documentation of sample collection is described in Section 5.10.4 of this document. Sample chain-of-custody and packaging procedures are summarized below. These procedures will ensure that the samples will arrive at the laboratory with the chain-of-custody intact.

- The field sampler is personally responsible for the care and custody of the samples until they are transferred or dispatched properly. Field procedures have been designed such that as few people as possible will handle the samples.
- All bottles will be identified by the use of sample labels with sample numbers, sampling locations, date/time of collection, and type of analysis. The sample numbering system is presented in Section 5.10.4.3 of this document.
- Sample labels will be completed for each sample using waterproof ink unless prohibited by weather conditions. For example, a logbook notation would explain that a pencil was used to fill out the sample label because the pen would not function in wet weather.
- Samples will be accompanied by a properly completed chain-of-custody form. The sample numbers and locations will be listed on the chain-of-custody form. When transferring the possession of samples, the individuals relinquishing and receiving will sign, date, and note the time on the record. This record documents

the transfer of custody of samples from the sampler to another person, to a mobile laboratory, to the permanent laboratory, or to/from a secure storage location.

- All shipments will be accompanied by the chain-of-custody record identifying the contents. A minimum of two copies of the chain-of-custody record will accompany the shipment to the laboratory, and copies will be retained by the sampler and placed in the project files. The laboratory will maintain one file copy, and the completed original will be returned to the environmental consultant's Project Manager. A copy of the completed original will be returned as part of the final analytical report.

- Samples will be properly packaged for shipment and dispatched to the appropriate laboratory for analysis, with a separate signed custody record enclosed in and secured to the inside top of each sample box or cooler. Shipping containers will be secured with strapping tape and custody seals for shipment to the laboratory. The custody seals will be attached to the front right and back left of the cooler and covered with clear plastic tape after being signed by field personnel. The cooler will be strapped shut with strapping tape in at least two locations.

- If the samples are sent by common carrier, the air bill will be used. Air bills will be retained as part of the permanent documentation. Commercial carriers are not required to sign off on the custody forms since the custody forms will be sealed inside the sample cooler and the custody seals will remain intact.

- Samples remain in the custody of the sampler until transfer of custody is completed. This consists of delivery of samples to the laboratory sample custodian, and signature of the laboratory sample custodian on chain-of-custody document as receiving the samples and signature of sampler as relinquishing samples.

5.10.6.2 Laboratory Custody Procedures

The environmental consultant's Project Manager or his/her designee will notify the laboratory of upcoming field sampling activities and subsequent sample transfer to the laboratory. This notification will include information concerning the number and type of samples to be shipped, as well as the anticipated sample arrival date. Samples will be received and logged in by a designated sample custodian or his/her designee. The sample custodian is responsible for maintaining sample custody and for maintaining all associated custodial documentation records. Upon sample receipt, the sample custodian will:

- Examine the shipping containers to verify that the custody tape is intact,

- Examine all sample containers for damage (i.e., breakages or leaks),

- Determine if the temperature required for the requested testing program has been maintained during shipment using the cooler temperature blanks and document the temperature on the chain-of-custody records,
- Compare samples received against those listed on the chain-of-custody,
- Verify that sample holding times have not been exceeded,
- Examine all shipping records for accuracy and completeness,
- Determine sample pH (if applicable) of aqueous samples and record on chain-of-custody forms,
- Sign and date the chain-of-custody immediately (if shipment is accepted), note the time that the samples were received and attach the air bill (if applicable),
- Note any problems associated with the coolers and/or samples on the cooler receipt form and notify the laboratory's Project Manager, who will be responsible for contacting the environmental consultant's Project Manager,
- Attach laboratory sample container labels with unique laboratory identification and test, and
- Place the samples in the proper laboratory storage.

Following receipt, samples will be logged in according to the following procedure:

- The samples will be entered into the laboratory tracking system. At a minimum, the following information will be entered: project name or identification, unique sample numbers (both client and internal laboratory), type of sample, required tests, date and time of laboratory receipt of samples, and field ID provided by field personnel.
- The laboratory's Project Manager will be notified of sample arrival.

