United States Army

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 166
Main Post

NJDEP UST Registration No. 090017-17
NJDEP Closure Approval Letter
Dated June 7, 1994

June 1998

UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 166

MAIN POST
NJDEP UST REGISTRATION NO. 090017-17
NJDEP CLOSURE APPROVAL LETTER
DATED JUNE 7, 1994

JUNE 1998

PROJECT NO.: 09-5004-12
CONTRACT NO.: DACA51-94-D-0014

PREPARED FOR:

UNITED STATES ARMY, FORT MONMOUTH, NEW JERSEY
DIRECTORATE OF PUBLIC WORKS
BUILDING 167
FORT MONMOUTH, NJ 07703

PREPARED BY:

BCM ENGINEERS
A DIVISION OF ATC
BROMLEY CORPORATE CENTER
THREE TERRI LANE
BURLINGTON, NEW JERSEY 08016

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

EXECUTIVE SUMMARY

On June 16, 1994, a fiberglass underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval letter dated June 7, 1994, at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 090017-17, was located immediately adjacent to Building 166 in the Main Post area of U.S. Army, Fort Monmouth. UST No. 090017-17 was a 4,000-gallon No. 2 fuel oil UST. The UST fill port was located directly above the tank. The tank closure was performed by Cleaning Up the Environment Inc. (CUTE Inc.).

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes. No holes were noted in the UST, however, evidence of potentially contaminated soils was observed surrounding the tank. Based on an inspection of the UST, and field screening of subsurface soils, the Directorate of Public Works (DPW) concluded that an historical discharge was associated with the UST. On June 16, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 090017-17 and was assigned Spill Case No. 94-6-16-1545-09.

On June 16, 1994, following the removal of the UST, approximately 24 cubic yards of potentially contaminated soil were removed from the excavation. All post-excavation soil samples collected, on June 16, 1994, from the UST excavation and from below piping associated with the former UST at Building 166 contained total petroleum hydrocarbons (TPHC) concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). The samples contained TPHC concentrations ranging from non-detectable to 786.0 mg/kg. Following receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with a combination of uncontaminated excavated soil and certified clean fill.

In response to the observation of potentially contaminated soil near the shallow water table, one shallow overburden monitoring well (MW-1) was installed at the Building 166 area on September 14, 1994. On May 18, 1995 and June 13, 1995, MW-1 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identifies compounds (VOCs), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). Groundwater analytical results were either below the detection limit or in compliance with the New Jersey Groundwater Criteria (GWQC). No product or sheen was observed in MW-1 on either of the sampling dates.

No further action is proposed in regard to the closure and site assessment of UST No. 090017-17 at Building 166.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 090017-17, was closed at Building 166 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on June 16, 1994. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on May 25, 1994, and approved on June 7, 1994. The UST was a fiberglass 4,000-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 090017-17 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted on site for inspection. CUTE, Inc., the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 090017-17 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and signed certifications for UST No. 090017-17 are included in Appendices A and B, respectively.

Based on an inspection of the UST, field screening of subsurface soils and analytical results of collected soil samples, the DPW has concluded that a significant historical discharge was associated with this UST or more probable with a former UST. On June 16, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 090017-17 and was assigned Spill Case No. 94-6-16-1545-09.

This UST Closure and Site Investigation Report has been prepared by Smith Technology Corporation, to assist the United States Army Directorate of Public Works (DPW) in complying with the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST) regulations. The applicable NJDEP-BUST regulations at the date of closure were the *Interim Closure Requirements for Underground Storage Tank Systems* (N.J.A.C. 7:14B-1 et seq. September 1990 and revisions dated November 1, 1991).

This report was prepared using information required at the time of closure. Section 1 of this UST Closure and Site Investigation Report provides a summary of the UST decommissioning activities. Section 2 of this report describes the site investigation activities. Conclusions and recommendations, including the results of the soil sampling investigation, are presented in the final section of this report.

