#### **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

June 4, 2015

Ms. Linda Range New Jersey Department of Environmental Protection Case Manager Bureau of Southern Field Operations 401 East State Street, 5<sup>th</sup> Floor PO Box 407 Trenton, NJ 08625

Re: Request for No Further Action at Parcel 28 Site Investigation Report Addendum

Fort Monmouth, New Jersey

#### **Attachments:**

- A. Figure 1 Parcel 28 Layout and Sample Locations
- B. UHOT Closure Documentation
- C. Table 1 Soil Sampling Results
- D. Table 2 Groundwater Sampling Results
- E. Laboratory Data Reports
- F. CWA Geothermal Well Layout Locations

#### **Previous Correspondence and Reports (not attached):**

- 1. NJDEP letter to the U.S. Army dated July 10, 2012, re: *March 2012 Army Response to NJDEP Correspondence Letter Dated October 28*, 2008.
- 2. U.S. Army BRAC, July 2008, US ARMY BRAC 2005 Site Investigation Report, Fort Monmouth
- 3. NJDEP letter to the U.S. Army dated April 29, 2013, re: *Draft Finding of Suitability to Transfer (FOST) dated March 2013*.
- 4. U.S. Army letter to NJDEP dated May 17, 2013, re: *Proposed Test Pit Investigation Plan for Parcel 28 Historical Septic Tank Systems and Gas Station, Charles Wood area, Fort Monmouth, New Jersey.*
- 5. NJDEP letter to the U.S. Army dated June 3, 2013, re: *Proposed Test Pit Investigation Plan for Parcel 28 Historical Septic Tank Systems and Gas Station, Charles Wood area, Fort Monmouth, New Jersey.*

#### Dear Ms. Range:

In response to the New Jersey Department of Environmental Protection (NJDEP) letter to the U.S. Army (Army) dated July 10, 2012 (Correspondence 1) regarding the information presented in the July 2008 Site Investigation Report (Correspondence 2), the U.S. Army Fort Monmouth (FTMM) and Parsons have reviewed the additional data collected within Environmental Condition of Property (ECP) Parcel 28. The purpose of this letter is to provide support for a No

Further Action (NFA) determination by NJDEP for Parcel 28. This letter report serves as an addendum to the previously submitted 2008 Site Investigation Report.

Parcel 28, the Former Eatontown Laboratory Complex consists of an area of approximately 30 acres that encompasses Buildings 2525, 2560, 2539, 2540, 2541 and the land in this area. Building 2525 was constructed in 1941 and 1942 and was used as a chemical laboratory consisting of six bays; however, the locations of the bays are unknown. Activities conducted in Building 2525 included crystal growing and processing operations in the early 1950s. The Eatontown Signal Laboratory, formerly part of the Eatontown Laboratory Complex, was renamed Watson Laboratories in 1945 and subsequently moved to Rome, New York in 1951.

The NJDEP requested further evaluation of three former septic systems in their letter dated July 10, 2012 (Correspondence 1). Additionally, a letter was sent by the NJDEP to FTMM on April 29, 2013 (Correspondence 3) that requested investigation of an uncategorized area (the location of the former UST 2525A) within Parcel 28. The Army provided a response to the NJDEP's letter on May 17, 2013, (Correspondence 4) indicated that although they believed that the septic system components were removed during the renovation of the buildings associated with the Eatontown Laboratories (Circa 1951), they will perform test pit excavations and sampling at the three former septic system locations, as well as an investigation of a former gas station located northeast of Building 2525 and associated with former Building 2541 (which is based on a hand-drawn sketch of the CWA dated June 30, 1944). The location of the former septic systems and the former gas station is depicted on **Figure 1** provided in **Attachment A**. The Army's proposal was approved by the NJDEP on June 3, 2013 (Correspondence 5).

Correspondence 1 and 3 from the NJDEP requested additional documentation on underground storage tanks (USTs) within Parcel 28, most of which are unregulated heating oil tanks (UHOTs). A compilation of the 16 USTs located within Parcel 28, and documentation of the location and closure status of each, is provided in **Attachment B**. All but two of the USTs have previously been approved for NFA by NJDEP; the closure sample results for the remaining two (2542-29 and 2564-32) were not detected for total petroleum hydrocarbons (TPH), as previously reported to NJDEP in attachments to the draft final (August 2013) *Finding of Suitability to Transfer (FOST)*, *Fort Monmouth, Charles Wood Area* (also known as the Phase 1 FOST). Therefore, we request NJDEP approval of NFA for UHOTs 2542-29 and 2564-32 as part of this current submittal.

The Army further investigated Parcel 28 in July 2013 which focused on: 1) former septic system and septic tank A (identified as SSTA) located northeast of Building 2525; 2) former gas station (identified as FGS) associated with former Building 2541; 3) former septic system (identified as SSEH) located east of Heliport Drive and south of Radiac Way; and 4) former septic system (identified as SSSC) located at the southeastern corner of Parcel 28. The investigation program at the four locations consisted of the excavation of test pits with soil sampling and the collection of groundwater samples collected from temporary monitoring wells installed using direct push methods. The test pits including the soil sampling were completed during the initial mobilization phase of the investigation. As part of a second mobilization in August 2013, groundwater samples were collected from 1-inch diameter 10-slot temporary wells installed within the

backfilled test pit using direct push technology. Three well volumes were removed from each well prior to sampling; and both purging and sampling were completed using a Teflon bailer.

Soil and groundwater samples collected as part of this investigation were analyzed by Accutest Laboratories of Dayton, New Jersey, a NJDEP-accredited laboratory. Soil sample results are presented on **Table 1** (included as **Attachment C**) along with the NJDEP Residential Direct Contact Soil Remediation Standards (RDCSRS), the Non-Residential Direct Contact Soil Remediation Standards (NRDCSRS), and the Impacts to Groundwater Soil Screening Levels (IGWSSL). The groundwater sample results are presented on **Table 2** (included as **Attachment D**) along with the NJDEP Groundwater Quality Standard (GWQS). The laboratory data reports are provided as **Attachment E**. The following text presents the results of the investigations conducted at the four locations within Parcel 28.

#### Former Septic System and Septic Tank A

To determine the composition of the waste stream that entered the septic holding tank and associated leach field, the Army proposed five test pits (SSTA-A through SSTA-E, as shown in Attachment A) with one test pit located at the septic holding tank and four test pits located within the leach field. Two (SSTA-D and SSTA-E) of the five test pits were excavated since the remaining test pits (SSTA-A, SSTA-B, and SSTA-C) were located in the area of the existing geothermal well field. (The geothermal well field location is provided in Attachment F. The well field supports the Building 2525 closed-loop geothermal heating and cooling system, and therefore must be protected from subsurface disturbances to maintain building operations.) Test pit SSTA-D was terminated at a depth of approximately three feet below ground surface (bgs) when a component of the geothermal system was observed in the test pit and as a result no soil samples were collected from this location. Test pit SSTA-E was excavated to the depth of approximately 8 feet bgs; soils encountered consisted of brown orange sand with no odors or staining observed. A soil sample was collected (since no sludge was observed within the excavation) from a depth of approximately 7.5 to 8 feet bgs in SSTA-E which at the time of collection was within 6-inches from the observed groundwater table. There was no septic tank encountered in the test pits.

The soil sample (Parcel 28-SSTA-E [7.5-8.0]) was analyzed for USEPA Target Compound List plus Tentatively Identified Compounds (TICs)/Target Analyte List (TCL+TICs/TAL), which includes volatile organic compounds (VOC), semivolatile organic compounds (SVOC), metals, pesticides and polychlorinated biphenyls (PCBs). The sample was also analyzed for hexavalent chromium, extractable petroleum hydrocarbons (EPH) and pH. The soil sample results are provided in **Attachment C**. Pesticides, EPH, and PCBs were not detected in the soil sample. Detections of VOCs, SVOCs, and metals were below their respective RDCSRS. One metal, aluminum detected at a concentration of 8,250 mg/kg, exceeded the IGWSSL of 6,000 mg/kg but is below the background value of 15,700 mg/kg established for the Charles Wood Area (CWA) in the 1995 Weston Report Final Site Investigation, Fort Monmouth, New Jersey, Main Post and Charles Wood Area (1995 Weston).

One groundwater sample (Parcel 28-GW-SSTA-E) was collected from a temporary monitoring well installed within test pit SSTA-E. The groundwater sample collected with a bailer was analyzed for TCL+TICs/TAL, EPH, hexavalent chromium and pH. The groundwater sample

results are provided in **Attachment D**. VOCs, pesticides, PCBs, hexavalent chromium, and EPH were not detected in the groundwater sample. SVOC TICs were detected in only one sample and at concentrations significantly below the GWQS of 500  $\mu$ g/L. Aluminum (2,960  $\mu$ g/L), iron (4,420  $\mu$ g/L), and manganese (89.6  $\mu$ g/L) were detected above their respective GWQS but below the CWA background values (Weston, 1995). Sodium (176,000  $\mu$ g/L) was detected above both the NJDEP GWQS and the CWA background values (Weston, 1995); however, sodium is considered an essential nutrient and therefore not a COPC. In addition, since these samples were collected with a bailer from each temporary well the sample turbidity was likely high, which would cause the metal results to be biased high and, therefore, not representative of actual site conditions.

Evidence of the former septic system tank was not observed during the excavation of the test pits. Furthermore the presence of the geothermal well field indicates that the former septic system and associated components were likely removed to allow for the installation of the geothermal well field system. The soil and groundwater laboratory results from the investigation indicate that the soil and groundwater were not impacted by the former septic system.

#### Former Gas Station at Former Building 2541

To determine if any remnants of the gas station remain and if a potential release may have occurred from the former station, five test pits (FGS-A through FGS-E as shown in **Attachment A**) were excavated in the area of the former gas station. The test pits were advanced to a depth of approximately 6.5 feet bgs. The soil encountered from 0-3 feet bgs generally consisted of an orange brown sandy fill and from 3-6 feet bgs consisted of green/black glauconitic sand, with the exception of pea stone observed in test pit FGS-A. The soils were visually examined for staining and screened with a photoionization detector (PID). Impacted soil was not observed within the test pits; therefore one soil sample from each test pit was collected at a depth of 6 to 6.5 feet bgs, which at the time of collection was within six inches from the observed groundwater table.

The five soil samples (Parcel 28-FGS-A [6-6.5] through Parcel 28-FGS-E [6-6.5]) were analyzed for VOCs with a library search of the fifteen highest TICs (VOC+15) and lead. The soil results are provided in **Attachment C**. VOCs and lead concentrations detected were significantly below their respective RDCSRS and IGWSSL values. Therefore, no COPCs were identified for soil.

One groundwater sample (Parcel 28-FGS-A-GW through Parcel 28-FGS-E-GW) was collected from the temporary well installed in each of the five test pits. The groundwater samples were collected with bailers and analyzed for VOC+15 and lead. The groundwater samples results are provided in **Attachment D**. VOCs were not detected in the samples. Lead was detected in each sample at concentrations ranging from 4.6  $\mu$ g/L to 21.7  $\mu$ g/L. At locations FGS-A, FGS-D, and FGS-E, lead was detected above the GWQS of 5  $\mu$ g/L and the CWA background value of 7.3  $\mu$ g/L; at concentrations of 10.4  $\mu$ g/L, 13.7  $\mu$ g/L and 21.7  $\mu$ g/L respectively. Because these samples were collected with a bailer from the temporary well, the turbidity was likely high, which would cause the lead results to be biased high and, therefore, not representative of actual site conditions. Furthermore, the disturbance of glaucontic sands likely had an impact on the quality of the grab groundwater sample. Additionally lead was not detected above its IGWSSL at this location. For these reasons lead is not considered a COPC.

Remnants of the former gas station were not observed during the excavation of the test pits. The soil and groundwater samples collected during this investigation suggest that the soil and groundwater were not impacted by the former gas station.

### Former Septic System East of Heliport Drive and South of Radiac Way

To determine the composition of the waste stream that entered the septic system, one test pit (SSEH-A as shown in **Attachment A**) was advanced in the area of the former distribution box. Test pit SSEH-A was excavated to a depth of approximately 8 feet bgs; soils encountered consisted of brown orange fine sand with no odors or staining observed. A soil sample was collected (since no sludge was observed within the excavation) in the test pit from a depth of approximately 7.5 to 8 feet bgs which at the time of collection was within 6-inches from the observed groundwater table. There was no septic tank or distribution box encountered in the test pit.

The soil sample (Parcel 28-SSEH-A [7.5-8.0] was analyzed for TCL+TICs/TAL, EPH, and hexavalent chromium. The soil sample results are provided in **Attachment C**. SVOCs, EPH, pesticides, and PCBs were not detected in the soil sample. VOCs and metals were detected in the soil sample but below their respective RDCSRS. Beryllium was detected at a concentration of 0.84 mg/kg, slightly above its IGWSSL of 0.7 mg/kg but below the CWA background value of 1.7 mg/kg (Weston, 1995). No COPCs were identified for soil.

One groundwater sample (Parcel 28-GW-SSEH-A) was collected from a temporary well installed in the test pit. The groundwater sample collected using a bailer was analyzed for TCL+TICs/TAL, EPH, hexavalent chromium and pH. The groundwater sample results are provided in Attachment D. VOCs, EPH, pesticides, and PCBs were not detected in the groundwater sample. SVOC TICs were detected in only sample and at a concentration significantly below the GWQS of 500µ g/L. Aluminum, arsenic, beryllium, chromium, iron, lead, and manganese were detected above their respective GWQS. Arsenic, beryllium, and manganese were detected at concentrations below their respective CWA background values and therefore are not COPCs. Iron is considered an essential nutrient and therefore is not a COPC. Aluminum (16,300 µg/L), chromium (213 µg/L) and lead (12.1 µg/L) were detected above both the NJDEP GWQS and the CWA background values. However, because this sample was collected with a bailer from a temporary well, the turbidity was likely high, which would cause the metal concentrations to be biased high and therefore, not representative of actual site conditions. Additionally, the soil sample collected at this location shows that lead and aluminum were detected below their respective IGWSSL. For these reasons, aluminum, chromium and lead are not considered COPCs.

Evidence of the former distribution box was not observed in the test pit, and the soil and groundwater sample collected during this investigation suggest that the soil and groundwater was not impacted by the former septic system.

#### Former Septic System At Southeastern Corner Of Parcel 28

To determine the composition of the waste stream that entered the septic system holding tank and associated leach field, five test pits (SSSC-A through SSSC-E as shown in **Attachment A**) were excavated with one test pit located at the former holding tank area and four test pits located

within the former leach field. The tests pits were excavated to a depth of approximately 6.5 feet bgs. Soils encountered in the test pits generally consisted of brown medium to fine sands with no odors or staining observed; however, other notable materials observed included abandoned electrical lines in SSSC-A and SSSC-E, concrete chunks in SSSC-B, and pea stone in SSSC-D. A soil sample was collected (since no sludge was observed within the excavation) in each test pit from a depth of approximately 6 to 6.5 feet bgs which at the time of collection was within 6-inches from the observed groundwater table. There was no septic tank encountered in the test pits.