The completed chain-of-custody, air bills, and any additional documentation will be placed in the final evidence file.

5.10.7 Field Equipment Decontamination Procedures

Reusable sampling equipment which is used to obtain samples for laboratory analysis will be thoroughly decontaminated prior to each use using the following procedures.

1. Wash and scrub with low phosphate detergent (e.g., Alconox) in tap water;

2. Rinse with tap water;
3. Distilled and deionized water rinse ;
4. Air dry on clean polyethylene sheeting ;
5. Wrap in aluminum foil, shiny side out, for transport (if not being used immediately).

Direct-push Macro-Core shoes which will contact soil will be decontaminated by soap and water wash (Alconox and tap water) and tap water rinse between uses. Drilling equipment which comes into contact with potentially grossly contaminated soil will be steam cleaned before use and between boreholes.

All moveable equipment, tools, and sampling equipment that has contacted PCB Remediation Wastes will be decontaminated prior to leaving the Site. Decontamination procedures will comply with either §761.79(b)(3)(i)(A), §761.79(b)(3)(ii)(A) or §761.79(c)(2).

5.10.8 Data Validation and Reporting

Data validation is the process of reviewing data and associated quality control criteria, and accepting, qualifying, or rejecting it on the basis of quality control criteria. Both field data evaluation and data validation are discussed below.

Appropriate QC measures will be used to ensure the generation of reliable data from sampling and analysis activities. Proper collection and organization of accurate information followed by clear and concise reporting of the data is a primary goal in this project.

5.10.8.1 Data Reporting

For all analyses, the laboratory will report results which are below the laboratory's RL; these results will be qualified as estimated (J) by the laboratory. Results for soil and sediment samples must be reported on a dry weight basis. The laboratory will provide all data in RCP data package format.

5.10.8.2 Field Data Evaluation

Measurements and sample collection information will be transcribed directly into the field logbook or onto standardized forms. If errors are made, results will be legibly crossed out, initialed

and dated by the person recording the data, and corrected in a space adjacent to the original (erroneous) entry. Daily reviews of the field records by the environmental consultant's Field Team Leader will ensure that:

- Logbooks and standardized forms have been filled out completely and that the information recorded accurately reflects the activities that were performed.
- Records are legible and in accordance with good record keeping procedures (i.e., entries are signed and dated, data are not obliterated, changes are initialed, dated, and explained).
- Sample collection, handling, preservation, and storage procedures were conducted in accordance with the protocols described in this document, and that any deviations were documented and approved by the appropriate personnel.

5.10.8.3 Analytical Data Validation

Analytical data validation will include procedures within the laboratory and independent of the laboratory.

Data from laboratory analyses will be reviewed by the laboratory prior to release. Prior to being released as final, laboratory data will proceed through a tiered review process. Data verification starts with the analyst or technician who performs a 100 percent review of the data to ensure the work was done correctly the first time. It is the responsibility of the analyst or technician to ensure that the verification of data in his or her area is complete. The data reduction and initial verification process must ensure that:

- Sample preparation and analysis information is correct and complete;
- Results are correct and complete;
- The appropriate Standard Operating Procedures (SOPs) have been followed and are identified in the project records;
- Proper documentation procedures have been followed;
- All non-conformances have been documented; and
- Project-specific requirements have been met.

Following the completion of the initial verification by the analyst or technician, a systematic check of the data will be performed by an experienced peer, Laboratory Section Leader,

or designee. This check will be performed to ensure that initial review has been completed correctly and thoroughly. Included in this review will be an assessment of the acceptability of the data with respect to:

- Adherence of the procedure used to laboratory SOPs and any project-specific methods and specific instructions;
- Correct interpretation of data (e.g., mass spectra, chromatographic interferences, etc.);
- Correctness of numerical input when computer programs are used (checked randomly) and numerical correctness of calculations and formulas (checked randomly);
- Acceptability of QC data;
- Documentation that instruments were operating according to method specifications (calibrations, performance checks, etc.);
- Documentation of dilution factors, standard concentrations, etc.;
- Sample holding time assessment; and
- Nonconforming events have been addressed by corrective action as defined on a nonconformance memo.

