DEPARTMENT OF THE ARMY

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29 April 2019

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Northern Bureau of Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, NJ 07927-1112

SUBJECT: Parcel 82 Site Investigation Report
Fort Monmouth, Monmouth County, Oceanport, New Jersey
PI G000000032

Dear Mr. Joshi:

The U.S. Army Fort Monmouth (FTMM) Team has prepared this site investigation (SI) report to summarize previous investigations (including interim soil removals) conducted at Parcel 82 in 2004, 2005, and 2018, and to identify exceedances of comparison criteria for soil left in place at Parcel 82.

1.0 OBJECTIVES

Soil sampling was initially conducted in 2004 and 2005 in the 400 area, including Parcel 82, which involved extensive soil borings and full-suite analyses as part of the Army's Residential Communities Initiatives (RCI) and Enhanced Use Leasing (EUL) programs (Tetra Tech, 2005). Additional soil sampling was completed at Parcel 82 in 2018 to delineate polynuclear aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) to residential criteria per New Jersey Department of Environmental Protection (NJDEP) comments (**Attachment A, Correspondence 1**). Field investigation activities were proposed in a December 2017 Letter Work Plan for Parcel 82 that was approved by the NJDEP in March 2018 (**Attachment A, Correspondences 2 and 3**).

2.0 SITE DESCRIPTION

Parcel 82 is part of the 400 Area, which encompasses approximately 30 acres of open fields and paved areas extending east of Oceanport Avenue, south-southeast of Parker's Creek, west of Burns Avenue and north of Tilly Avenue (**Figure 1**). Parcel 82 is located within the 400 Area in the southwestern portion of the Main Post (MP) bounded approximately by Evans Avenue to the west, Tilly Avenue to the south, Building 116 to the east, and the former Central Hazardous Waste Storage Area (Buildings 121, 122, and 123) to the north (**Figure 1**). The parcel is grass covered with a line of trees along the southern border.

2.1 Site Land Use

Future land use of the Parcel 82 area is proposed to be medium density residential and open space (EDAW Inc., 2008).

2.2 Site Geology and Hydrogeology

The Hornerstown Formation underlies much of the MP including the Parcel 82 area and is approximately 25 to 30 feet thick based on other MP soil borings. This formation is distinguished by

varying proportions of glauconitic clay, silty clay, and minor sand. The Tinton Formation underlies the Hornerstown Formation and consists of dense fine sand and trace silt, glauconite, and clay.

Soil encountered in borings at Parcel 82 were primarily moist brown silty sand with traces of clayey sand. Deeper soils below approximately five feet (ft) typically consisted of fine to coarse brown/gray/orange sand and silt. Fill was indicated on nearly all 2018 boring logs down to three ft, however, the type of fill was not specified. Indications of fill material noted on the 2007 boring logs included cinders in B8, B10, B11, and B12; B7 had glass, wood, and paint chips; and B9 had building debris. Soil boring logs are provided in **Attachment B**. Static groundwater level was noted at around 4.5 feet (ft) below ground surface (bgs) in the gray and brown fine sand.

3.0 PREVIOUS INVESTIGATIONS

Soil samples collected during the 2004 investigation identified PAHs and PCBs in shallow soils above the then-current NJDEP Non-Residential Direct Contact Soil Remediation Standard (NRDCSRS) (**Tables 1 and 2**). Non-residential cleanup standards were used to support use of the property for a planned maintenance building. Additional soil borings were advanced around the location of initial exceedances of the NRDCSRS to delineate the contamination. Multiple phases of delineation sampling were performed to ensure that the NRDCSRS exceedances were horizontally and vertically delineated. Soil excavation and removal was performed in October 2004 to remediate the soils to within the NRDCSRS. Approximately 120 cubic yards (CY) of PCB-contaminated soil from one area and approximately 35 CY of PAH-contaminated soil from multiple locations were excavated and removed for offsite disposal. A No Further Action (NFA) determination was initially requested for the 400 Area (Tetra Tech, 2005). However, NJDEP (**Attachment A, Correspondence 1**) rejected the request and required that all exceedances be addressed and delineated to the level of the Residential Direct Contact Soil Remediation Standard (RDCSRSs). There have been no subsequent removal actions performed at this area since 2004; therefore, soils remain within Parcel 82 that exceed the September 2017 RDCSRS for PAHs and PCBs.

An additional area of soil PCB contamination was identified along the northern portion of Parcel 82. FTMM's Spill Prevention, Control and Countermeasure Plan (SPCCP; U.S. Army, 2013) identified Building 123 within the former central hazardous waste storage area as an area where PCB containers and transformers were stored. A spill of approximately 10 gallons of PCB transformer oil was identified and addressed in 1994 near the northeast corner of Parcel 82 just south of the hazardous waste storage pad (**Figure 3**). Additional sampling was performed within this spill area in 2005 (**Table 3**). No documentation of additional action after 2005 has been encountered; therefore, soil PCB concentrations in this area exceed the September 2017 RDCSRS of 0.2 mg/kg.

4.0 SITE INVESTIGATION RESULTS

Additional site investigations were completed in 2018. Soil sampling was performed at Parcel 82 to delineate PCBs and PAHs in soil within the September 2017 RDCSRSs (**Attachment A, Correspondence 2**). Boring logs and field notes are provided in **Attachments B and C.**

Soil samples from 19 borings (PAR-82-SB-B1 to PAR-82-SB-B19) were collected and analyzed for PCBs to determine the horizontal and vertical extent of contamination within the estimated extent of the former PCB excavation area (**Figure 3 and Table 4**). In addition, additional samples from 3 borings (PAR-82-SB-B20 to PAR-82-SB-B22) located south of the former hazardous waste storage pad were collected and analyzed for PCBs. Samples from three additional soil borings (PAR-82-SB-B23 to

PAR-82-SB-B25) were analyzed to delineate polynuclear aromatic hydrocarbons (PAHs) (**Figure 3 and Table 4**).

4.1 Soil Results

Exceedances of the 2017 NJDEP RDCSRS occurred at multiple boring locations during the 2004, 2005, and 2018 sampling (see **Figure 2 and 3** and **Tables 1 through 4)**.

PAHs

- Soil investigation samples B10, B14, B14A, B14B, B14D, B15, B15A, B15B, and B15D had PAH exceedances of the 2017 RDCSRS (**Table 1**; **Attachment B**). These soils were excavated to a depth of 1.5-2.5 feet bgs and removed in October 2004 as part of the RCI project. Post-excavation samples 400B10-PX1, 400B15-PX1, and 400B15-PX2 were collected from the 1.5 ft depth excavations and one sample (400B15-PX1) had an exceedance of the then current 2004 NRDCSRS. An additional excavation was performed to a depth of 2.5 ft bgs in November 2004. One post-excavation sample (400B15-PX3) was collected and PAHs were not detected.
- The benzo(a)pyrene concentration was 0.55 mg/kg in B14C, and 0.58 mg/kg in B14D1, which is at or above the 2017 RDCSRS of 0.5 mg/kg, but below the 2004 NRDCSRS of 0.66 mg/kg. Therefore, soil represented by these samples remain in place that meet or exceed the 2017 RDCSRS for PAHs.
- The United States Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) residential soil standard (June 2017) for benzo(a)pyrene is 0.11 mg/kg and was also exceeded in multiple boring samples collected in 2004 and 2018.

The PAH benzo(a)pyrene exceeded the 2017 NJDEP RDCSRS in samples representative of soil remaining in place (**Figure 2**). Benzo(a)pyrene concentrations also exceed the 2017 USEPA RSL. An additional evaluation was performed to further assess the potential impact, nature and extent of PAHs in soil (Attachment D). This assessment involved (consistent with NJDEP compliance average regulations) averaging of the PAH concentrations; based on this evaluation the average PAH results would be less than the 2017 NJDEP RDCSRS (Attachment D).

PCBs

- Initial samples B6 and B7 (primary and duplicate), and delineation samples B7A, B7A1, B7A2, B7A2B, B7A2D, B7A3, B7A3A, B7A3B, B7A3C, B7A3D, B7B, B7B1, B7B1A, B7C (primary and duplicate), B7D, B7D1, B72D1, B7F1 (primary and duplicate), B4B, B4D, B4D2, B4D3, B4D4, B4D5, B4B1, B8B, B10 (primary and duplicate) had PCB concentrations in excess of the 2017 RDCSRS (**Table 2**; **Attachment B**). These soils were excavated to a depth of 0.5-2.0 feet bgs and removed in October 2004 as part of the RCI project due to PCB exceedances.
- The PCB concentrations in delineation samples B4A, B4A1, B4B1, B4D1, B5B, B5C, B8A, B8B1, B8B2, B7C1, B7C1A, B7C1D, B7B1B, B7F1A, B9 (duplicate), and post-excavation samples 400B7-PX1, 400B7-PX2, 400B7-PX5, 400B7-PX6, 400B7-PX7, and 400B7-PX8 (duplicate) were above the 2017 PCB RDCSRS of 0.2 mg/kg but below the 2004 NRDCSRS of 2 mg/kg. Therefore, soil represented by these samples remain in place that exceed the 2017 RDCSRS.

- The PCB concentrations in samples collected near Building 121 that exceeded the 2017 NJDEP RDCSRS include BLDG121-B2, BLDG121-B4, and BLDG121-B5. Soil represented by these samples remain in place that exceed the 2017 RDCSRS.
- The PCB concentrations in 2018 delineation samples PAR-82-SB-04, PAR-82-SB-07, PAR-82-SB-09, PAR-82-SB-B15 were above the 2017 PCB RDCSRS of 0.2 mg/kg. Therefore, soil represented by these samples remain in place that exceed the 2017 RDCSRS.
- The USEPA RSL residential soil standard (June 2017) is 0.12 mg/kg for the PCB Aroclor-1254 and 0.24 mg/kg for Aroclor-1260. Both Aroclor-1254 and Aroclor-1260 had 2017 RSL exceedances in multiple borings.

PCBs exceed the 2017 NJDEP RDCSRS in samples representative of soil remaining in place (**Figure 3**). PCB concentrations also exceed the 2017 USEPA RSLs. Therefore, PCBs in soil will be addressed at Parcel 82.

The approximate extent of soil contaminated with PCBs at Parcel 82 is shown on **Figure 3**. PCB soil contamination has not been fully delineated to the west of boring PAR-82-SB-04 or to the south of boring PAR-82-SB-B15; however, total PCB concentrations in these soil samples (0.31 J and 0.52 mg/kg, respectively) are similar to the 2017 RDCSRS (0.2 mg/kg), and so additional characterization soil sampling is not warranted. Assuming the extent as shown and 1.5 ft depth of soil contamination, there may be approximately 500 bank (in place) cubic yards of PCB-contaminated soil present at Parcel 82.

4.2 Groundwater

Groundwater sampling and analysis was not performed at Parcel 82. As discussed in Section 2.2, static groundwater level was noted at around 4.5 ft bgs in soil borings.

The nearest groundwater monitoring well is 490MW01, which was installed to assess former fuel oil tank UST 490 approximately 130 feet south of Parcel 82. On 15 January 2018 groundwater was encountered 2 ft bgs in well 490MW01, and the local groundwater flow direction was towards the southeast.

Most historical soil exceedances at Parcel 82 were in the 0 to 0.5 ft bgs depth interval (Tables 1 through 3), and there are no soil exceedances within the 1.0 to 1.5 ft bgs depth interval based on recent sampling (Table 4). Therefore, there is no indication of migration of soil contaminants to groundwater.

5.0 SUMMARY

Benzo(a)pyrene (a PAH) and PCBs in soil exceed the 2017 USEPA RSLs and the 2017 NJDEP RDCSRSs at Parcel 82. However, if compliance averaging of the PAH concentrations were to be performed, the average PAH results would be less than the 2017 NJDEP RDCSRS (Attachment D). Additional action is planned to address the PCB exceedances of the NJDEP RDCSRS. There is no indication of groundwater contamination, and additional site characterization is not necessary.

Thank you for reviewing this request; we look forward to your approval and/or comments. Our technical Point of Contact is Kent Friesen at (732) 383-7201; kent.friesen@parsons.com. I can be reached at (732) 383-5104; william.r.colvin18.civ@mail.mil.

Sincerely,

William R. Colvin
Fort Monmouth BRAC Environmental Coordinator

cc: Ashish Joshi (e-mail and 2 hard copies)
William Colvin, BEC (e-mail and 1 hard copy)
Joseph Pearson, Calibre (e-mail)
James Moore, USACE (e-mail)
Jim Kelly, USACE (e-mail)
Joseph Fallon, FMERA (e-mail)
Cris Grill, Parsons (e-mail

References

Edaw, Inc. 2008. Fort Monmouth Reuse and Redevelopment Plan, Final Plan. Prepared for Fort Monmouth Economic Revitalization Planning Authority. August 22.

Tetra Tech, 2005. *Final Remedial Action Report for the 800, 700, and 400 Areas, U.S. Army Installation Fort Monmouth, Fort Monmouth, New Jersey.* Final. October.

U.S. Army 2013. *Spill Prevention, Control and Countermeasures Plan (SPCCP), Installation Spill Contingency Plan (ISCP), and RCRA Contingency Plan (RCP).* Prepared by the Office of the Assistant Chief of Staff for Installation management, Fort Monmouth, New Jersey. December 1992; last revision November 2013.

Attachments:

Figure 1 – Parcel 82 Location
Figure 2 – Parcel 82 PAH Soil Sampling Locations and Results
Figure 3 – Parcel 82 PCB Soil Sampling Locations and Results

Table 1 – 2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards
Table 2 – 2005 Parcel 82 (Building 121) Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards
Table 3 – 2004 Parcel 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards
Table 4 – Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Attachment A - Regulatory Correspondence
Attachment B – Soil Boring Logs and Well Construction Details
Attachment C – Field Notes
Attachment D – Additional Evaluation of PAHs in Soil

FIGURES

Figure 1 – Parcel 82 Location
Figure 2 – Parcel 82 PAH Soil Sampling Locations and Results
Figure 3 – Parcel 82 PCB Soil Sampling Locations and Results

Little Silver Borough

Shrewsbury Borough

Parkers Creek

Parkers Creek

Parcel 82

North Branch Parkers Creek

Parkers Creek

Oceanport Creek

Tinton Falls Borough

Lafetra Creek

Husky Brook (Culvert)

Oceanport Borough

Mill Creek

Eatontown Borough

Wampum Lake

Husky Brook

Wampum Brook

Turtle Mill Brook

West Long Branch Borough

LEGEND:

- Parcel Boundary
- Installation Boundary
- Municipal Boundary
- Surface Water Feature

N

1 inch = 1,000 feet

0 500 1,000 2,000 Feet

Source: FTMM Supplied CAD, 2013; ESRI Data and Maps, 2011; USGS NHD, 2012.

PARSONS 401 Diamond Drive NW, Huntsville AL	**Fort Monmouth** **New Jersey**

PARCEL 82 LOCATION

CREATED BY: RR	REVIEWED BY: KF
DATE: NOV. 2017	FIGURE NUMBER: PAR-82-FIG-01
PROJECT NUMBER: 748810-06012	FILE: PAR-82-FIG-01.mxd

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HAZARDOUS WASTE
STORAGE PAD
(CONCRETE)

121

122

123

GRASS

BUILDING
116

PAVEMENT

Evans Ave

Ceser Ave

Tilly Ave

B1
B2
B3
B4
B5
B6
B7
B8
B9
B10
B10A
B10B
B10C
B10D
B11
B12
B13
B14
B14A
B14A1
B14B
B14B1
B14C
B14D
B14D1
B15
B15A
B15A1
B15B
B15B1
B15C
B15D
B15D1
B15D1A
B15.1
B15.2
B7F1B

400B7-PX1
400B7-PX2
400B7-PX3
400B7-PX4
400B7-PX5
400B7-PX6
400B7-PX7
400B7-PX8
400B6-PX1
400B10-PX1
400B14-PX1
400B14-PX2
400B15-PX1
400B15-PX2
400B15-PX3

PAR-82-SB-B23
PAR-82-SB-B24
PAR-82-SB-B25

LEGEND:

- PAH Sampling Location (2018)
- PAH Exceedance of RDCSRS In Soil Left in Place
- Historic PAH Soil Boring (2004 and 2005)
- Post Excavation Sample

2004 Excavation Limits

- Excavation Boundary (0.5' Depth)
- Excavation Boundary (1' Depth)
- Excavation Boundary (1.5' Depth)
- Excavation Boundary (2.0' Depth)
- Excavation Boundary (2.5' Depth)

N

1 inch = 30 feet

0 15 30 60 Feet

Source: FTMM Supplied CAD; Shaw Environmental 2008.

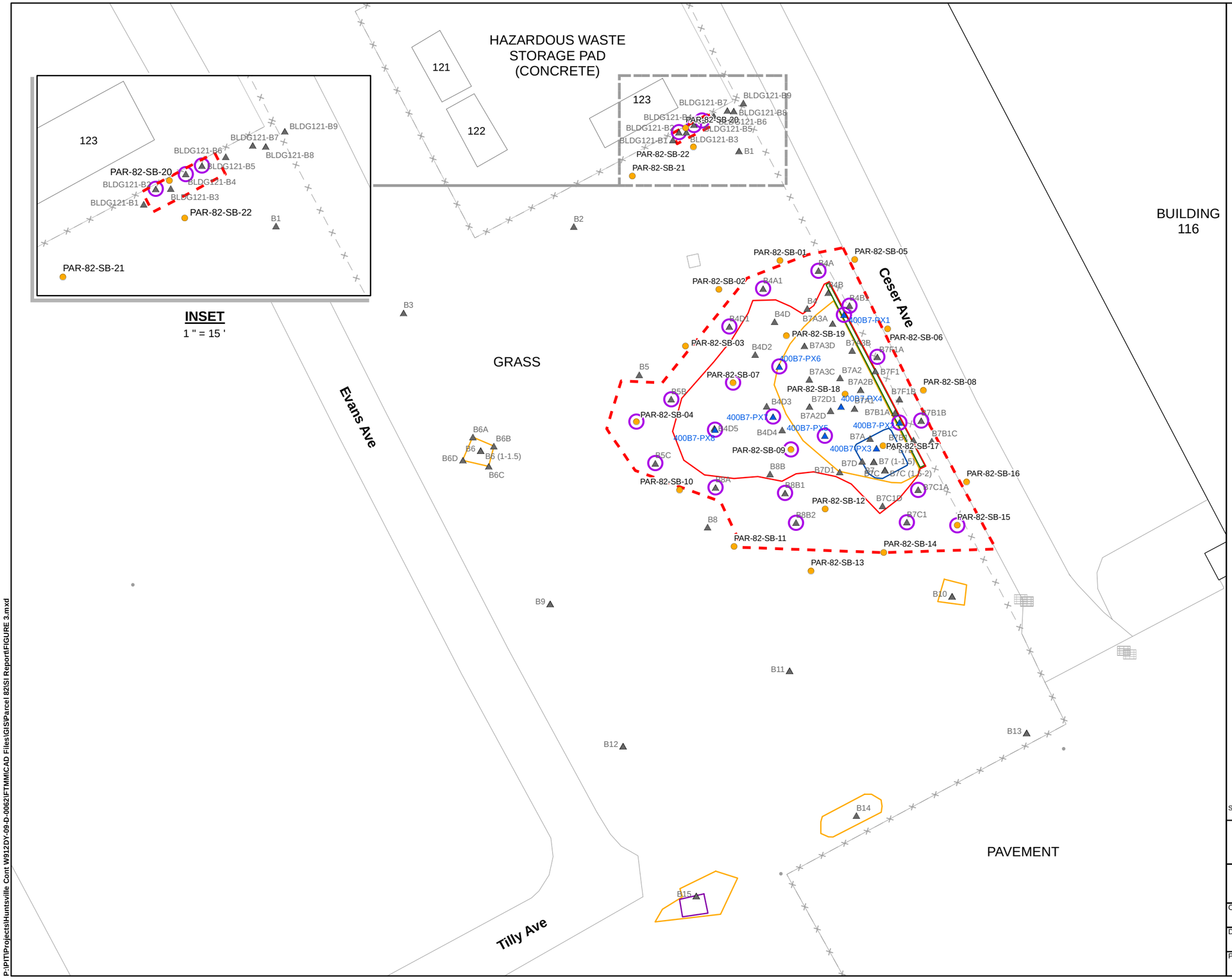
P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\Parcel 82\SI Report\FIGURE 2.mxd

PARSONS
401 Diamond Drive NW,
Huntsville AL

Fort Monmouth
New Jersey

PARCEL 82 PAH SOIL SAMPLING LOCATIONS AND EXCEEDANCES

CREATED BY:	REVIEWED BY:
RR	AM
DATE:	FIGURE NUMBER:
MAR, 2019	FIGURE 2
PROJECT NUMBER:	FILE:
748810-06012	FIGURE 2.mxd



LEGEND:

- PCB Sampling Location (2018)
- PCB Exceedance of RDCSRS In Soil Left in Place
- Historic PCB Soil Boring (2004 and 2005)
- Post Excavation Sample
- Estimated Extent of Contamination

2004 Excavation Limits

- Excavation Boundary (0.5' Depth)
- Excavation Boundary (1' Depth)
- Excavation Boundary (1.5' Depth)
- Excavation Boundary (2.0' Depth)
- Excavation Boundary (2.5' Depth)

N

1 inch = 30 feet

0 15 30 60 Feet

Source: FTMM Supplied CAD; Shaw Environmental 2008.

PARSONS
401 Diamond Drive NW,
Huntsville AL

Fort Monmouth
New Jersey

PARCEL 82 PCB SOIL SAMPLING LOCATIONS AND EXCEEDANCES

CREATED BY:	REVIEWED BY:
RR	AM
DATE:	FIGURE NUMBER:
APR, 2019	FIGURE 3
PROJECT NUMBER:	FILE:
748810-06012	FIGURE 3.mxd

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TABLES

Table 1 – 2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards
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Table 4 – Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

TABLE 1
2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Boring	Depth (Inches)	Analyte	*NJDEP RDCSRS (m* g/kg)	Result (mg/Kg)	Date Sampled
B1	0 to 6	Naphthalene	6	1.1 U	6/21/2004
B1	0 to 6	2-methyl-napthalene	230	1.1 U	6/21/2004
B1	0 to 6	Benzo(a)anthracene	5	**0.1 J**	6/21/2004
B1	0 to 6	Chrysene	450	**0.13 J**	6/21/2004
B1	0 to 6	Benzo(b)fluoranthene	5	**0.13 J**	6/21/2004
B1	0 to 6	Benzo(k)fluoranthene	45	1.1 U	6/21/2004
B1	0 to 6	Benzo(a)pyrene	0.5	**0.11 J**	6/21/2004
B1	0 to 6	Indeno(1,2,3-cd)pyrene	5	1.1 U	6/21/2004
B1	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/21/2004
B2	0 to 6	Naphthalene	6	1.1 U	6/21/2004
B2	0 to 6	2-methyl-napthalene	230	1.1 U	6/21/2004
B2	0 to 6	Benzo(a)anthracene	5	**0.15 J**	6/21/2004
B2	0 to 6	Chrysene	450	**0.2 J**	6/21/2004
B2	0 to 6	Benzo(b)fluoranthene	5	**0.22 J**	6/21/2004
B2	0 to 6	Benzo(k)fluoranthene	45	**0.09 J**	6/21/2004
B2	0 to 6	Benzo(a)pyrene	0.5	**0.17 J**	6/21/2004
B2	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.088 J**	6/21/2004
B2	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/21/2004
			0		
B3	0 to 6	Naphthalene	6	1.1 U	6/21/2004
B3	0 to 6	2-methyl-napthalene	230	1.1 U	6/21/2004
B3	0 to 6	Benzo(a)anthracene	5	**0.11 J**	6/21/2004
B3	0 to 6	Chrysene	450	**0.15 J**	6/21/2004
B3	0 to 6	Benzo(b)fluoranthene	5	**0.15 J**	6/21/2004
B3	0 to 6	Benzo(k)fluoranthene	45	1.1 U	6/21/2004
B3	0 to 6	Benzo(a)pyrene	0.5	**0.12 J**	6/21/2004
B3	0 to 6	Indeno(1,2,3-cd)pyrene	5	1.1 U	6/21/2004
B3	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/21/2004
B4	0 to 6	Naphthalene	6	1.2 U	6/21/2004
B4	0 to 6	2-methyl-napthalene	230	1.2 U	6/21/2004
B4	0 to 6	Benzo(a)anthracene	5	**0.13 J**	6/21/2004
B4	0 to 6	Chrysene	450	**0.17 J**	6/21/2004
B4	0 to 6	Benzo(b)fluoranthene	5	**0.13 J**	6/21/2004
B4	0 to 6	Benzo(k)fluoranthene	45	**0.11 J**	6/21/2004
B4	0 to 6	Benzo(a)pyrene	0.5	**0.14 J**	6/21/2004
B4	0 to 6	Indeno(1,2,3-cd)pyrene	5	1.2 U	6/21/2004
B4	0 to 6	Dibenz(a,h)anthracene	0.5	1.2 U	6/21/2004
B5	0 to 6	Naphthalene	6	1.1 U	6/22/2004
B5	0 to 6	2-methyl-napthalene	230	1.1 U	6/22/2004
B5	0 to 6	Benzo(a)anthracene	5	**0.12 J**	6/22/2004
B5	0 to 6	Chrysene	450	**0.2 J**	6/22/2004
B5	0 to 6	Benzo(b)fluoranthene	5	**0.22 J**	6/22/2004
B5	0 to 6	Benzo(k)fluoranthene	45	**0.093 J**	6/22/2004
B5	0 to 6	Benzo(a)pyrene	0.5	**0.13 J**	6/22/2004
B5	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.077 J**	6/22/2004
B5	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/22/2004
B6*	0 to 6	Naphthalene	6	1.2 U	6/22/2004
B6*	0 to 6	2-methyl-napthalene	230	1.2 U	6/22/2004
B6*	0 to 6	Benzo(a)anthracene	5	**0.12 J**	6/22/2004
B6*	0 to 6	Chrysene	450	**0.18 J**	6/22/2004
B6*	0 to 6	Benzo(b)fluoranthene	5	**0.16 J**	6/22/2004
B6*	0 to 6	Benzo(k)fluoranthene	45	**0.08 J**	6/22/2004
B6*	0 to 6	Benzo(a)pyrene	0.5	**0.15 J**	6/22/2004
B6*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.079 J**	6/22/2004
B6*	0 to 6	Dibenz(a,h)anthracene	0.5	1.2 U	6/22/2004

TABLE 1
2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Boring	Depth (Inches)	Analyte	*NJDEP RDCSRS (m* g/kg)	Result (mg/Kg)	Date Sampled
400B6-PX1		Naphthalene	6	1.2 U	10/20/2004
400B6-PX1		2-methyl-napthalene	230	1.2 U	10/20/2004
400B6-PX1		Benzo(a)anthracene	5	1.2 U	10/20/2004
400B6-PX1		Chrysene	450	1.2 U	10/20/2004
400B6-PX1		Benzo(b)fluoranthene	5	1.2 U	10/20/2004
400B6-PX1		Benzo(k)fluoranthene	45	1.2 U	10/20/2004
400B6-PX1		Benzo(a)pyrene	0.5	1.2 U	10/20/2004
400B6-PX1		Indeno(1,2,3-cd)pyrene	5	1.2 U	10/20/2004
400B6-PX1		Dibenz(a,h)anthracene	0.5	1.2 U	10/20/2004
B7*	0 to 6	Naphthalene	6	1.1 U	6/22/2004
B7*	0 to 6	2-methyl-napthalene	230	1.1 U	6/22/2004
B7*	0 to 6	Benzo(a)anthracene	5	**0.33 J**	6/22/2004
B7*	0 to 6	Chrysene	450	**0.59 J**	6/22/2004
B7*	0 to 6	Benzo(b)fluoranthene	5	**1 J**	6/22/2004
B7*	0 to 6	Benzo(k)fluoranthene	45	**0.23 J**	6/22/2004
B7*	0 to 6	Benzo(a)pyrene	0.5	**0.35 J**	6/22/2004
B7*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.37 J**	6/22/2004
B7*	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/22/2004
B8	0 to 6	Naphthalene	6	1.1 U	6/22/2004
B8	0 to 6	2-methyl-napthalene	230	1.1 U	6/22/2004
B8	0 to 6	Benzo(a)anthracene	5	**0.072 J**	6/22/2004
B8	0 to 6	Chrysene	450	**0.09 J**	6/22/2004
B8	0 to 6	Benzo(b)fluoranthene	5	**0.13 J**	6/22/2004
B8	0 to 6	Benzo(k)fluoranthene	45	1.1 U	6/22/2004
B8	0 to 6	Benzo(a)pyrene	0.5	1.1 U	6/22/2004
B8	0 to 6	Indeno(1,2,3-cd)pyrene	5	1.1 U	6/22/2004
B8	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/22/2004
B9	0 to 6	Naphthalene	6	1.1 U	6/22/2004
B9	0 to 6	2-methyl-napthalene	230	1.1 U	6/22/2004
B9	0 to 6	Benzo(a)anthracene	5	**0.14 J**	6/22/2004
B9	0 to 6	Chrysene	450	**0.17 J**	6/22/2004
B9	0 to 6	Benzo(b)fluoranthene	5	**0.22 J**	6/22/2004
B9	0 to 6	Benzo(k)fluoranthene	45	1.1 U	6/22/2004
B9	0 to 6	Benzo(a)pyrene	0.5	**0.16 J**	6/22/2004
B9	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.098 J**	6/22/2004
B9	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/22/2004
			0		
B10*	0 to 6	Naphthalene	6	1.1 U	6/22/2004
B10*	0 to 6	2-methyl-napthalene	230	1.1 U	6/22/2004
B10*	0 to 6	Benzo(a)anthracene	5	1.1	6/22/2004
B10*	0 to 6	Chrysene	450	1.2	6/22/2004
B10*	0 to 6	Benzo(b)fluoranthene	5	1.4	6/22/2004
B10*	0 to 6	Benzo(k)fluoranthene	45	**0.44 J**	6/22/2004
B10*	0 to 6	Benzo(a)pyrene	0.5	**0.91 J**	6/22/2004
B10*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.46 J**	6/22/2004
B10*	0 to 6	Dibenz(a,h)anthracene	0.5	**0.16 J**	6/22/2004
			0		
B10 DUP*	0 to 6	Naphthalene	6	1.1 U	6/22/2004
B10 DUP*	0 to 6	2-methyl-napthalene	230	1.1 U	6/22/2004
B10 DUP*	0 to 6	Benzo(a)anthracene	5	**0.2 J**	6/22/2004
B10 DUP*	0 to 6	Chrysene	450	**0.29 J**	6/22/2004
B10 DUP*	0 to 6	Benzo(b)fluoranthene	5	**0.27 J**	6/22/2004
B10 DUP*	0 to 6	Benzo(k)fluoranthene	45	**0.18 J**	6/22/2004
B10 DUP*	0 to 6	Benzo(a)pyrene	0.5	**0.19 J**	6/22/2004
B10 DUP*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.14 J**	6/22/2004
B10 DUP*	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/22/2004