The soil samples (Parcel -28 SSSC-A [6-6.5] through Parcel -28 SSSC-E [6-6.5]) were analyzed for TCL+TICs/TAL, EPH, hexavalent chromium and pH. The soil sample results are provided in **Attachment C**. EPH and PCBs were not detected in the soil samples. VOCs, SVOCs, pesticides, and metals detected in the soil samples are below their respective RDCSRS. Aluminum was detected at concentrations ranging from 7,740 to 11,200 mg/kg in three samples, which exceeds the IGWSSL of 6,000 mg/kg but is below the CWA background value of 15,700 mg/kg. No COPCs were identified for soil.

Groundwater samples (Parcel-28 SSSC-A-GW through Parcel-28 SSSC-E-GW) were collected from the temporary well installed in each test pit. The groundwater samples collected with a bailer were analyzed for TCL+TICs/TAL, EPH, hexavalent chromium and pH. PCBs were not detected in the samples. The groundwater sample results are provided in Attachment D. Only one VOC, chloroform a common laboratory contaminant, was detected in one sample and at a concentration significantly below its GWQS. Bis (2-ethylhexyl) phthalate a common laboratory contaminant, naphthalene and SVOCs TICs were detected in only two samples and at concentrations significantly below their GWQS. Two pesticides (alpha-chlordane and gammachlordane) were detected in only one sample and at concentrations significantly below their GWQS. Although no GWQS is established for EPH, it was detected in two samples, at concentrations less than 0.3 mg/L. Aluminum, arsenic, beryllium, chromium, iron, lead, manganese and sodium were detected above their respective GWQS. Manganese was detected at concentrations below the CWA background values and therefore is not a COPC. Also, iron and sodium are considered an essential nutrients and therefore not COPCs. Aluminum (8,740 µg/L -35,800 μg/L), arsenic (36.3 μg/L), beryllium (2.9 μg/L), chromium (128 μg/L - 408 μg/L) and lead (7.8 µg/L - 36.9 µg/L) were detected above both NJDEP GWQS and the CWA background values. Because these samples were collected with a bailer from a temporary well, the turbidity was likely high which would cause the metal results to be biased high, and therefore not representative of actually groundwater conditions. Additionally, soil samples collected at this location show that arsenic, beryllium and lead were detected below their respective IGWSSL values. For these reasons and considering the soil sampling results above, aluminum, arsenic, beryllium, chromium, and lead are not considered COPCs.

Evidence of the former septic system was not observed in test pits, and soil and groundwater samples collected indicate that the soil and groundwater was not impacted by the former septic system.

In summary, we request No Further Action for Parcel 28. The technical Point of Contact (POC) for this matter is Cris Grill at (617) 449-1583 or by email at <a href="mailto:cris.grill@parsons.com">cris.grill@parsons.com</a>. Should you

have any questions or require additional information, please contact me by phone (732- 383- 5104) or by email at john.e.occhipinti.civ@mail.mil.

Sincerely,

John E. Occhipinti

Fort Monmouth Site Manager

cc:

Delight Balducci, HQDA ACSIM

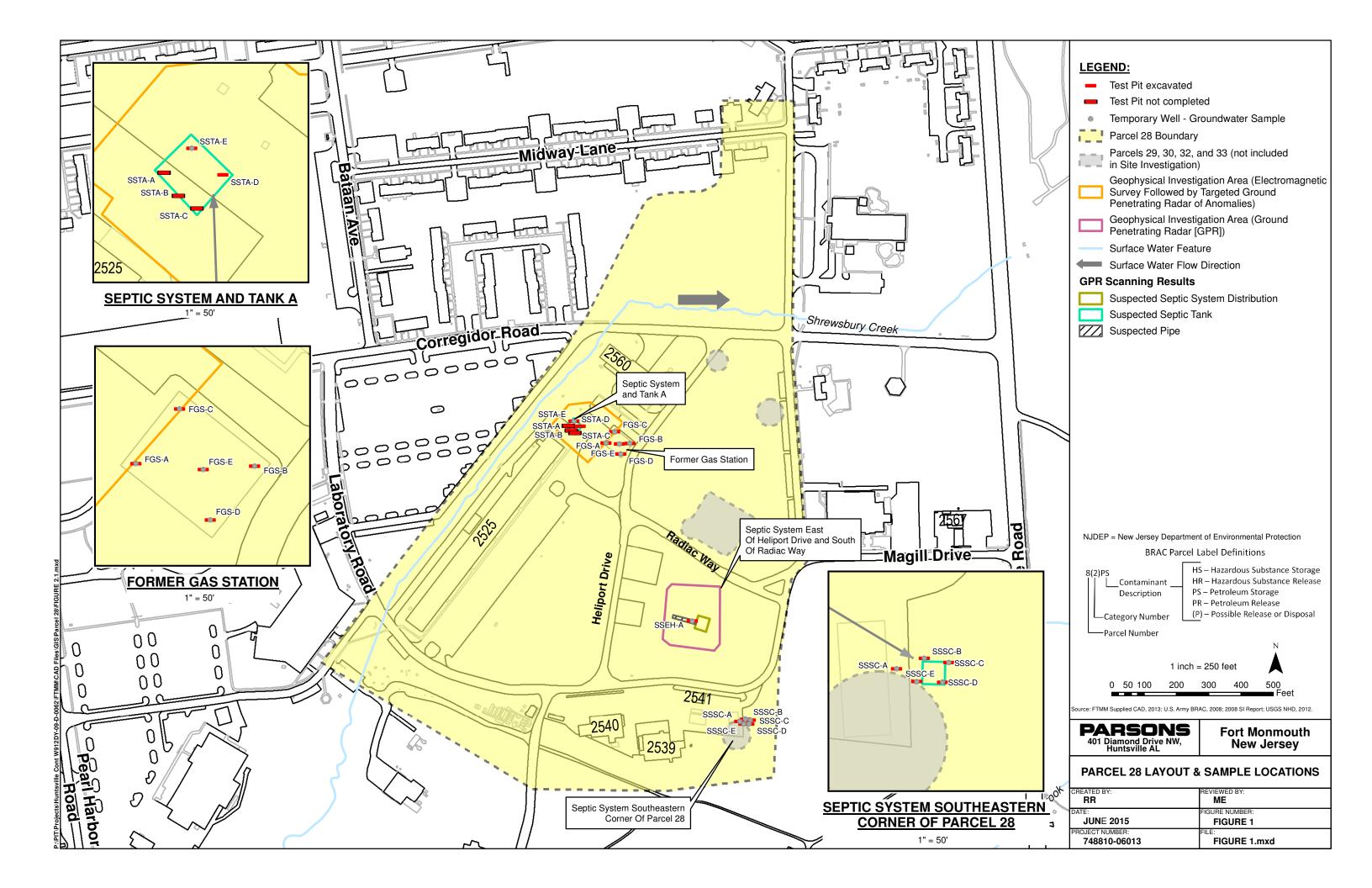
Joseph Pearson, Calibre James Moore, USACE Cris Grill, Parsons

References: Weston. 1995. Final Site Investigation - Main Post and Charles Wood Areas, Fort

Monmouth, New Jersey, December

### Attachment A

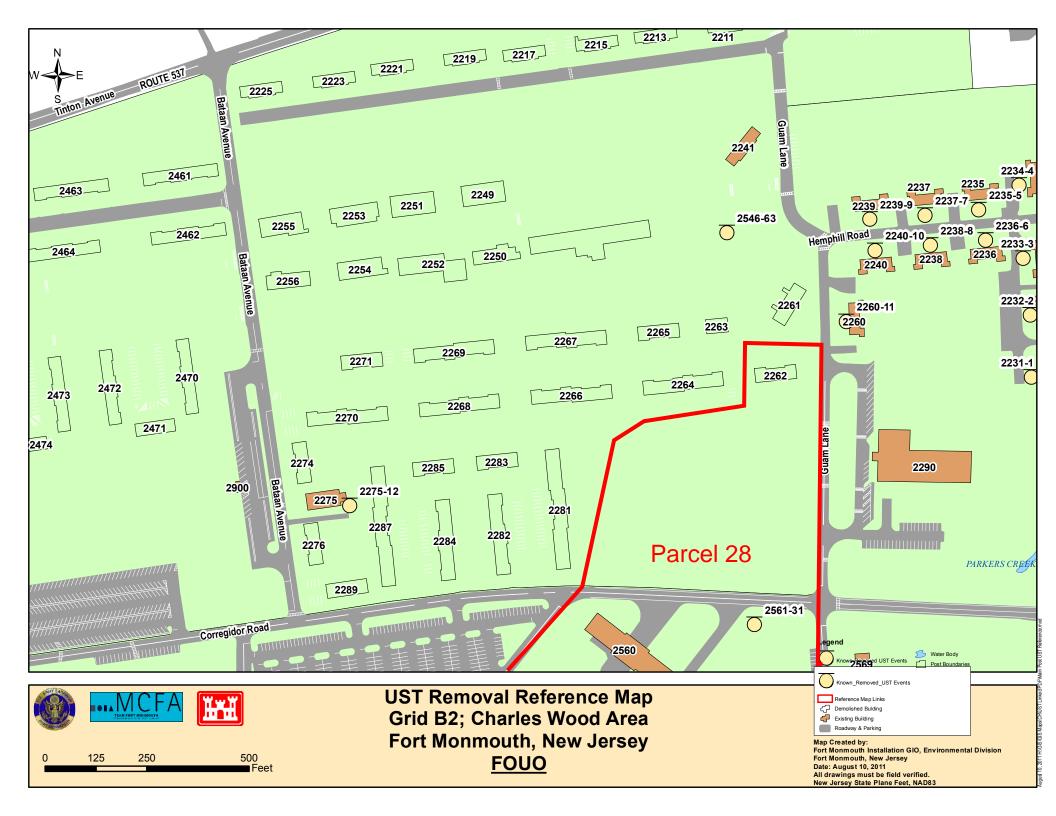
**Figure 1 Parcel 28 Layout and Sample Locations** 

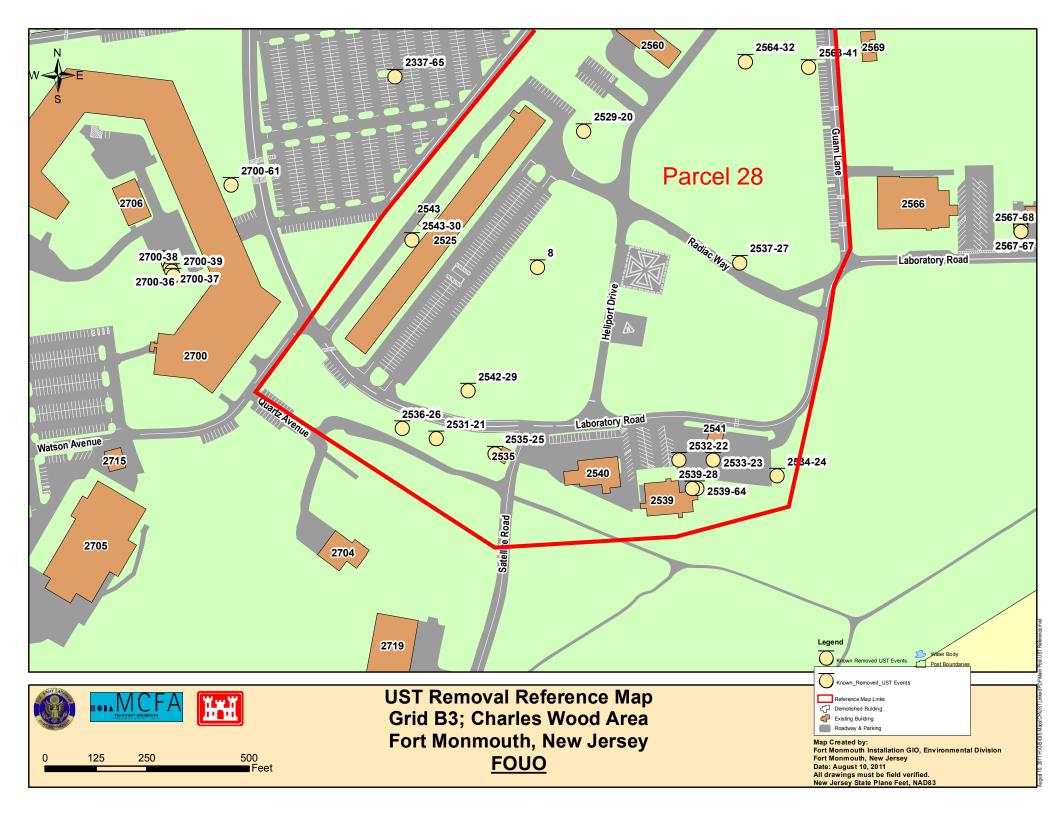


## Attachment B UHOT Closure Documentation

## PARCEL 28 UST CLOSURE STATUS

Site Name	RegistrationI D	DICAR	Tank Size and Type	Product	Army Case Status	File Review Comments
2525A /P28-8 /Bldg. 2545	-		550 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 7/10/2012 NJDEP letter
2529	81515-20		1000 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 7/10/1998 NJDEP letter
2531	81515-21		1000 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 8/29/2000 NJDEP letter
2532	81515-22		550 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 7/10/1998 NJDEP letter
2533	81515-23		1000 gal. fiberglass	#2 FUEL OIL	Case Closed	NFA approved per 7/10/1998 NJDEP letter
2534	81515-24	94-05-24-0945-01	1000 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 1/10/2003 NJDEP letter
2535	81515-25		1000 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 8/29/2000 NJDEP letter
2536	81515-26		1000 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 7/10/1998 NJDEP letter
2537	81515-27	97-05-27-1421-04	1000 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 8/29/2000 NJDEP letter
2539	81515-64		1000 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 5/30/2013 NJDEP letter
2539	81515-28		1000 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 5/30/2013 NJDEP letter
2542	81515-29		1000 gal. steel	#2 FUEL OIL	Case Closed	See the March 2010 TVS closure report appended to the 8/2013 Phase I FOST
2543	81515-30		15000 gal. fiberglass	#2 FUEL OIL	Case Closed	NFA approved per 2/24/2000 NJDEP letter
2561	81515-31	95-9-26-1557-16	550 gal. steel	#2 FUEL OIL	Case Closed	NFA approved per 7/10/1998 NJDEP letter
2562A	81515-41	93-8-16-1243-26	5000 gal. steel	GASOLINE	Case Closed	NFA approved per 1/10/2003 NJDEP letter
2564	81515-32		1000 gal. steel	#2 FUEL OIL	Case Closed	See the March 2010 TVS closure report appended to the 8/2013 Phase I FOST







## State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection

Robert C. Shinn, Jr.