A third-level review will be performed by the Laboratory's Project Manager before results are submitted to the environmental consultant. This review serves to verify the completeness of the data report and to ensure that project requirements are met for the analyses performed. The items to be reviewed will include:

- Results are present for every sample in the analytical batch or reporting group;
- Every parameter or target compound requested is reported;
- The correct units and correct number of significant figures are utilized;
- All non-conformances, including holding time violations, and data evaluation statements that impact the data quality, are accompanied by clearly expressed comments from the laboratory; and
- The final report is legible, contains all the supporting documentation required by the project, and is in either the standard format or in the client-required format.

A narrative to accompany the final report will be finalized by the laboratory's Project Manager. This narrative will include relevant comments, including data anomalies and non-conformances.

The environmental consultant will be responsible for performing an independent validation of the analytical data. The data validation will be performed by a person with prior data validation experience in accordance with the CTDEEP's Laboratory Quality Assurance and Quality Control Data Quality Assessment and Data Usability Evaluation (DQA/DUE) Guidance Document dated May 2009 and revised in December 2010 (CTDEEP, 2010c).

Upon completion of the validation, a report will be prepared. This report will summarize the samples reviewed, elements reviewed, any non-conformances with the established criteria, and validation actions (including data qualifiers).

6.0 FIELD INVESTIGATION PLAN FOR BUILDING MATERIALS

6.1 Approach

The following sections provide a description of the approach that will be used to conduct the building inspections and investigations, including a discussion of objectives, current conditions, the inspection process, proposed sampling locations, and sampling methodologies.

Refer to Section 6.4.3.2 (Sequence of Events and Generalized Schedule to Develop Full Scope of Study for English Station) for inspection activities that will be conducted prior to the field investigation described in this section.

6.2 Asbestos Investigation

6.2.1 Objectives for Asbestos Investigation

The objective of the asbestos investigation is to identify, document, and assess asbestos and asbestos-containing materials; determine if such materials are friable, damaged, unstable and accessible or may be disturbed by other actions required by the PCO; and determine how to conduct the abatement of the asbestos in accordance with all applicable laws (including EPA 40 CFR 61, OSHA Asbestos 29 CFR 1926.1101, and CT DPH Standards for Asbestos Abatement 19a-332a-1 to 19a-332a-16) and develop a plan for doing so.

Although previous inspection efforts identified the presence of asbestos-containing materials in the Site buildings, subsequent events have caused significant changes to the findings contained in previous inspection reports. These events included asbestos abatement projects, demolition projects, water intrusions, and site vandalism/scavenging. The descriptions presented below reference site photos. The photos can be found in Appendix C of this report.

Asbestos abatement projects have been conducted in various locations of the buildings, eliminating a portion of the previously identified materials. Based upon current observations, it is assumed that accessible, previously identified asbestos-containing materials have been removed during abatement activities conducted in the mechanical spaces and switch cell areas on the west side of the English Station building, as well as in the Turbine Room, as there is no sign of insulation materials on remaining (bare) piping systems in these areas. An active asbestos abatement project in the Boiler Room was abruptly halted in 2012; extensive amounts of asbestos-containing debris,

created by the removal process, exist on surfaces throughout the low pressure boiler area (Photos 1 and 2). It appears that asbestos removal activities may have included the use of high-pressure water hoses to remove asbestos-containing insulation from boiler surfaces; this had the effect of distributing wet asbestos debris onto adjacent and lower surfaces. Thousands of waste bags containing asbestos waste generated during the asbestos abatement project are piled in multiple locations throughout the low pressure boiler area, including on raised walkways (Photos 3 and 4).