TABLE 1
2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Boring	Depth (Inches)	Analyte	*NJDEP RDCSRS (m* g/kg)	Result (mg/Kg)	Date Sampled
B10*	12 to 18	Naphthalene	6	1.2 U	7/22/2004
B10*	12 to 18	2-methyl-napthalene	230	1.2 U	7/22/2004
B10*	12 to 18	Benzo(a)anthracene	5	**0.11 J**	7/22/2004
B10*	12 to 18	Chrysene	450	**0.14 J**	7/22/2004
B10*	12 to 18	Benzo(b)fluoranthene	5	**0.17 J**	7/22/2004
B10*	12 to 18	Benzo(k)fluoranthene	45	1.2 U	7/22/2004
B10*	12 to 18	Benzo(a)pyrene	0.5	**0.11 J**	7/22/2004
B10*	12 to 18	Indeno(1,2,3-cd)pyrene	5	1.2 U	7/22/2004
B10*	12 to 18	Dibenz(a,h)anthracene	0.5	1.2 U	7/22/2004
			0		
B10A*		Naphthalene	6	1.1 U	7/22/2004
B10A*		2-methyl-napthalene	230	1.1 U	7/22/2004
B10A*		Benzo(a)anthracene	5	**0.31 J**	7/22/2004
B10A*		Chrysene	450	**0.42 J**	7/22/2004
B10A*		Benzo(b)fluoranthene	5	**0.5 J**	7/22/2004
B10A*		Benzo(k)fluoranthene	45	**0.17 J**	7/22/2004
B10A*		Benzo(a)pyrene	0.5	**0.34 J**	7/22/2004
B10A*		Indeno(1,2,3-cd)pyrene	5	**0.15 J**	7/22/2004
B10A*		Dibenz(a,h)anthracene	0.5	1.1 U	7/22/2004
B10B*		Naphthalene	6	1.2 U	7/22/2004
B10B*		2-methyl-napthalene	230	1.2 U	7/22/2004
B10B*		Benzo(a)anthracene	5	**0.12 J**	7/22/2004
B10B*		Chrysene	450	**0.19 J**	7/22/2004
B10B*		Benzo(b)fluoranthene	5	**0.26 J**	7/22/2004
B10B*		Benzo(k)fluoranthene	45	1.2 U	7/22/2004
B10B*		Benzo(a)pyrene	0.5	**0.14 J**	7/22/2004
B10B*		Indeno(1,2,3-cd)pyrene	5	1.2 U	7/22/2004
B10B*		Dibenz(a,h)anthracene	0.5	1.2 U	7/22/2004
			0		
B10C*		Naphthalene	6	1.1 U	7/22/2004
B10C*		2-methyl-napthalene	230	1.1 U	7/22/2004
B10C*		Benzo(a)anthracene	5	**0.14 J**	7/22/2004
B10C*		Chrysene	450	**0.25 J**	7/22/2004
B10C*		Benzo(b)fluoranthene	5	**0.28 J**	7/22/2004
B10C*		Benzo(k)fluoranthene	45	**0.076 J**	7/22/2004
B10C*		Benzo(a)pyrene	0.5	**0.14 J**	7/22/2004
B10C*		Indeno(1,2,3-cd)pyrene	5	**0.14 J**	7/22/2004
B10C*		Dibenz(a,h)anthracene	0.5	1.1 U	7/22/2004
B10D*		Naphthalene	6	1.1 U	7/22/2004
B10D*		2-methyl-napthalene	230	1.1 U	7/22/2004
B10D*		Benzo(a)anthracene	5	**0.34 J**	7/22/2004
B10D*		Chrysene	450	**0.44 J**	7/22/2004
B10D*		Benzo(b)fluoranthene	5	**0.61 J**	7/22/2004
B10D*		Benzo(k)fluoranthene	45	**0.26 J**	7/22/2004
B10D*		Benzo(a)pyrene	0.5	**0.4 J**	7/22/2004
B10D*		Indeno(1,2,3-cd)pyrene	5	**0.18 J**	7/22/2004
B10D*		Dibenz(a,h)anthracene	0.5	1.1 U	7/22/2004
400B10-PX1		Naphthalene	6	1.2 U	10/21/2004
400B10-PX1		2-methyl-napthalene	230	1.2 U	10/21/2004
400B10-PX1		Benzo(a)anthracene	5	1.2 U	10/21/2004
400B10-PX1		Chrysene	450	1.2 U	10/21/2004
400B10-PX1		Benzo(b)fluoranthene	5	1.2 U	10/21/2004
400B10-PX1		Benzo(k)fluoranthene	45	1.2 U	10/21/2004
400B10-PX1		Benzo(a)pyrene	0.5	1.2 U	10/21/2004
400B10-PX1		Indeno(1,2,3-cd)pyrene	5	1.2 U	10/21/2004
400B10-PX1		Dibenz(a,h)anthracene	0.5	1.2 U	10/21/2004

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Boring	Depth (Inches)	Analyte	*NJDEP RDCSRS (m* g/kg)	Result (mg/Kg)	Date Sampled
B11	0 to 6	Naphthalene	6	1.1 U	6/24/2004
B11	0 to 6	2-methyl-napthalene	230	1.1 U	6/24/2004
B11	0 to 6	Benzo(a)anthracene	5	**0.18 J**	6/24/2004
B11	0 to 6	Chrysene	450	**0.24 J**	6/24/2004
B11	0 to 6	Benzo(b)fluoranthene	5	**0.29 J**	6/24/2004
B11	0 to 6	Benzo(k)fluoranthene	45	**0.14 J**	6/24/2004
B11	0 to 6	Benzo(a)pyrene	0.5	**0.21 J**	6/24/2004
B11	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.14 J**	6/24/2004
B11	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/24/2004
B12	0 to 6	Naphthalene	6	1 U	6/24/2004
B12	0 to 6	2-methyl-napthalene	230	1 U	6/24/2004
B12	0 to 6	Benzo(a)anthracene	5	**0.15 J**	6/24/2004
B12	0 to 6	Chrysene	450	**0.22 J**	6/24/2004
B12	0 to 6	Benzo(b)fluoranthene	5	**0.24 J**	6/24/2004
B12	0 to 6	Benzo(k)fluoranthene	45	1 U	6/24/2004
B12	0 to 6	Benzo(a)pyrene	0.5	**0.18 J**	6/24/2004
B12	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.11 J**	6/24/2004
B12	0 to 6	Dibenz(a,h)anthracene	0.5	1 U	6/24/2004
B13	0 to 6	Naphthalene	6	1.2 U	6/24/2004
B13	0 to 6	2-methyl-napthalene	230	1.2 U	6/24/2004
B13	0 to 6	Benzo(a)anthracene	5	**0.39 J**	6/24/2004
B13	0 to 6	Chrysene	450	**0.54 J**	6/24/2004
B13	0 to 6	Benzo(b)fluoranthene	5	**0.68 J**	6/24/2004
B13	0 to 6	Benzo(k)fluoranthene	45	**0.19 J**	6/24/2004
B13	0 to 6	Benzo(a)pyrene	0.5	**0.5 J**	6/24/2004
B13	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.39 J**	6/24/2004
B13	0 to 6	Dibenz(a,h)anthracene	0.5	1.2 U	6/24/2004
B14*	0 to 6	Naphthalene	6	11 U	6/24/2004
B14*	0 to 6	2-methyl-napthalene	230	11 U	6/24/2004
B14*	0 to 6	Benzo(a)anthracene	5	**2.6 JD**	6/24/2004
B14*	0 to 6	Chrysene	450	**3.2 JD**	6/24/2004
B14*	0 to 6	Benzo(b)fluoranthene	5	**4 JD**	6/24/2004
B14*	0 to 6	Benzo(k)fluoranthene	45	**1.1 JD**	6/24/2004
B14*	0 to 6	Benzo(a)pyrene	0.5	**3.3 JD**	6/24/2004
B14*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**2.3 JD**	6/24/2004
B14*	0 to 6	Dibenz(a,h)anthracene	0.5	**11 JD**	6/24/2004
B14*	12 to 18	Naphthalene	6	11 U	7/22/2004
B14*	12 to 18	2-methyl-napthalene	230	11 U	7/22/2004
B14*	12 to 18	Benzo(a)anthracene	5	**2.6 JD**	7/22/2004
B14*	12 to 18	Chrysene	450	**3.2 JD**	7/22/2004
B14*	12 to 18	Benzo(b)fluoranthene	5	**4 JD**	7/22/2004
B14*	12 to 18	Benzo(k)fluoranthene	45	**1.1 JD**	7/22/2004
B14*	12 to 18	Benzo(a)pyrene	0.5	**3.3 JD**	7/22/2004
B14*	12 to 18	Indeno(1,2,3-cd)pyrene	5	**2.3 JD**	7/22/2004
B14*	12 to 18	Dibenz(a,h)anthracene	0.5	**11 JD**	7/22/2004
B14 DUP*		Naphthalene	6	1.2 U	7/22/2004
B14 DUP*		2-methyl-napthalene	230	1.2 U	7/22/2004
B14 DUP*		Benzo(a)anthracene	5	**0.11 J**	7/22/2004
B14 DUP*		Chrysene	450	**0.14 J**	7/22/2004
B14 DUP*		Benzo(b)fluoranthene	5	**0.17 J**	7/22/2004
B14 DUP*		Benzo(k)fluoranthene	45	1.2 U	7/22/2004
B14 DUP*		Benzo(a)pyrene	0.5	**0.12 J**	7/22/2004
B14 DUP*		Indeno(1,2,3-cd)pyrene	5	1.2 U	7/22/2004
B14 DUP*		Dibenz(a,h)anthracene	0.5	1.2 U	7/22/2004

TABLE 1
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Boring	Depth (Inches)	Analyte	*NJDEP RDCSRS (mg/kg)*	Result (mg/Kg)	Date Sampled
B14 A*	0 to 6	Naphthalene	6	**1.1 JD**	7/22/2004
B14 A*	0 to 6	2-methyl-napthalene	230	**0.9 JD**	7/22/2004
B14 A*	0 to 6	Benzo(a)anthracene	5	**27 D**	7/22/2004
B14 A*	0 to 6	Chrysene	450	**37 D**	7/22/2004
B14 A*	0 to 6	Benzo(b)fluoranthene	5	**37 D**	7/22/2004
B14 A*	0 to 6	Benzo(k)fluoranthene	45	**13 D**	7/22/2004
B14 A*	0 to 6	Benzo(a)pyrene	0.5	**31 D**	7/22/2004
B14 A*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**11 D**	7/22/2004
B14 A*	0 to 6	Dibenz(a,h)anthracene	0.5	**4.1 JD**	7/22/2004
B14 A1	12 to 16	Naphthalene	6	1.2 U	8/4/2004
B14 A1	12 to 16	2-methyl-napthalene	230	1.2 U	8/4/2004
B14 A1	12 to 16	Benzo(a)anthracene	5	1.2 U	8/4/2004
B14 A1	12 to 16	Chrysene	450	1.2 U	8/4/2004
B14 A1	12 to 16	Benzo(b)fluoranthene	5	1.2 U	8/4/2004
B14 A1	12 to 16	Benzo(k)fluoranthene	45	1.2 U	8/4/2004
B14 A1	12 to 16	Benzo(a)pyrene	0.5	1.2 U	8/4/2004
B14 A1	12 to 16	Indeno(1,2,3-cd)pyrene	5	1.2 U	8/4/2004
B14 A1	12 to 16	Dibenz(a,h)anthracene	0.5	1.2 U	8/4/2004
B14 B*	0 to 6	Naphthalene	6	**0.8 JD**	7/22/2004
B14 B*	0 to 6	2-methyl-napthalene	230	**0.65 JD**	7/22/2004
B14 B*	0 to 6	Benzo(a)anthracene	5	**17 D**	7/22/2004
B14 B*	0 to 6	Chrysene	450	**21 D**	7/22/2004
B14 B*	0 to 6	Benzo(b)fluoranthene	5	**21 D**	7/22/2004
B14 B*	0 to 6	Benzo(k)fluoranthene	45	**7.9 D**	7/22/2004
B14 B*	0 to 6	Benzo(a)pyrene	0.5	**20 D**	7/22/2004
B14 B*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**8 D**	7/22/2004
B14 B*	0 to 6	Dibenz(a,h)anthracene	0.5	**2.7 D**	7/22/2004
B14 B1	0 to 6	Naphthalene	6	1.9 U	8/4/2004
B14 B1	0 to 6	2-methyl-napthalene	230	1.9 U	8/4/2004
B14 B1	0 to 6	Benzo(a)anthracene	5	**0.27 J**	8/4/2004
B14 B1	0 to 6	Chrysene	450	**0.42 J**	8/4/2004
B14 B1	0 to 6	Benzo(b)fluoranthene	5	**0.56 J**	8/4/2004
B14 B1	0 to 6	Benzo(k)fluoranthene	45	**0.19 J**	8/4/2004
B14 B1	0 to 6	Benzo(a)pyrene	0.5	**0.35 J**	8/4/2004
B14 B1	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.2 J**	8/4/2004
B14 B1	0 to 6	Dibenz(a,h)anthracene	0.5	1.9 U	8/4/2004
B14 C	0 to 6	Naphthalene	6	1.4 U	7/22/2004
B14 C	0 to 6	2-methyl-napthalene	230	1.4 U	7/22/2004
B14 C	0 to 6	Benzo(a)anthracene	5	**0.47 J**	7/22/2004
B14 C	0 to 6	Chrysene	450	**0.68 J**	7/22/2004
B14 C	0 to 6	Benzo(b)fluoranthene	5	**0.75 J**	7/22/2004
B14 C	0 to 6	Benzo(k)fluoranthene	45	**0.25 J**	7/22/2004
B14 C	0 to 6	Benzo(a)pyrene	0.5	**0.55 J**	7/22/2004
B14 C	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.27 J**	7/22/2004
B14 C	0 to 6	Dibenz(a,h)anthracene	0.5	1.4 U	7/22/2004
B14 D*	0 to 6	Naphthalene	6	**0.45 JD**	7/22/2004
B14 D*	0 to 6	2-methyl-napthalene	230	5.5 U	7/22/2004
B14 D*	0 to 6	Benzo(a)anthracene	5	**6.6 D**	7/22/2004

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Boring	Depth (Inches)	Analyte	*NJDEP RDCSRS (m* g/kg)	Result (mg/Kg)	Date Sampled
B14 D*	0 to 6	Chrysene	450	**8.3 D**	7/22/2004
B14 D*	0 to 6	Benzo(b)fluoranthene	5	**11 D**	7/22/2004
B14 D*	0 to 6	Benzo(k)fluoranthene	45	**3.6 JD**	7/22/2004
B14 D*	0 to 6	Benzo(a)pyrene	0.5	**8.9 D**	7/22/2004
B14 D*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**4.3 JD**	7/22/2004
B14 D*	0 to 6	Dibenz(a,h)anthracene	0.5	**1.4 JD**	7/22/2004
B14 D1	0 to 6	Naphthalene	6	**0.077 J**	8/4/2004
B14 D1	0 to 6	2-methyl-napthalene	230	1.2 U	8/4/2004
B14 D1	0 to 6	Benzo(a)anthracene	5	**0.44 J**	8/4/2004
B14 D1	0 to 6	Chrysene	450	**0.62 J**	8/4/2004
B14 D1	0 to 6	Benzo(b)fluoranthene	5	**0.76 J**	8/4/2004
B14 D1	0 to 6	Benzo(k)fluoranthene	45	**0.27 J**	8/4/2004
B14 D1	0 to 6	Benzo(a)pyrene	0.5	**0.58 J**	8/4/2004
B14 D1	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.32 J**	8/4/2004
B14 D1	0 to 6	Dibenz(a,h)anthracene	0.5	**0.1 J**	8/4/2004
400B14-PX1		Naphthalene	6	1.2 U	10/21/2004
400B14-PX1		2-methyl-napthalene	230	1.2 U	10/21/2004
400B14-PX1		Benzo(a)anthracene	5	1.2 U	10/21/2004
400B14-PX1		Chrysene	450	1.2 U	10/21/2004
400B14-PX1		Benzo(b)fluoranthene	5	1.2 U	10/21/2004
400B14-PX1		Benzo(k)fluoranthene	45	1.2 U	10/21/2004
400B14-PX1		Benzo(a)pyrene	0.5	1.2 U	10/21/2004
400B14-PX1		Indeno(1,2,3-cd)pyrene	5	1.2 U	10/21/2004
400B14-PX1		Dibenz(a,h)anthracene	0.5	1.2 U	10/21/2004
400B14-PX2		Naphthalene	6	1.2 U	10/21/2004
400B14-PX2		2-methyl-napthalene	230	1.2 U	10/21/2004
400B14-PX2		Benzo(a)anthracene	5	1.2 U	10/21/2004
400B14-PX2		Chrysene	450	1.2 U	10/21/2004
400B14-PX2		Benzo(b)fluoranthene	5	1.2 U	10/21/2004
400B14-PX2		Benzo(k)fluoranthene	45	1.2 U	10/21/2004
400B14-PX2		Benzo(a)pyrene	0.5	1.2 U	10/21/2004
400B14-PX2		Indeno(1,2,3-cd)pyrene	5	1.2 U	10/21/2004
400B14-PX2		Dibenz(a,h)anthracene	0.5	1.2 U	10/21/2004
B15*	0 to 6	Naphthalene	6	1.2 U	6/24/2004
B15*	0 to 6	2-methyl-napthalene	230	1.2 U	6/24/2004
B15*	0 to 6	Benzo(a)anthracene	5	**1.4**	6/24/2004
B15*	0 to 6	Chrysene	450	**1.9**	6/24/2004
B15*	0 to 6	Benzo(b)fluoranthene	5	**1.6**	6/24/2004
B15*	0 to 6	Benzo(k)fluoranthene	45	**0.61 J**	6/24/2004
B15*	0 to 6	Benzo(a)pyrene	0.5	**1.6**	6/24/2004
B15*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.81 J**	6/24/2004
B15*	0 to 6	Dibenz(a,h)anthracene	0.5	**0.28 J**	6/24/2004
B15*	12 to 18	Naphthalene	6	1.2 U	7/22/2004
B15*	12 to 18	2-methyl-napthalene	230	1.2 U	7/22/2004
B15*	12 to 18	Benzo(a)anthracene	5	**0.17 J**	7/22/2004
B15*	12 to 18	Chrysene	450	**0.2 J**	7/22/2004
B15*	12 to 18	Benzo(b)fluoranthene	5	**0.26 J**	7/22/2004
B15*	12 to 18	Benzo(k)fluoranthene	45	**0.082 J**	7/22/2004
B15*	12 to 18	Benzo(a)pyrene	0.5	**0.18 J**	7/22/2004
B15*	12 to 18	Indeno(1,2,3-cd)pyrene	5	**0.072 J**	7/22/2004
B15*	12 to 18	Dibenz(a,h)anthracene	0.5	1.2 U	7/22/2004
B15 A*	0 to 6	Naphthalene	6	**0.16 J**	7/22/2004
B15 A*	0 to 6	2-methyl-napthalene	230	**0.1 J**	7/22/2004

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2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Boring	Depth (Inches)	Analyte	*NJDEP RDCSRS (m* g/kg)	Result (mg/Kg)	Date Sampled
B15 A*	0 to 6	Benzo(a)anthracene	5	**4.5**	7/22/2004
B15 A*	0 to 6	Chrysene	450	**6.2**	7/22/2004
B15 A*	0 to 6	Benzo(b)fluoranthene	5	**6.7**	7/22/2004
B15 A*	0 to 6	Benzo(k)fluoranthene	45	**2.6**	7/22/2004
B15 A*	0 to 6	Benzo(a)pyrene	0.5	**5**	7/22/2004
B15 A*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**1.9**	7/22/2004
B15 A*	0 to 6	Dibenz(a,h)anthracene	0.5	**0.67**	7/22/2004
B15 A1	12 to 16	Naphthalene	6	1.2 U	8/4/2004
B15 A1	12 to 16	2-methyl-napthalene	230	1.2 U	8/4/2004
B15 A1	12 to 16	Benzo(a)anthracene	5	**0.079 J**	8/4/2004
B15 A1	12 to 16	Chrysene	450	**0.1 J**	8/4/2004
B15 A1	12 to 16	Benzo(b)fluoranthene	5	**0.11 J**	8/4/2004
B15 A1	12 to 16	Benzo(k)fluoranthene	45	1.2 U	8/4/2004
B15 A1	12 to 16	Benzo(a)pyrene	0.5	**0.083 J**	8/4/2004
B15 A1	12 to 16	Indeno(1,2,3-cd)pyrene	5	1.2 U	8/4/2004
B15 A1	12 to 16	Dibenz(a,h)anthracene	0.5	1.2 U	8/4/2004
B15 B*	0 to 6	Naphthalene	6	**0.096 J**	7/22/2004
B15 B*	0 to 6	2-methyl-napthalene	230	**0.14 J**	7/22/2004
B15 B*	0 to 6	Benzo(a)anthracene	5	**0.51 J**	7/22/2004
B15 B*	0 to 6	Chrysene	450	**0.69 J**	7/22/2004
B15 B*	0 to 6	Benzo(b)fluoranthene	5	**1.2**	7/22/2004
B15 B*	0 to 6	Benzo(k)fluoranthene	45	**0.32 J**	7/22/2004
B15 B*	0 to 6	Benzo(a)pyrene	0.5	**0.86 J**	7/22/2004
B15 B*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.46 J**	7/22/2004
B15 B*	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	7/22/2004
B15 B1	12 to 16	Naphthalene	6	**0.16 J**	8/4/2004
B15 B1	12 to 16	2-methyl-napthalene	230	1.2 U	8/4/2004
B15 B1	12 to 16	Benzo(a)anthracene	5	**0.23 J**	8/4/2004
B15 B1	12 to 16	Chrysene	450	**0.27 J**	8/4/2004
B15 B1	12 to 16	Benzo(b)fluoranthene	5	**0.23 J**	8/4/2004
B15 B1	12 to 16	Benzo(k)fluoranthene	45	**0.088 J**	8/4/2004
B15 B1	12 to 16	Benzo(a)pyrene	0.5	**0.22 J**	8/4/2004
B15 B1	12 to 16	Indeno(1,2,3-cd)pyrene	5	**0.099 J**	8/4/2004
B15 B1	12 to 16	Dibenz(a,h)anthracene	0.5	1.2 U	8/4/2004
B15 C*	0 to 6	Naphthalene	6	1.2 U	7/22/2004
B15 C*	0 to 6	2-methyl-napthalene	230	1.2 U	7/22/2004
B15 C*	0 to 6	Benzo(a)anthracene	5	**0.28 J**	7/22/2004
B15 C*	0 to 6	Chrysene	450	**0.3 J**	7/22/2004
B15 C*	0 to 6	Benzo(b)fluoranthene	5	**0.4 J**	7/22/2004
B15 C*	0 to 6	Benzo(k)fluoranthene	45	**0.18 J**	7/22/2004
B15 C*	0 to 6	Benzo(a)pyrene	0.5	**0.29 J**	7/22/2004
B15 C*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.13 J**	7/22/2004
B15 C*	0 to 6	Dibenz(a,h)anthracene	0.5	1.2 U	7/22/2004

TABLE 1
2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Boring	Depth (Inches)	Analyte	*NJDEP RDCSRS (mg/kg)*	Result (mg/Kg)	Date Sampled
B15 D*	0 to 6	Naphthalene	6	**0.89 JD**	7/22/2004
B15 D*	0 to 6	2-methyl-napthalene	230	**0.89 JD**	7/22/2004
B15 D*	0 to 6	Benzo(a)anthracene	5	**10 D**	7/22/2004
B15 D*	0 to 6	Chrysene	450	**13 D**	7/22/2004
B15 D*	0 to 6	Benzo(b)fluoranthene	5	**15 D**	7/22/2004
B15 D*	0 to 6	Benzo(k)fluoranthene	45	**5.6 JD**	7/22/2004
B15 D*	0 to 6	Benzo(a)pyrene	0.5	**15 D**	7/22/2004
B15 D*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**6 D**	7/22/2004
B15 D*	0 to 6	Dibenz(a,h)anthracene	0.5	**2 JD**	7/22/2004
B15 D1	0 to 6	Naphthalene	6	1.1 U	8/4/2004
B15 D1	0 to 6	2-methyl-napthalene	230	1.1 U	8/4/2004
B15 D1	0 to 6	Benzo(a)anthracene	5	**0.085 J**	8/4/2004
B15 D1	0 to 6	Chrysene	450	**0.096 J**	8/4/2004
B15 D1	0 to 6	Benzo(b)fluoranthene	5	**0.11 J**	8/4/2004
B15 D1	0 to 6	Benzo(k)fluoranthene	45	1.1 U	8/4/2004
B15 D1	0 to 6	Benzo(a)pyrene	0.5	**0.08 J**	8/4/2004
B15 D1	0 to 6	Indeno(1,2,3-cd)pyrene	5	1.1 U	8/4/2004
B15 D1	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	8/4/2004
B15 D1A	12 to 16	Naphthalene	6	1.2 U	8/4/2004
B15 D1A	12 to 16	2-methyl-napthalene	230	1.2 U	8/4/2004
B15 D1A	12 to 16	Benzo(a)anthracene	5	1.2 U	8/4/2004
B15 D1A	12 to 16	Chrysene	450	1.2 U	8/4/2004
B15 D1A	12 to 16	Benzo(b)fluoranthene	5	**0.077 J**	8/4/2004
B15 D1A	12 to 16	Benzo(k)fluoranthene	45	1.2 U	8/4/2004
B15 D1A	12 to 16	Benzo(a)pyrene	0.5	1.2 U	8/4/2004
B15 D1A	12 to 16	Indeno(1,2,3-cd)pyrene	5	1.2 U	8/4/2004
B15 D1A	12 to 16	Dibenz(a,h)anthracene	0.5	1.2 U	8/4/2004
400B15-PX1*		Naphthalene	6	1.2 U	10/20/2004
400B15-PX1*		2-methyl-napthalene	230	1.2 U	10/20/2004
400B15-PX1*		Benzo(a)anthracene	5	**0.92 J**	10/20/2004
400B15-PX1*		Chrysene	450	**1.2**	10/20/2004
400B15-PX1*		Benzo(b)fluoranthene	5	**1.2**	10/20/2004
400B15-PX1*		Benzo(k)fluoranthene	45	**0.43 J**	10/20/2004
400B15-PX1*		Benzo(a)pyrene	0.5	**0.97 J**	10/20/2004
400B15-PX1*		Indeno(1,2,3-cd)pyrene	5	**0.54 J**	10/20/2004
400B15-PX1*		Dibenz(a,h)anthracene	0.5	**0.13 J**	10/20/2004
400B15-PX2		Naphthalene	6	1.2 U	10/20/2004
400B15-PX2		2-methyl-napthalene	230	1.2 U	10/20/2004
400B15-PX2		Benzo(a)anthracene	5	1.2 U	10/20/2004
400B15-PX2		Chrysene	450	1.2 U	10/20/2004
400B15-PX2		Benzo(b)fluoranthene	5	1.2 U	10/20/2004
400B15-PX2		Benzo(k)fluoranthene	45	1.2 U	10/20/2004
400B15-PX2		Benzo(a)pyrene	0.5	1.2 U	10/20/2004
400B15-PX2		Indeno(1,2,3-cd)pyrene	5	1.2 U	10/20/2004
400B15-PX2		Dibenz(a,h)anthracene	0.5	1.2 U	10/20/2004
400B15-DUP		Naphthalene	6	1.2 U	10/20/2004
400B15-DUP		2-methyl-napthalene	230	1.2 U	10/20/2004
400B15-DUP		Benzo(a)anthracene	5	**0.15 J**	10/20/2004
400B15-DUP		Chrysene	450	**0.2 J**	10/20/2004
400B15-DUP		Benzo(b)fluoranthene	5	**0.21 J**	10/20/2004
400B15-DUP		Benzo(k)fluoranthene	45	**0.076 J**	10/20/2004
400B15-DUP		Benzo(a)pyrene	0.5	**0.16 J**	10/20/2004

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Boring	Depth (Inches)	Analyte	*NJDEP RDCSRS (m* g/kg)	Result (mg/Kg)	Date Sampled
400B15-DUP		Indeno(1,2,3-cd)pyrene	5	**0.098 J**	10/20/2004
400B15-DUP		Dibenz(a,h)anthracene	0.5	1.2 U	10/20/2004
400B15-PX3		Naphthalene	6	1.2 U	11/4/2004
400B15-PX3		2-methyl-napthalene	230	1.2 U	11/4/2004
400B15-PX3		Benzo(a)anthracene	5	1.2 U	11/4/2004
400B15-PX3		Chrysene	450	1.2 U	11/4/2004
400B15-PX3		Benzo(b)fluoranthene	5	1.2 U	11/4/2004
400B15-PX3		Benzo(k)fluoranthene	45	1.2 U	11/4/2004
400B15-PX3		Benzo(a)pyrene	0.5	1.2 U	11/4/2004
400B15-PX3		Indeno(1,2,3-cd)pyrene	5	1.2 U	11/4/2004
400B15-PX3		Dibenz(a,h)anthracene	0.5	1.2 U	11/4/2004

Footnotes:

Cell shade value represents a result that is above the NJDEP RDCSRS

* Soil represented by these samples was excavated and removed in October 2004

mg/Kg = miligrams/kilogram

D = Results from dilution of sample

J = estimated value due to a concentration below the reporting limit or due to discrepencies in meeting certain analyte -spcific quality control

U = non-detect, i.e. not detected at or above this value

The NJ Residential Direct Contact Soil Remediation Standards refers to the NJDEP's September 18, 2017 Remediation Standards (http://www.nj.gov/dep/rules/rules/njac7_26d.pdf)

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B1	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B1	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B1	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B1	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B1	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B1	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B1	0 to 6	Aroclor 1260	0.2	**0.052**	6/21/2004	
B2	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B2	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B2	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B2	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B2	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B2	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B2	0 to 6	Aroclor 1260	0.2	**0.078**	6/21/2004	
B3	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B3	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B3	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B3	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B3	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B3	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B3	0 to 6	Aroclor 1260	0.2	**0.072**	6/21/2004	
B4	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B4	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B4	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B4	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B4	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B4	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B4	0 to 6	Aroclor 1260	0.2	**0.16**	6/21/2004	
B4A	0 to 6	Aroclor 1016	0.2	ND	9/8/2004	6
B4A	0 to 6	Aroclor 1221	0.2	ND	9/8/2004	6
B4A	0 to 6	Aroclor 1248	0.2	ND	9/8/2004	6
B4A	0 to 6	Aroclor 1242	0.2	ND	9/8/2004	6
B4A	0 to 6	Aroclor 1232	0.2	ND	9/8/2004	6
B4A	0 to 6	Aroclor 1254	0.2	**1.30**	9/8/2004	6
B4A	0 to 6	Aroclor 1260	0.2	ND	9/8/2004	6
B4A1	0 to 6	Aroclor 1016	0.2	ND	9/8/2004	6
B4A1	0 to 6	Aroclor 1221	0.2	ND	9/8/2004	6
B4A1	0 to 6	Aroclor 1248	0.2	ND	9/8/2004	6
B4A1	0 to 6	Aroclor 1242	0.2	ND	9/8/2004	6
B4A1	0 to 6	Aroclor 1232	0.2	ND	9/8/2004	6
B4A1	0 to 6	Aroclor 1254	0.2	**1.20**	9/8/2004	6
B4A1	0 to 6	Aroclor 1260	0.2	ND	9/8/2004	6