Commissioner

Mr. James Ott Director – Public Works U.S. Army, Fort Monmouth Fort Monmouth, NJ 07703

JUL 1 0 1998

Re:

**UST Closure Reports** 

Fort Monmouth Army Base Tinton Falls, Monmouth County

Dear Mr. Ott:

The NJDEP is in receipt of UST closure reports noted below. These documents have been reviewed by the NJDEP throughout the closure process and the documents submitted were discussed throughout their drafting and in great detail upon submittal. Based on these steps and the final review conducted by me, the NJDEP accepts the closure reports and all of the NFA requests commensurate with these submittals.

NJDEP REG.					DEP
NO.	<u>BUILDING</u>	CONTENTS	CAPACITY	PROPOSAL	APPROVAL
- 90010-10	116C-MP/E	No. 2 Fuel OH	2000	NFA	YES
81533-134	826-MP/W	No. 2 Fuel Oil	550	NFA	YES
81533-144	902-MP/W	No. 2 Fuel Oil	1000	NFA	YES
81515-20	2529-CW	No. 2 Fuel	1000	NFA	YES
81515-22	2532-CW	No. 2 Fuel Oil	550	NFA	YES
81515-23	2533-CW	No. 2 Fuel Oil	1000	NFA	YES
81515-31	2561-CW	No. 2 Fuel Oil	550	NFA	YES
90010-27	410-MP/E	No. 2 Fuel Oil	1080	NEA	YES
81533-206	1075	NOT	SUBMITTED	WITH	PACKAGE
81515-16	2504B-CW	No. 2 Fuel Oil	1000	NFA	YES
81515-18	2507-CW	No. 2 Feel Ori	1080	NFA	YES
81515-26	2536-CW	No. 2 Fuel Oil	1000	NFA	YES
81515-14	2503-CW	No. 2 Fuel Oil	1000	NFA	YES
90010-12	117B-MP/E	No. 2 Fuel Oil	2000	MFA	YES
90010-34	418-MP/E	No. 2 Fuel Oil	1080	NFA	YES
90010-36	420-MP/E	No. 2 Fuel Oil	1080	NFA	YES
90010-38	422-MP/E	No. 2 Fuel Oil	1080	NFA	YES
90010-41	427-MP/E	No.2 Fuel Oil	1080	NFA	YES
90010-44	430A-MP/E	No 2 Fuel Oil	550	NFA	YES
9(#)10-50	453-MP/E •	No. 2 Feel Oil	1080	NFA	YES
90010-51	454-MP/E	No. 2 Fuel Oil	1080	NFA	YES
81533-76	501-MP/W	No. 2 Fuel Oil	1000	NFA	YES
81533-141	900A-MP/W	No. 2 Fuel Oil	1000	NFA	YES
81515-17	2506-CW	No. 2 Fuel Oil	1000	NFA	YES
90010-8	116A-MP/E	No. 2 Fuel Oil	1000	NFA	YES
90010-11	117A-MP/E	No. 2 Fuel Oil	2000	NFA	YES
90010-53	480-MP/E	No 2 Fuel Oil	1000	NFA	YES

81515-19 2508-CW No. 2 Fuel Oil 550 NFA YES	
81533-228 804B-MP/W No. 2 Fuel Oil 1000 NFA YES	
81533-142 900B-MP/W No. 2 Fuel Oil 1000 NFA YES	

The efforts made to assure protection of human health and the environment as well as the efforts made to make the entire closure process efficient and consistent with the NJDEP's Technical Requirements for Site Remediation (N.J.A.C. 7:9-6 et seq.) has been exceptional.

If I can be of any assistance, please do not hesitate to contact me should you have any questions or comments.

Sincerely,

Ian R. Curtis, Case Manager Bureau of Federal Case Management ICURTIS@DEP.STATE.NJ.US

cc. Kevin Kratina, BUST

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## State of New Hersey

Christine Todd Whitman

Department of Environmental Protection

Robert C. Shinn, Jr. Commissioner

Governor Mr. James Ott C/O: Dinker Desai

Director - Public Works

FEB 2 4 2000

U.S. Army, Fort Monmouth Fort Monmouth, NJ 07703

Re:

**UST Closure Reports - Closure Approvals** 

Fort Monmouth Army Base

Fort Monmouth, Monmouth County

Dear Mr. Ott:

The NJDEP has reviewed the UST Closure and Site Investigation Reports for the Fort Monmouth underground storage tank sites noted below. Based on the NJDEP review of these documents, your request that the NJDEP approve the closure reports for those tanks listed below.

The following tanks were removed, sampled and analyzed in accordance with State and Federal requirements. Additionally, the reports consistently state the Fort Monmouth Public Works Department policy of removing all soils which are determined to have total petroleum hydrocarbon contamination (TPHC) greater than 1000 ppm. NJDEP criteria requires similar removal for TPHC contamination greater than 10,000 ppm. These activities are conservative and therefore further assure the NJDEP that no further action is necessary at these sites.

NJDEP Req. #	Bldg. #	NJDEP Req. #	Bldg. #
0090016-16	165	0081533-151	913
0090010-69	170D	0081533-155	917
0090010-20	197	0081533-165	1105
0081533-54	270	0081533—169	1109
0081533-60	286	0081533-173	1213A
0081533-65	291	0081533-208	1221
0090010-70	400	00192486-34	2018
0081533-103	671A	00192486-35	2021A
0081533-138	876A	0081515-30	2543
0081533-149	911	0081515-40	2707
0081533-150	912		ı

If you should have any questions or comments, please do not hesitate to contact me at (609) 633-7232 or via E-mail.

Ian R. Curtis, Case Manager Bureau of Case Management ICURTIS@DEP.STATE.NJ.US

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### State of New Jersey

Christine Todd Whitman Governor

Department of Environmental Protection

Robert C. Shinn, Jr. Commissioner

Mr. Dinkerrai Desai

DEPARTMENT OF THE ARMY

HEADQUARTERS, U.S. ARMY COMMUNICATIONS-ELECTRONIC COMMAND

FORT MONMOUTH, NJ 07703-5000

Re:

UST Closure Approval/NFA Fort Monmouth Main Post Monmouth County

Dear Mr. Desai:

The NJDEP is in receipt of twenty-five (25) UST closure reports dated August 1, 2000. The Army has requested to receive No Further Action approval letters for each of these reports. This letter approves the NFA requests for the following 25 UST located on the Main Post of the Fort Monmouth site:

NJDEP Req. #	Bldg. #	NJDEP Req. #	Bldg. #
0090010-03	64	0081533-80	551
009001005	65	0081533-81	552
009001005	74	0081533-120	746
0081533-03	205	0081533-122	748
0090010-29	412	0081533-123	749
0090010-30	413	0081533—131	810
0090010-31	414	0081533-132	811
0090010-33	417	0081533-232	906B
0090010-42	428	0081533-159	1006
0090010-47	434	0081533-206	1075
0090010-47	447	0081515-21	2531
0090010-57	485	00192486-02	2018
0090010-59	492		

The NJDEP has determined that the Army has performed the remedial actions in a manner consistent or in excess of the regulatory requirements, specifically the Technical Requirements For Site Remediation (N.J.A.C. 7:26E et seq.). Soils with contamination in excess of the NJDEP residential cleanup criteria have been excavated and the Army has taken great care to provide documentation which assures us that all sources of contamination have been remediated.

The NJDEP has one comment in that we request that future reports provide ground water flow direction indications on the well location maps.

If you should have any questions or comments, please do not hesitate to contact me at (609) 633-7232 or via E-mail.

lan R. Curtis, Case Manager Bureau of Case Management ICURTIS@DEP.STATE.NJ.US



## State of New Jersey

Christine Todd Whitman

Department of Environmental Protection

AUG 2 9 2000

Robert C. Shinn, Jr.

Commissioner

Mr. Dinkerrai Desai

DEPARTMENT OF THE ARMY

HEADQUARTERS, U.S. ARMY COMMUNICATIONS-ELECTRONIC COMMAND
FORT MONMOUTH, NJ 07703-5000

Re:

UST Closure Approval/NFA Fort Monmouth Main Post Monmouth County

Dear Mr. Desai:

The NJDEP is in receipt of nine (9) UST closure reports dated July 27, 1998. The Army has requested to receive No Further Action approval letters for each of these reports. This letter approves the NFA requests for the following 9 UST located on the Main Post of the Fort Monmouth site:

NJDEP Req. #	Bldg. #
0090010-35	419
0090010-48	439
0090010-56	484
0081533-77	502
0081533-143	901
0081515-12	2275
0081515-13	2502
0081515-25	2535
0081515-27	2537

The NJDEP has determined that the Army has performed the remedial actions in a manner consistent or in excess of the regulatory requirements, specifically the Technical Requirements For Site Remediation (N.J.A.C. 7:26E et seq.). Soils with contamination in excess of the NJDEP residential cleanup criteria have been excavated and the Army has taken great care to provide documentation which assures us that all sources of contamination have been remediated.

If you should have any questions or comments, please do not hesitate to contact me at (609) 633-7232 or via E-mail.

lah R. Curtis, Case Manager Bureau of Case Management ICURTIS@DEP.STATE.NJ.US

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James E. McGreevey Governor

Department of Environmental Protection

Bradley M. Campbell Commissioner

Mr. Dinkertai Desai Department of the Army Headquarters, U.S. Army Communications-Electronic Command Fort Monmouth, NJ 07703-5000

Re:

UST Closure Approval/NFA Fort Monmouth Main Post Monmouth County JAN 1 0 2003

Dear Mr. Desai:

The NJDEP is in receipt of sixty-eight (68) underground storage tank (UST) closure reports dated between July 17, 2001 and May 15, 2002. The Army has requested to receive No Further Action (NFA) approval letters for each of these reports. This letter approves the NFA requests for the following 68 UST that are located on the Main Post of the Fort Monmouth site:

Submittal Date	Building No.	NJDEP Reg. #	Residential
07/17/2001	104	90010-75	NO
07/17/2001	699A	81533-112	NO
07/17/2001	800A	81533-127	NO
07/17/2001	875	81533-234	NO
07/17/2001	949	81533-203	NO
07/17/2001	1220A	81533-184	NO
07/17/2001	2000B	192486-38	NO
01/02/2002	257	81533-200	NO
01/02/2002	283C	81533-229	NO
01/02/2002	290B	81533-224	NO
01/02/2002	290B	81533-225	NO
01/02/2002	491	90010-71	NO
01/02/2002	605	81533-85	NO
01/02/2002	678	81533-105	NO
01/02/2002	699	81533-236	NO
01/02/2002	699	81533-238	NO
01/02/2002	699	81533-237	NO
01/02/2002	699	81533-235	NO.
01/02/2002	801B	81533-129	NO
01/02/2002	804A	81533-130	NO
01/02/2002	2337	81515-65	NO
01/02/2002	2562A	81515-41	NO
01/02/2002	2707	81515-50	NO
01/02/2002	2707	81515-49	NO
01/02/2002	2707	81515-51	NO
01/02/2002	2707	81515-47	NO
01/02/2002	2707	81515-48	NO

Submittal Date	Building No.	NJDEP Reg. #	Residential
02/13/2002	2044	192486-24	NO
02/13/2002	2044	192486-32	NO
02/13/2002	2044	192486-33	NO
02/26/2002	208B	81533-210	YES
03/05/2002	246	N/A	YES
03/05/2002	261B	N/A	YES
05/15/2002	106	90010-74	NO
05/15/2002	164	90010-15	NO
05/15/2002	173	90010-19	NO
05/15/2002	200	81533-2	NO
05/15/2002	208A	81533-6	YES
05/15/2002	233	81533-21	YES
05/15/2002	237	81533-25	YES
05/15/2002	271	81533-55	YES
05/15/2002	277	90010-24	NO
05/15/2002	296B	81533-217	NO
05/15/2002	296B	81533-223	NO
05/15/2002	296B	81533-221	NO
05/15/2002	296B	81533-220	NO
05/15/2002	296B	81533-222	NO
05/15/2002	296B	81533-218	NO
05/15/2002	296B	81533-216	NO
05/15/2002	296B	81533-215	NO
05/15/2002	296B	81533-214	NO
05/15/2002	296B	81533-213	ŃO
05/15/2002	296B	81533-219	NO
05/15/2002	426	90010-40	NO
05/15/2002	482	90010-54	NO
05/15/2002	600 A	81533-83	NO
05/15/2002	600 B	81533-212	NO
05/15/2002	611	81533-87	NO
05/15/2002	615	81533-89	NO
05/15/2002	618	81533-91	NO
05/15/2002	619	81533-92	NO
05/15/2002	621	81533-94	NO
05/15/2002	634	N/A	NO
05/15/2002	638	N/A	NO
05/15/2002	639-2	N/A	NO
05/15/2002	640	N/A	NO
05/15/2002	641	N/A	NO
05/15/2002	644	N/A	NO
05/15/2002	664	. N/A	NO
05/15/2002	666	N/A	NO
05/15/2002	686	81533-107	NO
05/15/2002	697	81533-194	NO
05/15/2002	697	81533-195	NO

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7

Submittal Date	Building No.	NJDEP Reg. #	Residential
05/15/2002	697	81533-196	NO
05/15/2002	876B	81533-139	NO
05/15/2002	886	81533-140	NO
05/15/2002	905	81533-145	NO
05/15/2002	1102	81533-162	NO
05/15/2002	1104	81533-164	NO
05/15/2002	2067	192486-37	NO
05/15/2002	2534	81515-24	NO
05/15/2002	2603	81515-60	NO
05/15/2002	2700 2,6	81515-61	NO

The NJDEP has determined that the Army has performed the remedial actions in a manner consistent with the regulatory requirements, specifically the Technical Requirements For Site Remediation (N.J.A.C. 7:26E et seq.). Soils with contamination in excess of the NJDEP residential cleanup criteria have been excavated and the Army has taken great care to provide documentation that assures us that all sources of contamination have been remediated.

If you should have any questions or comments, please do not hesitate to contact me at (609) 633-7232 or via E-mail.

Sincerely,

Ian R. Curtis, Case Manager Bureau of Case Management ICURTIS@DEP.STATE.NJ.US

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## State of New Jersey

CHRIS CHRISTIE

KIM GUADAGNO Lt. Governor DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Case Management
401 East State Street
P.O. Box 420/Mail Code 401-05F
Trenton, NJ 08625-0028
Phone #: 609-633-1455

Fax #: 609-633-1439

BOB MARTIN Commissioner

July 10, 2012

Wanda Green
BRAC Environmental Coordinator
OACSIM – U.S. Army Fort Monmouth
PO Box 148
Oceanport, NJ 07757

Re:

March 2012 Army Response to NJDEP Correspondence Letter Dated October 28, 2008

Fort Monmouth, NJ PI G00000032

Dear Ms. Green:

A review of the above referenced report, received March 27, 2012 and submitted in response to the Department's comments regarding the Draft Site investigation Report of July 21, 2008 by Shaw Environmental, Inc., has been completed by this office. Many of the parcel comments involved suspected USTs; in addition to that information provided in this submittal and the July 2008 SI, a review and comparison of Appendix G, Appendix O, and Figures 15 and 16 of the January 2007 ECP Report was conducted by this office in an attempt to ascertain the location and status of all tanks located within the parcels. Unless otherwise noted, comments and questions are provided only for each parcel referenced in the submittal and are generally presented by parcel.