Water intrusion through roof and/or wall openings has also had an impact on existing asbestos-containing materials (Photos 5 and 6). Asbestos-containing materials impacted by water intrusion exist in various states of disrepair, often in close proximity to intact asbestos-containing materials.

Vandalism and/or metal scavenging efforts have occurred in the building, impacting suspect asbestos-containing materials (Photos 7 and 8). These materials must be sampled to determine potential asbestos content prior to future demolition activities and disposal of materials.

Demolition activities in the Turbine Room and Switch Cell areas have revealed previously unidentified suspect materials (Photos 9 and 10). These materials must be sampled to determine potential asbestos content prior to future demolition activities and disposal of materials.

Inspection of all Site buildings must be conducted to document current conditions, locations, and quantities of remaining asbestos-containing materials, asbestos-containing debris and wastes (any remaining bags after the make safe program is complete), and to determine potential asbestos content of previously unidentified materials. Inspection results will be used to determine specific methods of abatement that will be utilized for individual components or materials.

6.2.2 Inspection Process

Inspection of Site buildings is to be conducted as a walk-through visual survey of each room and/or area of the building.

The inspection must be conducted by State of Connecticut licensed asbestos inspectors. Due to existing conditions of asbestos-containing materials, inspectors must conduct inspections while utilizing proper PPE.

The inspection is to begin with a systematic visual assessment of all accessible interior/exterior areas of the project area in order to identify asbestos-containing material and note its specific location and condition. All asbestos-containing material, including intact materials, damaged materials, debris, and suspect materials, must be identified and assessed. The inspectors will assess the current conditions of identified asbestos-containing materials, document locations and quantities of damaged asbestos-containing materials, document locations and quantities of asbestos-containing debris and waste bags, and identify suspect asbestos-containing materials that were not previously identified.

6.2.3 Asbestos Sampling Methodology

Suspect asbestos-containing materials not previously identified will be sampled to determine asbestos content prior to any activities that may disturb them, in compliance with EPA Asbestos National Emissions Standard for Hazardous Air Pollutants (NESHAP) regulations. The state of the art methodology, and industry standard, for surveying and evaluating buildings and structures to determine the presence of asbestos-containing material will be performed in accordance with current EPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763 Subpart E) sampling guidelines.

Inspection and sample collection will be conducted by State of Connecticut licensed asbestos inspectors following the AHERA protocols.

When previously unidentified suspect material is encountered, the inspector(s) will collect representative bulk samples of suspect homogenous asbestos-containing material identified in accordance with AHERA sampling protocols (2-3-5-7 AHERA sampling scheme). Destructive sampling and wall coring techniques will be utilized to gain access to suspect ACM covered or concealed by other building materials.

Bulk samples, supported by proper chain-of-custody procedures, will be analyzed by polarized light microscopy (PLM), EPA 600/R93/116 with visual area estimation (vae) quantification in order to determine asbestos content.

The laboratory performing sample analysis will be approved to perform PLM analysis by the CT DPH and an active participant in the National Voluntary Laboratory Accreditation Program (NVLAP).

6.3 Hazardous Materials Investigation

6.3.1 Objectives for Hazardous Materials Investigation

The objectives of the hazardous material investigation are to investigate the presence of lead and mercury as part of the overall hazardous building materials survey and identify non-hazardous and hazardous waste and other hazardous materials. Identification of these materials is required to determine which materials will need to be removed to meet the requirements of the PCO.

6.3.2 Hazardous Materials Sampling Methodology

6.3.2.1 Other Hazardous/Regulated Materials Inventory (e.g., PCBs, Mercury, CFCs)

A visual inspection of all building structures and the exterior areas of the Site will be performed to identify and quantify any suspect PCB-containing transformers, fluorescent light ballasts, suspect mercury-containing fluorescent light lamps or thermostat switches. Additional hazardous/regulated items identified will also be inventoried, and may include: chlorofluorocarbon (CFC)-containing devices, universal waste, used electronics, batteries, on-site oils, drums, chemicals, storage tanks, staining, biological hazards, tires, etc. Hazardous materials identified at the site by the inspectors will be reviewed by a Certified Hazardous Materials Manager (CHMM) to determine and classify the potential hazards of each material identified and the handling/disposal methods that are required.