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B4B*	0 to 6	Aroclor 1016	0.2	ND	8/26/2004	5
B4B*	0 to 6	Aroclor 1221	0.2	ND	8/26/2004	5
B4B*	0 to 6	Aroclor 1248	0.2	ND	8/26/2004	5
B4B*	0 to 6	Aroclor 1242	0.2	ND	8/26/2004	5
B4B*	0 to 6	Aroclor 1232	0.2	ND	8/26/2004	5
B4B*	B4B*	Aroclor 1254	0.2	**7.40**	8/26/2004	5
B4B*	0 to 6	Aroclor 1260	0.2	ND	8/26/2004	5
B4B1	0 to 6	Aroclor 1016	0.2	ND	8/26/2004	5
B4B1	0 to 6	Aroclor 1221	0.2	ND	8/26/2004	5
B4B1	0 to 6	Aroclor 1248	0.2	ND	8/26/2004	5
B4B1	0 to 6	Aroclor 1242	0.2	ND	8/26/2004	5
B4B1	0 to 6	Aroclor 1232	0.2	ND	8/26/2004	5
B4B1	0 to 6	Aroclor 1254	0.2	**0.32**	8/26/2004	5
B4B1	0 to 6	Aroclor 1260	0.2	ND	8/26/2004	5
B4D*	0 to 6	Aroclor 1016	0.2	ND	8/26/2004	5
B4D*	0 to 6	Aroclor 1221	0.2	ND	8/26/2004	5
B4D*	0 to 6	Aroclor 1248	0.2	ND	8/26/2004	5
B4D*	0 to 6	Aroclor 1242	0.2	ND	8/26/2004	5
B4D*	0 to 6	Aroclor 1232	0.2	ND	8/26/2004	5
B4D*	0 to 6	Aroclor 1254	0.2	**2.40**	8/26/2004	5
B4D*	0 to 6	Aroclor 1260	0.2	ND	8/26/2004	5
B4D1	0 to 6	Aroclor 1016	0.2	ND	8/26/2004	5
B4D1	0 to 6	Aroclor 1221	0.2	ND	8/26/2004	5
B4D1	0 to 6	Aroclor 1248	0.2	ND	8/26/2004	5
B4D1	0 to 6	Aroclor 1242	0.2	ND	8/26/2004	5
B4D1	0 to 6	Aroclor 1232	0.2	ND	8/26/2004	5
B4D1	0 to 6	Aroclor 1254	0.2	**0.84**	8/26/2004	5
B4D1	0 to 6	Aroclor 1260	0.2	ND	8/26/2004	5
B4D2*	0 to 6	Aroclor 1016	0.2	ND	8/26/2004	5
B4D2*	0 to 6	Aroclor 1221	0.2	ND	8/26/2004	5
B4D2*	0 to 6	Aroclor 1248	0.2	ND	8/26/2004	5
B4D2*	0 to 6	Aroclor 1242	0.2	ND	8/26/2004	5
B4D2*	0 to 6	Aroclor 1232	0.2	ND	8/26/2004	5
B4D2*	0 to 6	Aroclor 1254	0.2	**1.80**	8/26/2004	5
B4D2*	0 to 6	Aroclor 1260	0.2	ND	8/26/2004	5
B4D3*	0 to 6	Aroclor 1016	0.2	ND	8/26/2004	5
B4D3*	0 to 6	Aroclor 1221	0.2	ND	8/26/2004	5
B4D3*	0 to 6	Aroclor 1248	0.2	ND	8/26/2004	5
B4D3*	0 to 6	Aroclor 1242	0.2	ND	8/26/2004	5
B4D3*	0 to 6	Aroclor 1232	0.2	ND	8/26/2004	5
B4D3*	0 to 6	Aroclor 1254	0.2	**9.80**	8/26/2004	5
B4D3*	0 to 6	Aroclor 1260	0.2	ND	8/26/2004	5

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Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B4D4*	0 to 6	Aroclor 1016	0.2	ND	8/26/2004	5
B4D4*	0 to 6	Aroclor 1221	0.2	ND	8/26/2004	5
B4D4*	0 to 6	Aroclor 1248	0.2	ND	8/26/2004	5
B4D4*	0 to 6	Aroclor 1242	0.2	ND	8/26/2004	5
B4D4*	0 to 6	Aroclor 1232	0.2	ND	8/26/2004	5
B4D4*	0 to 6	Aroclor 1254	0.2	**5.50**	8/26/2004	5
B4D4*	0 to 6	Aroclor 1260	0.2	ND	8/26/2004	5
B4D5*	0 to 6	Aroclor 1016	0.2	ND	8/26/2004	5
B4D5*	0 to 6	Aroclor 1221	0.2	ND	8/26/2004	5
B4D5*	0 to 6	Aroclor 1248	0.2	ND	8/26/2004	5
B4D5*	0 to 6	Aroclor 1242	0.2	ND	8/26/2004	5
B4D5*	0 to 6	Aroclor 1232	0.2	ND	8/26/2004	5
B4D5*	0 to 6	Aroclor 1254	0.2	**10.00**	8/26/2004	5
B4D5*	0 to 6	Aroclor 1260	0.2	ND	8/26/2004	5
B5	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B5	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B5	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B5	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B5	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B5	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B5	0 to 6	Aroclor 1260	0.2	**0.033**	6/21/2004	
B5B	0 to 6	Aroclor 1016	0.2	ND	9/8/2004	6
B5B	0 to 6	Aroclor 1221	0.2	ND	9/8/2004	6
B5B	0 to 6	Aroclor 1248	0.2	ND	9/8/2004	6
B5B	0 to 6	Aroclor 1242	0.2	ND	9/8/2004	6
B5B	0 to 6	Aroclor 1232	0.2	ND	9/8/2004	6
B5B	0 to 6	Aroclor 1254	0.2	**0.64**	9/8/2004	6
B5B	0 to 6	Aroclor 1260	0.2	ND	9/8/2004	6
B5C	0 to 6	Aroclor 1016	0.2	ND	9/8/2004	6
B5C	0 to 6	Aroclor 1221	0.2	ND	9/8/2004	6
B5C	0 to 6	Aroclor 1248	0.2	ND	9/8/2004	6
B5C	0 to 6	Aroclor 1242	0.2	ND	9/8/2004	6
B5C	0 to 6	Aroclor 1232	0.2	ND	9/8/2004	6
B5C	0 to 6	Aroclor 1254	0.2	**0.39**	9/8/2004	6
B5C	0 to 6	Aroclor 1260	0.2	ND	9/8/2004	6
B6*	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B6*	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B6*	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B6*	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B6*	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B6*	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B6*	0 to 6	Aroclor 1260	0.2	**2.00**	6/21/2004	

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Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B6*	12 to 18	Aroclor 1016	0.2	ND	7/23/2004	1
B6*	12 to 18	Aroclor 1221	0.2	ND	7/23/2004	1
B6*	12 to 18	Aroclor 1248	0.2	ND	7/23/2004	1
B6*	12 to 18	Aroclor 1242	0.2	ND	7/23/2004	1
B6*	12 to 18	Aroclor 1232	0.2	ND	7/23/2004	1
B6*	12 to 18	Aroclor 1254	0.2	ND	7/23/2004	1
B6*	12 to 18	Aroclor 1260	0.2	ND	7/23/2004	1
B6A*	0 to 6	Aroclor 1016	0.2	ND	7/23/2004	1
B6A*	0 to 6	Aroclor 1221	0.2	ND	7/23/2004	1
B6A*	0 to 6	Aroclor 1248	0.2	ND	7/23/2004	1
B6A*	0 to 6	Aroclor 1242	0.2	ND	7/23/2004	1
B6A*	0 to 6	Aroclor 1232	0.2	ND	7/23/2004	1
B6A*	0 to 6	Aroclor 1254	0.2	ND	7/23/2004	1
B6A*	0 to 6	Aroclor 1260	0.2	ND	7/23/2004	1
B6B*	0 to 6	Aroclor 1016	0.2	ND	7/23/2004	1
B6B*	0 to 6	Aroclor 1221	0.2	ND	7/23/2004	1
B6B*	0 to 6	Aroclor 1248	0.2	ND	7/23/2004	1
B6B*	0 to 6	Aroclor 1242	0.2	ND	7/23/2004	1
B6B*	0 to 6	Aroclor 1232	0.2	ND	7/23/2004	1
B6B*	0 to 6	Aroclor 1254	0.2	ND	7/23/2004	1
B6B*	0 to 6	Aroclor 1260	0.2	ND	7/23/2004	1
B6C*	0 to 6	Aroclor 1016	0.2	ND	7/23/2004	1
B6C*	0 to 6	Aroclor 1221	0.2	ND	7/23/2004	1
B6C*	0 to 6	Aroclor 1248	0.2	ND	7/23/2004	1
B6C*	0 to 6	Aroclor 1242	0.2	ND	7/23/2004	1
B6C*	0 to 6	Aroclor 1232	0.2	ND	7/23/2004	1
B6C*	0 to 6	Aroclor 1254	0.2	ND	7/23/2004	1
B6C*	0 to 6	Aroclor 1260	0.2	ND	7/23/2004	1
B6D*	0 to 6	Aroclor 1016	0.2	ND	7/23/2004	1
B6D*	0 to 6	Aroclor 1221	0.2	ND	7/23/2004	1
B6D*	0 to 6	Aroclor 1248	0.2	ND	7/23/2004	1
B6D*	0 to 6	Aroclor 1242	0.2	ND	7/23/2004	1
B6D*	0 to 6	Aroclor 1232	0.2	ND	7/23/2004	1
B6D*	0 to 6	Aroclor 1254	0.2	ND	7/23/2004	1
B6D*	0 to 6	Aroclor 1260	0.2	ND	7/23/2004	1
B7*	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B7*	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B7*	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B7*	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B7*	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B7*	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B7*	0 to 6	Aroclor 1260	0.2	**12.00**	6/21/2004	

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B7*	12 to 18	Aroclor 1016	0.2	ND	7/27/2004	1
B7*	12 to 18	Aroclor 1221	0.2	ND	7/27/2004	1
B7*	12 to 18	Aroclor 1248	0.2	ND	7/27/2004	1
B7*	12 to 18	Aroclor 1242	0.2	ND	7/27/2004	1
B7*	12 to 18	Aroclor 1232	0.2	ND	7/27/2004	1
B7*	12 to 18	Aroclor 1254	0.2	**26.00**	7/27/2004	1
B7*	12 to 18	Aroclor 1260	0.2	ND	7/27/2004	1
B7 DUP*	12 to 18	Aroclor 1016	0.2	ND	7/27/2004	1
B7 DUP*	12 to 18	Aroclor 1221	0.2	ND	7/27/2004	1
B7 DUP*	12 to 18	Aroclor 1248	0.2	ND	7/27/2004	1
B7 DUP*	12 to 18	Aroclor 1242	0.2	ND	7/27/2004	1
B7 DUP*	12 to 18	Aroclor 1232	0.2	ND	7/27/2004	1
B7 DUP*	12 to 18	Aroclor 1254	0.2	**20.00**	7/27/2004	1
B7 DUP*	12 to 18	Aroclor 1260	0.2	ND	7/27/2004	1
B7A*	0 to 6	Aroclor 1016	0.2	ND	7/27/2004	1
B7A*	0 to 6	Aroclor 1221	0.2	ND	7/27/2004	1
B7A*	0 to 6	Aroclor 1248	0.2	ND	7/27/2004	1
B7A*	0 to 6	Aroclor 1242	0.2	ND	7/27/2004	1
B7A*	0 to 6	Aroclor 1232	0.2	ND	7/27/2004	1
B7A*	0 to 6	Aroclor 1254	0.2	**12.00**	7/27/2004	1
B7A*	0 to 6	Aroclor 1260	0.2	ND	7/27/2004	1
B7A1*	0 to 6	Aroclor 1016	0.2	ND	8/4/2004	2
B7A1*	0 to 6	Aroclor 1221	0.2	ND	8/4/2004	2
B7A1*	0 to 6	Aroclor 1248	0.2	ND	8/4/2004	2
B7A1*	0 to 6	Aroclor 1242	0.2	ND	8/4/2004	2
B7A1*	0 to 6	Aroclor 1232	0.2	ND	8/4/2004	2
B7A1*	0 to 6	Aroclor 1254	0.2	**29.00**	8/4/2004	2
B7A1*	0 to 6	Aroclor 1260	0.2	ND	8/4/2004	2
B7A2*	0 to 6	Aroclor 1016	0.2	ND	8/12/2004	3
B7A2*	0 to 6	Aroclor 1221	0.2	ND	8/12/2004	3
B7A2*	0 to 6	Aroclor 1248	0.2	ND	8/12/2004	3
B7A2*	0 to 6	Aroclor 1242	0.2	ND	8/12/2004	3
B7A2*	0 to 6	Aroclor 1232	0.2	ND	8/12/2004	3
B7A2*	0 to 6	Aroclor 1254	0.2	**4.10**	8/12/2004	3
B7A2*	0 to 6	Aroclor 1260	0.2	ND	8/12/2004	3
B7A2B*	0 to 6	Aroclor 1016	0.2	ND	8/12/2004	3
B7A2B*	0 to 6	Aroclor 1221	0.2	ND	8/12/2004	3
B7A2B*	0 to 6	Aroclor 1248	0.2	ND	8/12/2004	3
B7A2B*	0 to 6	Aroclor 1242	0.2	ND	8/12/2004	3
B7A2B*	0 to 6	Aroclor 1232	0.2	ND	8/12/2004	3
B7A2B*	0 to 6	Aroclor 1254	0.2	**19.00**	8/12/2004	3
B7A2B*	0 to 6	Aroclor 1260	0.2	ND		3

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B7A2D*	0 to 6	Aroclor 1016	0.2	ND	8/12/2004	3
B7A2D*	0 to 6	Aroclor 1221	0.2	ND	8/12/2004	3
B7A2D*	0 to 6	Aroclor 1248	0.2	ND	8/12/2004	3
B7A2D*	0 to 6	Aroclor 1242	0.2	ND	8/12/2004	3
B7A2D*	0 to 6	Aroclor 1232	0.2	ND	8/12/2004	3
B7A2D*	0 to 6	Aroclor 1254	0.2	**15.00**	8/12/2004	3
B7A2D*	0 to 6	Aroclor 1260	0.2	ND		3
B7A3*	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B7A3*	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B7A3*	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B7A3*	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B7A3*	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B7A3*	0 to 6	Aroclor 1254	0.2	**4.40**	8/19/2004	4
B7A3*	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4
B7A3A*	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B7A3A*	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B7A3A*	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B7A3A*	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B7A3A*	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B7A3A*	0 to 6	Aroclor 1254	0.2	**5.00**	8/19/2004	4
B7A3A*	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4
B7A3B*	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B7A3B*	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B7A3B*	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B7A3B*	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B7A3B*	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B7A3B*	0 to 6	Aroclor 1254	0.2	**16.00**	8/19/2004	4
B7A3B*	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4
B7A3C*	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B7A3C*	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B7A3C*	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B7A3C*	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B7A3C*	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B7A3C*	0 to 6	Aroclor 1254	0.2	**15.00**	8/19/2004	4
B7A3C*	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4
B7A3D*	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B7A3D*	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B7A3D*	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B7A3D*	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B7A3D*	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B7A3D*	**	Aroclor 1254	0.2	**4.00**	8/19/2004	4
B7A3D*	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B7B*	0 to 6	Aroclor 1016	0.2	ND	7/27/2004	1
B7B*	0 to 6	Aroclor 1221	0.2	ND	7/27/2004	1
B7B*	0 to 6	Aroclor 1248	0.2	ND	7/27/2004	1
B7B*	0 to 6	Aroclor 1242	0.2	ND	7/27/2004	1
B7B*	0 to 6	Aroclor 1232	0.2	ND	7/27/2004	1
B7B*	0 to 6	Aroclor 1254	0.2	**30.00**	7/27/2004	1
B7B*	0 to 6	Aroclor 1260	0.2	ND	7/27/2004	1
B7B1*	0 to 6	Aroclor 1016	0.2	ND	8/6/2004	2
B7B1*	0 to 6	Aroclor 1221	0.2	ND	8/6/2004	2
B7B1*	0 to 6	Aroclor 1248	0.2	ND	8/6/2004	2
B7B1*	0 to 6	Aroclor 1242	0.2	ND	8/6/2004	2
B7B1*	0 to 6	Aroclor 1232	0.2	ND	8/6/2004	2
B7B1*	0 to 6	Aroclor 1254	0.2	**25.00**	8/6/2004	2
B7B1*	0 to 6	Aroclor 1260	0.2	ND	8/6/2004	2
B7B1A*	0 to 6	Aroclor 1016	0.2	ND	8/12/2004	3
B7B1A*	0 to 6	Aroclor 1221	0.2	ND	8/12/2004	3
B7B1A*	0 to 6	Aroclor 1248	0.2	ND	8/12/2004	3
B7B1A*	0 to 6	Aroclor 1242	0.2	ND	8/12/2004	3
B7B1A*	0 to 6	Aroclor 1232	0.2	ND	8/12/2004	3
B7B1A*	0 to 6	Aroclor 1254	0.2	**13.00**	8/12/2004	3
B7B1A*	0 to 6	Aroclor 1260	0.2	ND	8/12/2004	3
B7B1B	0 to 6	Aroclor 1016	0.2	ND	8/12/2004	3
B7B1B	0 to 6	Aroclor 1221	0.2	ND	8/12/2004	3
B7B1B	0 to 6	Aroclor 1248	0.2	ND	8/12/2004	3
B7B1B	0 to 6	Aroclor 1242	0.2	ND	8/12/2004	3
B7B1B	0 to 6	Aroclor 1232	0.2	ND	8/12/2004	3
B7B1B	0 to 6	Aroclor 1254	0.2	**0.26**	8/12/2004	3
B7B1B	0 to 6	Aroclor 1260	0.2	ND	8/12/2004	3
B7B1C	0 to 6	Aroclor 1016	0.2	ND	8/12/2004	3
B7B1C	0 to 6	Aroclor 1221	0.2	ND	8/12/2004	3
B7B1C	0 to 6	Aroclor 1248	0.2	ND	8/12/2004	3
B7B1C	0 to 6	Aroclor 1242	0.2	ND	8/12/2004	3
B7B1C	0 to 6	Aroclor 1232	0.2	ND	8/12/2004	3
B7B1C	0 to 6	Aroclor 1254	0.2	**0.14**	8/12/2004	3
B7B1C	0 to 6	Aroclor 1260	0.2	ND	8/12/2004	3
B7C *	0 to 6	Aroclor 1016	0.2	ND	7/27/2004	1
B7C *	0 to 6	Aroclor 1221	0.2	ND	7/27/2004	1
B7C *	0 to 6	Aroclor 1248	0.2	ND	7/27/2004	1
B7C *	0 to 6	Aroclor 1242	0.2	ND	7/27/2004	1
B7C *	0 to 6	Aroclor 1232	0.2	ND	7/27/2004	1
B7C *	0 to 6	Aroclor 1254	0.2	**170.00**	7/27/2004	1
B7C *	0 to 6	Aroclor 1260	0.2	ND	7/27/2004	1

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B7C*	18 to 24	Aroclor 1016	0.2	ND	8/4/2004	2
B7C*	18 to 24	Aroclor 1221	0.2	ND	8/4/2004	2
B7C*	18 to 24	Aroclor 1248	0.2	ND	8/4/2004	2
B7C*	18 to 24	Aroclor 1242	0.2	ND	8/4/2004	2
B7C*	18 to 24	Aroclor 1232	0.2	ND	8/4/2004	2
B7C*	18 to 24	Aroclor 1254	0.2	**1.40**	8/4/2004	2
B7C*	18 to 24	Aroclor 1260	0.2	ND	8/4/2004	2
B7C DUP*	18 to 24	Aroclor 1016	0.2	ND	8/4/2004	2
B7C DUP*	18 to 24	Aroclor 1221	0.2	ND	8/4/2004	2
B7C DUP*	18 to 24	Aroclor 1248	0.2	ND	8/4/2004	2
B7C DUP*	18 to 24	Aroclor 1242	0.2	ND	8/4/2004	2
B7C DUP*	18 to 24	Aroclor 1232	0.2	ND	8/4/2004	2
B7C DUP*	18 to 24	Aroclor 1254	0.2	**1.10**	8/4/2004	2
B7C DUP*	18 to 24	Aroclor 1260	0.2	ND	8/4/2004	2
B7C1	0 to 6	Aroclor 1016	0.2	ND	8/4/2004	2
B7C1	0 to 6	Aroclor 1221	0.2	ND	8/4/2004	2
B7C1	0 to 6	Aroclor 1248	0.2	ND	8/4/2004	2
B7C1	0 to 6	Aroclor 1242	0.2	ND	8/4/2004	2
B7C1	0 to 6	Aroclor 1232	0.2	ND	8/4/2004	2
B7C1	0 to 6	Aroclor 1254	0.2	**1.10**	8/4/2004	2
B7C1	0 to 6	Aroclor 1260	0.2	ND	8/4/2004	2
B7C1A	0 to 6	Aroclor 1016	0.2	ND	8/4/2004	2
B7C1A	0 to 6	Aroclor 1221	0.2	ND	8/4/2004	2
B7C1A	0 to 6	Aroclor 1248	0.2	ND	8/4/2004	2
B7C1A	0 to 6	Aroclor 1242	0.2	ND	8/4/2004	2
B7C1A	0 to 6	Aroclor 1232	0.2	ND	8/4/2004	2
B7C1A	0 to 6	Aroclor 1254	0.2	**1.50**	8/4/2004	2
B7C1A	0 to 6	Aroclor 1260	0.2	ND	8/4/2004	2
B7C1D	0 to 6	Aroclor 1016	0.2	ND	8/4/2004	2
B7C1D	0 to 6	Aroclor 1221	0.2	ND	8/4/2004	2
B7C1D	0 to 6	Aroclor 1248	0.2	ND	8/4/2004	2
B7C1D	0 to 6	Aroclor 1242	0.2	ND	8/4/2004	2
B7C1D	0 to 6	Aroclor 1232	0.2	ND	8/4/2004	2
B7C1D	0 to 6	Aroclor 1254	0.2	**1.60**	8/4/2004	2
B7C1D	0 to 6	Aroclor 1260	0.2	ND	8/4/2004	2
B7D*	0 to 6	Aroclor 1016	0.2	ND	7/27/2004	1
B7D*	0 to 6	Aroclor 1221	0.2	ND	7/27/2004	1
B7D*	0 to 6	Aroclor 1248	0.2	ND	7/27/2004	1
B7D*	0 to 6	Aroclor 1242	0.2	ND	7/27/2004	1
B7D*	0 to 6	Aroclor 1232	0.2	ND	7/27/2004	1
B7D*	0 to 6	Aroclor 1254	0.2	**11.00**	7/27/2004	1
B7D*	0 to 6	Aroclor 1260	0.2	ND	7/27/2004	1

TABLE 2
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Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B7D1*	0 to 6	Aroclor 1016	0.2	ND	8/4/2004	2
B7D1*	0 to 6	Aroclor 1221	0.2	ND	8/4/2004	2
B7D1*	0 to 6	Aroclor 1248	0.2	ND	8/4/2004	2
B7D1*	0 to 6	Aroclor 1242	0.2	ND	8/4/2004	2
B7D1*	0 to 6	Aroclor 1232	0.2	ND	8/4/2004	2
B7D1*	0 to 6	Aroclor 1254	0.2	**1.50**	8/4/2004	2
B7D1*	0 to 6	Aroclor 1260	0.2	ND	8/4/2004	2
B72D1*	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B72D1*	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B72D1*	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B72D1*	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B72D1*	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B72D1*	0 to 6	Aroclor 1254	0.2	**15.00**	8/19/2004	4
B72D1*	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4
B7F1*	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B7F1*	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B7F1*	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B7F1*	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B7F1*	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B7F1*	0 to 6	Aroclor 1254	0.2	**16.00**	8/19/2004	4
B7F1*	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4
B7F1 DUP*	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B7F1 DUP*	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B7F1 DUP*	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B7F1 DUP*	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B7F1 DUP*	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B7F1 DUP*	0 to 6	Aroclor 1254	0.2	15.00	8/19/2004	4
B7F1 DUP*	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4
B7F1A	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B7F1A	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B7F1A	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B7F1A	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B7F1A	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B7F1A	0 to 6	Aroclor 1254	0.2	**0.21**	8/19/2004	4
B7F1A	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4
B7F1B	0 to 6	Aroclor 1016	0.2	ND	8/19/2004	4
B7F1B	0 to 6	Aroclor 1221	0.2	ND	8/19/2004	4
B7F1B	0 to 6	Aroclor 1248	0.2	ND	8/19/2004	4
B7F1B	0 to 6	Aroclor 1242	0.2	ND	8/19/2004	4
B7F1B	0 to 6	Aroclor 1232	0.2	ND	8/19/2004	4
B7F1B	0 to 6	Aroclor 1254	0.2	**0.17**	8/19/2004	4
B7F1B	0 to 6	Aroclor 1260	0.2	ND	8/19/2004	4

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B8	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B8	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B8	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B8	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B8	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B8	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B8	0 to 6	Aroclor 1260	0.2	**0.18**	6/21/2004	
B8A	0 to 6	Aroclor 1016	0.2	ND	9/8/2004	6
B8A	0 to 6	Aroclor 1221	0.2	ND	9/8/2004	6
B8A	0 to 6	Aroclor 1248	0.2	ND	9/8/2004	6
B8A	0 to 6	Aroclor 1242	0.2	ND	9/8/2004	6
B8A	0 to 6	Aroclor 1232	0.2	ND	9/8/2004	6
B8A	0 to 6	Aroclor 1254	0.2	**0.51**	9/8/2004	6
B8A	0 to 6	Aroclor 1260	0.2	ND	9/8/2004	6
B8B*	0 to 6	Aroclor 1016	0.2	ND	9/8/2004	6
B8B*	0 to 6	Aroclor 1221	0.2	ND	9/8/2004	6
B8B*	0 to 6	Aroclor 1248	0.2	ND	9/8/2004	6
B8B*	0 to 6	Aroclor 1242	0.2	ND	9/8/2004	6
B8B*	0 to 6	Aroclor 1232	0.2	ND	9/8/2004	6
B8B*	0 to 6	Aroclor 1254	0.2	**3.80**	9/8/2004	6
B8B*	0 to 6	Aroclor 1260	0.2	ND	9/8/2004	6
B8B1	0 to 6	Aroclor 1016	0.2	ND	9/15/2004	7
B8B1	0 to 6	Aroclor 1221	0.2	ND	9/15/2004	7
B8B1	0 to 6	Aroclor 1248	0.2	ND	9/15/2004	7
B8B1	0 to 6	Aroclor 1242	0.2	ND	9/15/2004	7
B8B1	0 to 6	Aroclor 1232	0.2	ND	9/15/2004	7
B8B1	0 to 6	Aroclor 1254	0.2	**0.33**	9/15/2004	7
B8B1	0 to 6	Aroclor 1260	0.2	ND	9/15/2004	7
B8B2	0 to 6	Aroclor 1016	0.2	ND	9/15/2004	7
B8B2	0 to 6	Aroclor 1221	0.2	ND	9/15/2004	7
B8B2	0 to 6	Aroclor 1248	0.2	ND	9/15/2004	7
B8B2	0 to 6	Aroclor 1242	0.2	ND	9/15/2004	7
B8B2	0 to 6	Aroclor 1232	0.2	ND	9/15/2004	7
B8B2	0 to 6	Aroclor 1254	0.2	**0.44**	9/15/2004	7
B8B2	0 to 6	Aroclor 1260	0.2	ND	9/15/2004	7
B9	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B9	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B9	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B9	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B9	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B9	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B9	0 to 6	Aroclor 1260	0.2	**0.06**	6/21/2004	

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B10*	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B10*	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B10*	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B10*	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B10*	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B10*	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B10*	0 to 6	Aroclor 1260	0.2	**0.29**	6/21/2004	
B10 DUP*	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B10 DUP*	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B10 DUP*	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B10 DUP*	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B10 DUP*	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B10 DUP*	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B10 DUP*	0 to 6	Aroclor 1260	0.2	**0.31**	6/21/2004	
B11	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B11	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B11	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B11	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B11	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B11	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B11	0 to 6	Aroclor 1260	0.2	ND	6/21/2004	
B12	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B12	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B12	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B12	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B12	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B12	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B12	0 to 6	Aroclor 1260	0.2	ND	6/21/2004	
B13	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B13	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B13	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B13	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B13	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B13	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B13	0 to 6	Aroclor 1260	0.2	ND	6/21/2004	
B14*	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B14*	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B14*	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B14*	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B14*	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B14*	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B14*	0 to 6	Aroclor 1260	0.2	ND	6/21/2004	

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
B15*	0 to 6	Aroclor 1016	0.2	ND	6/21/2004	
B15*	0 to 6	Aroclor 1221	0.2	ND	6/21/2004	
B15*	0 to 6	Aroclor 1248	0.2	ND	6/21/2004	
B15*	0 to 6	Aroclor 1242	0.2	ND	6/21/2004	
B15*	0 to 6	Aroclor 1232	0.2	ND	6/21/2004	
B15*	0 to 6	Aroclor 1254	0.2	ND	6/21/2004	
B15*	0 to 6	Aroclor 1260	0.2	ND	6/21/2004	
400B7-PX1		Aroclor 1016	0.2	ND	10/26/2004	
400B7-PX1		Aroclor 1221	0.2	ND	10/26/2004	
400B7-PX1		Aroclor 1248	0.2	ND	10/26/2004	
400B7-PX1		Aroclor 1242	0.2	ND	10/26/2004	
400B7-PX1		Aroclor 1232	0.2	ND	10/26/2004	
400B7-PX1		Aroclor 1254	0.2	**0.47**	10/26/2004	
400B7-PX1		Aroclor 1260	0.2	ND	10/26/2004	
400B7-PX2		Aroclor 1016	0.2	ND	10/26/2004	
400B7-PX2		Aroclor 1221	0.2	ND	10/26/2004	
400B7-PX2		Aroclor 1248	0.2	ND	10/26/2004	
400B7-PX2		Aroclor 1242	0.2	ND	10/26/2004	
400B7-PX2		Aroclor 1232	0.2	ND	10/26/2004	
400B7-PX2		Aroclor 1254	0.2	**0.35**	10/26/2004	
400B7-PX2		Aroclor 1260	0.2	ND	10/26/2004	
400B7-PX3		Aroclor 1016	0.2	ND	10/26/2004	
400B7-PX3		Aroclor 1221	0.2	ND	10/26/2004	
400B7-PX3		Aroclor 1248	0.2	ND	10/26/2004	
400B7-PX3		Aroclor 1242	0.2	ND	10/26/2004	
400B7-PX3		Aroclor 1232	0.2	ND	10/26/2004	
400B7-PX3		Aroclor 1254	0.2	**0.07**	10/26/2004	
400B7-PX3		Aroclor 1260	0.2	ND	10/26/2004	
400B7-PX4		Aroclor 1016	0.2	ND	10/26/2004	
400B7-PX4		Aroclor 1221	0.2	ND	10/26/2004	
400B7-PX4		Aroclor 1248	0.2	ND	10/26/2004	
400B7-PX4		Aroclor 1242	0.2	ND	10/26/2004	
400B7-PX4		Aroclor 1232	0.2	ND	10/26/2004	
400B7-PX4		Aroclor 1254	0.2	**0.06**	10/26/2004	
400B7-PX4		Aroclor 1260	0.2	ND	10/26/2004	
400B7-PX5		Aroclor 1016	0.2	ND	10/26/2004	
400B7-PX5		Aroclor 1221	0.2	ND	10/26/2004	
400B7-PX5		Aroclor 1248	0.2	ND	10/26/2004	
400B7-PX5		Aroclor 1242	0.2	ND	10/26/2004	
400B7-PX5		Aroclor 1232	0.2	ND	10/26/2004	
400B7-PX5		Aroclor 1254	0.2	**0.36**	10/26/2004	
400B7-PX5		Aroclor 1260	0.2	ND	10/26/2004	