#### Parcel 13 - Former Barracks (Buildings 2004-2016)

Geophysical surveys were performed, and sampling was conducted throughout that area at which USTs were known to or may have been present. No USTs were found; all soils analytical results were below cleanup criteria applicable to the site; no additional action for the parcel is necessary.

#### Parcel 14 - Former Buildings and Housing Area Northwest Portion of CWA

As indicated in the Department's correspondence of May 30, 2012, the geophysical surveys performed and sampling conducted throughout that area at which USTs were or may have been present were sufficient to adequately characterize the area. No USTs were found; all soils analytical results collected were below cleanup criteria applicable to the site. The parcel was re-categorized from Category 2 to Category 1.

#### Parcel 15 – Building 2700

Parcel 15 was issued a designation of No Further Action for soils and ground water, *exclusive of CW-1*, on May 9, 2012. Remediation efforts involving CW-1 continue.

#### Parcel 27 - Southwestern Corner CWA

The single outstanding issue at Parcel 27 was the USTs. As previously indicated, numerous USTs were removed from the parcel, however, additional documentation for same was required.

It is agreed fourteen (14) USTs have been removed and given NJDEP Closure Approval Letters/NFAs. Although it is understood Departmental approval may have been granted for an additional five USTs, as indicated on Page 6 of the referenced submittal and in Appendix G, please be advised this office does not have documentation confirming Closure Approval/NFA for the following USTs.

UST 2506-17	Reported NJDEP UST Closure Approval Date 7/10/98
UST 2624-34	Reported NJDEP UST Closure Approval Date 7/23/93
UST 2624-57	Reported NJDEP UST Closure Approval Date 9/21/95
UST 2624-58	Reported NJDEP UST Closure Approval Date 9/21/95
UST 2624-59	Reported NJDEP UST Closure Approval Date 9/21/95

Additionally, please provide information as to the status of the USTs noted in Appendix O at what appear to be Buildings 2566 and 2505, located just north of Building 2503?

Any sediment issues which may have resulted from parcel operations are to be addressed as part of the ongoing facility wide ecological assessment.

#### Parcel 28 - Former Eatontown Laboratory

#### <u>Underground Storage Tanks</u>

Although this office is in agreement with the information submitted in regard to the majority of the USTs as noted on Parcel 28, questions remain on several, which are not considered as given a designation of NFA at this time.

As above, documentation for closure approval or NFA is not available for confirmation on the following USTs.

UST 2539-28	Reported NJDEP UST Closure Approval Date 3/31/93
UST 2539-64	Reported NJDEP UST Closure Approval Date 3/31/93
UST-2531-21	Reported NJDEP UST Closure Approval Date 8/29/00

UST 2542-29 and UST 2564-32 are reported as no release observed. A Standard Reporting Form and/or Site Assessment Compliance Statement were reported sent to us 11/22/91, however, no designation of NFA was granted, nor comments apparently generated.

Appendix O indicates three USTs within that area which underwent a geophysical survey between Building 2525 & Heliport Drive. The center UST appears to correlate to UST P28-8, which, based upon the investigation performed, warrants no further action. Although it is agreed no tanks remain in that area, please provide any record of their removal or indication as to evidence of a discharge upon removal. As previously discussed, a designation of NFA for USTs cannot be granted without sampling.

#### Septic Tanks & Leachfields

Leachfield East of Heliport Drive, South of Radiac Way – It is agreed the four test pits were adequate for characterization of the leachfield; no additional action is necessary for the leachfield. It does not appear, however, the suspected D-box/entirety of the septic system was investigated. Although they are not designed to hold liquids/sludges (but rather to distribute the liquids after the solids fall out into the holding tank), particularly as the structure apparently remains in place, additional information is required as to whether the structure could have been/functioned as a holding tank (field notes do reference it as a septic tank) which did contain solids or liquids which should have been sampled.

Septic System & Septic Tank A – Located off the northeast corner of Building 2525, a suspected septic tank was located via GPR scanning, as denoted as "A" on Figure 3.5-2 of the ECP Site Investigation. Sampling efforts, however, were performed only at the associated leachfield. What efforts were made to adequately characterize any holding tank contents of the actual septic tank, as required by the Tech Regulations in effect at the time of investigation (NJAC 7:26E-3.9(e)3)? As regarding the associated leachfield, a minimum of 4 samples is required. A single soil and single ground water sample is inadequate.

Septic System at Southeastern Corner of Parcel - For that septic system located in the southeastern corner of the parcel as sampled by P28-SB1, the findings/requirements noted in the above paragraph also apply.

Former Storage Areas/Possible Former Tank Pads – This area received a designation of NFA on March 29, 2012.

#### Parcel 34 – Building 2567/FTMM 58

Elevated levels of ground water contamination underwent treatment via a Permit-by-Rule approved in October of 2010. The Department most recently responded on March 7, 2012 approving monitoring via two rounds of seasonal high ground water analytical sampling.

As recently discussed, although piping was cleaned at the time of tank removal, it necessary to remove the piping and dispensing equipment/island.



## State of New Jersey

CHRIS CHRISTIE Governor

KIM GUADAGNO Lt. Governor DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Case Management
401 East State Street
P.O. Box 420/Mail Code 401-05F
Trenton, NJ 08625-0028
Phone #: 609-633-1455
Fax #: 609-633-1439

BOB MARTIN Commissioner

May 30, 2013

Wanda Green
BRAC Environmental Coordinator
OACSIM – U.S. Army Fort Monmouth
PO Box 148
Oceanport, NJ 07757

Re:

Army's January 31, 2013 Correspondence – Miscellaneous USTs

Main Post & Charles Wood Area Fort Monmouth, New Jersey

PI G000000032

Dear Ms. Green:

The New Jersey Department of Environmental Protection (Department) has completed review of the referenced correspondence (and associated Attachments A through T), submitted to address several of the unresolved underground storage tank (UST) issues noted in this office's letter of July 10, 2012. As indicated in the referenced submittal, additional information regarding the various USTs will be forthcoming. The following comments are offered.

#### Parcel 28 – Former Eatontown Laboratory

As has been discussed, it is agreed no additional action is necessary for UST 2539-28, UST 2539-64, UST 2531-21, and two of the three USTs previously located between Building 2525 and Heliport Drive. Documentation as to the adequate evaluation of tanks UST 2542-29, UST 2564-32 and the UST at Building 2544 (T-7) has not yet been submitted.

#### Parcel 49 – Former Squier Laboratory Complex

Upon review of the documentation included in the submittal, it is agreed no further action is necessary for the UST at Building 293-67, or UST 283B-59.

#### Parcel 51 - 750 Area, 500 Area, 600 Area, 1100 Area - Former Buildings

Upon review of the documentation included in the submittal, it is agreed no further action is necessary for UST 695-111, UST 635, UST 642, UST 643 and 501-76.

As no sampling was apparently performed at UST 637, this office cannot concur there has been no discharge associated with the UST. As regarding Appendix K, and USTs at Buildings 644 through 654, evidently no sampling was performed; again, without same, this office cannot concur there has been no discharge.

#### Parcel 76 – 200 Area, 300 Area – Former Barracks

Review of the documentation included in the submittal indicates no additional action is necessary for UST 261 and UST 261B.

#### Parcel 79 – 400 Area Former Barracks

Review of the documentation included in the submittal, as well as that included in the files, indicates no further action is necessary for UST 411-28, UST 421-37, UST 423-39

As no sampling was evidently performed at UST 401-26 or UST 416-32, this office cannot concur there has been no discharge associated with the USTs.

If you have any questions regarding this matter, please contact this office at (609) 984-6606.