6.3.2.2 Lead Paint

A lead paint inspection of all building structures will be performed using EPA-trained and State of Connecticut-licensed lead inspectors. The method used for the lead paint inspection will be X-ray fluorescence (XRF) utilizing an on-site spectrum analyzer. The XRF detector is a portable unit designed to make fast, accurate, non-destructive measurements of lead concentrations in dry painted surfaces with a detection limit of 0.1 milligrams per square centimeter (mg/cm^2). Representative measurements of the painted building components will be conducted throughout the subject building areas to determine the general presence of any detectable levels of lead paint. In addition, areas of defective lead paint will also be noted during the inspection.

Representative composite building material samples (composite paint and substrate) of building structures/debris will be collected to represent projected building material disposal waste streams on a percent-by-weight basis in accordance with the CTDEEP May 2007 Guidance Document (CTDEEP, 2007). Materials projected to be recycled, and therefore not disposed of at a landfill (e.g. steel, unpainted concrete, unpainted brick) will be excluded from the waste stream sample in accordance with CTDEEP guidance. The samples will be analyzed following the TCLP, EPA-1311/7420, for leachable lead (a metal that is regulated under the Resource Conservation and Recovery Act or RCRA) in accordance with 40 CFR Part 261 Appendix II. TCLP analysis will characterize the projected building material waste stream as either hazardous or non-hazardous waste prior to demolition disposal. TCLP analysis will be performed by a laboratory approved by the American Industrial Hygiene Association (AIHA), Environmental Lead Laboratory Accreditation Program (ELLAP) and the CT DPH.

6.4 PCB Characterization

The goal of the PCB characterization portion of the Site investigation is to characterize PCB-contaminated areas associated with building materials, under EPA (40 CFR Part 761) and CTDEEP (22a-463 through 469a) PCB regulations, within the boundaries of the Site. This includes:

- Verification of PCB concentrations in building structures identified during previous environmental investigations;
- Characterization of oily wastes and impacted building surfaces (from spills, releases or tracking);
- Characterization of PCB constituents in suspect bulk building material products (caulk, paint, flooring, roofing, mastics, fireproofing, soundproofing, waterproofing, sealants, etc.) and impacted porous building material substrates and soil/groundcover immediately adjacent to these bulk building material products.

6.4.1 Objectives for PCB Characterization

The objectives for meeting the goals of the PCB characterization effort outlined above are discussed in more detail below for the various potentially impacted building materials at the Site.

6.4.1.1 PCB Releases to Building Materials

The objective of the building surfaces investigation is the characterization of oily wastes and impacted building surfaces (from spills, releases or tracking) in accordance with EPA (40 CFR Part 761) and CTDEEP (22a-463 through 469a) PCB regulations within the building structures on the Site. This includes verifying PCB concentrations in building structures identified from previous environmental reports.

6.4.1.2 Bulk Building Material Products

Bulk building material products, including caulk, paint, flooring, roofing, mastics, fireproofing, soundproofing, waterproofing, sealants and other suspect materials, have been identified by the EPA and CTDEEP as potentially containing PCBs, particularly those installed from ~1950 to 1979. As part of the site inspection, bulk building material products will be located and properly characterized in regards to PCB constituents. Should bulk building material products be sampled and identified as containing PCB content at levels regulated as either CTDEEP regulated products (>1 ppm) or EPA PCB Bulk Product Waste (>50 ppm), any impacts into adjacent associated porous substrate materials (concrete, brick, wood, etc.) and/or surrounding groundcover/soils will also be characterized.