TABLE 2
2004 PARCEL 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date	Round
400B7-PX6		Aroclor 1016	0.2	ND	10/26/2004	
400B7-PX6		Aroclor 1221	0.2	ND	10/26/2004	
400B7-PX6		Aroclor 1248	0.2	ND	10/26/2004	
400B7-PX6		Aroclor 1242	0.2	ND	10/26/2004	
400B7-PX6		Aroclor 1232	0.2	ND	10/26/2004	
400B7-PX6		Aroclor 1254	0.2	**1.00**	10/26/2004	
400B7-PX6		Aroclor 1260	0.2	ND	10/26/2004	
400B7-PX7		Aroclor 1016	0.2	ND	10/26/2004	
400B7-PX7		Aroclor 1221	0.2	ND	10/26/2004	
400B7-PX7		Aroclor 1248	0.2	ND	10/26/2004	
400B7-PX7		Aroclor 1242	0.2	ND	10/26/2004	
400B7-PX7		Aroclor 1232	0.2	ND	10/26/2004	
400B7-PX7		Aroclor 1254	0.2	**1.70**	10/26/2004	
400B7-PX7		Aroclor 1260	0.2	ND	10/26/2004	
400B7-PX8		Aroclor 1016	0.2	ND	10/26/2004	
400B7-PX8		Aroclor 1221	0.2	ND	10/26/2004	
400B7-PX8		Aroclor 1248	0.2	ND	10/26/2004	
400B7-PX8		Aroclor 1242	0.2	ND	10/26/2004	
400B7-PX8		Aroclor 1232	0.2	ND	10/26/2004	
400B7-PX8		Aroclor 1254	0.2	**0.07**	10/26/2004	
400B7-PX8		Aroclor 1260	0.2	ND	10/26/2004	
400B7-PX8 DUP		Aroclor 1016	0.2	ND	10/26/2004	
400B7-PX8 DUP		Aroclor 1221	0.2	ND	10/26/2004	
400B7-PX8 DUP		Aroclor 1248	0.2	ND	10/26/2004	
400B7-PX8 DUP		Aroclor 1242	0.2	ND	10/26/2004	
400B7-PX8 DUP		Aroclor 1232	0.2	ND	10/26/2004	
400B7-PX8 DUP		Aroclor 1254	0.2	**1.20**	10/26/2004	
400B7-PX8 DUP		Aroclor 1260	0.2	ND	10/26/2004	

Footnotes:
Cell shade value represents a result that is above the NJDEP RDCSRS
* Soil represented by these samples was excavated and removed in October
mg/Kg = miligram/kilogram

The NJ Residential Direct Contact Soil Remediation Standards refers to the NJDEP's September 18, 2017 Remediation Standards (http://www.nj.gov/dep/rules/rules/njac7_26d.pdf)

TABLE 3
2005 PARCEL 82 (Building 121) Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date
BLDG121-B1	0 to 6	Aroclor 1016	0.2	ND	4/14/2005
BLDG121-B1	0 to 6	Aroclor 1221	0.2	ND	4/14/2005
BLDG121-B1	0 to 6	Aroclor 1248	0.2	ND	4/14/2005
BLDG121-B1	0 to 6	Aroclor 1242	0.2	ND	4/14/2005
BLDG121-B1	0 to 6	Aroclor 1232	0.2	ND	4/14/2005
BLDG121-B1	0 to 6	Aroclor 1254	0.2	ND	4/14/2005
BLDG121-B1	0 to 6	Aroclor 1260	0.2	**0.2**	4/14/2005
BLDG121-B2	0 to 6	Aroclor 1016	0.2	ND	4/14/2005
BLDG121-B2	0 to 6	Aroclor 1221	0.2	ND	4/14/2005
BLDG121-B2	0 to 6	Aroclor 1248	0.2	ND	4/14/2005
BLDG121-B2	0 to 6	Aroclor 1242	0.2	ND	4/14/2005
BLDG121-B2	0 to 6	Aroclor 1232	0.2	ND	4/14/2005
BLDG121-B2	0 to 6	Aroclor 1254	0.2	ND	4/14/2005
BLDG121-B2	0 to 6	Aroclor 1260	0.2	**2.8**	4/14/2005
BLDG121-B3	0 to 6	Aroclor 1016	0.2	ND	4/14/2005
BLDG121-B3	0 to 6	Aroclor 1221	0.2	ND	4/14/2005
BLDG121-B3	0 to 6	Aroclor 1248	0.2	ND	4/14/2005
BLDG121-B3	0 to 6	Aroclor 1242	0.2	ND	4/14/2005
BLDG121-B3	0 to 6	Aroclor 1232	0.2	ND	4/14/2005
BLDG121-B3	0 to 6	Aroclor 1254	0.2	ND	4/14/2005
BLDG121-B3	0 to 6	Aroclor 1260	0.2	**0.15**	4/14/2005
BLDG121-B4	0 to 6	Aroclor 1016	0.2	ND	4/14/2005
BLDG121-B4	0 to 6	Aroclor 1221	0.2	ND	4/14/2005
BLDG121-B4	0 to 6	Aroclor 1248	0.2	ND	4/14/2005
BLDG121-B4	0 to 6	Aroclor 1242	0.2	ND	4/14/2005
BLDG121-B4	0 to 6	Aroclor 1232	0.2	ND	4/14/2005
BLDG121-B4	0 to 6	Aroclor 1254	0.2	ND	4/14/2005
BLDG121-B4	0 to 6	Aroclor 1260	0.2	1.5	4/14/2005
BLDG121-B5	0 to 6	Aroclor 1016	0.2	ND	4/14/2005
BLDG121-B5	0 to 6	Aroclor 1221	0.2	ND	4/14/2005
BLDG121-B5	0 to 6	Aroclor 1248	0.2	ND	4/14/2005
BLDG121-B5	0 to 6	Aroclor 1242	0.2	ND	4/14/2005
BLDG121-B5	0 to 6	Aroclor 1232	0.2	ND	4/14/2005
BLDG121-B5	0 to 6	Aroclor 1254	0.2	ND	4/14/2005
BLDG121-B5	0 to 6	Aroclor 1260	0.2	**0.39**	4/14/2005
BLDG121-B6	0 to 6	Aroclor 1016	0.2	ND	4/14/2005
BLDG121-B6	0 to 6	Aroclor 1221	0.2	ND	4/14/2005
BLDG121-B6	0 to 6	Aroclor 1248	0.2	ND	4/14/2005
BLDG121-B6	0 to 6	Aroclor 1242	0.2	ND	4/14/2005
BLDG121-B6	0 to 6	Aroclor 1232	0.2	ND	4/14/2005
BLDG121-B6	0 to 6	Aroclor 1254	0.2	ND	4/14/2005
BLDG121-B6	0 to 6	Aroclor 1260	0.2	**0.047**	4/14/2005

TABLE 3
2005 PARCEL 82 (Building 121) Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Location	Depth (Inches)	PCB	*NJDEP RDCSRS (m* g/Kg)	Result (mg/kg)	Date
BLDG121-B7	0 to 6	Aroclor 1016	0.2	ND	4/14/2005
BLDG121-B7	0 to 6	Aroclor 1221	0.2	ND	4/14/2005
BLDG121-B7	0 to 6	Aroclor 1248	0.2	ND	4/14/2005
BLDG121-B7	0 to 6	Aroclor 1242	0.2	ND	4/14/2005
BLDG121-B7	0 to 6	Aroclor 1232	0.2	ND	4/14/2005
BLDG121-B7	0 to 6	Aroclor 1254	0.2	ND	4/14/2005
BLDG121-B7	0 to 6	Aroclor 1260	0.2	**0.02**	4/14/2005
BLDG121-B8	0 to 6	Aroclor 1016	0.2	ND	4/14/2005
BLDG121-B8	0 to 6	Aroclor 1221	0.2	ND	4/14/2005
BLDG121-B8	0 to 6	Aroclor 1248	0.2	ND	4/14/2005
BLDG121-B8	0 to 6	Aroclor 1242	0.2	ND	4/14/2005
BLDG121-B8	0 to 6	Aroclor 1232	0.2	ND	4/14/2005
BLDG121-B8	0 to 6	Aroclor 1254	0.2	ND	4/14/2005
BLDG121-B8	0 to 6	Aroclor 1260	0.2	**0.02**	4/14/2005
BLDG121-B9	0 to 6	Aroclor 1016	0.2	ND	4/14/2005
BLDG121-B9	0 to 6	Aroclor 1221	0.2	ND	4/14/2005
BLDG121-B9	0 to 6	Aroclor 1248	0.2	ND	4/14/2005
BLDG121-B9	0 to 6	Aroclor 1242	0.2	ND	4/14/2005
BLDG121-B9	0 to 6	Aroclor 1232	0.2	ND	4/14/2005
BLDG121-B9	0 to 6	Aroclor 1254	0.2	ND	4/14/2005
BLDG121-B9	0 to 6	Aroclor 1260	0.2	**0.06**	4/14/2005

Footnotes:

Cell shade value represents a result that is above the NJDEP RDCSRS

* Soil represented by these samples was excavated to a depth of 0.5-2.0 feet bgs and removed in

mg/Kg = miligram/kilogram

The NJ Residential Direct Contact Soil Remediation Standards refers to the NJDEP's September 18, 2017 Remediation Standards (http://www.nj.gov/dep/rules/rules/njac7_26d.pdf)

TABLE 4
SOIL SAMPLING RESULTS - COMPARISON TO NJDEP SOIL REMEDIATION STANDARDS
SITE PARCEL 82
FORT MONMOUTH, NEW JERSEY

Loc ID	NJ Residential Direct Contact SRS	NJ Non-Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	PAR-82-SB-B01			PAR-82-SB-B02		PAR-82-SB-B03		PAR-82-SB-B03
Sample ID				PAR-82-SB-B01-0.0-0.5	PAR-82-SB-B101-0.0-0.5	PAR-82-SB-B01-1.5-2.0	PAR-82-SB-B02-0.0-0.5	PAR-82-SB-B02-1.5-2.0	PAR-82-SB-B03-0.0-0.5	PAR-82-SB-B103-0.0-0.5	PAR-82-SB-B03-1.5-2.0
Sample Date				5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018
Semivolatile Organic Compounds (mg/kg)											
Acenaphthene	3,400	37,000	110	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	17,000	30,000	2,400	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	5	17	0.8	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.5	2	0.2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	5	17	2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	380,000	30,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	45	170	25	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	450	1,700	80	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.5	2	0.8	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,300	24,000	1,300	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,300	24,000	170	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	5	17	7	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	6	17	25	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	1,700	18,000	840	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)											
Aroclor-1016	0.2	NLE	NLE	< 0.03	< 0.03	< 0.03	< 0.029	< 0.028	< 0.03	< 0.03	< 0.028
Aroclor-1221	0.2	NLE	NLE	< 0.03	< 0.03	< 0.03	< 0.029	< 0.028	< 0.03	< 0.03	< 0.028
Aroclor-1232	0.2	NLE	NLE	< 0.03	< 0.03	< 0.03	< 0.029	< 0.028	< 0.03	< 0.03	< 0.028
Aroclor-1242	0.2	NLE	NLE	< 0.03	< 0.03	< 0.03	< 0.029	< 0.028	< 0.03	< 0.03	< 0.028
Aroclor-1248	0.2	NLE	NLE	< 0.03	< 0.03	< 0.03	< 0.029	< 0.028	< 0.03	< 0.03	< 0.028
Aroclor-1254	0.2	NLE	NLE	**0.073**	**0.12**	< 0.03	< 0.029	< 0.028	< 0.03	< 0.03	< 0.028
Aroclor-1260	0.2	NLE	NLE	**0.031 J**	< 0.03	< 0.03	< 0.029	< 0.028	< 0.03	< 0.03	< 0.028
Aroclor-1268	0.2	NLE	NLE	< 0.03	< 0.03	< 0.03	< 0.029	< 0.028	< 0.03	< 0.03	< 0.028
Total PCBs	0.2	NLE	NLE	< 0.27	**0.12 J**	< 0.27	< 0.26	< 0.26	< 0.27	< 0.27	< 0.25

TABLE 4
SOIL SAMPLING RESULTS - COMPARISON TO NJDEP SOIL REMEDIATION STANDARDS
SITE PARCEL 82
FORT MONMOUTH, NEW JERSEY

Loc ID	NJ Residential Direct Contact SRS	NJ Non-Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	PAR-82-SB-B04		PAR-82-SB-B05			PAR-82-SB-B06		PAR-82-SB-B07
Sample ID				PAR-82-SB-B04-0.0-0.5	PAR-82-SB-B04-1.5-2.0	PAR-82-SB-B05-0.0-0.5	PAR-82-SB-B105-0.0-0.5	PAR-82-SB-B05-1.5-2.0	PAR-82-SB-B06-0.0-0.5	PAR-82-SB-B06-1.5-2.0	PAR-82-SB-B07-0.0-0.5
Sample Date				5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018
Semivolatile Organic Compounds (mg/kg)											
Acenaphthene	3,400	37,000	110	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	17,000	30,000	2,400	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	5	17	0.8	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.5	2	0.2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	5	17	2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	380,000	30,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	45	170	25	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	450	1,700	80	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.5	2	0.8	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,300	24,000	1,300	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,300	24,000	170	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	5	17	7	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	6	17	25	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	1,700	18,000	840	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)											
Aroclor-1016	0.2	NLE	NLE	< 0.029	< 0.031	< 0.026	< 0.027	< 0.031	< 0.026	< 0.03	< 0.14
Aroclor-1221	0.2	NLE	NLE	< 0.029	< 0.031	< 0.026	< 0.027	< 0.031	< 0.026	< 0.03	< 0.14
Aroclor-1232	0.2	NLE	NLE	< 0.029	< 0.031	< 0.026	< 0.027	< 0.031	< 0.026	< 0.03	< 0.14
Aroclor-1242	0.2	NLE	NLE	< 0.029	< 0.031	< 0.026	< 0.027	< 0.031	< 0.026	< 0.03	< 0.14
Aroclor-1248	0.2	NLE	NLE	< 0.029	< 0.031	< 0.026	< 0.027	< 0.031	< 0.026	< 0.03	< 0.14
Aroclor-1254	0.2	NLE	NLE	**0.19**	< 0.031	< 0.026	< 0.027	< 0.031	< 0.026	< 0.03	**1.4**
Aroclor-1260	0.2	NLE	NLE	**0.12**	< 0.031	**0.068**	**0.056**	< 0.031	**0.033 J**	< 0.03	< 0.14
Aroclor-1268	0.2	NLE	NLE	< 0.029	< 0.031	< 0.026	< 0.027	< 0.031	< 0.026	< 0.03	< 0.14
Total PCBs	0.2	NLE	NLE	**0.31 J**	< 0.27	< 0.23	< 0.24	< 0.28	< 0.23	< 0.27	**1.4 J**

TABLE 4
SOIL SAMPLING RESULTS - COMPARISON TO NJDEP SOIL REMEDIATION STANDARDS
SITE PARCEL 82
FORT MONMOUTH, NEW JERSEY

Loc ID	NJ Residential Direct Contact SRS	NJ Non-Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	PAR-82-SB-B07		PAR-82-SB-B08		PAR-82-SB-B09	PAR-82-SB-B09	PAR-82-SB-B10	
Sample ID				PAR-82-SB-B107-0.0-0.5	PAR-82-SB-B07-1.5-2.0	PAR-82-SB-B08-0.0-0.5	PAR-82-SB-B08-1.5-2.0	PAR-82-SB-B09-0.0-0.5	PAR-82-SB-B09-1.5-2.0	PAR-82-SB-B10-0.0-0.5	PAR-82-SB-B10-1.5-2.0
Sample Date				5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018
Semivolatile Organic Compounds (mg/kg)											
Acenaphthene	3,400	37,000	110	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	17,000	30,000	2,400	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	5	17	0.8	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.5	2	0.2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	5	17	2	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	380,000	30,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	45	170	25	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	450	1,700	80	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.5	2	0.8	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,300	24,000	1,300	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,300	24,000	170	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	5	17	7	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	6	17	25	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	1,700	18,000	840	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)											
Aroclor-1016	0.2	NLE	NLE	< 0.027	< 0.03	< 0.028	< 0.029	< 0.13	< 0.028	< 0.028	< 0.029
Aroclor-1221	0.2	NLE	NLE	< 0.027	< 0.03	< 0.028	< 0.029	< 0.13	< 0.028	< 0.028	< 0.029
Aroclor-1232	0.2	NLE	NLE	< 0.027	< 0.03	< 0.028	< 0.029	< 0.13	< 0.028	< 0.028	< 0.029
Aroclor-1242	0.2	NLE	NLE	< 0.027	< 0.03	< 0.028	< 0.029	< 0.13	< 0.028	< 0.028	< 0.029
Aroclor-1248	0.2	NLE	NLE	< 0.027	< 0.03	< 0.028	< 0.029	< 0.13	< 0.028	< 0.028	< 0.029
Aroclor-1254	0.2	NLE	NLE	**0.88**	**0.09**	< 0.028	< 0.029	**3.6**	< 0.028	< 0.028	**0.02 J**
Aroclor-1260	0.2	NLE	NLE	< 0.027	**0.029 J**	**0.016 J**	< 0.029	< 0.13	< 0.028	**0.058**	< 0.029
Aroclor-1268	0.2	NLE	NLE	< 0.027	< 0.03	< 0.028	< 0.029	< 0.13	< 0.028	< 0.028	< 0.029
Total PCBs	0.2	NLE	NLE	**0.88**	**0.12 J**	< 0.25	< 0.26	**3.6**	< 0.25	< 0.25	< 0.26

TABLE 4
SOIL SAMPLING RESULTS - COMPARISON TO NJDEP SOIL REMEDIATION STANDARDS
SITE PARCEL 82
FORT MONMOUTH, NEW JERSEY

Loc ID	NJ Residential Direct Contact SRS	NJ Non-Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	PAR-82-SB-B11		PAR-82-SB-B12		PAR-82-SB-B13	PAR-82-SB-B13	PAR-82-SB-B14		PAR-82-SB-B15
Sample ID				PAR-82-SB-B11-0.0-0.5	PAR-82-SB-B11-1.5-2.0	PAR-82-SB-B12-0.0-0.5	PAR-82-SB-B12-1.5-2.0	PAR-82-SB-B13-0.0-0.5	PAR-82-SB-B13-1.5-2.0	PAR-82-SB-B14-0.0-0.5	PAR-82-SB-B14-1.5-2.0	PAR-82-SB-B15-0.0-0.5
Sample Date				5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018
Semivolatile Organic Compounds (mg/kg)												
Acenaphthene	3,400	37,000	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	17,000	30,000	2,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	5	17	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.5	2	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	5	17	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	380,000	30,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	45	170	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	450	1,700	80	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.5	2	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,300	24,000	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,300	24,000	170	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	5	17	7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	6	17	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	1,700	18,000	840	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)												
Aroclor-1016	0.2	NLE	NLE	< 0.028	< 0.028	< 0.029	< 0.029	< 0.028	< 0.029	< 0.029	< 0.03	< 0.029
Aroclor-1221	0.2	NLE	NLE	< 0.028	< 0.028	< 0.029	< 0.029	< 0.028	< 0.029	< 0.029	< 0.03	< 0.029
Aroclor-1232	0.2	NLE	NLE	< 0.028	< 0.028	< 0.029	< 0.029	< 0.028	< 0.029	< 0.029	< 0.03	< 0.029
Aroclor-1242	0.2	NLE	NLE	< 0.028	< 0.028	< 0.029	< 0.029	< 0.028	< 0.029	< 0.029	< 0.03	< 0.029
Aroclor-1248	0.2	NLE	NLE	< 0.028	< 0.028	< 0.029	< 0.029	< 0.028	< 0.029	< 0.029	< 0.03	< 0.029
Aroclor-1254	0.2	NLE	NLE	< 0.028	< 0.028	**0.12**	< 0.029	**0.048 JN**	< 0.029	**0.02 JN**	< 0.03	**0.52**
Aroclor-1260	0.2	NLE	NLE	**0.03 J**	< 0.028	**0.044 J**	< 0.029	**0.044 J**	< 0.029	**0.024 J**	< 0.03	< 0.029
Aroclor-1268	0.2	NLE	NLE	< 0.028	< 0.028	< 0.029	< 0.029	< 0.028	< 0.029	< 0.029	< 0.03	< 0.029
Total PCBs	0.2	NLE	NLE	< 0.25	< 0.25	**0.17 J**	< 0.26	< 0.25	< 0.26	< 0.26	< 0.27	**0.52**

TABLE 4
SOIL SAMPLING RESULTS - COMPARISON TO NJDEP SOIL REMEDIATION STANDARDS
SITE PARCEL 82
FORT MONMOUTH, NEW JERSEY

Loc ID	NJ Residential Direct Contact SRS	NJ Non-Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	PAR-82-SB-B15	PAR-82-SB-B16		PAR-82-SB-B17	PAR-82-SB-B17	PAR-82-SB-B18		PAR-82-SB-B19	
Sample ID				PAR-82-SB-B15-1.5-2.0	PAR-82-SB-B16-0.0-0.5	PAR-82-SB-B16-1.5-2.0	PAR-82-SB-B17-0.0-0.5	PAR-82-SB-B17-1.5-2.0	PAR-82-SB-B18-0.0-0.5	PAR-82-SB-B18-1.5-2.0	PAR-82-SB-B19-0.0-0.5	PAR-82-SB-B19-1.5-2.0
Sample Date				5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018
Semivolatile Organic Compounds (mg/kg)												
Acenaphthene	3,400	37,000	110	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acenaphthylene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	17,000	30,000	2,400	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)anthracene	5	17	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	0.5	2	0.2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	5	17	2	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(ghi)perylene	380,000	30,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	45	170	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	450	1,700	80	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	0.5	2	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluoranthene	2,300	24,000	1,300	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fluorene	2,300	24,000	170	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	5	17	7	NA	NA	NA	NA	NA	NA	NA	NA	NA
Naphthalene	6	17	25	NA	NA	NA	NA	NA	NA	NA	NA	NA
Phenanthrene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyrene	1,700	18,000	840	NA	NA	NA	NA	NA	NA	NA	NA	NA
PCBs (mg/kg)												
Aroclor-1016	0.2	NLE	NLE	< 0.029	< 0.025	< 0.028	< 0.028	< 0.027	< 0.028	< 0.028	< 0.028	< 0.029
Aroclor-1221	0.2	NLE	NLE	< 0.029	< 0.025	< 0.028	< 0.028	< 0.027	< 0.028	< 0.028	< 0.028	< 0.029
Aroclor-1232	0.2	NLE	NLE	< 0.029	< 0.025	< 0.028	< 0.028	< 0.027	< 0.028	< 0.028	< 0.028	< 0.029
Aroclor-1242	0.2	NLE	NLE	< 0.029	< 0.025	< 0.028	< 0.028	< 0.027	< 0.028	< 0.028	< 0.028	< 0.029
Aroclor-1248	0.2	NLE	NLE	< 0.029	< 0.025	< 0.028	< 0.028	< 0.027	< 0.028	< 0.028	< 0.028	< 0.029
Aroclor-1254	0.2	NLE	NLE	< 0.029	**0.014 J**	< 0.028	**0.027 J**	**0.051**	**0.019 J**	< 0.028	< 0.028	< 0.029
Aroclor-1260	0.2	NLE	NLE	< 0.029	**0.024 J**	< 0.028	< 0.028	< 0.027	< 0.028	< 0.028	< 0.028	< 0.029
Aroclor-1268	0.2	NLE	NLE	< 0.029	< 0.025	< 0.028	< 0.028	< 0.027	< 0.028	< 0.028	< 0.028	< 0.029
Total PCBs	0.2	NLE	NLE	< 0.26	< 0.23	< 0.26	< 0.25	< 0.24	< 0.25	< 0.25	< 0.25	< 0.26

TABLE 4
SOIL SAMPLING RESULTS - COMPARISON TO NJDEP SOIL REMEDIATION STANDARDS
SITE PARCEL 82
FORT MONMOUTH, NEW JERSEY

Loc ID	NJ Residential Direct Contact SRS	NJ Non-Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	PAR-82-SB-B20		PAR-82-SB-B21	PAR-82-SB-B21	PAR-82-SB-B22		PAR-82-SB-B23	
Sample ID				PAR-82-SB-B20-0.0-0.5	PAR-82-SB-B20-1.5-2.0	PAR-82-SB-B21-0.0-0.5	PAR-82-SB-B21-1.5-2.0	PAR-82-SB-B22-0.0-0.5	PAR-82-SB-B22-1.5-2.0	PAR-82-SB-B23-0.5-1.0	PAR-82-SB-B23-3.0-3.5
Sample Date				5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018
Semivolatile Organic Compounds (mg/kg)											
Acenaphthene	3,400	37,000	110	NA	NA	NA	NA	NA	NA	**0.016 J**	< 0.081
Acenaphthylene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	< 0.072	< 0.081
Anthracene	17,000	30,000	2,400	NA	NA	NA	NA	NA	NA	**0.0092 J**	< 0.081
Benzo(a)anthracene	5	17	0.8	NA	NA	NA	NA	NA	NA	**0.05 J**	**0.017 J**
Benzo(a)pyrene	0.5	2	0.2	NA	NA	NA	NA	NA	NA	**0.059 J**	**0.01 J**
Benzo(b)fluoranthene	5	17	2	NA	NA	NA	NA	NA	NA	**0.082 J**	**0.018 J**
Benzo(ghi)perylene	380,000	30,000	NLE	NA	NA	NA	NA	NA	NA	**0.043 J**	< 0.081
Benzo(k)fluoranthene	45	170	25	NA	NA	NA	NA	NA	NA	**0.03 J**	**0.0064 J**
Chrysene	450	1,700	80	NA	NA	NA	NA	NA	NA	**0.053 J**	**0.012 J**
Dibenz(a,h)anthracene	0.5	2	0.8	NA	NA	NA	NA	NA	NA	**0.012 J**	< 0.081
Fluoranthene	2,300	24,000	1,300	NA	NA	NA	NA	NA	NA	**0.094 J**	**0.016 J**
Fluorene	2,300	24,000	170	NA	NA	NA	NA	NA	NA	**0.011 J**	< 0.081
Indeno(1,2,3-cd)pyrene	5	17	7	NA	NA	NA	NA	NA	NA	**0.045 J**	**0.0097 J**
Naphthalene	6	17	25	NA	NA	NA	NA	NA	NA	**0.28**	< 0.081
Phenanthrene	NLE	300,000	NLE	NA	NA	NA	NA	NA	NA	**0.037 J**	**0.01 J**
Pyrene	1,700	18,000	840	NA	NA	NA	NA	NA	NA	**0.081 J**	**0.016 J**
PCBs (mg/kg)											
Aroclor-1016	0.2	NLE	NLE	< 0.03	< 0.03	< 0.028	< 0.029	< 0.029	< 0.029	NA	NA
Aroclor-1221	0.2	NLE	NLE	< 0.03	< 0.03	< 0.028	< 0.029	< 0.029	< 0.029	NA	NA
Aroclor-1232	0.2	NLE	NLE	< 0.03	< 0.03	< 0.028	< 0.029	< 0.029	< 0.029	NA	NA
Aroclor-1242	0.2	NLE	NLE	< 0.03	< 0.03	< 0.028	< 0.029	< 0.029	< 0.029	NA	NA
Aroclor-1248	0.2	NLE	NLE	< 0.03	< 0.03	< 0.028	< 0.029	< 0.029	< 0.029	NA	NA
Aroclor-1254	0.2	NLE	NLE	< 0.03	< 0.03	**0.048 JN**	< 0.029	**0.043 JN**	< 0.029	NA	NA
Aroclor-1260	0.2	NLE	NLE	< 0.03	< 0.03	**0.15**	< 0.029	**0.13**	< 0.029	NA	NA
Aroclor-1268	0.2	NLE	NLE	< 0.03	< 0.03	< 0.028	< 0.029	< 0.029	< 0.029	NA	NA
Total PCBs	0.2	NLE	NLE	< 0.27	< 0.27	**0.2 J**	< 0.26	**0.17 J**	< 0.26	NA	NA

TABLE 4
SOIL SAMPLING RESULTS - COMPARISON TO NJDEP SOIL REMEDIATION STANDARDS
SITE PARCEL 82
FORT MONMOUTH, NEW JERSEY

Loc ID	NJ Residential Direct Contact SRS	NJ Non-Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	PAR-82-SB-B24		PAR-82-SB-B25	PAR-82-SB-B25	
Sample ID				PAR-82-SB-B24-1.0-1.5	PAR-82-SB-B24-3.0-3.5	PAR-82-SB-B25-1.0-1.5	PAR-82-SB-B125-1.0-1.5	PAR-82-SB-B25-3.0-3.5
Sample Date				5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018
Semivolatile Organic Compounds (mg/kg)								
Acenaphthene	3,400	37,000	110	< 0.078	< 0.08	< 0.079	< 0.08	< 0.081
Acenaphthylene	NLE	300,000	NLE	**0.039 J**	< 0.08	< 0.079	< 0.08	< 0.081
Anthracene	17,000	30,000	2,400	**0.029 J**	< 0.08	< 0.079	< 0.08	< 0.081
Benzo(a)anthracene	5	17	0.8	**0.12**	**0.0064 J**	**0.039 J**	**0.029 J**	< 0.081
Benzo(a)pyrene	0.5	2	0.2	**0.12**	< 0.08	**0.039 J**	**0.025 J**	< 0.081
Benzo(b)fluoranthene	5	17	2	**0.16**	< 0.08	**0.057 J**	**0.039 J**	< 0.081
Benzo(ghi)perylene	380,000	30,000	NLE	**0.08 J**	< 0.08	**0.026 J**	**0.02 J**	< 0.081
Benzo(k)fluoranthene	45	170	25	**0.059 J**	< 0.08	**0.018 J**	**0.015 J**	< 0.081
Chrysene	450	1,700	80	**0.13**	< 0.08	**0.031 J**	**0.026 J**	< 0.081
Dibenz(a,h)anthracene	0.5	2	0.8	**0.012 J**	< 0.08	< 0.079	< 0.08	< 0.081
Fluoranthene	2,300	24,000	1,300	**0.23**	< 0.08	**0.071 J**	**0.054 J**	< 0.081
Fluorene	2,300	24,000	170	**0.016 J**	< 0.08	< 0.079	< 0.08	< 0.081
Indeno(1,2,3-cd)pyrene	5	17	7	**0.084 J**	< 0.08	**0.029 J**	**0.018 J**	< 0.081
Naphthalene	6	17	25	**0.033 J**	< 0.08	< 0.079	< 0.08	< 0.081
Phenanthrene	NLE	300,000	NLE	**0.14**	< 0.08	**0.024 J**	**0.017 J**	< 0.081
Pyrene	1,700	18,000	840	**0.24**	< 0.08	**0.061 J**	**0.044 J**	< 0.081
PCBs (mg/kg)								
Aroclor-1016	0.2	NLE	NLE	NA	NA	NA	NA	NA
Aroclor-1221	0.2	NLE	NLE	NA	NA	NA	NA	NA
Aroclor-1232	0.2	NLE	NLE	NA	NA	NA	NA	NA
Aroclor-1242	0.2	NLE	NLE	NA	NA	NA	NA	NA
Aroclor-1248	0.2	NLE	NLE	NA	NA	NA	NA	NA
Aroclor-1254	0.2	NLE	NLE	NA	NA	NA	NA	NA
Aroclor-1260	0.2	NLE	NLE	NA	NA	NA	NA	NA
Aroclor-1268	0.2	NLE	NLE	NA	NA	NA	NA	NA
Total PCBs	0.2	NLE	NLE	NA	NA	NA	NA	NA

Footnote:

1) All historical data collected prior to 2013 are reported as provided by others.