Sincerely,

Linda S. Range

Bureau of Case Management

C: Joe Pearson, Calibre Systems Rich Harrison, FMERA Julie Carver, Matrix

# Attachment C Table 1 Soil Sampling Results

Second	Loc ID Sample ID Sample Date	NJ Residential Direct Contact SRS	NJ Non- Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	Weston 1995 Background (Charles Wood)	PARCEL 28-SSTA-E Parcel28-SSTA-E (7.5-8.0) 7/16/2013	PARCEL 28-FGS-A  Parcel 28-FGS-A (6.0-6.5)  8/2/2013	PARCEL 28-FGS-B  Parcel28-FGS-B (6-6.5)  7/12/2013	PARCEL 28-FGS-C  Parcel28-FGS-C (6-6.5)  7/12/2013	PARCEL 28-FGS-D  Parcel28-FGS-D (6-6.5)  7/12/2013	PARCEL 28-FGS-E  Parcel28-FGS-E (6-6.5)  7/12/2013	PARCEL 28-SSEH-A  Parcel28-SSEH-A(7.5-8.0)  7/8/2013	PARCEL 28-SSSC-A  Parcel28-SSSC-A(6-6.5)  7/8/2013
Angel	1,1,1-Trichloroethane			300	-								< 5.2 < 5.2
	1,1,2-Trichloro-1,2,2-Trifluoroethane 1,1,2-Trichloroethane	NLE 2,000	6,000	20		< 4.5 < 4.5	< 6.2 < 6.2	<5.5 <5.5	< 5 < 5	< 5.4 < 5.4	< 5.4 < 5.4	0.57 J < 5.4	1.3 J < 5.2
Column	1,1-Dichloroethene 1,2,3-Trichlorobenzene	11,000 NLE	150,000 NLE	8 NLE	-	< 4.5 < 4.5	< 6.2 < 6.2	< 5.5 < 5.5	< 5 < 5	< 5.4 < 5.4	< 5.4 < 5.4	< 5.4 < 5.4	< 5.2 < 5.2
Column	1,2-Dibromo-3-chloropropane	80	200	5	-	< 8.9	< 12	< 11	< 10	< 11	< 11	< 11	< 10
Column	1,2-Dichloroethane	900	59,000,000 3,000	5	-	< 0.89	< 6.2 < 1.2	< 1.1	< 1	< 1.1	< 1.1	< 1.1	< 1
Service	1,3-Dichlorobenzene 1,4-Dichlorobenzene	5,300,000 5,000	59,000,000 13,000	19,000 2,000	-	< 4.5 < 4.5	< 6.2 < 6.2	<5.5 <5.5	< 5 < 5	< 5.4 < 5.4	< 5.4 < 5.4	< 5.4 < 5.4	< 5.2 < 5.2
Column	Acetone Benzene	70,000 2,000	NLE 5,000	19 5	-	< 0.0089 < 0.89	< 0.012 < 1.2	0.0519 < 1.1	< 0.01 < 1	NA < 1.1	< 0.011 < 1.1	< 0.011 < 1.1	< 0.01 < 1
Services	Bromodichloromethane	1,000	3,000	5	-	< 4.5	< 6.2	< 5.5	< 5	< 5.4	< 5.4	< 5.4	< 5.2
	Carbon disulfide Carbon tetrachloride	7,800,000 600	110,000,000 2,000	6,000 5	-	< 4.5 < 4.5	< 6.2 < 6.2	< 5.5 < 5.5	< 5 < 5	0.72 J < 5.4	< 5.4 < 5.4	< 5.4 < 5.4	< 5.2 < 5.2
Martin	Chlorodibromomethane Chloroethane	3,000 220,000	8,000 1,100,000	5 NLE	-	< 4.5 < 4.5	< 6.2 < 6.2	< 5.5 < 5.5	< 5 < 5	< 5.4 < 5.4	< 5.4 < 5.4	< 5.4 < 5.4	< 5.2 < 5.2
Series	Cis-1,2-Dichloroethene	230,000	560,000	300	-	< 4.5	< 6.2	< 5.5	< 5	< 5.4	< 5.4	< 5.4	< 5.2
Column	Cyclohexane Dichlorodifluoromethane	NLE 490,000	NLE 230,000,000	NLE 39,000	-	< 4.5 < 4.5	< 6.2 < 6.2	<5.5 <5.5	< 5 < 5	< 5.4 < 5.4	< 5.4 < 5.4	< 5.4 < 5.4	< 5.2 < 5.2
Second	Isopropylbenzene Meta/Para Xylene	NLE NLE	NLE 170,000,000	NLE NLE	-	< 4.5 < 0.89	< 6.2 < 1.2	< 5.5 < 1.1	<5 <1	< 5.4 < 1.1	< 5.4 < 1.1	< 5.4 < 1.1	< 5.2 < 1
Column	Methyl Acetate Methyl bromide Methyl butyl ketone	25,000	59,000	40	-	< 4.5	< 6.2	< 5.5	< 5	< 5.4	< 5.4	< 5.4	< 5.2
Scheelenger (1987)  Scheel	Methyl chloride Methyl cyclohexane Methyl ethyl ketone	NLE	NLE	NLE	-	< 4.5	< 6.2	< 5.5	< 5	< 5.4	< 5.4	< 5.4	< 5.2
Series	Methyl isobutyl ketone Methyl Tertbutyl Ether	NLE 110,000	NLE 320,000	NLE 200	-	< 4.5 < 0.89	< 6.2 < 1.2	<5.5 <1.1	< 5 < 1	< 5.4 < 1.1	< 5.4 < 1.1	< 5.4 < 1.1	< 5.2 < 1
Second Column	Ortho Xylene	NLE	170,000,000	NLE	-	< 0.89	< 1.2	< 1.1	< 1	< 1.1	< 1.1	< 1.1	< 1
Column	Toluene	6,300,000	91,000,000	7,000	-	0.42 J	< 1.2	0.81 J	< 1	0.27 J	0.24 J	0.41 J	< 1
Service	Trans-1,2-Dichloroethene Trans-1,3-Dichloropropene	300,000 NLE	720,000 7,000	600 NLE	-	<4.5 <4.5	< 6.2 < 6.2	< 5.5 < 5.5	< 5 < 5	< 5.4 < 5.4	< 5.4 < 5.4	< 5.4 < 5.4	< 5.2 < 5.2
Selection	Trichlorofluoromethane Vinyl chloride	23,000,000	340,000,000	34,000	-	< 4.5	< 6.2	<5.5	< 5	< 5.4	< 5.4	< 5.4	< 5.2
The color of the					-								0 U
Scheller State	Semivolatile Organic Compounds (µg/kg) 1,1'-Biphenyl	3,100,000	34,000,000	140,000	-	17.5 J	NA	NA	NA	NA	NA	< 73	< 69
The color   The	2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	NLE 6,100,000	NLE 68,000,000	NLE 68,000	-	< 160 < 160	NA NA	NA NA	NA NA	NA NA	NA NA	< 180 < 180	< 170 < 170
Second	2,4-Dichlorophenol 2,4-Dimethylphenol	180,000	2,100,000 14,000,000	200 1,000	-	< 160 < 160	NA NA	NA NA	NA NA	NA NA	NA NA	< 180 < 180	< 170 < 170
Series Se	2,4-Dinitrophenol 2,4-Dinitrotoluene	120,000 700	1,400,000 3,000	300 NLE	-	< 620 < 62	NA NA	NA NA	NA NA	NA NA	NA NA	< 730 < 73	< 690 < 69
Selection of the select	2-Chloronaphthalene 2-Chlorophenol	NLE 310,000	NLE 2,200,000	NLE 800	-	< 62 < 160	NA NA	NA NA	NA NA	NA NA	NA NA	< 73 < 180	< 69 < 170
TAMES NEW YORK OF THE PARTY OF	2-Methylphenol 2-Nitroaniline	310,000	3,400,000	NLE	-	< 62 < 160	NA NA	NA NA	NA NA	NA NA	NA NA	< 73 < 180	< 69 < 170
Series Se	2-Nitrophenol 3&4-Methylphenol	NLE NLE	NLE NLE	NLE NLE	-	< 160 < 62	NA NA	NA NA	NA NA	NA NA	NA NA	< 180 < 73	< 170 < 69
The content of the	3-Nitroaniline 4,6-Dinitro-2-methylphenol	NLE 6,000	NLE 68,000	NLE 300	-	< 160 < 620	NA NA	NA NA	NA NA	NA NA	NA NA	< 180 < 730	< 170 < 690
Care	4-Chloro-3-methylphenol 4-Chloroaniline	NLE NLE	NLE NLE	NLE NLE	-	< 160 < 160	NA NA	NA NA	NA NA	NA NA	NA NA	< 180 < 180	< 170 < 170
Scheller (1964)	4-Nitroaniline	NLE	NLE	NLE	-	< 160	NA	NA	NA	NA	NA	< 180	< 170
Acher And Park 1968   1	Acenaphthene Acenaphthylene	3,400,000 NLE	37,000,000 300,000,000	110,000 NLE	-	26.5 J	NA	NA NA	NA	NA	NA	< 36	< 34
Company	Anthracene Atrazine	17,000,000 210,000	30,000,000 2,400,000	2,400,000 200	-	<b>50.2</b> < 160	NA NA	NA NA	NA NA	NA NA	NA NA	< 36 < 180	< 34 < 170
Sanghale Sangh San	Benzo(a)anthracene	0.6	2	0.8	-	0.0439	NA	NA	NA	NA	NA	< 0.036	0.0198 J
STATE STATE OF THE		380,000,000	30,000,000	NLE	-	18.2 J	NA	NA	NA	NA	NA	< 36	
TWO MATCHES AND AS A STATE OF THE PROPERTY OF	Bis(2-Chloroethoxy)methane Bis(2-Chloroethyl)ether	NLE 400	NLE 2,000	NLE 200		< 62 < 62	NA NA	NA NA	NA NA	NA NA	NA NA	< 73 < 73	< 69 < 69
See 1949 1940 1940 1940 1940 1940 1940 1940	Bis(2-Ethylhexyl)phthalate	35	140	1,200	-	< 0.062 < 62	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.073 < 73	< 0.069 < 69
Common	Carbazole	24,000	96,000	NLE	-	18.8 J	NA	NA	NA	NA	NA	< 73	< 69
Marie   Mari	Dibenz(a,h)anthracene Dibenzofuran	200 NLE	200 NLE	800 NLE	-	<31 34.1 J	NA NA	NA NA	NA NA	NA NA	NA NA	< 36 < 73	< 34 < 69
Target 19 1 19 19 19 19 19 19 19 19 19 19 19 1	Dimethyl phthalate Di-n-butylphthalate	NLE 6,100	NLE 68,000	NLE 760	-	< 62 < 0.062	NA NA	NA NA	NA NA	NA NA	NA NA	< 73 < 0.073	< 69 < 0.069
THE CALL OF THE CA	Fluoranthene Fluorene	2,300	24,000	1,300	-	0.0839	NA	NA	NA	NA	NA	< 0.036	0.0304 J
Note No. 1969   1969   296   19   19   19   19   19   19   19	Hexachlorobenzene Hexachlorobutadiene	300 6,000	1,000 25,000	200 900	-	< 62 < 31	NA NA	NA NA	NA NA	NA NA	NA NA	< 36	< 69 < 34
Seedle 14	Hexachloroethane Indeno(1,2,3-cd)pyrene	35,000 0.6	140,000	200 7	-	< 160 0.0204 J	NA NA	NA NA	NA NA	NA NA	NA NA	< 180 < 0.036	< 170 0.016 J
Scheening	Naphthalene Nitrobenzene	6,000	17,000	25,000	-	344	NA	NA	NA	NA	NA	< 36	< 34
The control of the co	N-Nitrosodiphenylamine	99,000	390,000	400	-	< 160	NA	NA	NA	NA	NA	< 180	< 170
The content	Phenanthrene Phenol	NLE 18,000,000	300,000 210,000,000	NLE 8,000	-	0.173 < 62	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.036 < 73	< 0.034 < 69
Termental Programmer Service	TIC SVOCs (µg/kg) Total Alkanes, SVOC	NLE	NLE	NLE	-	0 U	NA	NA	NA	NA	NA	0 U	0 U
CHILD AND ALL ALL ALL ALL ALL ALL ALL ALL ALL AL	Extractable/Volatile Petroleum Hydrocarbons (mg/kg)		NLE	•	-	·							0 U
Color   Colo	C12-C16 Aliphatics C12-C16 Aromatics	NLE NLE	NLE NLE	NLE NLE	-	< 5.7 < 5.7	NA NA	NA NA	NA NA	NA NA	NA NA	< 6.1 < 6.1	< 5.8 < 5.8
Value   Valu	C16-C21 Aromatics C21-C36 Aromatics	NLE NLE	NLE NLE	NLE NLE	-	< 5.7 < 5.7	NA NA	NA NA	NA NA	NA NA	NA NA	< 6.1 < 6.1	< 5.8 < 5.8
Text contents	C9-C12 Aliphatics Total Aliphatics	NLE	NLE	NLE	-	< 5.7 < 5.7	NA NA	NA NA	NA NA	NA NA	NA NA	< 6.1 < 6.1	< 5.8 < 5.8
4.4600   190	Total Aromatics Total EPH	NLE	NLE	NLE	-	< 5.7	NA	NA	NA	NA	NA	< 6.1	< 5.8
All	4,4'-DDD 4,4'-DDE	2,000	9,000	18,000	-	< 0.71	NA	NA	NA	NA	NA	< 0.79	2.3
Absolution	Aldrin Alpha-BHC	40 100	200 500	200	-	< 0.71 < 0.71	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.79 < 0.79	< 0.68 < 0.68
Section	Alpha-Chlordane Beta-BHC	NLE 400	1,000 2,000	2	-	< 0.71 < 0.71	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.79 < 0.79	< 0.68 < 0.68
Excellent part   Croscope   Cro	Dieldrin Endosulfan I	40 NLE	200 6,800,000	3 NLE	-	< 0.71 < 0.71	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.79 < 0.79	< 0.68 < 0.68
Edministry   Mart   State	Endosulfan sulfate Endrin	470,000 23,000	6,800,000 340,000	2,000 1,000	-	< 0.71 < 0.71	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.79 < 0.79	< 0.68 < 0.68
Camer Changer 200 1200 NEE	Endrin ketone	NLE NLE	NLE		-	< 0.71	NA	NA	NA	NA	NA	< 0.79	< 0.68
Milloreschied   190,000   190,000   190,000   1	Gamma-Chlordane Heptachlor	200 100	1,000 700	500	-	< 0.71 < 0.71	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.79 < 0.79	< 0.68 < 0.68
National Process   Proce	Methoxychlor Toxaphene	390,000	5,700,000	160,000	-	< 1.4	NA	NA	NA	NA	NA	< 1.6	< 1.4
Acade   1,000   1,000   N.	Pesticides & PCBs (μg/kg) Aroclor-1016	200	1,000	NLE	-	< 35	NA	NA	NA	NA	NA	< 39	< 34
August   1,000   N.E.   .	Aroclor-1232 Aroclor-1242	200 200	1,000 1,000	NLE NLE	-	< 35 < 35	NA NA	NA NA	NA NA	NA NA	NA NA	< 39 < 39	< 34 < 34
Accident   20	Aroclor-1254 Aroclor-1260	200	1,000	NLE		< 35	NA	NA	NA	NA	NA	< 39	< 34
Internation					-								
Arenic   19   19   19   31,6   7.2   NA   NA   NA   NA   NA   NA   NA   7   5.8   Barlium   16,000   59,000   2,100   2,6   < < < > < 1   NA   NA   NA   NA   NA   NA   NA	Inorganics (mg/kg) Aluminum	78,000	NLE	6,000		8,250	NA	NA	NA	NA	NA	5,960	7,740
Calinium	Arsenic Barium	19 16,000	19 59,000	19 2,100	31.6 26	7.2 < 21	NA NA	NA NA	NA NA	NA NA	NA NA	7 < 23	5.8 < 23
Chronium	Cadmium Calcium	78 NLE	78 NLE	2 NLE	ND 653	< 0.53 < 530	NA NA	NA NA	NA NA	NA NA	NA NA	< 0.57 < 570	< 0.58 795
Coper   3,100   45,000   11,000   6.6   2.8   NA   NA   NA   NA   NA   NA   NA   N	Chromium Chromium, Hexavalent	NLE 240	NLE NLE	NLE NLE	128 ND	67.6 2.6	NA NA	NA NA	NA NA	NA NA	NA NA	82 1	68.8 2.6
Led	Copper Cyanide	3,100 1,600	45,000 23,000	11,000 20	6.6 ND	2.8 < 0.24	NA NA	NA NA	NA NA	NA NA	NA NA	< 2.9 < 0.26	3.1 < 0.24
Maganese   11,00   5,900   65   48.7   27.2   NA   NA   NA   NA   NA   NA   NA   N	Lead Magnesium	400 NLE	800 NLE	90 NLE	11.1 3,960	5.5 1,790	53.1 NA	10.9 NA	8.3 NA	3.6 NA	5.3 NA	3 1,910	13.4 1,480
Palassium NLE NLE NLE 10,600 3,540 NA NA NA NA NA NA NA 4,50 223 2,50 2,50 11 0,55 2,50 11 0,55 2,50 11 0,55 2,50 11 0,55 2,50 11 0,55 2,50 11 0,55 2,50 11 0,55 2,50 11 0,55 2,50 11 0,55 2,50 11 0,55 2,50 2,50 2,50 2,50 2,50 2,50 2,50	Manganese Mercury Nickel	11,000 23	5,900 65	65 0.1	48.7 ND	27.2 < 0.033	NA NA	NA NA	NA NA	NA NA	NA NA	18.3 < 0.039	25.5 0.078
Sodium	Potassium Selenium	NLE 390	NLE 5,700	NLE 11	10,600 0.85	3,540 2.8	NA NA	NA NA	NA NA	NA NA	NA NA	4,830 < 2.3	2,830 < 2.3
Vanodium   78   1,100   NLE   59.6   48.7   NA   NA   NA   NA   NA   NA   NA   N				NLE	56.8	< 1100	NA	NA	NA	NA	NA	< 1100	
Redox Potential Vi-II (mv) NLE NLE - 433 NA	Sodium Thallium	5	79										
	Sodium Thallium Vanadium Zinc	5 78	79 1,100	NLE	59.6	48.7	NA	NA	NA	NA	NA	44.5	45.7