6.4.2 Proposed Sampling Locations and Analyses for Parcel A (Station B)

6.4.2.1 PCB Releases to Building Materials

No additional investigative samples are required for characterization of PCB releases to building materials within Station B. Refer to Sections 3.1.9 – Section 3.1.13 and Section 4.1.1 for a summary of the previous PCB investigative findings and remediation performed within Station B.

6.4.2.2 Bulk Building Material Products

A limited survey/walkthrough was performed in order to estimate the number of samples that will be required in order to fully characterize the suspect bulk building material products at Parcel A. During the walkthrough, suspect bulk building material products (such as paints, caulks, tar coatings, roofing materials, etc.) were observed on the interior/exterior of Station B, the

interior/exterior of other satellite buildings/structures, and on debris scattered within Parcel A. Sample quantities for bulk building material products are summarized in Table 6-1.

6.4.3 Proposed Sampling Locations and Analyses for Parcel B

6.4.3.1 PCB Releases to Building Materials / Bulk Building Material Products

Due to previously unknown conditions within English Station, the PCO objectives for the SOS regarding PCB characterization of the building materials could not be fully addressed at the time this SOS was prepared. There are extensive areas of the floor (particularly in the boiler room and turbine areas), that could not be properly assessed due to excessive building debris, which may be covering evidence of potential PCB spills or releases. To meet the objectives of the PCO, a Sequence of Events (described in the following section) has been developed to characterize and remove the building debris within these areas of English Station. Following the completion of the Sequence of Events, a separate Addendum will be issued which addresses the PCO objectives for PCB characterization of building materials for the SOS of the English Station, and the entirety of Parcel B.

6.4.3.1 Sequence of Events to Develop Full Scope of Study for English Station

The conditions currently present in selected parts of the English Station building structure, particularly the eastern side where the boilers are situated, do not allow for the thorough assessment that would be necessary to develop a detailed SOS for PCBs and other hazardous materials. The objective of the efforts outlined briefly herein is to prepare for the removal of the asbestos waste/debris as part of a "make-safe" effort, and a controlled process for removal of debris from the existing rubble pile to allow for floor surfaces to be revealed. Once the floor surfaces are uncovered, they can then be inspected for stains or other evidence of spills/releases that can be subsequently assessed.

The proposed sequence of events that are proposed in order to accomplish this "make-safe" task is as follows:

1) Secure Site and Create Clean Corridor / Implement Best Management Practices to Prevent Contaminant Tracking
2) Perform Screening to Support "Make-Safe" Abatement Work

a. Based on visual observations, samples of debris (including paint chips) covering the floors of select locations will be collected and analyzed for hazardous building materials.
b. A representative number of asbestos waste bags staged on the floor surface in several areas inside the building will be opened and inspected for signs of paint, to assess the potential for hazardous building materials to be intermixed with the bagged asbestos.
c. Intact pipe insulation that is identified as having been painted will be sampled to determine if hazardous building materials are present in the paint.

3) Coincident with the sampling efforts, a determination will be made as to what will need to be done from a structural standpoint to allow for working in areas in which walking was previously deemed to be unsafe.
4) A report of findings will be generated for UI's review and approval and subsequent regulatory review.

5) An Alternate Work Practices (AWP) document will be developed for submittal to the CT DPH.
6) A design package containing technical specifications to direct a contractor in removal of the asbestos waste/debris in the Boiler Room and removal of debris from the rubble pile in the Turbine Room will be developed.
7) UI will implement the bid process to procure a licensed abatement contractor.
8) Notification will be provided to CT DPH upon award of the abatement contract.
9) Abatement will be conducted in the Boiler House.
10) A site visit will be performed following the abatement work in order to identify evidence of spills/releases, the presence of floor drains and other key structures.
11) A Scope of Study addendum will be prepared that focuses on the additional investigation activities interior to the building that will be required to fully assess the presence of PCBs and other materials.