2) Number of Analyses is the number of detected and non-detected results excluding rejected results. Sample duplicate pairs have not been averaged.

3) NLE = no limit established.

4) ND = not detected in any background sample, no background concentration available.

5) Bold chemical dectection

6) SS = Site Specific action level, see "Specific Chemical Class (or Parameter)" footnote for details.

7) Chemical result qualifiers are assigned by the laboratory and are evaluated and modified (if necessary) during the data validation.

[blank] = detect, i.e. detected chemical result value.

B =Compound detected in the sample at a concentration less than or equal to 5 times (10 times for common lab contaminants) the blank concentration.

R = Rejected, data validation rejected the results.

U = non-detect, i.e. not detected at or above this value.

U-DL = Elevated sample detection limit due to difficult sample matrix.

U-ND = Analyte not detected in sample, but no detection or reporting limit provided.

J = estimated detected value due to a concetration below the reporting limit or due to discrepancies in meeting certain analyte-specific quality control.

E (or ER) = Estimated result.

D = Results from dilution of sample.

J-DL = Elevated sample detection limit due to difficult sample matrix.

JN = Tentatively identified compound, estimated concentration.

UJ=The compound was not detected: however, the results is estimated because of discrepancies in meeting certain analyte-specific QC criteria.

J+ = The result is an estimated quantity, but the result may be biased high.

J- = The result is an estimated quantity, but the result may be biased low.

8) Specific Chemical Classes (or Parameters) comments or notes regarding how data is displayed, compared to Action Levels, or represented in this table.

9) Chemical results greater than or equal to the action level (depending on criteria) are highlighted based on the Criteria that are present.

- Cell Shade values represent a result that is above the NJ Residential Direct Contact Soil Remediation Standard. ####

There are no NJDEP soil standards for individual PCB Aroclors, therefore the total PCB NJDEP standards were used for individual Aroclors.

- Cell Shade values represent a result that is above the NJ Non-Residential Direct Contact Soil Remediation Standard. ###

- Cell Shade values represent a result that is above the NJ Impact to GW Soil Screening Level ###

- Cell Shade values represent a result that is above both the NJ Residential, Non-Residential, AND NJ Impact to GW Soil Screening Level Direct Contact Soil Remediation Standard. ###

- Cell Shade values represent a result that is above both the NJ Residential and Non-Residential Direct Contact Soil Remediation Standard. ###

10) Criteria action level source document and web address.

- The NJ Residential Direct Contact Soil Remediation Standard refers to the NJDEP's Sept 18, 2017 Remediation Standards

http://www.nj.gov/dep/rules/rules/njac7_26d.pdf

- The NJ Non-Residential Direct Contact Soil Remediation Standard refers to the NJDEP's Sept 18, 2017 Remediation Standards

http://www.nj.gov/dep/rules/rules/njac7_26d.pdf

- The NJ Impact to GW Soil Screening Level criteria refers to the Development of Site Specific Impact to Ground Water Soil Remediation Standards - Nov 2013 revised

http://www.nj.gov/dep/srp/guidance/rs/partition_equation.pdf

Attachment A
Correspondence:

1. New Jersey Department of Environmental Protection (NJDEP). 2007. Remedial Action Report for the 800, 700, and 400 Areas, Fort Monmouth, New Jersey. September 5.
2. Department of the Army. 2017. *Letter Work Plan for Parcel 82 (400 Area) Fort Monmouth, New Jersey*. Prepared by the Office of Assistant Chief of Staff for Installation Management, U.S. Army Fort Monmouth. December 7.
3. New Jersey Department of Environmental Protection (NJDEP). 2018. Letter to the Army, RE: *Work Plan for Parcels 82 (400 Area).* March 2.

JON S. CORZINE
Governor

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Remediation Management & Response
P.O. Box 413
Trenton, New Jersey 08625-0413

LISA P. JACKSON
Commissioner

SEP 5 2007

Mr. Joseph Fallon, CHMM
Directorate of Public Works
ATTN: IMNE-MON-PWE
167 Riverside Ave.
Fort Monmouth, NJ 07703

RE: Remedial Action Report for the 800, 700, and 400 Areas
Fort Monmouth, NJ

Dear Mr. Fallon:

The NJDEP Division of Remediation Management & Response (DRMR) has completed its review of the report titled "Remedial Action Report for the 800, 700, and 400 Areas", dated October 2005, by Tetra Tech EM Inc. Our comments are attached.

NJDEP cannot make No Further Action (NFA) determinations for soil or ground water at the 800, 700, and 400 Areas at this time, based upon the report. Our comments describe the additional investigations or actions that would be needed before NFAs could be considered.

You or your staff may contact me at 609-633-0766 with any questions on the enclosed comments, or any other site remediation matters at Fort Monmouth.

Sincerely,

Larry Quinn

Larry Quinn, P.E., CHMM, Case Manager
Bureau of Design and Construction

Attachment

NJDEP COMMENTS ON
REMEDIAL ACTION REPORT FOR THE 800, 700, AND 400 AREAS
FORT MONMOUTH, NJ

1. General - The report states that during the soil investigation in the 800 Area, seven 1,000 gallon USTs and one 550 gallon UST were removed from the site. A subsequent investigation via backhoe identified four additional USTs in the 800 Area outside of the original site footprint. The document further states that the investigation and remediation/closure of those USTs is not part of this RAR. Documentation must be provided in the RAR (as an addendum) that confirms the remediation and closure of all USTs associated with the 800, 700, and 400 Areas (the former UST locations are not shown on any of the Figures).

2. 700 Area - The Report states that soils were delineated and remediated to the NJDEP **non-residential** direct contact soil cleanup criteria (NRDCSCC). However, soil contamination must be delineated to the level of the residential criteria (RDCSCC), since the future use of this area is now unknown. Additional sampling may not be necessary if adequate soil data can be used to extrapolate both horizontally and vertically for delineation (NJDEP Technical Requirements for Site Remediation, 7:26E 4.1). However, if soils contaminated above the RDCSCC remain in place, a deed notice will be required to document the contaminated soil, and appropriate engineering controls must be implemented and documented.

3. 400 Area, page 20 - The Report discusses the electromagnetic (EM) and ground penetrating radar (GPR) surveys conducted as part of the 400 Area investigation. The GPR and the EM survey both produced data that suggested the presence of USTs. It was reported that one EM location produced laterally restricted, high amplitude, parabolic reflections consistent with a UST. Another EM anomaly centered on the mapped location of a former tank suggested that the tank still existed beneath the 400 Area. No further investigation was performed at these suspected UST locations. These locations must be properly investigated.

4. 400 Area - As discussed regarding the 700 Area in comment #2 above, soil contamination must be delineated to the level of the RDCSCC, since the future use of this area is now unknown. Extrapolation may be possible in lieu of additional sampling. If soils contaminated above the RDCSCC remain in place, a deed notice will be required to document the contaminated soil, and appropriate engineering controls must be implemented and documented.

NJDEP COMMENTS ON
REMEDIAL ACTION REPORT FOR THE 800, 700, AND 400 AREAS
FORT MONMOUTH, NJ

5. Ground Water – Due to the reported evidence of releases at the 800, 700, and 400 Areas, a site investigation (SI) for ground water is required at all 3 areas. Ground water sampling by Geoprobe® at the 400 Area (Parcel 79) was included in the ECP Phase II Site Investigation Workplan and approved by NJDEP. Therefore, NJDEP would accept a similar Geoprobe® ground water investigation of the 800 and 700 Areas, provided that the sample locations provide complete coverage of all former UST locations within those Areas, including upgradient and downgradient samples. A remedial investigation for ground water may be required based upon the results of the ground water SIs.

DEPARTMENT OF THE ARMY

OFFICE OF ASSISTANT CHIEF OF STAFF FOR INSTALLATION MANAGEMENT
U.S. ARMY FORT MONMOUTH
P.O. 148
OCEANPORT, NEW JERSEY 07757

7 December 2017

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Northern Bureau of Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, NJ 07927-1112

Subject: Letter Work Plan for Parcel 82 (400 Area)
Fort Monmouth, New Jersey
PI G000000032

Dear Mr. Joshi:

The Fort Monmouth (FTMM) Team has prepared this work plan to summarize the results of historical soil sampling and removal at Parcel 82 and to propose additional soil sampling to fill data gaps. Previous NJDEP correspondence indicated that polynuclear aromatic hydrocarbons (PAHs) and polychlorinated biphenyls (PCBs) in soil need to be delineated to residential comparison criteria (**Attachment A**).

Parcel 82 Background

Parcel 82 is part of the 400 Area, which encompasses approximately 30 acres of open fields and paved areas extending east of Oceanport Avenue, south-southeast of Parker's Creek, west of Burns Avenue and north of Tilly Avenue. Extensive soil borings and full-suite analyses were conducted in the 400 Area in 2004 as part of the Army's Residential Communities Initiatives (RCI) and Enhanced Use Leasing (EUL) programs (Tetra Tech, 2005). Parcel 82 is in the eastern portion of the Main Post bounded approximately by Evans Avenue to the west, Tilly Avenue to the south, Building 116 to the east, and the former Central Hazardous Waste Storage Area (Buildings 121, 122, and 123) to the north (**Figure 1**).

Soil samples collected during the 2004 investigation identified PAHs and PCBs in shallow soils above the then-current New Jersey Department of Environmental Protection (NJDEP) Non-Residential Direct Contact Soil Remediation Standard (NRDCSRS) (**Tables 1 and 2 and Attachment B**). Non-residential cleanup standards were used to support use of the property for a planned maintenance building. Additional soil borings were advanced around the location of initial exceedances of the NRDCSRS to delineate the extent of PAH and PCB contamination. Multiple phases of delineation sampling were performed to ensure that the NRDCSRS exceedances were horizontally and vertically delineated. Soil excavation and removal was performed in October 2004 to remediate the soils to within the PAH and PCB NRDCSRSs. From one area, approximately 120 cubic yards (CY) of PCB-contaminated soil were excavated and transported for off-site disposal. From multiple locations in another area, approximately 35

CY of PAH-contaminated soil were excavated and transported for off-site disposal. A No Further Action (NFA) determination with restrictions was initially requested by the Army for the 400 Area (**Attachment B**). However, the NJDEP (2007) commented that an NFA determination could not be made because all exceedances above the more stringent Residential Direct Contact Soil Remediation Standard (RDCSRSs) needed to be delineated and addressed (**Attachment A**). We have found no documentation of any actions in this portion of Parcel 82 since 2004. Therefore, soils remain that exceed the current RDCSRSs for PAHs and PCBs (see **Figure 2**).

In June 1994, the Fort Monmouth Fire Marshall reported to the Military Police that an electrical transformer was stacked on top of another electrical transformer causing a 10-gallon PCB leak along the northern portion of Parcel 82 just south of Building 123 and the Central Hazardous Waste Storage Area (**Figure 2**). The military police documentation of the response action taken is provided in **Attachment C**. As reported in FTMM's Spill Prevention, Control and Countermeasure Plan (SPCCP, 2014 version), Building 123 within the former Central Hazardous Waste Storage Area was used for storage of PCB containers and transformers. Additional sampling was performed within this spill area in 2005 (see the analyses associated with Building 121 in **Table 3 and Attachment C**). We have found no documentation of any actions in this portion of Parcel 82 after 2005. Therefore, PCB concentrations in soils in this area exceed the current RDCSRS of 0.2 mg/kg (see **Figure 2**).

Comparison to RDCSRS

The Parcel 82 soil sampling results from 2004 and 2005 were compiled and compared to the current 2017 RDCSRSs for PAHs and PCBs as shown on **Table 1, Table 2** and **Table 3**; supporting analytical data packages are presented in **Attachments B** and **C.** The results are further explained below:

PAHs

- Samples B10, B15, B15A, B15B, and B15D had PAH exceedances of the RDCSRS (**Table 1**; **Attachment B**). However, the soil represented by these samples was excavated to a depth of 1.5-2.5 feet bgs and removed in October 2004 as part of the RCI project. Post-excavation samples 400B10-PX1, 400B15-PX1, and 400B15-PX2 were collected from the excavations but had no exceedances of the current RDCSRSs.
- The benzo(a)pyrene concentrations were 500 µg/kg in sample B13, 550 µg/kg in B14C and 580 µg/kg in B14D1, which were at or above the current RDCSRS of 500 µg/kg, but below the then-current NRDCSRS of 660 µg/kg. Therefore, soil represented by these samples remain in place that meet or exceed the current RDCSRS (**Figure 2**).

PCBs

- Initial samples B6 and B7, and delineation samples B7A, B7A1, B7A2, B7A2B, B7A2D, B7A3, B7A3A, B7A3B, B7A3C, B7A3D, B7B, B7B1, B7B1A, B7D, B7D1, B72D1, B7F1, B4B, B4D, B4D2, B4D3, B4D4, B4D5, B4B1, and B8B had PCB concentrations in excess of the RDCSRS (**Table 2**; **Attachment B**). However, the soil represented by these samples was excavated to a depth of 0.5-2.0 feet bgs and removed in October 2004 as part of the RCI project due to PCB exceedances.

- The PCB concentrations in delineation samples B4A, B4A1, B4D1, B5B, B5C, B8A, B8B1, B8B2, B7C1, B7C1A, B7B1A, B7B1B, and B7F1A, and post-excavation samples 400B7-PX1, 400B7-PX6, 400B7-PX7, 400B7-PX8, and 400B7-PX5, were above the current PCB RDCSRS of 0.2 mg/kg but below the then-current NRDCSRS of 2 mg/kg. Therefore, soil represented by these samples remain in place that exceed the current RDCSRS (**Figure 2**).

Proposed Sampling at Parcel 82

Additional soil sampling is required to delineate PCBs and PAHs in soil within the current RDCSRSs. Samples will be collected at 3 proposed borings (PAR-82-SS-13A, PAR-82-SS-13B, and PAR-82-SS-14C1) at three depth intervals (0 to 0.5 ft bgs, 3.0 to 3.5 ft bgs, and 6.0 to 6.5 ft bgs) to delineate PAHs horizontally and vertically to the east and south of RDCSRS exceedances at B13, B14C, and B14D. The deeper samples (6.0 to 6.5 feet bgs) will be submitted to the laboratory and held as contingency samples pending analysis of the overlying sample intervals (**Figure 2** and **Table 4**).

Soil samples from 19 borings (PAR-82-SS-B-1 to PAR-82-SS-B19) will be collected and analyzed for PCBs to determine the horizontal and vertical extent of contamination within the estimated extent of contamination (**Figure 2** and **Table 4**). In addition, additional samples from 3 borings (PAR-82-SS-B20 to PAR-82-SS-B22) located south of the hazardous waste storage pad will be collected and analyzed for PCBs. All samples will be collected at three depth intervals (0 to 0.5 ft bgs, 1.5 to 2.0 ft bgs, and 2.5 to 3.0 ft bgs). The deeper sample (2.5-3.0 feet bgs) will be submitted to the laboratory and held as contingency samples pending analysis of the overlying sample intervals.

The results of this sampling will be presented in a letter report that will also address additional remedial measures as appropriate.

Thank you for reviewing this work plan. We look forward to your comments and approval prior to implementing this plan which is planned to be performed in Spring or Summer 2018. You may contact Kent Friesen, our technical lead for this work plan, at (732) 383-7201; kent.friesen@parsons.com. I can be reached at (732) 380-7064; william.r.colvin18.civ@mail.mil.

Sincerely,

William R. Colvin
BRAC Environmental Coordinator

Figures:

Figure 1 Parcel 82 Location
Figure 2 Parcel 82 Proposed Sampling Locations

Tables:

Table 1 – 2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Table 2 – 2004 Parcel 82 Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Table 3 – 2005 Parcel 82 (Building 121) Polychlorinated Biphenyls Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Table 4 – Summary of Proposed Sampling for Parcel 82

Attachments:

A. Parcel 82 Correspondence
B. Excerpts from TetraTech, 2005 Report Including Analytical Data
C. Summary of PCB Spill Area Information Including Analytical Data

References:

Tetra Tech, 2005. *Final Remedial Action Report for the 800, 700, and 400 Areas, U.S. Army Installation Fort Monmouth, Fort Monmouth, New Jersey.* Final. October.

cc: Ashish Joshi (e-mail and 2 hard copies)
William Colvin, BEC (e-mail and 1 hard copy)
Joseph Pearson, Calibre (e-mail)
James Moore, USACE (e-mail)
Jim Kelly, USACE (e-mail)
Cris Grill, Parsons (e-mail)

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Site Remediation and Waste Management Program
BUREAU OF FIELD OPERATIONS
7 RIDGEDALE AVENUE
Cedar Knolls, New Jersey 07927

PHIL MURPHY
Governor

SHEILA OLIVER
Lt. Governor

CATHERINE R. McCABE
Acting Commissioner

March 2, 2018

Mr. William R. Colvin
OACSIM – US Army Fort Monmouth
P O Box 148
Oceanport, NJ 07757

Re Work Plan for Parcels 82 (400 Area)
Fort Monmouth
Oceanport, Monmouth County
Preferred ID: G000000032

Dear Mr. Colvin:

The New Jersey Department of Environmental Protection (Department) has completed review of the referenced report for Parcels 82 (400 Area). Based upon the review, the Department approves the proposal to complete additional soil sampling to delineate (horizontally and vertically) PCB and PAH contamination outlined in the Work Plan. Please submit the results of this investigation to my attention for review.

Thank you and please feel free to contact me if you have any questions.

Sincerely,

A.J. Joshi

C: James Moore, USACE
Cristina Grill, Parsons
Joe Fallon, FMERA
File

Attachment B
Boring Logs

400 B3

Boring Diameter: 2 Inches	Start Date: 6/22/04	End Date: 6/22/04
Drill Rig: Geoprobe 5400	Drill Method: Direct Push	Northing: 541150.087
Driller: George Boyce	License Number: JD22654	Easting: 622852.373
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil
	VOA+15	N/A				Clay, light brown-tan
	TPHC	N/A		5		Coarse sands, brown ,orange, green Static water Fine sands and silt, gray, orange
				10		No oder/HNU hit for boring

Notes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B4

Boring Diameter:	2 Inches	Start Date:	6/22/04	End Date:	6/22/04
Drill Rig:	Geoprobe 5400	Drill Method:	Direct Push	Northing:	541151.384
Driller:	George Boyce	License Number:	JD22654	Easting:	622977.079
Ground Elevation (Ft):	Unknown Feet	Total Depth (Ft):	8 Feet	Logged By:	

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil
	VOA+15	N/A				Clay, light brown
	TPHC	N/A		5		Static water Fine sands and silt, gray, orange, brown
				10		No oder/HNU hit for boring

Notes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

Page 1

400 B4A

Boring Diameter: 2 Inches	Start Date: 9/8/04	End Date: 9/8/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541163.103
Driller: George Boyce	License Number: JD22654	Easting: 622980.570
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site: 400 Area

Ft. Monmouth, New Jersey

Client: US Army

400B4A1

Boring Diameter: 2 Inches	Start Date: 9/8/04	End Date: 9/8/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541157.573
Driller: George Boyce	License Number: JD22654	Easting: 622963.383
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B4B

Boring Diameter: 2 Inches	Start Date: 8/26/04	End Date: 8/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541156.339
Driller: George Boyce	License Number: JD22654	Easting: 622983.530
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B4B1

Boring Diameter: 2 Inches	Start Date: 8/26/04	End Date: 8/26/04	
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541152.356	
Driller: George Boyce	License Number: JD22654	Easting: 622990.170	
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:	

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B4D

Boring Diameter: 2 Inches	Start Date: 8/26/04	End Date: 8/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541147.290
Driller: George Boyce	License Number: JD22654	Easting: 622967.014
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

lotes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B4D1

Boring Diameter: 2 Inches	Start Date: 8/26/04	End Date: 8/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541145.828
Driller: George Boyce	License Number: JD22654	Easting: 622953.017
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B4D2

Boring Diameter: 2 Inches	Start Date: 8/26/04	End Date: 8/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541137.146
Driller: George Boyce	License Number: JD22654	Easting: 622960.934
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B4D3

Boring Diameter: 2 Inches	Start Date: 8/26/04	End Date: 8/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541121.365
Driller: George Boyce	License Number: JD22654	Easting: 622964.526
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B4D4

Boring Diameter: 2 Inches	Start Date: 8/26/04	End Date: 8/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541113.955
Driller: George Boyce	License Number: JD22654	Easting: 622969.351
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B4D5

Boring Diameter: 2 Inches	Start Date: 8/26/04	End Date: 8/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541114.506
Driller: George Boyce	License Number: JD22654	Easting: 622948.370
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B5

Boring Diameter: 2 Inches	Start Date: 6/22/04	End Date: 6/22/04
Drill Rig: Geoprobe 5400	Drill Method: Direct Push	Northing: 541131.002
Driller: George Boyce	License Number: JD22654	Easting: 622925.218
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

CPM, TVS 10/04

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil
	VOA+15	N/A				Coarse sands gravel, brown-orange
	TPHC	N/A		5		Static water Fine sands and silt, gray, orange, brown
				10		No oder/HNU hit for boring

'otes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B5B

Boring Diameter: 2 Inches	Start Date: 9/8/04	End Date: 9/8/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541123.448
Driller: George Boyce	License Number: JD22654	Easting: 622935.061
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B5C

Boring Diameter: 2 Inches	Start Date: 9/8/04	End Date: 9/8/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541103.708
Driller: George Boyce	License Number: JD22654	Easting: 622930.153
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B6

Boring Diameter: 2 Inches	Start Date: 6/22/04	End Date: 6/22/04
Drill Rig: Geoprobe 5400	Drill Method: Direct Push	Northing: 541107.589
Driller: George Boyce	License Number: JD22654	Easting: 622876.179
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil
						Clay, light brown
	VOA+15	N/A				gravel, silty sands, brown ,gray
	TPHC	N/A		5		Static water
						Fine sands and silt, gray, orange
				10		No oder/HNU hit for boring

otes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B6 Return

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541107.589
Driller: George Boyce	License Number: JD22654	Easting: 622876.179
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 1.5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
						Top soil
	PCB	N/A				Clay, light brown
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B6A

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541111.724
Driller: George Boyce	License Number: JD22654	Easting: 622873.841
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B6B

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541108.982
Driller: George Boyce	License Number: JD22654	Easting: 622880.316
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B6C

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541102.791
Driller: George Boyce	License Number: JD22654	Easting: 622878.691
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B6D

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541104.630
Driller: George Boyce	License Number: JD22654	Easting: 622870.737
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7

Boring Diameter: 2 Inches	Start Date: 6/22/04	End Date: 6/22/04
Drill Rig: Geoprobe 5400	Drill Method: Direct Push	Northing: 541104.175
Driller: George Boyce	License Number: JD22654	Easting: 622997.652
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil
						Fill material, glass, wood, paint chips, clay
	VOA+15	N/A				Clay, greenish gray
	TPHC	N/A		5		Static water Coarse sands, brown to orange
						Fine sands and silt, gray, brown, orange
				10		No oder/HNU hit for boring

Notes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A2D

Boring Diameter: 2 Inches	Start Date: 8/12/04	End Date: 8/12/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541119.949
Driller: George Boyce	License Number: JD22654	Easting: 622984.305
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site: 400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7 Return

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541104.175
Driller: George Boyce	License Number: JD22654	Easting: 622997.652
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 1.5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
						Top soil
						Fill material
	PCB	N/A				
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B72D1

Boring Diameter: 2 Inches	Start Date: 8/19/04	End Date: 8/19/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541121.967
Driller: George Boyce	License Number: JD22654	Easting: 623977.125
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541111.343
Driller: George Boyce	License Number: JD22654	Easting: 622996.512
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A1

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541120.578
Driller: George Boyce	License Number: JD22654	Easting: 622991.695
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A2

Boring Diameter: 2 Inches	Start Date: 8/12/04	End Date: 8/12/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541130.075
Driller: George Boyce	License Number: JD22654	Easting: 622987.179
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A2B

Boring Diameter: 2 Inches	Start Date: 8/12/04	End Date: 8/12/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541126.401
Driller: George Boyce	License Number: JD22654	Easting: 622993.541
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A3

Boring Diameter: 2 Inches	Start Date: 8/19/04	End Date: 8/19/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541136.791
Driller: George Boyce	License Number: JD22654	Easting: 623985.238
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A3A

Boring Diameter: 2 Inches	Start Date: 8/19/04	End Date: 8/19/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541146.805
Driller: George Boyce	License Number: JD22654	Easting: 622984.902
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A3B

Boring Diameter: 2 Inches	Start Date: 8/19/04	End Date: 8/19/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541138.387
Driller: George Boyce	License Number: JD22654	Easting: 622990.937
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A3C

Boring Diameter: 2 Inches	Start Date: 8/19/04	End Date: 8/19/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541129.559
Driller: George Boyce	License Number: JD22654	Easting: 622977.751
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

CPM, TVS 10/04

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7A3D

Boring Diameter: 2 Inches	Start Date: 8/19/04	End Date: 8/19/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541139.961
Driller: George Boyce	License Number: JD22654	Easting: 622976.223
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7B

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541108.785
Driller: George Boyce	License Number: JD22654	Easting: 623003.614
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7B1

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541110.773
Driller: George Boyce	License Number: JD22654	Easting: 623009.858
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7B1A

Boring Diameter: 2 Inches	Start Date: 8/12/04	End Date: 8/12/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541119.244
Driller: George Boyce	License Number: JD22654	Easting: 623004.181
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7B1B

Boring Diameter: 2 Inches	Start Date: 8/12/04	End Date: 8/12/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541116.822
Driller: George Boyce	License Number: JD22654	Easting: 623012.234
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7B1C

Boring Diameter: 2 Inches	Start Date: 8/12/04	End Date: 8/12/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541110.479
Driller: George Boyce	License Number: JD22654	Easting: 623015.531
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7C

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541101.576
Driller: George Boyce	License Number: JD22654	Easting: 623001.031
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7C Return

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541101.567
Driller: George Boyce	License Number: JD22654	Easting: 623001.031
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 2 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
						Top soil
						Fill material
	PCB	N/A				
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7C1

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541085.524
Driller: George Boyce	License Number: JD22654	Easting: 623007.851
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7C1A

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541095.599
Driller: George Boyce	License Number: JD22654	Easting: 623011.282
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

lotes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7C1D

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541090.550
Driller: George Boyce	License Number: JD22654	Easting: 623000.370
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7D

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541104.268
Driller: George Boyce	License Number: JD22654	Easting: 622994.063
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7D1

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541100.985
Driller: George Boyce	License Number: JD22654	Easting: 622987.113
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

lotes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7F1

Boring Diameter: 2 Inches	Start Date: 8/19/04	End Date: 8/19/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541132.126
Driller: George Boyce	License Number: JD22654	Easting: 622998.091
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7F1A

Boring Diameter: 2 Inches	Start Date: 8/19/04	End Date: 8/19/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541136.494
Driller: George Boyce	License Number: JD22654	Easting: 622998.689
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B7F1B

Boring Diameter:	2 Inches	Start Date:	8/19/04	End Date:	8/19/04
Drill Rig:	N/A	Drill Method:	Hand Auger	Northing:	541123.471
Driller:	George Boyce	License Number:	JD22654	Easting:	623005.572
Ground Elevation (Ft):	Unknown Feet	Total Depth (Ft):	.5 Feet	Logged By:	

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B8

Boring Diameter: 2 Inches	Start Date: 6/22/04	End Date: 6/22/04
Drill Rig: Geoprobe 5400	Drill Method: Direct Push	Northing: 541084.044
Driller: George Boyce	License Number: JD22654	Easting: 622946.287
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil
						Fill material with cinders and clay,gray, brown, orange
	VOA+15	N/A				Clay, tan- gray
						Sandy silts, gray, green, orange
						Coarse sands and gravel, orange
	TPHC	N/A		5		Static water Fine sands and silt, gray, brown, orange
				10		No oder/HNU hit for boring

Notes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site: 400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B8A

Boring Diameter: 2 Inches	Start Date: 9/8/04	End Date: 9/8/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541096.301
Driller: George Boyce	License Number: JD22654	Easting: 622948.695
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B8B

Boring Diameter: 2 Inches	Start Date: 9/8/04	End Date: 9/8/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541100.372
Driller: George Boyce	License Number: JD22654	Easting: 622965.545
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B8B1

Boring Diameter: 2 Inches	Start Date: 9/15/04	End Date: 9/15/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541094.525
Driller: George Boyce	License Number: JD22654	Easting: 622970.271
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B8B2

Boring Diameter: 2 Inches	Start Date: 9/15/04	End Date: 9/15/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541085.438
Driller: George Boyce	License Number: JD22654	Easting: 622973.585
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	PCB	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B9