Fort Monmouth,	New Jerse	ı		ı		ı	T	
Loc ID Sample ID	NJ Residential Direct Contact SRS	NJ Non- Residential Direct Contact SRS	NJ Impact to GW Soil Screening Level	Weston 1995 Background (Charles Wood)	PARCEL 28-SSSC-B Parcel28-SSSC-B(6-6.5)	PARCEL 28-SSSC-C Parcel28-SSSC-C(6-6.5)	PARCEL 28-SSSC-D  Parcel28-SSSC-D(6-6.5)	PARCEL 28-SSSC-E Parcel28-SSSC-E(6-6.5)
Sample Date  Volatile Organic Compounds (µg/kg)  1,1,1-Trichloroethane	290,000	4,200,000	300	wood)	7/8/2013 < 4.8	7/8/2013 < 5.3	7/8/2013	7/8/2013 < 5.1
1,1,2,2-Tetrachloroethane 1,1,2-Trichloro-1,2,2-Trifluoroethane 1,1,2-Trichloroethane	1,000 NLE 2,000	3,000 NLE 6,000	7 NLE 20	-	< 4.8 < 4.8 < 4.8	< 5.3 0.76 J < 5.3	< 5.9 < 5.9 < 5.9	< 5.1 < 5.1 < 5.1
1,1-Dichloroethane 1,1-Dichloroethane 1,2,3-Trichlorobenzene	8,000 11,000 NLE	24,000 150,000 NLE	200 8 NLE	-	< 4.8 < 4.8 < 4.8	< 5.3 < 5.3 < 5.3	< 5.9 < 5.9 < 5.9	< 5.1 < 5.1 < 5.1
1,2,4-Trichlorobenzene 1,2-Dibromo-3-chloropropane 1,2-Dibromoethane	73,000 80 8	820,000 200	700	-	< 4.8 < 9.6 < 0.96	<5.3 <11 <1.1	< 5.9 < 12 < 1.2	< 5.1 < 10 < 1
1,2-Dichlorobenzene 1,2-Dichloroethane	5,300,000 900	40 59,000,000 3,000	17,000 5	-	< 4.8 < 0.96	< 5.3 < 1.1	< 5.9 < 1.2	< 5.1 < 1
1,2-Dichloropropane 1,3-Dichlorobenzene 1,4-Dichlorobenzene	2,000 5,300,000 5,000	5,000 59,000,000 13,000	5 19,000 2,000	-	< 4.8 < 4.8 < 4.8	< 5.3 < 5.3 < 5.3	< 5.9 < 5.9 < 5.9	< 5.1 < 5.1 < 5.1
1,4-Dioxane Acetone Benzene	NLE 70,000 2,000	NLE NLE 5.000	NLE 19	-	< 120 < 0.0096 < 0.96	<130 <0.011 <1.1	< 150 < 0.012 < 1.2	< 130 < 0.01 < 1
Bromochloromethane Bromodichloromethane Bromoform	NLE 1,000 81,000	NLE 3,000 280,000	NLE 5 30	-	< 4.8 < 4.8 < 4.8	< 5.3 < 5.3 < 5.3	< 5.9 < 5.9 < 5.9	< 5.1 < 5.1 < 5.1
Carbon disulfide Carbon tetrachloride	7,800,000 600	110,000,000 2,000	6,000 5	-	< 4.8 < 4.8	< 5.3 < 5.3	< 5.9 < 5.9	< 5.1 < 5.1
Chlorobenzene Chlorodibromomethane Chloroethane	510,000 3,000 220,000	7,400,000 8,000 1,100,000	600 5 NLE	-	< 4.8 < 4.8 < 4.8	< 5.3 < 5.3 < 5.3	< 5.9 < 5.9 < 5.9	< 5.1 < 5.1 < 5.1
Chloroform Cis-1,2-Dichloroethene Cis-1,3-Dichloropropene	600 230,000 NLE	2,000 560,000 7,000	400 300 NLE	-	< 4.8 < 4.8 < 4.8	< 5.3 < 5.3 < 5.3	< 5.9 < 5.9 < 5.9	< 5.1 < 5.1 < 5.1
Cyclohexane Dichlorodifluoromethane Ethyl benzene	NLE 490,000	NLE 230,000,000	NLE 39,000	-	< 4.8 < 4.8 < 0.96	< 5.3 < 5.3 < 1.1	< 5.9 < 5.9 < 1.2	< 5.1 < 5.1 < 1
Isopropylbenzene Meta/Para Xylene	7,800,000 NLE NLE	110,000,000 NLE 170,000,000	13,000 NLE NLE	-	< 4.8 < 0.96	< 5.3 < 1.1	< 5.9 < 1.2	< 5.1 < 1
Methyl Acetate Methyl bromide Methyl butyl ketone	78,000,000 25,000 NLE	NLE 59,000 NLE	22,000 40 NLE	-	< 4.8 < 4.8 < 4.8	< 5.3 < 5.3 < 5.3	< 5.9 < 5.9 < 5.9	< 5.1 < 5.1 < 5.1
Methyl chloride Methyl cyclohexane Methyl ethyl ketone	4,000 NLE 3,100,000	12,000 NLE 44,000,000	NLE NLE 900	-	< 4.8 < 4.8 < 9.6	< 5.3 < 5.3 < 11	< 5.9 < 5.9 < 12	< 5.1 < 5.1 < 10
Methyl isobutyl ketone Methyl Tertbutyl Ether	NLE 110,000	NLE 320,000	NLE 200	-	< 4.8 < 0.96	< 5.3 < 1.1	< 5.9 < 1.2	<5.1 <1
Methylene chloride Ortho Xylene Styrene	34,000 NLE 90,000	97,000 170,000,000 260,000	10 NLE 3,000	-	2.6 J < 0.96 < 4.8	5 JB < 1.1 < 5.3	3.9 J < 1.2 < 5.9	4.7 JB <1 <5.1
Tetrachloroethene Toluene Total Xylenes	2,000 6,300,000 12,000,000	5,000 91,000,000 170,000,000	5 7,000 19,000	-	< 4.8 0.3 J < 0.96	< 5.3 < 1.1 < 1.1	< 5.9 0.31 J < 1.2	< 5.1 < 1 < 1
Trans-1,2-Dichloroethene Trans-1,3-Dichloropropene	300,000 NLE	720,000 7,000	600 NLE	-	< 4.8 < 4.8	< 5.3 < 5.3	< 5.9 < 5.9	< 5.1 < 5.1
Trichloroethene Trichlorofluoromethane Vinyl chloride	7,000 23,000,000 700	20,000 340,000,000 2,000	10 34,000 5	-	< 4.8 < 4.8 < 4.8	< 5.3 < 5.3 < 5.3	< 5.9 < 5.9 < 5.9	< 5.1 < 5.1 < 5.1
TIC VOCs (µg/kg) Total Alkanes, VOC Total TIC, Volatile	NLE NLE	NLE NLE	NLE NLE	-	0 U 7.3 J	NA 6.2 J	NA 25.4 J	NA NA
Semivolatile Organic Compounds (µg/kg) 1,1'-Biphenyl 1,2-4,5-Tetrachlorobenzene	3,100,000	34,000,000	140,000	-	<75 <190	< 76 < 190	< 78 < 190	<76 <190
2,3,4,6-Tetrachlorophenol 2,4,5-Trichlorophenol	NLE NLE 6,100,000	NLE NLE 68,000,000	NLE NLE 68,000	-	< 190 < 190	< 190 < 190	< 190 < 190	< 190 < 190
2.4.6-Trichlorophenol 2.4-Dichlorophenol 2.4-Dimethylphenol	19,000 180,000 1,200,000	74,000 2,100,000 14,000,000	200 200 1,000	-	<190 <190 <190	< 190 < 190 < 190	< 190 < 190 < 190	< 190 < 190 < 190
2,4-Dinitrophenol 2,4-Dinitrotoluene 2,6-Dinitrotoluene	120,000 700 700	1,400,000 3,000 3,000	300 NLE NLE	-	< 750 < 75 < 75	< 760 < 76 < 76	< 780 < 78 < 78 < 78	< 760 < 76 < 76
2-Chloronaphthalene 2-Chlorophenol	NLE 310,000	NLE 2,200,000	NLE 800	-	< 75 < 190	< 76 < 190	< 78 < 190	< 76 < 190
2-Methylnaphthalene 2-Methylphenol 2-Nitroaniline	230,000 310,000 39,000	2,400,000 3,400,000 23,000,000	8,000 NLE NLE	-	<75 <75 <190	< 76 < 76 < 190	< 78 < 78 < 190	< 76 < 76 < 190
2-Nitrophenol 3&4-Methylphenol 3,3'-Dichlorobenzidine	NLE NLE 1,000	NLE NLE 4.000	NLE NLE 200	-	< 190 < 75 < 190	< 190 < 76 < 190	< 190 < 78 < 190	< 190 < 76 < 190
3-Nitroaniline 4,6-Dinitro-2-methylphenol 4-Bromophenyl phenyl ether	NLE 6,000 NLE	NLE 68,000 NLE	NLE 300 NLE	-	< 190 < 750 < 75	< 190 < 760 < 76	< 190 < 780 < 78	< 190 < 760 < 76
4-Chloro-3-methylphenol 4-Chloroaniline	NLE NLE	NLE NLE	NLE NLE	-	< 190 < 190	< 190 < 190	< 190 < 190	< 190 < 190
4-Chlorophenyl phenyl ether 4-Nitroaniline 4-Nitrophenol	NLE NLE NLE	NLE NLE NLE	NLE NLE NLE	-	< 75 < 190 < 370	< 76 < 190 < 380	< 78 < 190 < 390	< 76 < 190 < 380
Acenaphthene Acenaphthylene Acetophenone	3,400,000 NLE 2,000	37,000,000 300,000,000 5,000	110,000 NLE 3.000	-	< 37 < 37 < 190	< 38 < 38 < 190	< 39 < 39 < 190	< 38 < 38 < 190
Anthracene Atrazine	17,000,000 210,000	30,000,000 2,400,000	2,400,000 200	-	< 37 < 190	< 38 < 190	< 39 < 190	17.1 J < 190
Benzaldehyde Benzo(a)anthracene Benzo(a)pyrene	6,100,000 0.6 0.2	68,000,000 2 0.2	NLE 0.8 0.2	-	< 190 < 0.037 < 0.037	< 190 < 0.038 < 0.038	< 190 < 0.039 < 0.039	< 190 0.0546 0.0604
Benzo(b)fluoranthene Benzo(ghi)perylene Benzo(k)fluoranthene	0.6 380,000,000 6	2 30,000,000 23	NLE 25	-	< 0.037 < 37 < 0.037	<0.038 <38 <0.038	< 0.039 < 39 < 0.039	0.0714 33.7 J 0.026 J
Bis(2-Chloroethoxy)methane Bis(2-Chloroethyl)ether	NLE 400	NLE 2,000	NLE 200	-	< 75 < 75 < 75	< 76 < 76	< 78 < 78	< 76 < 76
Bis(2-Chloroisopropyl)ether Bis(2-Ethylhexyl)phthalate Butyl benzyl phthalate	23,000 35 1,200,000	67,000 140 14,000,000	5,000 1,200 230,000	-	< 0.075 < 75	< 76 < 0.076 < 76	< 78 < 0.078 < 78	< 76 < 0.076 < 76
Carbazole Chrysene	31,000,000 24,000 62	340,000,000 96,000 230	12,000 NLE 80	-	< 75 < 75 < 0.037	< 76 < 76 < 0.038	< 78 < 78 < 0.039	< 76 < 76 0.0546
Dibenz(a,h)anthracene Dibenzofuran Diethyl phthalate	200 NLE 49,000,000	200 NLE 550,000,000	800 NLE 88,000	-	< 37 < 75 < 75	< 38 < 76 < 76	< 39 < 78 < 78	< 38 < 76 < 76
Dimethyl phthalate Di-n-butylphthalate	NLE 6,100	NLE 68,000	NLE 760	-	< 75 < 0.075	< 76 < 0.076	< 78 0.0986	< 76 < 0.076
Di-n-octylphthalate Fluoranthene Fluorene	2,400 2,300 2,300,000	27,000 24,000 24,000,000	3,300 1,300 170,000	-	< 0.075 < 0.037 < 37	< 0.076 < 0.038 < 38	< 0.078 < 0.039 < 39	< 0.076 0.111 < 38
Hexachlorobenzene Hexachlorobutadiene Hexachlorocyclopentadiene	300 6,000 45,000	1,000 25,000 110,000	200 900 320,000	-	< 75 < 37 < 370	< 76 < 38 < 380	< 78 < 39 < 390	< 76 < 38 < 380
Hexachloroethane Indeno(1,2,3-cd)pyrene Isophorone	35,000 0.6	140,000	200 7	-	< 190 < 0.037 < 75	< 190 < 0.038 < 76	< 190 < 0.039 < 78	< 190 0.0367 J < 76
Naphthalene Nitrobenzene	510,000 6,000 31,000	2,000,000 17,000 340,000	200 25,000 200	-	< 37 < 75	< 38 < 76	< 39 < 78	< 38 < 76
N-Nitroso-di-n-propylamine N-Nitrosodiphenylamine Pentachlorophenol	200 99,000 3,000	300 390,000 10,000	200 400 300	-	< 75 < 190 < 370	< 76 < 190 < 380	< 78 < 190 < 390	< 76 < 190 < 380
Phenanthrene Phenol Pyrene	NLE 18,000,000 1,700	300,000 210,000,000 18,000	NLE 8,000 840	-	< 0.037 < 75 < 0.037	<0.038 <76 <0.038	< 0.039 < 78 < 0.039	0.0681 < 76 0.103
TIC SVOCs (μg/kg) Total Alkanes, SVOC	NLE	NLE	NLE	-	0 U	0 U	0 U	0 U
Total TIC, Semi-Volatile Extractable/Volatile Petroleum Hydrocarbons (mg/kg) C10-C12 Aromatics	NLE NLE	NLE NLE	NLE NLE	-	0 U < 6.1	0 U	0 U	0 U < 6.1
C12-C16 Aliphatics C12-C16 Aromatics C16-C21 Aliphatics	NLE NLE NLE	NLE NLE NLE	NLE NLE NLE	-	< 6.1 < 6.1 < 6.1	< 5.8 < 5.8 < 5.8	< 6.3 < 6.3 < 6.3	< 6.1 < 6.1 < 6.1
C16-C21 Aromatics C21-C36 Aromatics	NLE NLE	NLE NLE	NLE NLE	-	< 6.1 < 6.1	< 5.8 < 5.8	< 6.3 < 6.3	< 6.1 < 6.1
C21-C40 Aliphatics C9-C12 Aliphatics Total Aliphatics	NLE NLE NLE	NLE NLE NLE	NLE NLE NLE	-	< 6.1 < 6.1 < 6.1	< 5.8 < 5.8 < 5.8	< 6.3 < 6.3 < 6.3	< 6.1 < 6.1 < 6.1
Total Aromatics Total EPH Pesticides & PCBs (μg/kg)	NLE 5,100	NLE 1,700	NLE NLE	-	< 6.1 < 6.1	< 5.8 < 5.8	< 6.3 < 6.3	< 6.1 < 6.1
4,4'-DDD 4,4'-DDE 4,4'-DDT	3,000 2,000 2,000	13,000 9,000 8,000	4,000 18,000 11,000	-	< 0.75 < 0.75 < 0.75	< 0.8 < 0.8 < 0.8	< 0.82 < 0.82 < 0.82	< 0.77 2.4 5.3
Aldrin Alpha-BHC Alpha-Chlordana	40 100	200 500	200	-	< 0.75 < 0.75	< 0.8 < 0.8	< 0.82 < 0.82	< 0.77 < 0.77
Alpha-Chlordane Beta-BHC Delta-BHC	NLE 400 NLE	1,000 2,000 NLE	NLE 2 NLE	-	< 0.75 < 0.75 < 0.75	< 0.8 < 0.8 < 0.8	< 0.82 < 0.82 < 0.82	< 0.77 < 0.77 < 0.77
Dieldrin Endosulfan I Endosulfan II	40 NLE NLE	200 6,800,000 6,800,000	3 NLE NLE	-	< 0.75 < 0.75 < 0.75	< 0.8 < 0.8 < 0.8	< 0.82 < 0.82 < 0.82	< 0.77 < 0.77 < 0.77
Endosulfan sulfate Endrin Endrin aldehyde	470,000 23,000 NLE	6,800,000 340,000 NLE	2,000 1,000 NLE	-	< 0.75 < 0.75 < 0.75	< 0.8 < 0.8 < 0.8	< 0.82 < 0.82 < 0.82 < 0.82	< 0.77 < 0.77 < 0.77
Endrin ketone Gamma-BHC/Lindane	NLE 400	NLE 2,000	NLE 2	-	< 0.75 < 0.75 < 0.75 < 0.75	< 0.8 < 0.8	< 0.82 < 0.82 < 0.82 < 0.82	<0.77 <0.77 <0.77 <0.77
Gamma-Chlordane Heptachlor Heptachlor epoxide	200 100 70	1,000 700 300	NLE 500 10	-	< 0.75 < 0.75	< 0.8 < 0.8 < 0.8	< 0.82 < 0.82	< 0.77 < 0.77
Methoxychlor Toxaphene Pesticides & PCBs (µg/kg)	390,000 600	5,700,000 3,000	160,000 300		< 1.5 < 19	< 1.6 < 20	< 1.6 < 20	< 1.5 < 19