6.4.4 PCB Sampling Methodology

6.4.4.1 Bulk Building Material Products

The building investigation for Bulk Building Material Products will be performed following techniques generally employed in the Building Sciences industry to identify, locate and sample homogeneous building materials (i.e., AHERA asbestos sampling guidelines). Sampling methodology will involve collecting a minimum of three grab samples per homogenous material type to refute PCB presence, per EPA protocols. Since PCBs were banned from production and use by the EPA in 1979, any buildings or structures that can be shown to have been constructed post-1979 will be excluded from the bulk building material products PCB inspection program. PCB bulk building material product samples will be analyzed at a laboratory approved by the CT DPH utilizing EPA Method 8082 (PCB) with EPA Method 3540C (Soxhlet extraction) as required by EPA Region 1. Refer to Section 5.10 for applicable QA/QC procedures.

6.4.4.2 Adjacent Porous Substrates & Groundcover/Soils

If the results of the bulk building material products sampling program indicate the presence of either CTDEEP regulated products (>1 ppm) or EPA PCB Bulk Product Waste (>50 ppm), then a sampling program will be implemented to identify the PCB migration impact into both the surrounding porous material substrates (brick, concrete, wood, etc.) and adjacent ground cover (soils, concrete, asphalt, etc.) to determine if such materials would also be classified as PCB bulk product waste and/or PCB remediation waste (>1 ppm). Sampling will be conducted in accordance with EPA regulations 40 CFR 761 Subpart N for PCB Remediation Waste characterization (a minimum of 3 samples per bulk material/substrate/soil combination), modified to reduce the maximum sampling efforts from the prescribed 1 sample per 10 lineal feet (LF) while obtaining reliable representative data. All samples of porous material substrates will be collected following the EPA Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs)* (EPA, 2011). PCB substrate and ground cover samples will be analyzed at a laboratory approved by the CTDPH, utilizing EPA Method 8082 (PCB) with EPA Method 3540C (Soxhlet extraction) as required by EPA Region 1. Also refer to Sections 5.7 Concrete Sampling and Section 5.10 QA/QC procedures where applicable.

7.0 INVESTIGATION SUMMARY REPORT

Following the completion of the studies described herein, an Investigation Summary Report will be prepared. The report will include the following:

- A detailed description of the investigation performed;
- Identification of the type, quantity and location of asbestos, nonhazardous and hazardous wastes or other hazardous materials on the Site;
- A definition of the extent and degree of soil, sediment within the boundary of the Site, ground water, and surface water pollution as well as all contamination of the Plant and any other structures on the Site and contents therein;
- An evaluation of remedial action alternatives that address the on-site impacts relative to future industrial/commercial Site use, considering the following:
    - RSR I/C DEC and I/C VC for all contaminants (other than PCBs);
    - For PCBs, for direct exposure outside the buildings, compliance with 40 CFR Part 761 and with the inaccessible soil provisions of §22a-133k-2(b)(3) of the RSRs;
    - For PCBs, for direct exposure inside the buildings, compliance with the high occupancy standards in 40 CFR Part 761; and
    - For PCBS, for direct exposure under the buildings, compliance with the more stringent of the high occupancy standards in 40 CFR Part 761 and the inaccessible soil provisions of §22a-133k-2(b)(3) of the RSRs; and
    - The RSR PMC provisions, for both PCBs and for releases into fill (the Fill Variance exempts the PMC provisions with respect to the fill itself).
- A schedule for performing each alternative;
- A list of permits and approvals required for each alternative; and
- A preferred alternative from among those evaluated and justification for its selection.

The remedial action alternatives presented in the report will reflect abatement of asbestos only for that asbestos that is friable, damaged, unstable, and accessible or that may be disturbed by other remedial actions and the manner in which that abatement can be accomplished while complying with all applicable laws. Finally, the report will include a detailed program and schedule to perform the preferred on-site remedial actions, including the preparation of required

permit applications and obtaining the associated permits and approvals needed to implement the actions.