Boring Diameter: 2 Inches	Start Date: 6/22/04	End Date: 6/22/04
Drill Rig: Geoprobe 5400	Drill Method: Direct Push	Northing: 541060.372
Driller: George Boyce	License Number: JD22654	Easting: 622897.695
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil
						Fill material building debris and clay,gray, brown, orange
	VOA+15	N/A				Clay, orange,brown
	TPHC	N/A		5		Static water Fine sands and silt, gray, brown, orange
				10		No oder/HNU hit for boring

Notes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B10

Boring Diameter: 2 Inches	Start Date: 6/22/04	End Date: 6/22/04
Drill Rig: Geoprobe 5400	Drill Method: Direct Push	Northing: 541062.711
Driller: George Boyce	License Number: JD22654	Easting: 623021.820
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Fill material cinders and asphalt
	VOA+15	N/A				Clay, orange, gray
	TPHC	N/A		5		Fine silty sands with gravel Static water Fine sands and silt, gray, orange
				10		No oder/HNU hit for boring

Notes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B10 Return

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541062.711
Driller: George Boyce	License Number: JD22654	Easting: 623021.820
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 1.5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
						Top soil
	BN+15	N/A				Fill material
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B10A

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541067.928
Driller: George Boyce	License Number: JD22654	Easting: 623019.739
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B10B

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541065.494
Driller: George Boyce	License Number: JD22654	Easting: 623027.169
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B10C

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541059.770
Driller: George Boyce	License Number: JD22654	Easting: 623025.981
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

CPM, TVS 10/04

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B10D

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541061.129
Driller: George Boyce	License Number: JD22654	Easting: 623018.245
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B11

Boring Diameter: 2 Inches	Start Date: 6/24/04	End Date: 6/24/04
Drill Rig: Geoprobe 5400	Drill Method: Direct Push	Northing: 541039.652
Driller: George Boyce	License Number: JD22654	Easting: 622971.652
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Fill material cinders, stones, clay, light brown
	VOA+15	N/A				Clay with fine sands, orange, gray, brown
						Sands with gravel
	TPHC	N/A		5		Static water Fine sands and silt, gray, orange
				10		No oder/HNU hit for boring

Notes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B12

Boring Diameter: 2 Inches	Start Date: 6/24/04	End Date: 6/24/04
Drill Rig: Geoprobe 5400	Drill Method: Direct Push	Northing: 541016.493
Driller: George Boyce	License Number: JD22654	Easting: 622920.227
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Fill material cinders, gravel, clay
	VOA+15	N/A				Clay, brown
	TPHC	N/A				Fine silty sands, orange-gray
				5		Static water Medium sands, gravel, gray, orange, brown
				10		No oder/HNU hit for boring

otes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B13

Boring Diameter: 2 Inches	Start Date: 6/24/04	End Date: 6/24/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541020.597
Driller: George Boyce	License Number: JD22654	Easting: 623044.795
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil
						Clay, orange, gray
	VOA+15	N/A				
	TPHC	N/A				Static water
						Coarse sands, gravel, gray, orange, brown
				5		
						No oder/HNU hit for boring
				10		

lotes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B14

Boring Diameter:	2 Inches	Start Date:	6/24/04	End Date:	6/24/04
Drill Rig:	N/A	Drill Method:	Hand Auger	Northing:	540995.308
Driller:	George Boyce	License Number:	JD22654	Easting:	622993.148
Ground Elevation (Ft):	Unknown Feet	Total Depth (Ft):	8 Feet	Logged By:	

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil
						Clay, greenish gray
	VOA+15	N/A				
	TPHC	N/A				Static water
						Medium sands, gray, orange,
				5		
						No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B14 Return

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540995.308
Driller: George Boyce	License Number: JD22654	Easting: 622993.148
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 1.5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
						Top soil
	BN+15	N/A				Clay, gray
						No oder/HNU hit for boring
				5		
				10		

'otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B14A

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540997.213
Driller: George Boyce	License Number: JD22654	Easting: 622992.046
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

CPM_TVS 1004

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B14A1

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541005.114
Driller: George Boyce	License Number: JD22654	Easting: 622989.912
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 1.5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
						Asphalt
	BN+15	N/A				Clay, gray
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B14B

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540997.196
Driller: George Boyce	License Number: JD22654	Easting: 622997.827
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

lotes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B14B1

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 541002.760
Driller: George Boyce	License Number: JD22654	Easting: 623004.025
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B14C

Boring Diameter: 2 Inches	Start Date: 7/22/04	End Date: 7/22/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540991.091
Driller: George Boyce	License Number: JD22654	Easting: 622994.784
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B14D

Boring Diameter:	2 Inches	Start Date:	7/22/04	End Date:	7/22/04
Drill Rig:	N/A	Drill Method:	Hand Auger	Northing:	540992.794
Driller:	George Boyce	License Number:	JD22654	Easting:	622987.814
Ground Elevation (Ft):	Unknown Feet	Total Depth (Ft):	.5 Feet	Logged By:	

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B14D1

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540989.838
Driller: George Boyce	License Number: JD22654	Easting: 622981.870
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

CPM, TVS 10/94

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B15

Boring Diameter: 2 Inches	Start Date: 6/24/04	End Date: 6/24/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540970.274
Driller: George Boyce	License Number: JD22654	Easting: 622942.820
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 8 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	*	N/A				Top soil, woodchips
						Clay, green gray
	VOA+15	N/A				
						Medium sands, gray-green
	TPHC	N/A				
						Static water
						Medium sands, yellow
				5		
						No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings. *BNA+15,PEST/PCB,TAL MTLS, TPHC

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B15 Return

Boring Diameter: 2 Inches	Start Date: 7/26/04	End Date: 7/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540970.274
Driller: George Boyce	License Number: JD22654	Easting: 622942.820
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 1.5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
						Top soil
	BN+15	N/A				Clay, green
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B15A

Boring Diameter: 2 Inches	Start Date: 7/26/04	End Date: 7/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540973.634
Driller: George Boyce	License Number: JD22654	Easting: 622943.295
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

'otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B15A1

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540981.192
Driller: George Boyce	License Number: JD22654	Easting: 622941.855
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): 1.5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
						Asphalt
	BN+15	N/A				Clay, gray
						No oder/HNU hit for boring
				5		
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B15B

Boring Diameter: 2 Inches	Start Date: 7/26/04	End Date: 7/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540972.396
Driller: George Boyce	License Number: JD22654	Easting: 622949.870
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B15B1

Boring Diameter:	2 Inches	Start Date:	8/4/04	End Date:	8/4/04
Drill Rig:	N/A	Drill Method:	Hand Auger	Northing:	540976.388
Driller:	George Boyce	License Number:	JD22654	Easting:	622956.399
Ground Elevation (Ft):	Unknown Feet	Total Depth (Ft):	1.5 Feet	Logged By:	

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
						Asphalt
	BN+15	N/A				Clay, gray
						No oder/HNU hit for boring
				5		
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B15C

Boring Diameter: 2 Inches	Start Date: 7/26/04	End Date: 7/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540965.872
Driller: George Boyce	License Number: JD22654	Easting: 622948.618
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

otes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B15D

Boring Diameter: 2 Inches	Start Date: 7/26/04	End Date: 7/26/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540966.966
Driller: George Boyce	License Number: JD22654	Easting: 622939.496
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

400 B15D1

Boring Diameter: 2 Inches	Start Date: 8/4/04	End Date: 8/4/04
Drill Rig: N/A	Drill Method: Hand Auger	Northing: 540962.530
Driller: George Boyce	License Number: JD22654	Easting: 622931.006
Ground Elevation (Ft): Unknown Feet	Total Depth (Ft): .5 Feet	Logged By:

Sample	Analysis	Blow Count	Completion	Depth Feet	Lithology	Description
	BN+15	N/A				Top soil
				5		No oder/HNU hit for boring
				10		

Notes:

Backfill with cuttings.

Site:

400 Area

Ft. Monmouth, New Jersey

Client: US Army

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullin
DRILLER: Joe
WEATHER: Low 70s / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5/15/18 / 0906
DATE/TIME FINISH: 5/15/18 / 0908
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B01
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-30" - Moist, loose, light Brn, F-M clayey SAND, Trace C gravel	Fill	
*	PAR-82-SB-B01-0.0-0.5			0			
1				0			
				0			
2	PAR-82-SB-B01-1.5-2.0			0			
				0			
3	PAR-82-SB-B01-2.5-3.0		36/36	0	30"-36" - Moist, M. Dense, light Brn, M-C, Sand, Trace M-C Gravel		
					EOB @ 3' bgs		
4							
5					Backfill Boring with Soil cuttings + Bentonite		
6							
7							
8							
9							
10							

Remarks: * Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring
Soil cuttings were Field screened with Photo Ionization Detector (PID). ** Indicates Soil Sample Placed on Hold

Sample Types
S – Split-Spoon
U – Undisturbed Tube
C – Rock Core
A – Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE	INSPECTOR: Kevin McMullen	BORING/WELL ID: B-02
PROJECT NAME: FTMM - [illegible]	DRILLER: Joe	LOCATION DESCRIPTION
PROJECT LOCATION: FTMM Parcel 82	WEATHER: Low 70's / Cloudy	Grass Surface
PROJECT NUMBER: 748610- 07100	CONTRACTOR: East Coast Drilling, Inc. (ECDI)	
GROUNDWATER OBSERVATIONS	RIG TYPE: Geoprobe(R) 7822DT	LOCATION PLAN
	DATE/TIME START: 5-15-18 / 0916	Oceanport, New Jersey
WATER LEVEL:	DATE/TIME FINISH: 5-15-18 / 0918	
DATE:	WEIGHT OF HAMMER: N/A	
TIME:	DROP OF HAMMER: N/A	
MEAS. FROM:	TYPE OF HAMMER: N/A	

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-24" - Moist, M. Dense, light Bro		
	∅ FAR-82-SB-B02-0.0-0.5			0	F-M, Clayey Sand		
1				0			
				0			
2	∅ FAR-82-SB-B02-1.5-2.0			0	24"-36" - Moist, M. Dense, Brn - light		
				0	Brn, Fine Silty SAND		
3	∅∅ FAR-82-SB-B02-2.5-3.0		36/36	0			
4					EOB @ 3' bgs		
5					Backfill boring with Soil		
6					Cuttings and Bentonite		
7							
8							
9							
10							

Remarks: ∅ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring
Soil cuttings were Field screened with Photo Ionization Detector (PID). ∅∅ Indicates Soil Sample Placed on Hold

Sample Types	Consistency vs. Blowcount / Foot		
S -- Split-Spoon	Granular (Sand & Gravel)	Fine Grained (Silt & Clay)	and - 35-50%
U -- Undisturbed Tube	V. Loose: 0-4 Dense: 30-50	V. Soft: <2 Stiff: 8-15	some - 20-35%
C -- Rock Core	Loose: 4-10 V. Dense: >50	Soft: 2-4 V. Stiff: 15-30	little - 10-20%
A -- Auger Cuttings	M. Dense: 10-30	M. Stiff: 4-8 Hard: > 30	trace - <10%
			moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - ~~SWMU~~
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748610- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullen
DRILLER: Joe
WEATHER: Low 70's / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 / 09:36
DATE/TIME FINISH: 5-15-18 / 09:38
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B03
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-24" - Moist, M. Dense, light Brn, F-M, Silty SAND	Fill	
*	FMR-82-SB-B03-0.0-0.5			0			
1				0			
				0			
2 *	FMR-82-SB-B03-1.5-2.0			0			
				0	24"-36" - Moist, M. Dense, light Brn, M-C, Silty SAND		
3 **	FMR-82-SB-B03-2.5-3.0		36/36	0			
					EOB @ 3' bgs		
4							
5					Soil Cuttings and Bentonite backfill boring		
6							
7							
8							
9							
10							

Remarks: * Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring hole. Soil cuttings were Field screened with Photo Ionization Detector (PID). ** Indicates Soil Sample Placed on Hold

Sample Types
S – Split-Spoon
U – Undisturbed Tube
C – Rock Core
A – Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: >30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Keith McMullin
DRILLER: Joe
WEATHER: Low 70s / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 / 0946
DATE/TIME FINISH: 5-15-18 / 0948
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B04
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADVI REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-18" - Moist, M. Dense, Brn - light Brn, F-M silty SAND, Trace F gravel		
1	PAR-82-SB-B04-0.0-0.5			0			
				0	18"-36" - Moist, MI Dense, Brn - Green Mottling F-M, Clayey SAND		
2	PAR-82-SB-B04-1.5-2.0			0			
				0			
3	PAR-82-SB-B04-2.5-3.0		36/36	0			
					EOB @ 3' bgs		
4							
5					Backfill boring with Soil Cuttings and Bentonite		
6							
7							
8							
9							
10							

Remarks: # Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring
Soil cuttings were Field screened with Photo Ionization Detector (PID). BR Indicates Soil Sample Placed on Hold

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE	INSPECTOR: Kevin McMullen	BORING/WELL ID: B05
PROJECT NAME: FTMM - [redacted]	DRILLER: Joe	LOCATION DESCRIPTION
PROJECT LOCATION: FTMM Parcel 82	WEATHER: Low 70's / Cloudy	Grass Surface
PROJECT NUMBER: 748810- 07100	CONTRACTOR: East Coast Drilling, Inc. (ECDI)	
GROUNDWATER OBSERVATIONS	RIG TYPE: Geoprobe(R) 7822DT	LOCATION PLAN
	DATE/TIME START: 5-15-18 / 0856	Oceanport, New Jersey
WATER LEVEL:	DATE/TIME FINISH: 5-15-18 / 0858	
DATE:	WEIGHT OF HAMMER: N/A	
TIME:	DROP OF HAMMER: N/A	
MEAS. FROM:	TYPE OF HAMMER: N/A	

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-0.6" - Moist, loose, Dk Brn, F. SAND	Fill	[illegible] KM
	⊠ PAR-82-SB-B05-0.0-0.5			1.0	6"-24" - Moist, M. Dense, light Brn,		
1				0	F-M clayey SAND		
				0			
2	⊠ PAR-82-SB-B05-1.5-2.0			0	24"-36" - Moist, loose, light Brn,		
				0	F-M, Clayey Sand, Trace C. Gravel		
3	⊠⊠ PAR-82-SB-B05-2.5-3.0		36/36	0			
					EOB @ 3' bgs		
4							
5					Boring Backfilled with		
6					Soil Cuttings and Bentonite		
7							
8							
9							
10							

Remarks: ⊠ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ⊠⊠ Indicates Soil Sample Placed on Hold

Sample Types	Consistency vs. Blowcount / Foot		
S -- Split-Spoon	Granular (Sand & Gravel)	Fine Grained (Silt & Clay)	and - 35-50%
U -- Undisturbed Tube	V. Loose: 0-4 Dense: 30-50	V. Soft: <2 - Stiff: 8-16	some - 20-35%
C -- Rock Core	Loose: 4-10 V. Dense: >50	Soft: 2-4 V. Stiff: 15-30	little - 10-20%
A -- Auger Cuttings	M. Dense: 10-30	M. Stiff: 4-8 Hard: > 30	trace - <10%
			moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullin
DRILLER: Joe
WEATHER: Low 70's / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 1081:30
DATE/TIME FINISH: 5-15-18 1081:31
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: BOO
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	~~Moist, loose, Med-Coarse, SAND, Brn~~		
*	FMR-82-SB-BOO-0.0-0.5			0	0-12" - Moist, loose, Brn, M-C, SAND	Fill	
1				0	12"-36" - Moist, M-dense, light Brn, F-M, Clayey SAND		
				0			
2 *	FMR-82-SB-BOO-1.5-2.0			0			
				0	30"-36" - Wet, M-dense, Brn, M-C, Sand, M-C Gravel		
3 **	FMR-82-SB-BOO-2.5-3.0		36/36	0			
					EOB @ 3' bgs		
4							
5					Boring Backfilled with Soil cuttings and Bentonite		
6							
7							
8							
9							
10							

Remarks: * Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring Soil cuttings were Field screened with Photo Ionization Detector (PID). ** Indicates Soil Sample Placed on Hold

Sample Types
S – Split-Spoon
U – Undisturbed Tube
C – Rock Core
A – Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullin
DRILLER: Joe
WEATHER: Low 70's / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 / 0956
DATE/TIME FINISH: 5-15-18 / 0958
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B07
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-18" - Moist, M. dense, F-M, Silty		
	B PAR-82-SB-B-0.0-0.5			0	Sand		
1				0	18"-36" - Moist, M. dense, F-M, Clayey		
				0	Sand, Trace Silt		
2	B PAR-82-SB-B-4.5-5.0			0			
				0			
3	B PAR-82-SB-B-2.5-3.0			0			
					EOB @ 3' bgs		
4							
5					Soil Boring Backfill with Soil Cuttings + Bentonite		
6							
7							
8							
9							
10							

Remarks: B Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). B Indicates Soil Sample Placed on Hold

Sample Types
S – Split-Spoon
U – Undisturbed Tube
C – Rock Core
A – Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullin
DRILLER: Joe
WEATHER: Low 70's / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 / 0844
DATE/TIME FINISH: 5-15-18 / 0846
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B08
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				30	0-12" - Dry, loose, Brn - Dk Brn, M-C, SAND, Some M Gravel, Trace slag Faint odor	Fill	
1	PAR-82-SB-B08-0.0-0.5			70			
				0			
2	PAR-82-SB-B08-1.5-2.0			0	12"-27" - Dry, M. Dense, Brn, F-M, Clayey SAND, Trace Glauconite		
				0			
3	PAR-82-SB-B08-2.5-3.0		36/36	0	27"-36" - Wet, loose, Brn, Dom C, Gravel Sand		
4							
5					EOB @ 3' bgs		
6					Boring Backfilled with Soil cuttings and Bentonite		
7							
8							
9							
10							

Remarks: @ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ** Indicates Soil Sample Placed on Hold

Sample Types:
S – Split-Spoon
U – Undisturbed Tube
C – Rock Core
A – Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullen
DRILLER: Joe
WEATHER: Low 70's / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5/15/08 / 1100
DATE/TIME FINISH: 5/15/08 / 1102
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B09 (B39)
LOCATION DESCRIPTION: Grass Area
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-12" - Dry, loose, Brn, F-C SAND, little M Subangular gravel	Fill	
	@ PAR-82-SB-B09-0.0-0.5			0			
1				0			
				0	12"-36" - Moist, M. dense, light Brn with Green Mottles, F-M, SAND, Clayey SAND		
2	@ PAR-82-SB-B09-1.5-2.0			0			
				0			
3	** PAR-82-SB-B09-2.5-3.0		36/36	0	36"-36" - Wet, M. dense, light Brn, F-C Gravel SAND		
4							
5					EOB @ 3' bgs		
6					Backfill boring with Soil		
7					Cuttings and bentonite		
8							
9							
10							

Remarks: @ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring
Soil cuttings were Field screened with Photo Ionization Detector (PID). ** Indicates Soil Sample Placed on Hold

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35 -50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullin
DRILLER: Joe
WEATHER: Low 70's / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: ~~Low 70's / Cloudy~~ 5/8/16
DATE/TIME FINISH: 5/5/16 / 1008
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B10
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-18" - Dry, M. dense, M-C, Silty SAND, Trace F gravel, subangula	Fill	
@	FAR-82-SB-B10-0.0-0.5			0			
1				0			
				0			
2 @	FAR-82-SB-B10-1.5-2.0			0	18"-36" - Dry, M. dense, F-C, Silty SAND, Trace F gravel sub angular		
				0			
3 @@	FAR-82-SB-B10-2.5-3.0		3/36	0			
					EOB @ 3' bgs		
4							
5					Backfill Boring with Soil cuttings and Bentonite		
6							
7							
8							
9							
10							

Remarks: @ Indicates Soil Samples ran For chemical Analysis. Soil cuttings were used to backfill Boring
Soil cuttings were Field screened with Photo Ionization Detector (PID). @@ Indicates Soil Sample Placed on Hold

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)		
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15	
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30	
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30	

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullen
DRILLER: Joe
WEATHER: Low 70's / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-25-18 / 1012
DATE/TIME FINISH: 5-25-18 / 1014
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B11
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-16" - Dry, M. Dense, Brn, F-M, Clayey SAND, Some Silt, Trace Fine Subangular Gravel	B11	
*	FMR-82-SB-B11-0.0-0.5			0			
1				0			
				0			
2 *	FMR-82-SB-B11-1.5-2.0			0	16"-36" - Dry, M. Dense, Brn - light Brn, F-M, Clayey/Silty SAND		
				0			
3 **	FMR-82-SB-B11-2.5-3.0		36/36	0	EOB @ 3' bgs		
4							
5					Backfill boring with Soil cuttings and Bentonite		
6							
7							
8							
9							
10							

Remarks: * Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ** Indicates Soil Sample Placed on Hold

Sample Types
S – Split-Spoon
U – Undisturbed Tube
C – Rock Core
A – Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35 -50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810-07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullin
DRILLER: Joe
WEATHER: Low 70's / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 / 1054
DATE/TIME FINISH: 5-15-18 / 1056
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B12
LOCATION DESCRIPTION: Grass Area
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-12" - Dry, M. dense, Brn, F-M Sand		
*	FAR-82-SB-B12-0.0-0.5			0			
1				0			
				0	12"-36" - Moist, M. dense, Brn with Red / Green Mottles, F-M, Clayey Sand		
2 **	FAR-82-SB-B12-1.5-3.0			0			
				0			
3 * **	FAR-82-SB-B12-2.5-3.0		36/36	0	EOB @ 3' bgs		
4							
5					Backfill boring with Soil Cuttings and Bentonite		
6							
7							
8							
9							
10							

Remarks: * Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ** Indicates Soil Sample Placed on Hold

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullen
DRILLER: Joe
WEATHER: Low 70's / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-8-18 / 1028
DATE/TIME FINISH: 5-8-18 / 1030
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B13
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-12" - Dry, Moderse, Brn, F-M, SAND		
0.5	FMR-82-SB-B13-0.0-0.5			0	12"-18" - Dry, Moderse, Brn - light Brn, F-M, Clayey SAND, trace Silt	Fill	
1				0			
				0			
2	FMR-82-SB-B13-1.5-2.0			0	18"-36" - Moist, Moderse, Brn with Green Mottles, SAND, Some Clay and Sub angular M. Gravel		
				0			
3	FMR-82-SB-B13-2.5-3.0		36/36	0			
					EOB @ 3' bgs		
4							
5					Backfill boring with		
					Soil Cuttings and Bentonite		
6							
7							
8							
9							
10							

Remarks: ⊗ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ⊠ Indicates Soil Sample Placed on Hold

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullin
DRILLER: Joe
WEATHER: Low 70's cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 / 10:31
DATE/TIME FINISH: 5-15-18 / 10:33
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B14
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-12" - Moist, M. dense, F-M, Dk Brn, SAND	Fill	
	*FMR-82-SB-B14-0.0-0.5			0			
1				0			
				0	12"-36" - Moist, M. dense, F-M, Brn Silty SAND		
2	*FMR-82-SB-B14-1.5-2.0			0			
				0			
3	*FMR-82-SB-B14-2.5-3.0		36/36	0	EOB @ 3' bgs		
4							
5					Backfill boring with Soil cuttings and Bentonite		
6							
7							
8							
9							
10							

Remarks: * Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ** Indicates Soil Sample Placed on Hold

Sample Types
S – Split-Spoon
U – Undisturbed Tube
C – Rock Core
A – Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE	INSPECTOR: Kevin McMullen	BORING/WELL ID: B15
PROJECT NAME: FTMM - [illegible]	DRILLER: Joe	LOCATION DESCRIPTION
PROJECT LOCATION: FTMM Parcel 82	WEATHER: Low 70's / Cloudy	Grass Surface
PROJECT NUMBER: 748610- 07100	CONTRACTOR: East Coast Drilling, Inc. (ECDI)	
GROUNDWATER OBSERVATIONS	RIG TYPE: Geoprobe(R) 7822DT	LOCATION PLAN
	DATE/TIME START: 5-15-78 / 1104	Oceanport, New Jersey
WATER LEVEL:	DATE/TIME FINISH: 5-15-78 / 1106	
DATE:	WEIGHT OF HAMMER: N/A	
TIME:	DROP OF HAMMER: N/A	
MEAS. FROM:	TYPE OF HAMMER: N/A	

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-12" - Dry, loose, Brn, F-M, SAND		
	∅ FAR-82-SB-B15-0.0-0.5			0	little M. Subangular gravel		
1				0			
				0	12"-26" - Moist, M Dense, Brn, F-M, Clayey	Fil	
2	∅ FAR-83-SB-B15-1.5-2.0			0	Sand, trace M. Subangular gravel		
				0			
3	∅∅ FAR-82-SB-B15-2.5-3.0		36/36	0	26"-36" - Moist, Midense, F-C,		
					Silty / Clayey SAND, Little		
4					Subangular gravel		
5					EOB @ 3' bgs		
6					Backfill Boring with		
7					Soil Cuttings and		
8					Bentonite		
9							
10							

Remarks: ∅ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ∅∅ Indicates Soil Sample Placed on Hold

Sample Types	Consistency vs. Blowcount / Foot				
S -- Split-Spoon	Granular (Sand & Gravel)		Fine Grained (Silt & Clay)		and - 35-50%
U -- Undisturbed Tube	V. Loose: 0-4	Dense: 30-50	V. Soft: <2	Stiff: 8-15	some - 20-35%
C -- Rock Core	Loose: 4-10	V. Dense: >50	Soft: 2-4	V. Stiff: 16-30	little - 10-20%
A -- Auger Cuttings	M. Dense: 10-30		M. Stiff: 4-8	Hard: > 30	trace - <10%
					moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullen
DRILLER: Joe
WEATHER: Low 70's
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 1310
DATE/TIME FINISH: 5-15-18 1312
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B16
LOCATION DESCRIPTION: Asphalt Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				20	0-12" - Moist, Midense, Dark Brn, F-C, SAND, (Asphalt @ 0-2")	Fill	
	FAR-82-SB-B16-0.0-0.5			36			
1				2			
				0	12"-24" - Moist, Midense, Dark Brn with Green mottles, F-C, Clayey SAND, Trace Fine Subangular gravel		
2	FAR-82-SB-B16-1.5-2.0			0			
				0			
3	FAR-82-SB-B16-2.5-3.0		36/36	0	24-36" - Moist, Midense, Brn, F-C, Gravel SAND, little Clay		
4							
5					EOB @ 3' bgs		
					Backfill boring with		
6					Soil cuttings + Bentonite		
7							
8							
9							
10							

Remarks: @ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring Soil cuttings were Field screened with Photo Ionization Detector (PID). @@ Indicates Soil Sample Placed on Hold

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)		Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50	V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50	Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30		M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE	INSPECTOR: Kevin McMullen	BORING/WELL ID: B17
PROJECT NAME: FTMM - [redacted]	DRILLER: Joe	LOCATION DESCRIPTION
PROJECT LOCATION: FTMM Parcel 82	WEATHER:	Grass Area
PROJECT NUMBER: 748810- 07100	CONTRACTOR: East Coast Drilling, Inc. (ECDI)	
GROUNDWATER OBSERVATIONS	RIG TYPE: Geoprobe(R) 7822DT	LOCATION PLAN
	DATE/TIME START: 8-15-18 13:05	Oceanport, New Jersey
WATER LEVEL:	DATE/TIME FINISH: 8-15-18 13:07	
DATE:	WEIGHT OF HAMMER: N/A	
TIME:	DROP OF HAMMER: N/A	
MEAS. FROM:	TYPE OF HAMMER: N/A	

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-12" - Dry, M. Dense, Brn, F-M Sand, Trace Fine Subangular gravel		
	⊠ PAR-82-SB-B17-0.0-0.5			0			
1				0	12"-24" - Moist, M. Dense, Light Brn Green Mottles, ~~Silty~~ @ F-M, Silty SAND		
				0			
2	⊠ PAR-82-SB-B17-1.5-2.0			0		F-M	
				0			
3	⊠⊠ PAR-82-SB-B17-2.5-3.0		36/36	0	24"-36" - Moist, M. Dense, Light Brn, F-M SAND, Little M. Sub Angular Gravel		
4							
5					EOB @ 3' bgs		
6					Backfill boring with		
7					Soil Cuttings and		
8					Bentonite		
9							
10							

Remarks: ⊠ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ⊠⊠ Indicates Soil Sample Placed on Hold

Sample Types	Consistency vs. Blowcount / Foot			
S – Split-Spoon	Granular (Sand & Gravel)	Fine Grained (Silt & Clay)		and - 35-50%
U – Undisturbed Tube	V. Loose: 0-4 Dense: 30-50	V. Soft: <2	- Stiff: 8-15	some - 20-35%
C – Rock Core	Loose: 4-10 V. Dense: >50	Soft: 2-4	V. Stiff: 15-30	little - 10-20%
A – Auger Cuttings	M. Dense: 10-30	M. Stiff: 4-8	Hard: > 30	trace - <10%
				moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE	INSPECTOR: Kevin McMullen	BORING/WELL ID: B18
PROJECT NAME: FTMM - [illegible]	DRILLER: Joe	LOCATION DESCRIPTION
PROJECT LOCATION: FTMM Parcel 82	WEATHER: Low 70's	Grass Area
PROJECT NUMBER: 748810- 07100	CONTRACTOR: East Coast Drilling, Inc. (ECDI)	
GROUNDWATER OBSERVATIONS	RIG TYPE: Geoprobe(R) 7822DT	LOCATION PLAN
	DATE/TIME START: 5-15-18 / 11:39	Oceanport, New Jersey
WATER LEVEL:	DATE/TIME FINISH: 5-15-18 / 11:41	
DATE:	WEIGHT OF HAMMER: N/A	
TIME:	DROP OF HAMMER: N/A	
MEAS. FROM:	TYPE OF HAMMER: N/A	

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-6" - Moist, loose, Brn, F-M, SAND,		
	∅ PAR-82-SB-B18-0.0-0.5			0	Trace M. Subangular Gravel		
1				0	6"-24" - Moist, M. Dense, light Brn with	Fill	
				0	Green Mottles, F-M, Clayey Sand		
2	∅ PAR-82-SB-B18-1.5-2.0			0			
				0	24-36" - Moist, M. Dense, light Brn		
3	∅∅ PAR-82-SB-B18-2.5-3.0		36/36	0	with Green Mottles, F-M, Silty		
					Clayey		
4							
5					EOB @ 3 bgs		
6					Backfill boring with soil		
7					Cuttings + Bentonite		
8							
9							
10							

Remarks: ∅ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ∅∅ Indicates Soil Sample Placed on Hold