Aroclor-1221 Aroclor-1232	200	1,000	NLE NLE NLE	-	< 37 < 37 < 37	< 40 < 40 < 40	< 38 < 38 < 38	< 38 < 38 < 38
	200		INLE	-	< 37	< 40 < 40 < 40	< 38 < 38 < 38	< 38 < 38
Aroclor-1242 Aroclor-1248	200 200 200	1,000 1,000 1,000	NLE NLE	-	< 37			
Aroclor-1242 Aroclor-1248 Aroclor-1254 Aroclor-1260 PCBs (µg/kg)	200 200 200 200 200 200	1,000 1,000 1,000 1,000 1,000	NLE NLE NLE	-	< 37 < 37	< 40 < 40	< 38 < 38	< 38 < 38
Anodor 1242 Anodor 1248 Anodor 1254 Anodor 1250 PCBs (pp/kg) Anodor 1262 Anodor 1262 Anodor 1263	200 200 200 200	1,000 1,000 1,000 1,000	NLE NLE	-	< 37	< 40	< 38	
Another 1432 Another 1248 Another 1254 Another 1260 PCBs (gg/kg) Another 1260 Another 1262 Another 1262 Another 1268 Inorganies (mg/kg) Aluminum Antinomy	200 200 200 200 200 200 200 200 200 78,000 31	1,000 1,000 1,000 1,000 1,000 1,000 1,000 NLE 450	NLE NLE NLE NLE NLE 6,000	- - - - 15,700 ND	<37 <37 <37 <37 <37 11,200 <2.4	< 40 < 40 < 40 < 40 10,800 < 2.5	< 38 < 38 < 38 < 38 < 38 < 38 < 238 < 225	< 38 < 38 < 38 < 38 4,410 < 2.3
Anucler 1/42 Anucler 1/48 Anucler 1/24 Anucler 1/254 Anucler 1/20 PCBc (pg/kg) Anucler 1/20 Barban Barban Barban Beryllium	200 200 200 200 200 200 200 200 78,000 31 19 16,000	1,000 1,000 1,000 1,000 1,000 1,000 1,000 NLE 450 19 59,000	NLE NLE NLE NLE NLE 0,000 6 19 2,100 0.7	ND 31.6 26 1.7	<37 <37 <37 <37 <11,200 <2.4 7.3 <24 0.67	<40 <40 <40 <40 10,800 <2.5 6.3 <2.5 0.68	< 38	<38 <38 <38 4.410 <2.23 3.5 <2.23 0.44
Another 1432 Another 1248 Another 1254 Another 1260 PCBs (gg/kg) Another 1262 Another 1262 Another 1262 Another 1268 Inorganis (mg/kg) Aluminum Another 1666 Barium	200 200 200 200 200 200 200 200 78,000 31 19	1,000 1,000 1,000 1,000 1,000 1,000 1,000 NLE 450 19 59,000	NLE NLE NLE NLE NLE 19 2,100 0.7 2 NLE	ND 31.6 26 1.7 ND 653	< 37 < 37 < 37 < 37 < 37 < 37  11,200 < 2.4 7.3 < 24 0.67 < 0.61 11,770	<.40 <.40 <.40 <.40 <.40 <.40 <.40 <.40	< 38	<38 <38 <38 4,410 <423 3.5 <23 0,44 <<0.57 <570 <570
Another 1432 Another 1438 Another 1254 Another 1260 PCBs (gg/kg) Another 1262 Another 1262 Another 1262 Another 1268 Inorganis (mg/kg) Aluminum Antinony Ansenic Berjillium Cadrium Cadrium Cironium Ciro	200 200 200 200 200 200 200 200 31 19 16,000 16 78,000 116 78 NLE NLE 240 1,600	1,000 1,000	NLE NLE NLE NLE NLE NLE 0,000 6 19 2,100 0.7 2 NLE NLE NLE NLE 90	ND 31.6 26 1.7 ND 653 128 ND 4.5	< 37 < 37 < 37 < 37 < 37  11,200 < 2.4 7.3 < 24 0.67 < 0.61 1.070 91.7 4 < 6.1	< 40   < 40   < 40   < 40   < 40   < 40   < 40  10,806   < 25      6.3   < 25      0.68   < 0.62      803      5.1   < 6.2	< 38     < 38     < 38     < 38     < 38     < 38     < 38     < 38     < 2.5     < 2.5     < 2.5     < 2.5     < 4.6     < 2.5     < 6.2     < 6.20     < 5.1.8     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     < 6.2     <	< 38 < 38 < 38 < 4.410 4.23 3.5 < 2.3 9.44 < 0.57 < 570 41.2 2.1 < 5.7
Anucler 1/42 Anucler 1/48 Anucler 1/24 Anucler 1/24 Anucler 1/20 PCBs (gafte) Anucler 1/20 PCBs (gafte) Anucler 1/20 Cadmium Cadmium Chromium, Heuvalent Cobalt Cobalt Copper Cyanide Iono	200 200 200 200 200 200 200 200 200 200	1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000  NLE 450 19 59,000 140 NLE	NLE NLE NLE NLE NLE NLE NLE 0,000 6 19 2,100 0,7 2 NLE	ND 31.6 26 1.7 ND 653 128 ND 4.5 6.6 ND 45,500	< 37     <37     <37     <37     <37     <37     <37     <37     <37     <37     <37     <34     <37     <34     <34     <34     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36     <36	<.40 <.40 <.40 <.40 10,500 <.25 6.3 6.3 6.5 0.68 93.4 5.1 <.62 <.31 <.01.6 21,500 21,500	< 38 < 38 < 38 < 38 < 32.10 < 2.25 < 3.5 < 4.25 < 0.43 < < 6.20 < 51.8 < < 6.2 < < 6.2 < < 6.2 < < 6.2 < < 3.1 < < 0.24 < < 0.24 < < 2.8 < < 6.2 < < 3.1 < < 0.24 < < 2.30	44.10 438 438 44.10 23 34 423 634 40,57 41.2 42.1 45.7 42.9 40.23 12,300
Anucler 1422 Anucler 1248 Anucler 1254 Anucler 1260 PCBs (gafta) Anucler 1260 PCBs (gafta) Anucler 1262 Anucler 1268 Inorganies (mg/kg) Aluminum Antimony Antimony Antimony Cadminum Cadminum Cadminum Chrominum, Heavalent Cobalt Copper Cyanide Iron Iron Iron Iron Iron Iron Iron Iron	200 200 200 200 200 200 200 200 200 200	1,000 1,000	NLE	ND 31.6 26 1.7 ND 653 128 ND 4.5 6.6	< 37	< 40   < 40   < 40   < 40   < 40   < 40   < 40  10,800   < 25      6.3   < 25      0.68   < 0.62      803      5.1   < 6.2   < 3.1   < 0.16	< 38 < 38 < 38 < 38 3,210 < 2.5 3.5 < 2.5 3.5 < 0.02 < < 620 51.8 < 2.8 < < 6.2 < < 3.1 < < 0.02 4 < 0.02 < < 2.8 < < 8.8 < < 8.8 < < 8.2 < < 8.2 < < 8.3 < < 8.2 < < 8.2 < < 8.3 < < 8.2 < < 8.2 < < 8.3 < < 8.8 < < 8.6 < < 8.8 < < 8.8 < < 8.8 < < 8.8 < < 8.8 < < 8.8 < < 8.8 < < 8.8 < < 8.8 < < 8.9 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < < 9.0 < <	<38  <38  <38  <4.410 <2.23  3.5  <2.23  0.44 <0.57 <3.570  4112  2.1 <5.7 <2.9 <0.23  12,300  5.4  922  19
Another 1432 Another 1438 Another 1244 Another 1250 PCBs (guffag) Another 1262 Another 1262 Another 1268 Inorganis (mufkg) Aluminum Antimony Ansenis Beryllium Cadeium Chronium Chronium, Heavalent Copper Cypnide Ino Lead Magnesium Manganeee Mercary Nickel	200 200 200 200 200 200 200 200 200 200	1,000 1,000	NLE NLE NLE NLE NLE NLE NLE 19 2,100 0,7 2 NLE NLE NLE 19 20 NLE NLE 90 NLE NLE 90 NLE 48 48	ND 31.6 26 1.7 ND 653 128 ND 4.5 6.6 ND 4.5,500 11.1 3,960 48.7 ND 8.3		< 40   < 40   < 40   < 40   < 40   < 40   < 40  10,500   < 25      6.3   < 25      0.68   < 0.62      803      5.1   < 62   < 3.1   < 0.16      21,500      5.9      1,670      11,4      0.044   < 5	< 38 < 38 < 38 < 38 3,210 < 2.5 3.5 < 2.5 3.5 < 0.02 < 6.02 < 6.20 < 5.1.8 < 6.2 < 3.1 < 0.02 < 6.2 < 3.1 < 0.02 < 3.1 < 0.03 < 886 3.9 < 0.039 < 5 < 5	<38  <38  <38  <4.410 <2.23  3.23  0.44 <<0.57 <3.57 <3.57 <3.57 <4.57 <4.29 <4.0.23  12,300  5.4  922  19  <0.036 <4.4  <4.66 <4.46
Anucler 1424 Anucler 1248 Anucler 1254 Anucler 1260 PCBs (garlag) Anucler 1260 PCBs (garlag) Anucler 1262 Anucler 1268 Inorpanies (mg/kg) Aluminum Antinony Antinony Antinony Antinony Cadmium Cadmium Cadmium Chronium Chronium, Heavalent Cobalt Copper Cyanide Ilon Land Magnesium Magnesium Magnese Mercury Nickel Potassium Selenium	200 200 200 200 200 200 200 200 200 31 19 16,000 16 78 NLE NLE 240 1,600 NLE 400 NLE 11,000 NLE 13,000 NLE 300 NLE 300	1,000 1,000	NLE	ND 31.6 26 1.7 ND 653 128 ND 4.5 6.6 ND 4.5.00 11.1 3.960 48.7 ND 8.3 10.600 0.85 ND	< 37	< 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 25   < 25   < 6.3   < 25   < 0.62   < 0.62   < 0.62   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.16   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06   < 0.06	< 38 < 38 < 38 < 38 < 38 < 32.10 < 2.5 < 2.5 < 3.5 < 2.5 < 6.0 < 6.0 < 51.8 < 6.2 < 6.2 < 6.2 < 6.2 < 6.2 < 6.2 < 3.1 < 0.04 < 2.8 < 866 < 3.9 < 0.039 < 5 < 2.180 < 2.5 < 2.5 < 6.2 < 2.8 < 806 < 3.9 < 5.0 < 2.180 < 2.5 < 2.5 < 6.2 < 6.2 < 6.2 < 7.2 < 8.2 < 8.3 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 < 9.0 <p< td=""><td>4.410 4.38 4.38 4.38 4.31 4.23 3.3 4.44 4.23 4.34 4.557 4.12 4.57 4.21 4.57 4.22 4.23 4.23 4.23 4.24 4.25 6.27 6.29 6.23 6.23 6.23 6.23 6.24 6.25 7.25 6.26 7.26 7.27 7.28 7.28 7.29 7.20 7.20 7.21 7.21 7.22 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.24 7.25 7.26 7.27 7.27 7.28 7.</td></p<>	4.410 4.38 4.38 4.38 4.31 4.23 3.3 4.44 4.23 4.34 4.557 4.12 4.57 4.21 4.57 4.22 4.23 4.23 4.23 4.24 4.25 6.27 6.29 6.23 6.23 6.23 6.23 6.24 6.25 7.25 6.26 7.26 7.27 7.28 7.28 7.29 7.20 7.20 7.21 7.21 7.22 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.23 7.24 7.25 7.26 7.27 7.27 7.28 7.
Another 1432 Another 1438 Another 1248 Another 1250 PCBs (guffag) Another 1262 Another 1262 Another 1268 Inorganis (mufkg) Aluminum Antimony Antimony Antimony Antimony Calcium Chronium Chronium, Heavalent Cobalt Copper Cyanide Iron Lead Magnesium Manganeee Mercary Nickel Potassium Solden Solden Manganeee Mercary Nickel Potassium Solden Thalling	200 200 200 200 200 200 200 200 200 200	1,000 1,000	NLE NLE NLE NLE NLE NLE NLE 0,000 6 6 19 2,100 0,7 2 RLE NLE NLE NLE NLE NLE NLE NLE NLE 11 1 NLE	ND 31.6 26 1.7 ND 653 128 ND 45.500 11.1 1.1 3.960 48.7 ND 8.3 10.600 0.85 ND 55.8 ND		< 40    < 40    < 40    < 40    < 40    < 40    < 40    < 40    < 40    < 40    < 40    < 50    < 25    < 6.3    < 25    < 0.62    < 803    < 51    < 6.2    < 3.1    < 0.16    < 21,500    < 5.9    < 1.670	< 38 < 38 < 38 < 38 < 38 3,210 < 2.5 3.5 < 2.5 < 2.5 < 0.62 < 6.62 < 6.2 < 3.1 < 6.2 < 3.1 < 0.02 < 6.2 < 3.1 < 0.03 < 0.03 < 0.03 < 0.03 < 0.03 < 2.8 < 806 < 3.9 < 0.03 < 5 < 2.180 < 5 < 0.62 < 1.25 < 0.62 < 2.150 < 2.150 < 2.150 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250 < 1.250<	<38  <38  <4.410 <2.23  4.410 <2.23  3.35 <2.23  0.44 <0.457 <5.70 <4.27 <4.12  2.1 <4.27 <4.29 <0.23  12.300  5.44  9.22  19 <0.036 <4.6  1,820 <4.6  1,820 <4.5  (5.7) <110 <4.11  3.1.1
Ancider 1/42 Ancider 1/48 Ancider 1/24 Ancider 1/24 Ancider 1/26 PCBs (garligh) Ancider 1/26 Ancider 1/26 Ancider 1/26 Ancider 1/26 Ancider 1/26 Ancider 1/26 Antimony Antimony Antimony Antimony Antimony Antimony Cadicium Cadicium Chronium, Hexavalent Cobalt Copper Cyanide Iron Land Magnesium Magnese Mercury Nickel Prassium Selenium Se	200 200 200 200 200 200 200 200 200 31 19 16,000 16 78 NLE 240 1,600 NLE 11,000 NLE 390 NLE	1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 1,000 NLE 450 19 59,000 140 78 NLE NLE NLE NLE NLE NLE S00 3,3000 NLE 5,700 NLE 5,700 NLE 5,700 NLE	NLE	ND 31.6 26 1.7 ND 653 128 ND 4.5 6.6 ND 4.5 8.3 11.1 3,960 48.7 ND 8.3 10,600 8.5 ND	< 37	< 40    < 40    < 40    < 40    < 40    < 40    < 40    < 40    < 40    < 25    < 25    < 25    < 6.3    < 2.5    < 6.3    < 0.62    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    < 80    <	< 38 < 38 < 38 < 38 < 38 < 32.10 < 2.25 < 3.35 < 2.25 < 6.43 < 6.02 < 6.20 < 51.8 < 6.2 < 6.2 < 6.2 < 3.1 < 0.04 12.8 < 866 < 3.9 < 0.039 < 5 < 2.180 < 2.2 < 6.2 < 2.8 < 866 < 3.9 < 0.039 < 5 < 2.180 < 2.5 < 2.180 < 2.5 < 2.180 < 2.5 < 1.200 < 1.21	