8.0 PROPOSED SCHEDULE

The following schedule represents an estimate of the sequence and duration of the activities that are required to remediate the English Station Site in compliance with Partial Consent Order COWSPCB 15-001. This schedule includes many assumptions of the findings of the remedial design and effort that will be required for characterization and remediation efforts based on information gathered from previous investigations at the Site and visual assessment performed after receiving access to the property on August 10, 2016. The schedule will be updated with the most current information as the activities in the schedule are performed. The key milestones that will be tracked are Activity A1550 – Notify DEEP Remedial Actions Complete (Soil), Activity A2330 – Prepare Building Remediation Results Report (Station B), and Activity A1680 – Prepare Building Remediation Results Report (English Station). These activities are expected to be completed within 3 years of the Access Date for the project, which was August 10, 2016. If at any time, the schedule indicates that these key milestones cannot be completed within the 3 year timeframe, UI will provide an explanation for the variance and seek approval for a revised schedule.

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FIGURES

11x17 --- ATTACHED XREF'S: --- ATTACHED IMAGES:
DRAWING NAME: J:\CAD\United Illuminating\English Station-263951\Subsurface Site Investigation-000001\ Legend.dwg --- PLOT DATE: June 22, 2017 - 1:50PM --- LAYOUT: Legend

SITE FEATURE LEGEND

- EDGE OF PAVEMENT
- PROPERTY / STREET LINE
- CHAIN LINK FENCE
- GUARDRAIL
- NEW BULKHEAD
- GAS LINE
- OVERHEAD WIRE
- CONCRETE WALL
- APPROXIMATE EXTENT OF EXCAVATION
- PCB AREA BOUNDARY
- AOC BOUNDARY
- PIPE TRENCH
- EXISTING BUILDING
- P20 CONCRETE PAD
- CONCRETE PAD (ELEVATED)
- ASPHALT APRON
- RECENT FILL
- WATER GATE
- GAS GATE
- ROUND CATCH BASIN
- RECTANGULAR CATCH BASIN
- UTILITY POLE
- FIRE HYDRANT
- MANHOLE
- V VAULT
- H HATCHWAY
- I2 INTAKE CHANNEL
- D2 DISCHARGE CHANNEL
- T TRANSFORMER
- CIRCUIT BREAKER
- CATHODIC BULKHEAD PROTECTION DEVICE

- 4AS-007 ASPHALT SAMPLE POINT
- 3CO-040 CONCRETE SAMPLE POINT
- CS-1 CONCRETE SAMPLE POINT – COLLECTED BY GEI
- 4CO-078 CONCRETE SAMPLE POINT FROM WALL
- 3HX-004 HEXANE WIPE SAMPLE POINT
- 4XX-001 MISCELLANEOUS SAMPLE POINT
- 3SD-001 SEDIMENT SAMPLE POINT
- PCB-05 SEDIMENT SAMPLE POINT – COLLECTED BY GEI
- 4HA-513 SOIL SAMPLE POINT
- TB-KKK SAMPLE LOCATION WHERE BOTH POROUS MEDIA (ASPHALT OR CONCRETE) AND SOIL SAMPLES WERE COLLECTED
- HA-1 SOIL SAMPLE POINT – COLLECTED BY OTHERS
- 3SW-001 SURFACE WATER SAMPLE POINT
- MW-H / TB-W SOIL SAMPLE FROM GROUND WATER MONITORING WELL
- MW-01 SOIL SAMPLE FROM GROUND WATER MONITORING WELL – INSTALLED BY OTHERS

NO.	BY	DATE	REVISION	APP'D.
4	RG	6/13/17	ADDED SITE FEATURE LEGEND	MM

PROJECT:
UNITED ILLUMINATING
ENGLISH STATION POWER PLANT
510 Grand Avenue
New Haven, Connecticut

TITLE:
SITE FEATURE LEGEND

DRAWN BY:	KDH	PROJ NO.:	263951-000001-000000
CHECKED BY:	RG		
APPROVED BY:	MM		
DATE:	10/07/2016		

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