Sample Types	Consistency vs. Blowcount / Foot			
S -- Split-Spoon	Granular (Sand & Gravel)	Fine Grained (Silt & Clay)		and - 35-50%
U -- Undisturbed Tube	V. Loose: 0-4 Dense: 30-50	V. Soft: <2	Stiff: 8-15	some - 20-35%
C -- Rock Core	Loose: 4-10 V. Dense: >50	Soft: 2-4	V. Stiff: 15-30	little - 10-20%
A -- Auger Cuttings	M. Dense: 10-30	M. Stiff: 4-8	Hard: > 30	trace - <10%
				moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE	INSPECTOR: Kevin McMullen	BORING/WELL ID: B19
PROJECT NAME: FTMM - [illegible]	DRILLER: Joe	LOCATION DESCRIPTION
PROJECT LOCATION: FTMM Parcel 82	WEATHER: Low 70's	Grass Area
PROJECT NUMBER: 748810- 07100	CONTRACTOR: East Coast Drilling, Inc. (ECDI)	
GROUNDWATER OBSERVATIONS	RIG TYPE: Geoprobe(R) 7822DT	LOCATION PLAN
	DATE/TIME START: 5-15-18 / 1149	Oceanport, New Jersey
WATER LEVEL:	DATE/TIME FINISH: 5-15-18 / 1151	
DATE:	WEIGHT OF HAMMER: N/A	
TIME:	DROP OF HAMMER: N/A	
MEAS. FROM:	TYPE OF HAMMER: N/A	

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-12" - Moist, Mid dense, Brn, F-M, Gravel Sand.		
	ø PAR-82-SB-B19-0.0-0.5			0			
1				0			
				0	12"-32" - Moist, Mid dense, Light Brn, F-M, Clayey SAND	fill	
2	ø PAR-82-SB-B19-1.5-2.0			0			
				0			
3	ø ø PAR-82-SB-B19-2.5-3.0		36/36	0	32"-36" - Moist, Mid dense, Light Brn with Green Mottles, F-M, Gravel Sand		
4							
5					EOB @ 3' bgs		
6					Backfill borings with		
7					Soil cuttings and Bentonite		
8							
9							
10							

Remarks: ø Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ø ø Indicates Soil Sample Placed on Hold

Sample Types	Consistency vs. Blowcount / Foot		
S -- Split-Spoon	Granular (Sand & Gravel)	Fine Grained (Silt & Clay)	and - 35-50%
U -- Undisturbed Tube	V. Loose: 0-4 Dense: 30-50	V. Soft: <2 - Stiff: 8-15	some - 20-35%
C -- Rock Core	Loose: 4-10 V. Dense: >50	Soft: 2-4 V. Stiff: 15-30	little - 10-20%
A -- Auger Cuttings	M. Dense: 10-30	M. Stiff: 4-8 Hard: > 30	trace - <10%
			moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullin
DRILLER: See
WEATHER: Low 70's
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 11:25
DATE/TIME FINISH: 5-15-18 11:27
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B26
LOCATION DESCRIPTION: Grass Swale
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-6" - Dry, loose, Brn, F-M, Sand		
	@ PAR-82-SB-B26-0.0-0.5			0			
1				0	6"-12" - Moist, Medense, Brn, F-M, Silty SAND		
				0			
2	@ PAR-82-SB-B26-1.5-2.0			0		Fill	
				0	12"-30" - Moist, Medense, Light Brn, F-M, Clayey Sand		
3	@ PAR-82-SB-B26-2.5-3.0		36/36	0			
4					30"-36" - Moist, Medense, Lig Brn with Green Mottles, F-M, Silty SAND		
5							
					EOB @ 3' bgs		
6							
					Backfill boring with		
7					Soil cuttings + Bentonite		
8							
9							
10							

Remarks: @ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). @@ Indicates Soil Sample Placed on Hold

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)		Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50	V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50	Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30		M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Page 1 of 1

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullen
DRILLER: Joe
WEATHER: Low 70's
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 1128
DATE/TIME FINISH: 5-15-18 1130
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B21
LOCATION DESCRIPTION
LOCATION PLAN
Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-13" - Dry, loose; Brn, F-M, Sand, Trace F Subangular gravel Concrete @ 1.5'	Fill	
	FMR-82-SB-B21-0.0-0.5			0			
1				0			
				0			
2	FMR-82-SB-B21-1.5-2.0			0	13"-21" - Moist, Medense, Brn, F-M, Silty SAND, Trace F Sub angular gravel		
				0			
3	FMR-82-SB-B21-2.5-3.0		36/36	0	26"-36" - Moist, Midense, light Brn F-M Silty SAND, little Clay		
4							
5					EOB @ 3' bgs		
6					Backfill boring with Soil Cuttings and Bentonite		
7							
8							
9							
10							

Remarks: @ Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring
Soil cuttings were Field screened with Photo Ionization Detector (PID). [redacted] Indicates Soil Sample Placed on Hold

Sample Types
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS Page 1 of 1

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - [redacted]
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810- 07100

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullen
DRILLER: Joe
WEATHER: Low 70s / Cloudy
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5/5/16 / 11:22
DATE/TIME FINISH: 5/5/16 / 11:29
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B32
LOCATION DESCRIPTION: Grass Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-12" - Dry, Loose, Brn, F-M Sand	Fill	
*	FMR-82-SB-B32-0.0-0.5			0			
1				0			
				0			
2	FMR-82-SB-B32-1.5-2.0			0			
				0			
3	FMR-82-SB-B32-2.5-3.0		36/24	0	12"-30" - Moist, Mdense, Brn, F-C, Silty SAND, little, F, Subangular gravel		
					EOB @ 3' bgs		
4							
5					Backfill boring with Soil cuttings and bentonite		
6							
7							
8							
9							
10							

Remarks: * Indicates soil samples ran for chemical Analysis. Soil cuttings were used to backfill boring. Soil cuttings were Field screened with Photo Ionization Detector (PID). ** Indicates Soil Sample Placed on Hold

Sample Types:
S -- Split-Spoon
U -- Undisturbed Tube
C -- Rock Core
A -- Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)		
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15	
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30	
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30	

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE	INSPECTOR: Kevin McMullen	BORING/WELL ID: B23
PROJECT NAME: FTMM ~~[illegible]~~	DRILLER: Joe	LOCATION DESCRIPTION
PROJECT LOCATION: FTMM Parcel 82	WEATHER: Low 80s	Asphalt Surf
PROJECT NUMBER: 748810-	CONTRACTOR: East Coast Drilling, Inc. (ECDI)	
GROUNDWATER OBSERVATIONS	RIG TYPE: Geoprobe(R) 7822DT	LOCATION PLAN
	DATE/TIME START: 5-5-18 13:22	Oceanport, New Jersey
WATER LEVEL:	DATE/TIME FINISH: 5-5-18 13:30	
DATE:	WEIGHT OF HAMMER: N/A	
TIME:	DROP OF HAMMER: N/A	
MEAS. FROM:	TYPE OF HAMMER: N/A	

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0.5	0-6" - Asphalt		
				0.8	6"-18" - Dry, Mdense, Dk Brn		
1	PAR-82-SB-B23-0.5-1.0			1.2	Green Mottles, F-C, Silty SAND	Fill	
				5.2	Little F Sub Angular Gravel		
2				0.6	18"-42" - Moist, Mdense, Dk Brown,		
				0	Green Mottles, F-M, Clayey SAND		
3				0			
	PAR-82-SB-B23-3-3.5			0			
4				0			
				0			
5		42/60	~~[illegible]~~	0	60-12" - SAA		∇ ~ 6' bgs
				0	12"-18" - Wet, M. Dense, Light Brn with		
6				0	Red Mottles, Dom F-M, Silty SAND		
	PAR-82-SB-B23-6-6.5	18/48	78/78	0			
7							
8					EOB @ 6.5' bgs		
9					Backfill boring with Soil cutting		
					and Bentonite		
0							

Remarks: Indicates Soil Samples ran for chemical analysis. Soil Cuttings used to backfill boring. Soil Samples were screened with a Photo Ionization Detector (PID) Indicates Soil Samples Placed on HOLD

Sample Types	Consistency vs. Blowcount / Foot				
S – Split-Spoon	Granular (Sand & Gravel)		Fine Grained (Silt & Clay)		and - 35-50%
U – Undisturbed Tube	V. Loose: 0-4	Dense: 30-50	V. Soft: <2	Stiff: 6-15	some - 20-35%
C – Rock Core	Loose: 4-10	V. Dense: >50	Soft: 2-4	V. Stiff: 15-30	little - 10-20%
A – Auger Cuttings	M. Dense: 10-30		M. Stiff: 4-8	Hard: > 30	trace - <10%
					moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM
PROJECT LOCATION:
PROJECT NUMBER: 748810-

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullin
DRILLER: Joe
WEATHER: Low 80's
CONTRACTOR: Cascade
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 ~~5-15~~ 13:40
DATE/TIME FINISH: 5-15-18 13:43
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: ~~SB~~ B24
LOCATION DESCRIPTION: ~~AOI~~ Asphalt Area
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-6" - ~~Astra~~ Asphalt		
				0	6"-24" - Moist, M. Dense; Dk Brn Green Mottles, F-M, Silty SAND, Coal Frags noted at 6-12"	F; V	
1	PAR-82-SB-B24-0.5-1.0			0			
				0			
2				0			
				0	24"-42" - Moist, M. Dense, Brn Green mottles, F-M Clayey SAND		
3				0			
	PAR-82-SB-B24-3-3.5			0			
4				0			
				0			
5		42/60	~~60~~	0	0-18" - Vert, M. dense, Light Brn trace Green Hues, Dom F-M Silty SAND little Clay		▽ @ 6' bgs
				0			
6				0			
	PAR-82-SB-B24-6-6.5		18/18	0			
7							
8							
9							
0							

Remarks:

Sample Types
S – Split-Spoon
U – Undisturbed Tube
C – Rock Core
A – Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

PARSONS

Soil Boring Log

CLIENT: USACE
PROJECT NAME: FTMM - ECP
PROJECT LOCATION: FTMM Parcel 82
PROJECT NUMBER: 748810-

GROUNDWATER OBSERVATIONS
WATER LEVEL:
DATE:
TIME:
MEAS. FROM:

INSPECTOR: Kevin McMullen
DRILLER: Joe
WEATHER: Low 80's
CONTRACTOR: East Coast Drilling, Inc. (ECDI)
RIG TYPE: Geoprobe(R) 7822DT
DATE/TIME START: 5-15-18 13:46
DATE/TIME FINISH: 5-15-18 13:50
WEIGHT OF HAMMER: N/A
DROP OF HAMMER: N/A
TYPE OF HAMMER: N/A

BORING/WELL ID: B25
LOCATION DESCRIPTION: Asphalt Surface
LOCATION PLAN: Oceanport, New Jersey

DEPTH (feet)	SAMPLE I.D.	BLOWS per 6"	ADV/ REC.	PID (ppm)	FIELD IDENTIFICATION OF MATERIAL	STRATA	COMMENTS
0				0	0-6" - Asphalt		
				0	6"-18" - Moist, M. Dense, Brn with Green hues, F-M, Clayey SAND	Fill	
1				0			
	PAR-82-SB-B25-1-1.5			0			
2				0	18"-42" - Moist, M. Dense, Brn with Green hues, F-M Silty SAND		
				0			
3				0			
	PAR-82-SB-B25-3-3.5			0			
4				0			
				0			
5			42/60	0	0-18' - Wet, M. Dense, light Brn with Green Hues, ~~Silt~~ F-M Silty SAND		
				0			
6				0			
	PAR-82-SB-B25-6-6.5		18/18	0	EOB @ 6.5' bgs		
7					Backfill boring with Soil Cuttings and Bentonite		
8							
9							
10							

Remarks:

Sample Types
S – Split-Spoon
U – Undisturbed Tube
C – Rock Core
A – Auger Cuttings

Consistency vs. Blowcount / Foot

Granular (Sand & Gravel)			Fine Grained (Silt & Clay)	
V. Loose: 0-4	Dense: 30-50		V. Soft: <2	Stiff: 8-15
Loose: 4-10	V. Dense: >50		Soft: 2-4	V. Stiff: 15-30
M. Dense: 10-30			M. Stiff: 4-8	Hard: > 30

and - 35-50%
some - 20-35%
little - 10-20%
trace - <10%
moisture, density, color, gradation

Attachment C
Field Notes

Location _____ Date _____

Project / Client _____

12:25	Start purge of M3MW13
13:25	M3MW13 stable. but turbidity is above 10 ntu but below 50 ntu. Per parsons well is to be sampled after 1 hr of purge and no filter needed.
13:26	Sample FTMM-M3-GW-M3MW13
13:30	Check pH 7 solution with meter. Reading 7.05 @ 32.72°c
14:15	Start purge of M3MW05
14:50	M3MW05 stable
14:53	Sample FTMM-M3-GW-M3MW05
15:10	Arrive at staging area
15:55	off site

JHB

Location Oceanport, NJ Date 5-14-18

Project / Client FTMM / USACE

Weather - Low 70's, Overcast

Activity - Site Prep

Equipm - Hand tools, 1x YSI, 4 PID, 1x IP

Personnel - KM + EA - Parsons

Activity

0700 - All onsite, HSE meeting

0730 - Discuss Week activities

0800 - Start labeling Jars for PAR-82

0945 - Start labeling Jars for Split analysis

1200 - 8oz Jars onsite for FTMM-05

Start labeling.

13:40 - Conference Call with Julian Chandler

14:20 - Site Recon

15:30 - Finished Recon, offsite

Location Oceanport, NJ Date 5-15-18

Project / Client FTMM / USACE

Weather - Low 70s / Cloudy

Activity - Soil Sampling / Drilling

Equipment - 1xPID, 1xIP, 1x Geoprobe, PPE, Handtools

Personnel - KM + FA - Parsons

Joe + Josh - ECDT

Please Note: (P) = Primary
(C) = Contingency

Activity

0700 - All onsite, HSE meeting, Calibrate PID (100.1)

0730 - Mob to Parcel 82

0810 - Setup + Drill Parcel 82 locations

0910 - Collect PAR-82-SB-B01-0.0-0.5 (Dup) (P)

0912 - -1.5-2.0 (P)

0914 - -2.5-3.0 (C)

0920 - -B02-0.0-0.5 (MS/MSD) (P)

0922 - -1.5-2.0 (P)

0924 - -2.5-3.0 (C)

0940 - -B03-0.0-0.5 (Dup) (P)

0942 - -1.5-2.0 (P)

0944 - -2.5-3.0 (C)

0950 - -B04-0.0-0.5 (MS/MSD) (P)

0952 - -1.5-2.0 (C)

0954 - -2.5-3.0 (C)

0900 - -B05-0.0-0.5 (Dup) (P)

0902 - -1.5-2.0 (P)

0904 - -2.5-3.0 (C)

Location Oceanport, NJ Date 5-15-18

Project / Client FTMM / USACE

0832 - Collect PAR-82-SB-B06-0.0-0.5 (MS/MSD) (P)

0834 - -B06-1.5-2.0 (P)

0836 - -2.5-3.0 (C)

1000 - B07-0.0-0.5 (Dup) (P)

1002 - -1.5-2.0 (P)

1004 - -2.5-3.0 (C)

0846 - B08-0.0-0.5 (MS/MSD) (P)

0848 - -1.5-2.0 (P)

0850 - -2.5-3.0 (C)

1104 - B09-0.0-0.5 (P)

1106 - -1.5-2.0 (P)

1108 - -2.5-3.0 (C)

1010 - B10-0.0-0.5 (P)

1012 - -1.5-2.0 (P)

1014 - -2.5-3.0 (C)

1016 - B11-0.0-0.5 (P)

1018 - -1.5-2.0 (P)

1020 - -2.5-3.0 (C)

1058 - B12-0.0-0.5 (P)

1100 - -1.5-2.0 (P)

1102 - -2.5-3.0 (C)

1034 - B13-0.0-0.5 (P)

1036 - -1.5-2.0 (P)

1038 - -2.5-3.0 (C)

Location Oceanport, NJ Date 5-15-15

Project / Client FTMM / USACE

1048	Collect PAR-82-SB-B14	-0.0-0.5	(P)
1050		-1.5-2.0	(P)
1052		-2.5-3.0	(C)
1108	B15	-0.0-0.5	(P)
1110		-1.5-2.0	(P)
1112		-2.5-3.0	(C)
1316	B16	-0.0-0.5	(P)
1318		-1.5-2.0	(P)
1320		-2.5-3.0	(C)
1306	B12	-0.0-0.5	(P)
1308		-1.5-2.0	(P)
1310		-2.5-3.0	(C)
1142	B18	-0.0-0.5	(P)
1144		-1.5-2.0	(P)
1146		-2.5-3.0	(C)
1154	B19	-0.0-0.5	(P)
1156		-1.5-2.0	(P)
1158		-2.5-3.0	(C)
1132	B20	-0.0-0.5	(P)
1134		-1.5-2.0	(P)
1136		-2.5-3.0	(C)
1137	B21	-0.0-0.5	(P)
1138		-1.5-2.0	(P)
1140		-2.5-3.0	(C)

Location Oceanport, NJ Date 5-15-15

Project / Client FTMM / USACE MS/MSD

1122	Collect PAR-82-SB-B22	0.0-0.5	(P)
1124		-1.5-2.0	(P)
~~1200~~		-2.5-3.0	(C)
1326	B23	-0.0-~~0.5~~ 1.0	(P)
1328		-3.0-3.5	(P)
~~1311~~		-6.0-6.5	(C)
1346	B24	-~~0.5-1.0~~	(P)
13:46		-3.0-3.5	(P)
13:48		-6.0-6.5	(C)
13:47	B25	-~~1.0-1.5~~ Dup	(P)
13:50		3.0-3.5	(P)
1352		6.0-6.5	(C)
1400	Finish Paperwork in office		
1030	Collect PAR-82-FB-05152015		
1545	~~Collect PAR-82-TW~~ All off site		

Attachment D
Additional Evaluation of PAHs in Soil

Technical Memorandum

To: James Moore - US Army Corps of Engineers, New York District
From: Parsons Fort Monmouth Team
Subject: Compliance Averaging at Parcel 82
Date: 18 March 2019
CC: William Colvin (FTMM-BRAC BEC), Parsons File

INTRODUCTION

This Technical Memorandum (TM) summarizes the results of a compliance averaging effort requested by the US Army Corps of Engineers (USACE) for the Parcel 82 site at Fort Monmouth (FTMM) in Oceanport, New Jersey. New Jersey Department of Environmental Protection (NJDEP) technical guidance (2012) provides an averaging approach that can be used for all exposure pathways in the remedial investigation or remedial action phases. At Parcel 82, the site soils contain polycyclic aromatic hydrocarbons (PAHs) in excess of the NJDEP soil remediation standards at multiple soil sample locations. Compliance averaging is used herein to determine if further action is needed for PAHs at Parcel 82.

As discussed below, the compliance averaging results do not exceed the NJDEP residential direct contract soil remediation standards, and therefore a No Further Action (NFA) request would be supported.

COMPLIANCE AVERAGING APPROACH

Compliance averaging, using either the 95% upper confidence limit of the mean or arithmetic mean, is used herein to determine whether the current residential remedial goals for PAHs, specifically benzo(a)pyrene, have been achieved at Parcel 82. The horizontal and vertical definition of each functional area was drawn using the data points where soil samples results exceeded the NJDEP residential direct contact soil remediation standards (RDCSRS) in accordance with the guidelines provided in Appendix A of the NJDEP attainment guidance (2012).

Benzo(a)pyrene soil data is presented in **Table 1 and 2**. Only *in situ* soil was evaluated. Therefore, excavated samples were excluded from the compliance averaging calculations. One functional area was defined at Parcel 82 per NJDEP guidance (2012): the surface zone, less than two feet bgs (0 to 2 feet bgs) is designated with “A”, and the subsurface zone (greater than 2 feet bgs), designated with “B”.

The size of the functional areas is constrained horizontally by the NJDEP attainment guidance. The maximum size of the functional area for residential exposure scenarios is 0.25 acres (for ingestion-dermal pathway). However, the NJDEP guidance allows for an area to be increased by up to 50 percent, to a total of 0.375 acres, if needed; the sizes of the functional area at Parcel 82 is 150 feet by 90 feet and within this limit (0.31 acres). Also, the NJDEP guidance indicates that the preferred shape of the functional area is a square, but can vary somewhat based on site configuration and contaminant distribution. Therefore, the guidance allows a rectangular functional area, with a length not more than four times the width. The analyte associated with each functional area, average, and depth intervalare included on **Table 3**.

The 95% UCL was calculated for benzo(a)pyrene FA 1A using ProUCL software (version 5.1). The 95% UCL was calculated using *in situ* sample results (i.e., the soil remaining following excavations). Excavated sample data are indicated as such in **Table 1**. The 95% UCL is a conservative estimate of potential exposure, because it does not account for placement of clean fill after excavation. Because the field duplicate samples in the 2004 dataset either occurred in soil that has been excavated or it could not be matched with a location or parent sample, no field duplicate results were used in the UCL calculations. For the 2018 dataset, since benzo(a)pyrene was detected in both the primary and associated duplicate, the primary sample with the higher concentration was used in the UCL calculation. The ProUCL output is included in **Table 5**.

At FA 1B, As shown in **Table 2 and 3**, the maximum detected concentrations of benzo(a)pyrene in FA B does not exceed the RDCSRS. Therefore, compliance averaging for this functional area was not necessary.

TM RESULTS AND DISCUSSION

The compliance averaging results for Benzo(a)pyrene does not exceed the NJDEP soil remediation standards (**Table 3**). Therefore, an NFA request would be supported for PAHs at Parcel 82.

REFERENCES

NJDEP, 2012. Technical Guidance for the Attainment of Remediation Standards and Site Specific Criteria. September 24.

ATTACHMENTS

Table 1. 2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Table 2. 2018 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Table 3. Summary of Compliance Averaging Results

Table 4. Parcel 82 ProUCL Results

Figure 1. Parcel 82 Functional Areas and Exceedances of Residential Direct Contact Soil Remediation Standards

TABLES

TABLE 1
2004 Parcel 82 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards

Functional Area	LOC ID	Depth (Inches)	Semivolatile Organic Compounds	NJ Residential Direct Contact SRS (mg/kg)	Result (mg/kg)	Date Sampled
A	B11	0 to 6	Naphthalene	6	1.1 U	6/24/2004
A	B11	0 to 6	2-methyl-napthalene	230	1.1 U	6/24/2004
A	B11	0 to 6	Benzo(a)anthracene	5	**0.18 J**	6/24/2004
A	B11	0 to 6	Chrysene	450	**0.24 J**	6/24/2004
A	B11	0 to 6	Benzo(b)fluoranthene	5	**0.29 J**	6/24/2004
A	B11	0 to 6	Benzo(k)fluoranthene	45	**0.14 J**	6/24/2004
A	B11	0 to 6	Benzo(a)pyrene	0.5	**0.21 J**	6/24/2004
A	B11	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.14 J**	6/24/2004
A	B11	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	6/24/2004
A	B12	0 to 6	Naphthalene	6	1 U	6/24/2004
A	B12	0 to 6	2-methyl-napthalene	230	1 U	6/24/2004
A	B12	0 to 6	Benzo(a)anthracene	5	**0.15 J**	6/24/2004
A	B12	0 to 6	Chrysene	450	**0.22 J**	6/24/2004
A	B12	0 to 6	Benzo(b)fluoranthene	5	**0.24 J**	6/24/2004
A	B12	0 to 6	Benzo(k)fluoranthene	45	1 U	6/24/2004
A	B12	0 to 6	Benzo(a)pyrene	0.5	**0.18 J**	6/24/2004
A	B12	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.11 J**	6/24/2004
A	B12	0 to 6	Dibenz(a,h)anthracene	0.5	1 U	6/24/2004
A	B13	0 to 6	Naphthalene	6	1.2 U	6/24/2004
A	B13	0 to 6	2-methyl-napthalene	230	1.2 U	6/24/2004
A	B13	0 to 6	Benzo(a)anthracene	5	**0.39 J**	6/24/2004
A	B13	0 to 6	Chrysene	450	**0.54 J**	6/24/2004
A	B13	0 to 6	Benzo(b)fluoranthene	5	**0.68 J**	6/24/2004
A	B13	0 to 6	Benzo(k)fluoranthene	45	**0.19 J**	6/24/2004
A	B13	0 to 6	Benzo(a)pyrene	0.5	**0.5 J**	6/24/2004
A	B13	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.39 J**	6/24/2004
A	B13	0 to 6	Dibenz(a,h)anthracene	0.5	1.2 U	6/24/2004
	B14*	0 to 6	Naphthalene	6	11 U	6/24/2004
	B14*	0 to 6	2-methyl-napthalene	230	11 U	6/24/2004
	B14*	0 to 6	Benzo(a)anthracene	5	**2.6 JD**	6/24/2004
	B14*	0 to 6	Chrysene	450	**3.2 JD**	6/24/2004
	B14*	0 to 6	Benzo(b)fluoranthene	5	**4 JD**	6/24/2004
	B14*	0 to 6	Benzo(k)fluoranthene	45	**1.1 JD**	6/24/2004
	B14*	0 to 6	Benzo(a)pyrene	0.5	**3.3 JD**	6/24/2004
	B14*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**2.3 JD**	6/24/2004
	B14*	0 to 6	Dibenz(a,h)anthracene	0.5	**11 JD**	6/24/2004
	B14*	12 to 18	Naphthalene	6	11 U	7/22/2004
	B14*	12 to 18	2-methyl-napthalene	230	11 U	7/22/2004
	B14*	12 to 18	Benzo(a)anthracene	5	**2.6 JD**	7/22/2004
	B14*	12 to 18	Chrysene	450	**3.2 JD**	7/22/2004
	B14*	12 to 18	Benzo(b)fluoranthene	5	**4 JD**	7/22/2004
	B14*	12 to 18	Benzo(k)fluoranthene	45	**1.1 JD**	7/22/2004
	B14*	12 to 18	Benzo(a)pyrene	0.5	**3.3 JD**	7/22/2004
	B14*	12 to 18	Indeno(1,2,3-cd)pyrene	5	**2.3 JD**	7/22/2004
	B14*	12 to 18	Dibenz(a,h)anthracene	0.5	**11 JD**	7/22/2004
	B14 DUP*		Naphthalene	6	1.2 U	7/22/2004
	B14 DUP*		2-methyl-napthalene	230	1.2 U	7/22/2004
	B14 DUP*		Benzo(a)anthracene	5	**0.11 J**	7/22/2004
	B14 DUP*		Chrysene	450	**0.14 J**	7/22/2004
	B14 DUP*		Benzo(b)fluoranthene	5	**0.17 J**	7/22/2004
	B14 DUP*		Benzo(k)fluoranthene	45	1.2 U	7/22/2004
	B14 DUP*		Benzo(a)pyrene	0.5	**0.12 J**	7/22/2004
	B14 DUP*		Indeno(1,2,3-cd)pyrene	5	1.2 U	7/22/2004
	B14 DUP*		Dibenz(a,h)anthracene	0.5	1.2 U	7/22/2004

TABLE 1
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	B14 A*	0 to 6	Naphthalene	6	**1.1 JD**	7/22/2004
	B14 A*	0 to 6	2-methyl-napthalene	230	**0.9 JD**	7/22/2004
	B14 A*	0 to 6	Benzo(a)anthracene	5	**27 D**	7/22/2004
	B14 A*	0 to 6	Chrysene	450	**37 D**	7/22/2004
	B14 A*	0 to 6	Benzo(b)fluoranthene	5	**37 D**	7/22/2004
	B14 A*	0 to 6	Benzo(k)fluoranthene	45	**13 D**	7/22/2004
	B14 A*	0 to 6	Benzo(a)pyrene	0.5	**31 D**	7/22/2004
	B14 A*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**11 D**	7/22/2004
	B14 A*	0 to 6	Dibenz(a,h)anthracene	0.5	**4.1 JD**	7/22/2004
A	B14 A1	12 to 16	Naphthalene	6	1.2 U	8/4/2004
A	B14 A1	12 to 16	2-methyl-napthalene	230	1.2 U	8/4/2004
A	B14 A1	12 to 16	Benzo(a)anthracene	5	1.2 U	8/4/2004
A	B14 A1	12 to 16	Chrysene	450	1.2 U	8/4/2004
A	B14 A1	12 to 16	Benzo(b)fluoranthene	5	1.2 U	8/4/2004
A	B14 A1	12 to 16	Benzo(k)fluoranthene	45	1.2 U	8/4/2004
A	B14 A1	12 to 16	Benzo(a)pyrene	0.5	1.2 U	8/4/2004
A	B14 A1	12 to 16	Indeno(1,2,3-cd)pyrene	5	1.2 U	8/4/2004
A	B14 A1	12 to 16	Dibenz(a,h)anthracene	0.5	1.2 U	8/4/2004
	B14 B*	0 to 6	Naphthalene	6	**0.8 JD**	7/22/2004
	B14 B*	0 to 6	2-methyl-napthalene	230	**0.65 JD**	7/22/2004
	B14 B*	0 to 6	Benzo(a)anthracene	5	**17 D**	7/22/2004
	B14 B*	0 to 6	Chrysene	450	**21 D**	7/22/2004
	B14 B*	0 to 6	Benzo(b)fluoranthene	5	**21 D**	7/22/2004
	B14 B*	0 to 6	Benzo(k)fluoranthene	45	**7.9 D**	7/22/2004
	B14 B*	0 to 6	Benzo(a)pyrene	0.5	**20 D**	7/22/2004
	B14 B*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**8 D**	7/22/2004
	B14 B*	0 to 6	Dibenz(a,h)anthracene	0.5	**2.7 D**	7/22/2004
A	B14 B1	0 to 6	Naphthalene	6	1.9 U	8/4/2004
A	B14 B1	0 to 6	2-methyl-napthalene	230	1.9 U	8/4/2004
A	B14 B1	0 to 6	Benzo(a)anthracene	5	**0.27 J**	8/4/2004
A	B14 B1	0 to 6	Chrysene	450	**0.42 J**	8/4/2004
A	B14 B1	0 to 6	Benzo(b)fluoranthene	5	**0.56 J**	8/4/2004
A	B14 B1	0 to 6	Benzo(k)fluoranthene	45	**0.19 J**	8/4/2004
A	B14 B1	0 to 6	Benzo(a)pyrene	0.5	**0.35 J**	8/4/2004
A	B14 B1	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.2 J**	8/4/2004
A	B14 B1	0 to 6	Dibenz(a,h)anthracene	0.5	1.9 U	8/4/2004
A	B14 C	0 to 6	Naphthalene	6	1.4 U	7/22/2004
A	B14 C	0 to 6	2-methyl-napthalene	230	1.4 U	7/22/2004
A	B14 C	0 to 6	Benzo(a)anthracene	5	**0.47 J**	7/22/2004
A	B14 C	0 to 6	Chrysene	450	**0.68 J**	7/22/2004
A	B14 C	0 to 6	Benzo(b)fluoranthene	5	**0.75 J**	7/22/2004
A	B14 C	0 to 6	Benzo(k)fluoranthene	45	**0.25 J**	7/22/2004
A	B14 C	0 to 6	Benzo(a)pyrene	0.5	**0.55 J**	7/22/2004
A	B14 C	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.27 J**	7/22/2004
A	B14 C	0 to 6	Dibenz(a,h)anthracene	0.5	1.4 U	7/22/2004
	B14 D*	0 to 6	Naphthalene	6	**0.45 JD**	7/22/2004
	B14 D*	0 to 6	2-methyl-napthalene	230	5.5 U	7/22/2004
	B14 D*	0 to 6	Benzo(a)anthracene	5	**6.6 D**	7/22/2004
	B14 D*	0 to 6	Chrysene	450	**8.3 D**	7/22/2004
	B14 D*	0 to 6	Benzo(b)fluoranthene	5	**11 D**	7/22/2004
	B14 D*	0 to 6	Benzo(k)fluoranthene	45	**3.6 JD**	7/22/2004
	B14 D*	0 to 6	Benzo(a)pyrene	0.5	**8.9 D**	7/22/2004
	B14 D*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**4.3 JD**	7/22/2004
	B14 D*	0 to 6	Dibenz(a,h)anthracene	0.5	**1.4 JD**	7/22/2004