# Attachment C Table 1 Soil Sampling Results Site Parcel 28 Fort Monmouth, New Jersey

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

[blank] = detect, i.e. detected chemical result value. J = estimated (detect or non-detect) value.

 $B = \mbox{Compound detected in the sample and its associated blank sample.} \qquad \qquad E \mbox{ (or ER)} = \mbox{Estimated result.} \\ R = \mbox{Rejected, data validation rejected the results.} \qquad \qquad D = \mbox{Results from dilution of sample.} \\$ 

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

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

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

JN = Tentatively identified compound, estimated concentration.

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

6) 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.

- 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 Style values represent a result that is above the Weston 1995 Background (Charles Wood).

n/a = all concentrations were less than the detection limit, therefore, no location of maximum value identified.

Dash (-) = only background concentrations for metals are being used as comparison criteria.

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

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

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#### 7) Criteria action level source document and web address.

- The NJ Residential Direct Contact Soil Remediation Standard refers to the NJDEP's May 7, 2012 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 May 7, 2012 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 http://www.nj.gov/dep/srp/guidance/rs/partition\_equation.pdf
- The Weston 1995 Background (Charles Wood) refers to the FTMM reports.

### **Attachment D**

**Table 2 Groundwater Sampling Results** 

1.1.2 Transhorochance	7/17/2013  1
1.1.Trightochage	1
1.1.3-Technologous	1
12.3-Thichloreburne	\$ \( \leq \) \( \leq \
12-Discharders	2
1-3-bideloropage	Control   Cont
A-Discase	0
Promochloromethane   100	5
Carbon terrolation   700   .	2
Chlorothermorehane	1 <1 1 <1 1 <1 1 <1 1 <1
Chisoform   70   .	1 <1
Cyclobrane   100   .	1 <1
Sopropythenzene   700   -	5
Methyl bromide         10         -         < 2	2 <2 1 <1 5 <5
	2 <2 5 <5 1 <1
Methyl ethyl ketone 300 - < 10 < 10 < 10 < 10 < 10 < 10 < 10	5 < 5 0 < 10
Methyl Terbutyl Ether         70         -         <1	5 <5 1 <1 2 <2
Styrene         100         -         <5	1 <1 5 <5 1 <1
Total Xylenes         1,000         -         <1	1 <1 1 <1 1 <1
Trans-13-Dichloropropene         1         -         <1	1 <1 1 <1 5 <5
	1 <1 0 U 0 U
Total TIC, Volatile	0 U 0 U
1,2,4,5-Tetrachlorobenzene         100         -         < 2.1	2 <2 5 <5 5 <5
2.4.6-Trichlorophenol         20         -         < 5.3	5 <5
2.4 Dimitrophenol         40         -         < 21	5 < 5 0 <20 2 <2
2Chloronaphthalene         600         -         < 2.1	2 <2 2 <2 5 <5
2-Methylaphtaliene         30         -         <1.1	1 <1 2 <2 5 <5
2-Nitrophenol 100 - <5.3 NA NA NA NA NA NA NA <1.6 3&4-Methylphenol 100 - <2.1 NA NA NA NA NA NA NA <0.98	5 <5 2 <2 5 <5
3-Nitroaniline 100 - < 5.3 NA NA NA NA NA NA NA < 1.3	5 < 5 5 < 5 0 < 20 2 < 2
4Chloro-3-methylphenol 100 - <5.3 NA NA NA NA NA NA NA <1.9 4Chloroaniline 30 - <5.3 NA NA NA NA NA NA NA <0.56	5 <5
4-Nitronilline   5   -   <5.3   NA   NA   NA   NA   NA   NA   <1.8	2 <2 5 <5 0 <10
	1 < 0.1 2 < 2
Atrazine         3         -         < 5.3	1 < 0.1 5 < 5 5 < 5
Benzo(a)autracene         0.1         -         < < 0.11	1 < 0.1
Benzo(phi)perylene         100         -         < 0.11	1 < 0.1 1 < 0.1 2 < 2
Bis(2-Chloroethyl)ether	2 <2 2 <2 2 <2
Butyl benzyl plathalate   100   -     < 2.1   NA   NA   NA   NA   NA   NA   < 0.31	2
Chrysene         5         -         < 0.11	1 < 0.1 1 < 0.1
Diethyl phthalate   6,000   -   < 2.1   NA NA NA NA NA NA NA < 0.35	5 < 5 2 < 2 2 < 2
Di-n-oxtylphthalate   100   -   < 2.1   NA   NA   NA   NA   NA   NA   < 0.33	
Hexachlorobenzene         0.02         -         < 0.021	1 < 0.1 2 < 0.02 1 < 1
Hexachlorocyclopentadiene	2 < 2
Naphthalene 300 - < 0.11 NA NA NA NA NA NA NA < 0.038 <	2 <2 1 <0.1 2 <2
N-Nitroso-di-n-propylamine 10 - <2.1 NA NA NA NA NA NA (0.32	2 <2 5 <5
Phenanthrene         100         -         < 0.11	1 < 0.1 2 < 2 1 < 0.1
Tic SVOCs (µg/t)  Total Rixness SVOC NLE - 0 U NA NA NA NA NA OU  Total Tic, Semi-Volatile 500 - 4.5 J NA NA NA NA NA NA A A A A A A A A A A	0 U 0 U
Extractable/Volatile Petroleum Hydrocarbons (mg/l)     EPH (>C28-C40)	
Na   Na   Na   Na   Na   Na   Na   Na	9 < 0.05
NA   NA   NA   NA   NA   NA   NA   NA	1 < 0.01
Austra 0.014 - < 0.001 NA NA NA NA NA NA < 0.00079 <	1 < 0.01 1 <b>0.13</b>
Delta-BHC         100         -         < 0.01	1 < 0.01
Endosulfan   40 -   <0.01   NA   NA   NA   NA   NA   NA   <0.0028   <	1 < 0.01 1 < 0.01
Endrin   2	1 < 0.01 1 < 0.01
Gamma-BHC/Lindane	1 <b>0.12</b> 1 < 0.01
Hepukhor eposide   0.2 -   <0.01   NA   NA   NA   NA   NA   NA   <0.0026   <<	2 < 0.02 5 < 0.25
Ancelor-1016         0.5         -         < < 0.56	5 < 0.5 5 < 0.5
Ancelor 1242         0.5         -         < < 0.56	5 < 0.5 5 < 0.5
Arodor-1260 0.5 - < 0.56 NA NA NA NA NA NA NA O.21 < Arodor-1262 0.5 - < 0.56 NA NA NA NA NA NA NA O.06 <	5 < 0.5
Inorganics (pg/h)	
Arsenic 3 25.1 <3 NA NA NA NA NA NA NA 15 Barium 6,000 192 <200 NA NA NA NA NA NA NA NA <200 <<	3 36.3
Cadmium         4         3.7         <3	3 < 3 0 32,200
Chromium, Hexavalent         NLE         ND         < 0.01	1 < 0.01
Cyanide         0.1         ND         < 0.01	7 105,000
Magnesium         NLE         7,160         8,140         NA         NA         NA         NA         NA         NA         NA         S,280         < 5	9 115
Meruny         2         ND         <0.2	2 < 0.2 0 18.6 0 18.300
Selenium 40 3.8 < 10 NA NA NA NA NA NA < 10 <	0 < 10 0 < 10
Thillium 2 ND <2 NA NA NA NA NA NA (2 Vanadium NLE 28,9 <50 NA	2 < 4 0 269 3 157
Wet Chemistry	4 5.34

## Attachment D Table 2 Groundwater Sampling Results Site Parcel 28 Fort Monmouth, New Jersey

1	<
10.23-Translatendame	<5 < < < < < < < < < < < < < < < < < <
1.1 Delicontense	<pre>&lt; <!--</td--></pre>
D.Debrom-2-Skoropropore	1.10   2.10
12-Dishercheman	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <
International content	<1   <1   <1   <1   <1   <1   <1   <1
Biomore	<pre><!-- <!</td--></pre>
Carbon cut desirable	<pre>&lt;2 &lt;2 &lt;1 </pre> <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1  <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <
Chevenburne	<1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1 < 1
Cost - 3 Deskbaredenee	<1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <
Dishborodificorenchane	<5 <1 <2 <1 <5 <2 <5 <2 <5 <1 <5 <1 <5 <1 <5 <1 <5 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1
Meta Para Nylone	<1 < 5 < 2 < 5 < 1 < 5 < 1 < 5 < 1 < 5 < 1 < 1 < 5 < 1 < 1
Methyle thorizes	<5 <1 <10 <5 <10 <5 <10 <5 <10 <5 <1 <2 <1 <5 <1 <5 <1 <5 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1
Methyl tolvik tkrone	<pre>10 &lt;&lt;5 &lt;1 &lt;2 &lt;1 &lt;5 &lt;1 &lt;5 &lt;1 &lt;5 &lt;1 &lt;1</pre>
Methylene chloride	<2 <1 <5 <1 <1 <1 <1 <1 <1 <1 <1
Tetrachlorochene	<1 <1 <1 <1
Trans-1-2-Dichloroptenee	< 1
Virgle chloride	< 1
Total TC, Volatile	< 5 < 1
12.4.5 Tetrachlorobenene	0 U 0 U
24.4 Firehlorophenol   20	< 1 < 2 < 5
24-Distripophenol   40   .   <20   <20   <2   <2   <2   <2   <2	< 5 < 5 < 5
2-Chorosphelalene	< 5 20 < 2 < 2
2-Methylphenol   100   -   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 2   < 3   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   <	< 2 < 2 < 5 < 1
\$48-Murtylphenol   100   -   < 2   < 2   < 2   < 2   < 2   < 3   < 3   < 3   < 3   < 3   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5   < 5	< 2 < 5 < 5
4.6-Dimro-2-methylphenol	< 2 < 5 < 5
4-Chtorophenyl phenyl thery         100         -         < 2	20 < 2 < 5
Acenapithene         400         -         < 0.1	< 5 < 2 < 5
Anthracene 2,000 - < 0.1 < 0.1 < 0.1	0.1
	< 2 0.1 < 5
Benzy(a)anthracene         0.1         < 0.1         < 0.1         < (.1           Benzy(a)pyrene         0.1         < 0.1	< 5 0.1 0.1 0.1
Benze(ghi)perylene	0.1 0.1 0.1 < 2
Bis(2-Chloroethyl)ether	< 2 < 2 2.9
Butyl benzyl pluthalate         100         -         <2         <2         <2           Caprolactam         5,000         -         <2	< 2 < 2 < 1
Chrysene         5         -         < 0.1         < 0.1         < 0.1           Dibenz(a,h)anthracene         0.3         -         < 0.1	0.1 0.1 < 5
Dimethyl phthalate         100         -         <2         <2         <2           Di-n-butylphthalate         700         -         <2	< 2 < 2 < 2
Fluoranthene         300         -         < 0.1         < 0.1         < 1           Fluorene         300         -         < 0.1	< 2 0.1 0.1
Hexachlorocyclopentadiene 40 - < 10 < 10 < <	< 1
Indeno(1,23-od)pyrene         0.2         -         < 0.1         < 0.1         < 1           Isophorone         40         -         < 2	< 2 0.1 < 2
Nitrobenzene         6         -         <2         <2           N-Nitroso-di-n-propylamine         10         -         <2	0.1 < 2 < 2 < 5
Pentachlorophenol         0.3         -         < 0.3         < 0.3         < 0.3           Phenanthrene         100         -         < 0.1	0.3 0.1 < 2
Pyrenc   200   -   < 0.1   < 0.1   < 0.1     CTC SVOCS (pg/l)	
Total TIC, Semi-Volatile	0 U
EPH (C9-C2S)         NLE         -         < 0.05	1.22
4.4-DDD         0.1         -         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01	.01
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	.01
Beta-BHC         0.04         -         < 0.01	.01
Endossifian   40	.01
Endrin aldehyde         100         -         < 0.01	.01
Gamma-SHC/Indane         0.03         -         < 0.01         < 0.01         < 0.0           Gamma-Cholene         0.5         -         < 0.01	.01
Methoxychlor         40         -         < 0.02         < 0.02         < 0.02           Toxaphene         2         -         < 0.25	.02
Arodor-1221 0.5 - < 0.5 < 0.5 < 1 Arodor-1232 0.5 - < 0.5 < 0.5 < 0.5 < 1	0.5 0.5 0.5
Arcelor-1248         0.5         -         < 0.5         < 0.5         < 1           Arcelor-1254         0.5         -         < 0.5	0.5 0.5 0.5
Anodor-1262	0.5 0.5
Aluminum         200         8,210         8,740         4,880         <2           Antimony         6         ND         <6	200 < 6 < 3
Barium         6,000         192         < 200         < 200         < 2           Beyllium         1         2.8         < 1	
Calcium         N.LE         8,700         30,600         37,900         57,1           Chromium         70         49,6         128         88,5         <	< 1 < 3
Copper         1,300         9.8         < 10         < 10         < Cyanide         0.1         ND         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01	< 1 < 3 100 : 10
Lead         5         7.3         23         7.8         4           Magnesium         NLE         7,160         6,760         13,400         <50	< 1 < 3 100 : 10 : 10 : 50 : 10
Mercury         2         ND         <0.2         <0.2         <0.2           Nickel         100         48.3         <10	< 1 < 3 100 100 100 .01 .50 .10 .01 .01 .01 .01 .01 .01 .0
Selenium 40 3.8 < 10 < 10 <	< 1 < 3 100 110 .01 .50 .01 .01 .01 .01 .01 .01 .02 .03 .04 .05 .05 .06 .07 .07 .07 .08 .09 .09 .09 .09 .09 .09 .09 .09
Thallium         2         ND         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2         <2 <t< td=""><td>&lt;1 &lt; 3 (00 10 10 10 10 10 10 10 10 10 10 10 10 1</td></t<>	<1 < 3 (00 10 10 10 10 10 10 10 10 10 10 10 10 1
2000   135   211   200   35   211   200   30   30   30   30   30   30   3	<1 < 3 (00 10 10 10 10 10 10 10 10 10 10 10 10 1

#### Attachment D

#### Table 2 Groundwater Sampling Results Site Parcel 28

#### Fort Monmouth, New Jersey

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

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

B = Compound detected in the sample and its associated blank sample.

R = Rejected, data validation rejected the results.

U = non-detect, i.e. not detected equal to 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 (detect or non-detect) value.

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.

6) 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 Ground Water Quality Criteria

NJDEP Interim Specific GWQC values are presented for the NJ GWQS where there is not a Specific Ground Water Quality Criteria. A full list of compounds is NJDEP Interim Generic GWQC values are presented for the NJ GWQS where there is not a XXXXX or a NJDEP Interim Specific GWQC. Available at

- Cell Style values represent a result that is above the Weston 1995 Background (Charles Wood).

n/a = all concentrations were less than the detection limit, therefore, no location of maximum value identified.

Dash (-) = only background concentrations for metals are being used as comparison criteria.

- 7) Criteria action level source document and web address.
- The NJ Ground Water Quality Criteria refers to the NJDEP Groundwater Quality Standards Adopted July 22, 2010 http://www.state.nj.us/dep/wms/bwqsa/docs/njac79C.pdf
- The Weston 1995 Background (Charles Wood) refers to the FTMM reports.

NA

### Attachment E

Laboratory Data Reports (included only on the electronic copy of this letter)

# Attachment F CWA Geothermal Well Layout Locations