TABLE 1
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A	B14 D1	0 to 6	Naphthalene	6	**0.077 J**	8/4/2004
A	B14 D1	0 to 6	2-methyl-napthalene	230	1.2 U	8/4/2004
A	B14 D1	0 to 6	Benzo(a)anthracene	5	**0.44 J**	8/4/2004
A	B14 D1	0 to 6	Chrysene	450	**0.62 J**	8/4/2004
A	B14 D1	0 to 6	Benzo(b)fluoranthene	5	**0.76 J**	8/4/2004
A	B14 D1	0 to 6	Benzo(k)fluoranthene	45	**0.27 J**	8/4/2004
A	B14 D1	0 to 6	Benzo(a)pyrene	0.5	**0.58 J**	8/4/2004
A	B14 D1	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.32 J**	8/4/2004
A	B14 D1	0 to 6	Dibenz(a,h)anthracene	0.5	**0.1 J**	8/4/2004
A	400B14-PX1	18 inches	Naphthalene	6	1.2 U	10/21/2004
A	400B14-PX1	18 inches	2-methyl-napthalene	230	1.2 U	10/21/2004
A	400B14-PX1	18 inches	Benzo(a)anthracene	5	1.2 U	10/21/2004
A	400B14-PX1	18 inches	Chrysene	450	1.2 U	10/21/2004
A	400B14-PX1	18 inches	Benzo(b)fluoranthene	5	1.2 U	10/21/2004
A	400B14-PX1	18 inches	Benzo(k)fluoranthene	45	1.2 U	10/21/2004
A	400B14-PX1	18 inches	Benzo(a)pyrene	0.5	1.2 U	10/21/2004
A	400B14-PX1	18 inches	Indeno(1,2,3-cd)pyrene	5	1.2 U	10/21/2004
A	400B14-PX1	18 inches	Dibenz(a,h)anthracene	0.5	1.2 U	10/21/2004
A	400B14-PX2	18 inches	Naphthalene	6	1.2 U	10/21/2004
A	400B14-PX2	18 inches	2-methyl-napthalene	230	1.2 U	10/21/2004
A	400B14-PX2	18 inches	Benzo(a)anthracene	5	1.2 U	10/21/2004
A	400B14-PX2	18 inches	Chrysene	450	1.2 U	10/21/2004
A	400B14-PX2	18 inches	Benzo(b)fluoranthene	5	1.2 U	10/21/2004
A	400B14-PX2	18 inches	Benzo(k)fluoranthene	45	1.2 U	10/21/2004
A	400B14-PX2	18 inches	Benzo(a)pyrene	0.5	1.2 U	10/21/2004
A	400B14-PX2	18 inches	Indeno(1,2,3-cd)pyrene	5	1.2 U	10/21/2004
A	400B14-PX2	18 inches	Dibenz(a,h)anthracene	0.5	1.2 U	10/21/2004
	B15*	0 to 6	Naphthalene	6	1.2 U	6/24/2004
	B15*	0 to 6	2-methyl-napthalene	230	1.2 U	6/24/2004
	B15*	0 to 6	Benzo(a)anthracene	5	**1.4**	6/24/2004
	B15*	0 to 6	Chrysene	450	**1.9**	6/24/2004
	B15*	0 to 6	Benzo(b)fluoranthene	5	**1.6**	6/24/2004
	B15*	0 to 6	Benzo(k)fluoranthene	45	**0.61 J**	6/24/2004
	B15*	0 to 6	Benzo(a)pyrene	0.5	**1.6**	6/24/2004
	B15*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.81 J**	6/24/2004
	B15*	0 to 6	Dibenz(a,h)anthracene	0.5	**0.28 J**	6/24/2004
	B15*	12 to 18	Naphthalene	6	1.2 U	7/22/2004
	B15*	12 to 18	2-methyl-napthalene	230	1.2 U	7/22/2004
	B15*	12 to 18	Benzo(a)anthracene	5	**0.17 J**	7/22/2004
	B15*	12 to 18	Chrysene	450	**0.2 J**	7/22/2004
	B15*	12 to 18	Benzo(b)fluoranthene	5	**0.26 J**	7/22/2004
	B15*	12 to 18	Benzo(k)fluoranthene	45	**0.082 J**	7/22/2004
	B15*	12 to 18	Benzo(a)pyrene	0.5	**0.18 J**	7/22/2004
	B15*	12 to 18	Indeno(1,2,3-cd)pyrene	5	**0.072 J**	7/22/2004
	B15*	12 to 18	Dibenz(a,h)anthracene	0.5	1.2 U	7/22/2004
	B15 A*	0 to 6	Naphthalene	6	**0.16 J**	7/22/2004
	B15 A*	0 to 6	2-methyl-napthalene	230	**0.1 J**	7/22/2004
	B15 A*	0 to 6	Benzo(a)anthracene	5	**4.5**	7/22/2004
	B15 A*	0 to 6	Chrysene	450	**6.2**	7/22/2004
	B15 A*	0 to 6	Benzo(b)fluoranthene	5	**6.7**	7/22/2004
	B15 A*	0 to 6	Benzo(k)fluoranthene	45	**2.6**	7/22/2004
	B15 A*	0 to 6	Benzo(a)pyrene	0.5	**5**	7/22/2004
	B15 A*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**1.9**	7/22/2004
	B15 A*	0 to 6	Dibenz(a,h)anthracene	0.5	**0.67**	7/22/2004

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A	B15 A1	12 to 16	Naphthalene	6	1.2 U	8/4/2004
A	B15 A1	12 to 16	2-methyl-napthalene	230	1.2 U	8/4/2004
A	B15 A1	12 to 16	Benzo(a)anthracene	5	**0.079 J**	8/4/2004
A	B15 A1	12 to 16	Chrysene	450	**0.1 J**	8/4/2004
A	B15 A1	12 to 16	Benzo(b)fluoranthene	5	**0.11 J**	8/4/2004
A	B15 A1	12 to 16	Benzo(k)fluoranthene	45	1.2 U	8/4/2004
A	B15 A1	12 to 16	Benzo(a)pyrene	0.5	**0.083 J**	8/4/2004
A	B15 A1	12 to 16	Indeno(1,2,3-cd)pyrene	5	1.2 U	8/4/2004
A	B15 A1	12 to 16	Dibenz(a,h)anthracene	0.5	1.2 U	8/4/2004
	B15 B*	0 to 6	Naphthalene	6	**0.096 J**	7/22/2004
	B15 B*	0 to 6	2-methyl-napthalene	230	**0.14 J**	7/22/2004
	B15 B*	0 to 6	Benzo(a)anthracene	5	**0.51 J**	7/22/2004
	B15 B*	0 to 6	Chrysene	450	**0.69 J**	7/22/2004
	B15 B*	0 to 6	Benzo(b)fluoranthene	5	**1.2**	7/22/2004
	B15 B*	0 to 6	Benzo(k)fluoranthene	45	**0.32 J**	7/22/2004
	B15 B*	0 to 6	Benzo(a)pyrene	0.5	**0.86 J**	7/22/2004
	B15 B*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.46 J**	7/22/2004
	B15 B*	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	7/22/2004
A	B15 B1	12 to 16	Naphthalene	6	**0.16 J**	8/4/2004
A	B15 B1	12 to 16	2-methyl-napthalene	230	1.2 U	8/4/2004
A	B15 B1	12 to 16	Benzo(a)anthracene	5	**0.23 J**	8/4/2004
A	B15 B1	12 to 16	Chrysene	450	**0.27 J**	8/4/2004
A	B15 B1	12 to 16	Benzo(b)fluoranthene	5	**0.23 J**	8/4/2004
A	B15 B1	12 to 16	Benzo(k)fluoranthene	45	**0.088 J**	8/4/2004
A	B15 B1	12 to 16	Benzo(a)pyrene	0.5	**0.22 J**	8/4/2004
A	B15 B1	12 to 16	Indeno(1,2,3-cd)pyrene	5	**0.099 J**	8/4/2004
A	B15 B1	12 to 16	Dibenz(a,h)anthracene	0.5	1.2 U	8/4/2004
	B15 C*	0 to 6	Naphthalene	6	1.2 U	7/22/2004
	B15 C*	0 to 6	2-methyl-napthalene	230	1.2 U	7/22/2004
	B15 C*	0 to 6	Benzo(a)anthracene	5	**0.28 J**	7/22/2004
	B15 C*	0 to 6	Chrysene	450	**0.3 J**	7/22/2004
	B15 C*	0 to 6	Benzo(b)fluoranthene	5	**0.4 J**	7/22/2004
	B15 C*	0 to 6	Benzo(k)fluoranthene	45	**0.18 J**	7/22/2004
	B15 C*	0 to 6	Benzo(a)pyrene	0.5	**0.29 J**	7/22/2004
	B15 C*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**0.13 J**	7/22/2004
	B15 C*	0 to 6	Dibenz(a,h)anthracene	0.5	1.2 U	7/22/2004
	B15 D*	0 to 6	Naphthalene	6	**0.89 JD**	7/22/2004
	B15 D*	0 to 6	2-methyl-napthalene	230	**0.89 JD**	7/22/2004
	B15 D*	0 to 6	Benzo(a)anthracene	5	**10 D**	7/22/2004
	B15 D*	0 to 6	Chrysene	450	**13 D**	7/22/2004
	B15 D*	0 to 6	Benzo(b)fluoranthene	5	**15 D**	7/22/2004
	B15 D*	0 to 6	Benzo(k)fluoranthene	45	**5.6 JD**	7/22/2004
	B15 D*	0 to 6	Benzo(a)pyrene	0.5	**15 D**	7/22/2004
	B15 D*	0 to 6	Indeno(1,2,3-cd)pyrene	5	**6 D**	7/22/2004
	B15 D*	0 to 6	Dibenz(a,h)anthracene	0.5	**2 JD**	7/22/2004
A	B15 D1	0 to 6	Naphthalene	6	1.1 U	8/4/2004
A	B15 D1	0 to 6	2-methyl-napthalene	230	1.1 U	8/4/2004
A	B15 D1	0 to 6	Benzo(a)anthracene	5	**0.085 J**	8/4/2004
A	B15 D1	0 to 6	Chrysene	450	**0.096 J**	8/4/2004
A	B15 D1	0 to 6	Benzo(b)fluoranthene	5	**0.11 J**	8/4/2004
A	B15 D1	0 to 6	Benzo(k)fluoranthene	45	1.1 U	8/4/2004
A	B15 D1	0 to 6	Benzo(a)pyrene	0.5	**0.08 J**	8/4/2004
A	B15 D1	0 to 6	Indeno(1,2,3-cd)pyrene	5	1.1 U	8/4/2004
A	B15 D1	0 to 6	Dibenz(a,h)anthracene	0.5	1.1 U	8/4/2004

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A	B15 D1A	12 to 16	Naphthalene	6	1.2	U	8/4/2004
A	B15 D1A	12 to 16	2-methyl-napthalene	230	1.2	U	8/4/2004
A	B15 D1A	12 to 16	Benzo(a)anthracene	5	1.2	U	8/4/2004
A	B15 D1A	12 to 16	Chrysene	450	1.2	U	8/4/2004
A	B15 D1A	12 to 16	Benzo(b)fluoranthene	5	**0.077**	**J**	8/4/2004
A	B15 D1A	12 to 16	Benzo(k)fluoranthene	45	1.2	U	8/4/2004
A	B15 D1A	12 to 16	Benzo(a)pyrene	0.5	1.2	U	8/4/2004
A	B15 D1A	12 to 16	Indeno(1,2,3-cd)pyrene	5	1.2	U	8/4/2004
A	B15 D1A	12 to 16	Dibenz(a,h)anthracene	0.5	1.2	U	8/4/2004
	400B15-PX1*	18 inches	Naphthalene	6	1.2	U	10/20/2004
	400B15-PX1*	18 inches	2-methyl-napthalene	230	1.2	U	10/20/2004
	400B15-PX1*	18 inches	Benzo(a)anthracene	5	**0.92**	**J**	10/20/2004
	400B15-PX1*	18 inches	Chrysene	450	**1.2**		10/20/2004
	400B15-PX1*	18 inches	Benzo(b)fluoranthene	5	**1.2**		10/20/2004
	400B15-PX1*	18 inches	Benzo(k)fluoranthene	45	**0.43**	**J**	10/20/2004
	400B15-PX1*	18 inches	Benzo(a)pyrene	0.5	**0.97**	**J**	10/20/2004
	400B15-PX1*	18 inches	Indeno(1,2,3-cd)pyrene	5	**0.54**	**J**	10/20/2004
	400B15-PX1*	18 inches	Dibenz(a,h)anthracene	0.5	**0.13**	**J**	10/20/2004
A	400B15-PX2	18 inches	Naphthalene	6	1.2	U	10/20/2004
A	400B15-PX2	18 inches	2-methyl-napthalene	230	1.2	U	10/20/2004
A	400B15-PX2	18 inches	Benzo(a)anthracene	5	1.2	U	10/20/2004
A	400B15-PX2	18 inches	Chrysene	450	1.2	U	10/20/2004
A	400B15-PX2	18 inches	Benzo(b)fluoranthene	5	1.2	U	10/20/2004
A	400B15-PX2	18 inches	Benzo(k)fluoranthene	45	1.2	U	10/20/2004
A	400B15-PX2	18 inches	Benzo(a)pyrene	0.5	1.2	U	10/20/2004
A	400B15-PX2	18 inches	Indeno(1,2,3-cd)pyrene	5	1.2	U	10/20/2004
A	400B15-PX2	18 inches	Dibenz(a,h)anthracene	0.5	1.2	U	10/20/2004
	400B15-DUP		Naphthalene	6	1.2	U	10/20/2004
	400B15-DUP		2-methyl-napthalene	230	1.2	U	10/20/2004
	400B15-DUP		Benzo(a)anthracene	5	**0.15**	**J**	10/20/2004
	400B15-DUP		Chrysene	450	**0.2**	**J**	10/20/2004
	400B15-DUP		Benzo(b)fluoranthene	5	**0.21**	**J**	10/20/2004
	400B15-DUP		Benzo(k)fluoranthene	45	**0.076**	**J**	10/20/2004
	400B15-DUP		Benzo(a)pyrene	0.5	**0.16**	**J**	10/20/2004
	400B15-DUP		Indeno(1,2,3-cd)pyrene	5	**0.098**	**J**	10/20/2004
	400B15-DUP		Dibenz(a,h)anthracene	0.5	1.2	U	10/20/2004
B	400B15-PX3	2.5 ft bgs	Naphthalene	6	1.2	U	11/4/2004
B	400B15-PX3	2.5 ft bgs	2-methyl-napthalene	230	1.2	U	11/4/2004
B	400B15-PX3	2.5 ft bgs	Benzo(a)anthracene	5	1.2	U	11/4/2004
B	400B15-PX3	2.5 ft bgs	Chrysene	450	1.2	U	11/4/2004
B	400B15-PX3	2.5 ft bgs	Benzo(b)fluoranthene	5	1.2	U	11/4/2004
B	400B15-PX3	2.5 ft bgs	Benzo(k)fluoranthene	45	1.2	U	11/4/2004
B	400B15-PX3	2.5 ft bgs	Benzo(a)pyrene	0.5	1.2	U	11/4/2004
B	400B15-PX3	2.5 ft bgs	Indeno(1,2,3-cd)pyrene	5	1.2	U	11/4/2004
B	400B15-PX3	2.5 ft bgs	Dibenz(a,h)anthracene	0.5	1.2	U	11/4/2004

Footnotes:

Cell shade value represents a result that is above the NJDEP RDCSRS

* Soil represented by these samples was excavated to a depth of 0.5-2.0 feet bgs and removed in October 2004

ug/Kg = micrograms/kilogram

D = Results from dilution of sample

J = estimated value due to a concentration below the reporting limit or due to discrepencies in meeting certain analyte -spcific quality control

U = non-detect, i.e. not detected at or above this value

The NJ Residential Direct Contact Soil Remediation Standards refers to the NJDEP's September 18, 2017 Remediation Standards (http://www.nj.gov/dep/rules/rules/njac7_26d.pdf)

TABLE 2
2018 Polynuclear Aromatic Hydrocarbons Soil Sampling Results – Comparison to NJDEP Soil Remediation Standards
SITE PARCEL 82
FORT MONMOUTH, NEW JERSEY

Functional Area	NJ Residential Direct Contact SRS	NJ Non-Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	A	B	A	B	A		B
Loc ID				PAR-82-SB-B23		PAR-82-SB-B24		PAR-82-SB-B25		
Sample ID				PAR-82-SB-B23-0.5-1.0	PAR-82-SB-B23-3.0-3.5	PAR-82-SB-B24-1.0-1.5	PAR-82-SB-B24-3.0-3.5	PAR-82-SB-B25-1.0-1.5	PAR-82-SB-B125-1.0-1.5	PAR-82-SB-B25-3.0-3.5
Sample Date				5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018	5/15/2018
Semivolatile Organic Compounds (mg/kg)										
Acenaphthene	3,400	37,000	110	**0.016 J**	< 0.081	< 0.078	< 0.08	< 0.079	< 0.08	< 0.081
Acenaphthylene	NLE	300,000	NLE	< 0.072	< 0.081	**0.039 J**	< 0.08	< 0.079	< 0.08	< 0.081
Anthracene	17,000	30,000	2,400	**0.0092 J**	< 0.081	**0.029 J**	< 0.08	< 0.079	< 0.08	< 0.081
Benzo(a)anthracene	5	17	0.8	**0.05 J**	**0.017 J**	**0.12**	**0.0064 J**	**0.039 J**	**0.029 J**	< 0.081
Benzo(a)pyrene	0.5	2	0.2	**0.059 J**	**0.01 J**	**0.12**	< 0.08	**0.039 J**	**0.025 J**	< 0.081
Benzo(b)fluoranthene	5	17	2	**0.082 J**	**0.018 J**	**0.16**	< 0.08	**0.057 J**	**0.039 J**	< 0.081
Benzo(ghi)perylene	380,000	30,000	NLE	**0.043 J**	< 0.081	**0.08 J**	< 0.08	**0.026 J**	**0.02 J**	< 0.081
Benzo(k)fluoranthene	45	170	25	**0.03 J**	**0.0064 J**	**0.059 J**	< 0.08	**0.018 J**	**0.015 J**	< 0.081
Chrysene	450	1,700	80	**0.053 J**	**0.012 J**	**0.13**	< 0.08	**0.031 J**	**0.026 J**	< 0.081
Dibenz(a,h)anthracene	0.5	2	0.8	**0.012 J**	< 0.081	**0.012 J**	< 0.08	< 0.079	< 0.08	< 0.081
Fluoranthene	2,300	24,000	1,300	**0.094 J**	**0.016 J**	**0.23**	< 0.08	**0.071 J**	**0.054 J**	< 0.081
Fluorene	2,300	24,000	170	**0.011 J**	< 0.081	**0.016 J**	< 0.08	< 0.079	< 0.08	< 0.081
Indeno(1,2,3-cd)pyrene	5	17	7	**0.045 J**	**0.0097 J**	**0.084 J**	< 0.08	**0.029 J**	**0.018 J**	< 0.081
Naphthalene	6	17	25	**0.28**	< 0.081	**0.033 J**	< 0.08	< 0.079	< 0.08	< 0.081
Phenanthrene	NLE	300,000	NLE	**0.037 J**	**0.01 J**	**0.14**	< 0.08	**0.024 J**	**0.017 J**	< 0.081
Pyrene	1,700	18,000	840	**0.081 J**	**0.016 J**	**0.24**	< 0.08	**0.061 J**	**0.044 J**	< 0.081

Table 3
Summary of Compliance Averaging Results
Parcel 82
Fort Monmouth, New Jersey

FA	Acres	Number of Samples[A]	Functional Area Depth Interval (feet bgs)	NJDEP RDCSRS	Maximum Detected Concentration	Compliance Averaging Result [B] (mg/kg)
Benzo(a)pyrene (mg/kg) FA 1A	0.31	17	0-2	0.5	0.58	0.348
Benzo(a)pyrene (mg/kg) FA 1B	0.31	4	>2	0.5	0.01	0.01[c]

[A] – Does not include field duplicates. Includes only *in situ* soil samples (i.e., excludes excavated soil samples). Does not include sample locations not analyzed for chemical of concern.

[B] – 95 percent upper confiddence limit (UCL) unless noted. See Attachment C for ProUCL output.

[C] – There was only one dectection in FA 1B, so this result is the maximum concentration.

Value UCL achieves compliance with remedial goal

Abbreviations:

bgs - below ground surface

Table 4 - UCL Statistics for Data Sets with Non-Detects

User Selected Options	
Date/Time of Computation	ProUCL 5.13/15/2019 3:27:14 PM
From File	Pro UCL Parcel 82 input.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

benzo(a)pyrene

General Statistics

Total Number of Observations	17	Number of Distinct Observations	13
Number of Detects	12	Number of Non-Detects	5
Number of Distinct Detects	12	Number of Distinct Non-Detects	1
Minimum Detect	0.039	Minimum Non-Detect	1.2
Maximum Detect	0.58	Maximum Non-Detect	1.2
Variance Detects	0.0394	Percent Non-Detects	29.41%
Mean Detects	0.248	SD Detects	0.198
Median Detects	0.195	CV Detects	0.802
Skewness Detects	0.755	Kurtosis Detects	-1.018
Mean of Logged Detects	-1.74	SD of Logged Detects	0.913

Normal GOF Test on Detects Only

Shapiro Wilk Test Statistic	0.86	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.859	Detected Data appear Normal at 5% Significance Level
Lilliefors Test Statistic	0.222	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.243	Detected Data appear Normal at 5% Significance Level

Detected Data appear Normal at 5% Significance Level

Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs

KM Mean	0.248	KM Standard Error of Mean	0.0573
KM SD	0.19	95% KM (BCA) UCL	0.332
95% KM (t) UCL	0.348	95% KM (Percentile Bootstrap) UCL	0.344
95% KM (z) UCL	0.342	95% KM Bootstrap t UCL	0.371
90% KM Chebyshev UCL	0.419	95% KM Chebyshev UCL	0.497
97.5% KM Chebyshev UCL	0.605	99% KM Chebyshev UCL	0.818

Gamma GOF Tests on Detected Observations Only

A-D Test Statistic	0.347	**Anderson-Darling GOF Test**
5% A-D Critical Value	0.745	Detected data appear Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.146	**Kolmogorov-Smirnov GOF**
5% K-S Critical Value	0.249	Detected data appear Gamma Distributed at 5% Significance Level

Detected data appear Gamma Distributed at 5% Significance Level

Gamma Statistics on Detected Data Only

k hat (MLE)	1.598	k star (bias corrected MLE)	1.254
Theta hat (MLE)	0.155	Theta star (bias corrected MLE)	0.197
nu hat (MLE)	38.36	nu star (bias corrected)	30.1
Mean (detects)	0.248		

Gamma ROS Statistics using Imputed Non-Detects

GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs

GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)

For such situations, GROS method may yield incorrect values of UCLs and BTVs

This is especially true when the sample size is small.

For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates

Minimum	0.039	Mean	0.244
Maximum	0.58	Median	0.207
SD	0.184	CV	0.756
k hat (MLE)	1.73	k star (bias corrected MLE)	1.464
Theta hat (MLE)	0.141	Theta star (bias corrected MLE)	0.166
nu hat (MLE)	58.82	nu star (bias corrected)	49.77
Adjusted Level of Significance (β)	0.0346		
Approximate Chi Square Value (49.77, α)	34.58	Adjusted Chi Square Value (49.77, β)	33.25
95% Gamma Approximate UCL (use when n>=50)	0.351	95% Gamma Adjusted UCL (use when n<50)	0.365

Estimates of Gamma Parameters using KM Estimates

Mean (KM)	0.248	SD (KM)	0.19
Variance (KM)	0.0361	SE of Mean (KM)	0.0573
k hat (KM)	1.697	k star (KM)	1.437
nu hat (KM)	57.7	nu star (KM)	48.85
theta hat (KM)	0.146	theta star (KM)	0.172
80% gamma percentile (KM)	0.385	90% gamma percentile (KM)	0.521
95% gamma percentile (KM)	0.654	99% gamma percentile (KM)	0.955

Gamma Kaplan-Meier (KM) Statistics

Approximate Chi Square Value (48.85, α)	33.81	Adjusted Chi Square Value (48.85, β)	32.5
95% Gamma Approximate KM-UCL (use when n>=50)	0.358	95% Gamma Adjusted KM-UCL (use when n<50)	0.372

Lognormal GOF Test on Detected Observations Only

Shapiro Wilk Test Statistic	0.943	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.859	Detected Data appear Lognormal at 5% Significance Level
Lilliefors Test Statistic	0.127	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.243	Detected Data appear Lognormal at 5% Significance Level

Detected Data appear Lognormal at 5% Significance Level

Lognormal ROS Statistics Using Imputed Non-Detects

Mean in Original Scale	0.24	Mean in Log Scale	-1.74
SD in Original Scale	0.185	SD in Log Scale	0.854
95% t UCL (assumes normality of ROS data)	0.319	95% Percentile Bootstrap UCL	0.314
95% BCA Bootstrap UCL	0.321	95% Bootstrap t UCL	0.333
95% H-UCL (Log ROS)	0.425		

Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution

KM Mean (logged)	-1.74	KM Geo Mean	0.175
KM SD (logged)	0.874	95% Critical H Value (KM-Log)	2.473
KM Standard Error of Mean (logged)	0.263	95% H-UCL (KM -Log)	0.441
KM SD (logged)	0.874	95% Critical H Value (KM-Log)	2.473
KM Standard Error of Mean (logged)	0.263		

DL/2 Statistics

DL/2 Normal		DL/2 Log-Transformed	
Mean in Original Scale	0.351	Mean in Log Scale	-1.379
SD in Original Scale	0.233	SD in Log Scale	0.952
95% t UCL (Assumes normality)	0.45	95% H-Stat UCL	0.736

DL/2 is not a recommended method, provided for comparisons and historical reasons

Nonparametric Distribution Free UCL Statistics

Detected Data appear Normal Distributed at 5% Significance Level

Suggested UCL to Use

95% KM (t) UCL	0.348

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

Recommendations are based upon data size, data distribution, and skewness.

These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).

However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.

FIGURES

HAZARDOUS WASTE
STORAGE PAD
(CONCRETE)

121

122

123

GRASS

PARCEL 82 FUNCTIONAL AREA

PAVEMENT

BUILDING
116

Ceser Ave

Evans Ave

Tilly Ave

B1
B2
B3
B4
B5
B6
B7
B7F1B
B8
B9
B10
B10A
B10B
B10C
B10D
B11
B12
B13
B14A1
B14B1
B14C
B14D1
B15A1
B15B1
B15C
B15D1
B15D1A

400B7-PX1
400B7-PX2
400B7-PX3
400B7-PX4
400B7-PX5
400B7-PX6
400B7-PX7
400B7-PX8
400B6-PX1
400B10-PX1
400B14-PX1
400B14-PX2
400B15-PX1
400B15-PX2
400B15-PX3

PAR-82-SB-B23
PAR-82-SB-B24
PAR-82-SB-B25

LEGEND:

- PAH Sampling Location (2018)
- PAH Exceedance of RDCSRS In Soil Left in Place
- Historic PAH Soil Boring (2004 and 2005)
- Post Excavation Sample

2004 Excavation Limits

- Excavation Boundary (0.5' Depth)
- Excavation Boundary (1' Depth)
- Excavation Boundary (1.5' Depth)
- Excavation Boundary (2.0' Depth)
- Excavation Boundary (2.5' Depth)

N

1 inch = 30 feet

0 15 30 60 Feet

Source: FTMM Supplied CAD; Shaw Environmental 2008.

P:\PIT\Projects\Huntsville Cont W912DY-09-D-0062\FTMM\CAD Files\GIS\Parcel 82\SI Report\FIGURE 1.mxd

PARSONS
401 Diamond Drive NW,
Huntsville AL

Fort Monmouth
New Jersey

PARCEL 82 FUNCTIONAL AREA AND
EXCEEDANCES OF RESIDENTIAL DIRECT
CONTANCT SOIL REMEDATION STANDARDS

CREATED BY: RR	REVIEWED BY: AM
DATE: MAR, 2019	FIGURE NUMBER: FIGURE 1
PROJECT NUMBER: 748810-06012	FILE: FIGURE 1.mxd

New Jersey Department of Environmental Protection
Site Remediation Program
Report Certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites

These certifications are to be used for reports submitted for RCRA GPRA 2020, CERCLA, and Federal Facility Sites. The Department has developed guidance for report certifications for RCRA GPRA 2020, CERCLA, and Federal Facility Sites under traditional oversight. The "Person Responsible for Conducting the Remediation Information and Certification" is required to be submitted with each report. For those sites that are required or opt to use a Licensed Site Remediation Professional (LSRP) the report must also be certified by the LSRP using the "Licensed Site Remediation Professional Information and Statement". For additional guidance regarding the requirement for LSRPs at RCRA GPRA 2020, CERCLA and Federal Facility Sites see http://www.nj.gov/dep/srp/srra/training/matrix/quick_ref/rcra_cercla_fed_facility_sites.pdf.

Document: Parcel 82 Site Investigation Report

PERSON RESPONSIBLE FOR CONDUCTING THE REMEDIATION INFORMATION AND CERTIFICATION

Full Legal Name of the Person Responsible for Conducting the Remediation: William R. Colvin
Representative First Name: William Representative Last Name: Colvin
Title: Fort Monmouth BRAC Environmental Coordinator (BEC)
Phone Number: (732) 380-7064 Ext: Fax:
Mailing Address: P.O. Box 148
City/Town: Oceanport State: NJ Zip Code: 07757
Email Address: william.r.colvin18.civ@mail.mil

This certification shall be signed by the person responsible for conducting the remediation who is submitting this notification in accordance with Administrative Requirements for the Remediation of Contaminated Sites rule at N.J.A.C. 7:26C-1.5(a).

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein, including all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, to the best of my knowledge, I believe that the submitted information is true, accurate and complete. I am aware that there are significant civil penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties.

Signature: William R Colvin Date: 29 April 2019

Name/Title: William R. Colvin,
BRAC Environmental Coordinator

Completed form should be sent to:

Mr. Ashish Joshi
New Jersey Department of Environmental Protection
Division of Remediation Management & Response
Bureau of Northern Field Operations
7 Ridgedale Avenue (2nd Floor)
Cedar Knolls, New Jersey 07927-1112