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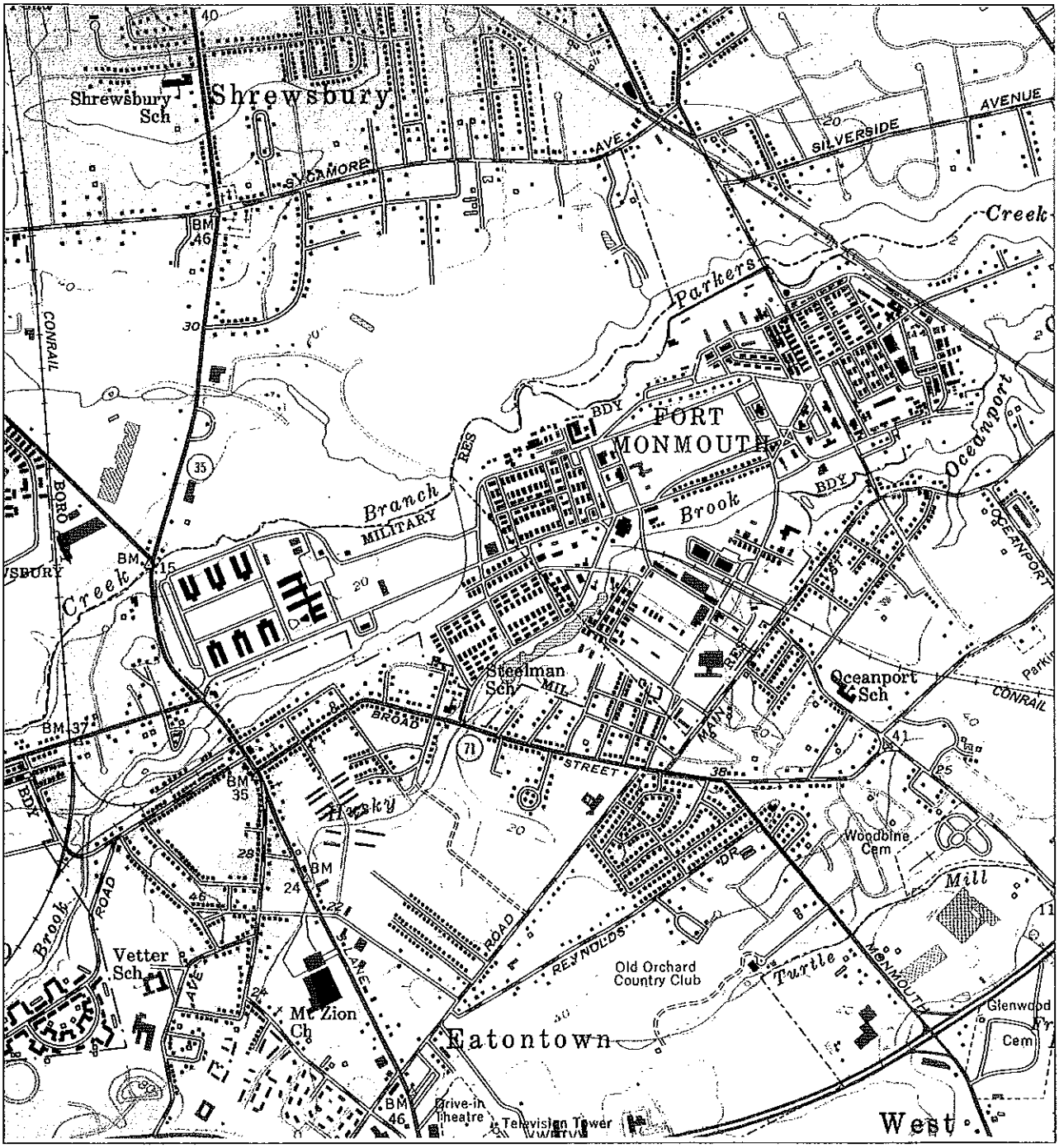
Department of Public Works
Fort Monmouth, New Jersey



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SCALE
0 2000 FT.

NEW JERSEY

QUADRANGLE LOCATION

Source: Long Branch, New Jersey Quadrangle

Project No. 09-5004-14

Figure 1
Site Location Map

1.2 SITE DESCRIPTION

Building 166 is located in the northeastern portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 090017-17 was located west of Building 166 and appurtenant piping ran less than 10 feet east from the excavation to Building 166. The fill port area was located directly above the tank. A site map is provided on Figure 2.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 166. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

Monmouth County lies within the New Jersey Section of the Atlantic Coastal Plain physiographic province. The Main Post, Charles Wood, and the Evans areas are located in what may be referred to as the Outer Coastal Plain subprovince, or the Outer Lowlands.

In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapecza, 1989). These sediments, predominantly derived from deltaic, shallow marine, and continental shelf environments, date from Cretaceous through the Quaternary Periods. The mineralogy ranges from quartz to glauconite.

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. Over 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations, and the Cohansey Sand) while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown, and Navesink Formations). The individual thicknesses for these units vary greatly (i.e., from several feet to several hundred feet). The Coastal Plain deposits thicken to the southeast from the Fall Line to greater than 6,500 feet in Cape May County (Brown and Zapecza, 1990).

Local Geology

Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Main Post area. The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member (Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish brown clayey, medium-to-

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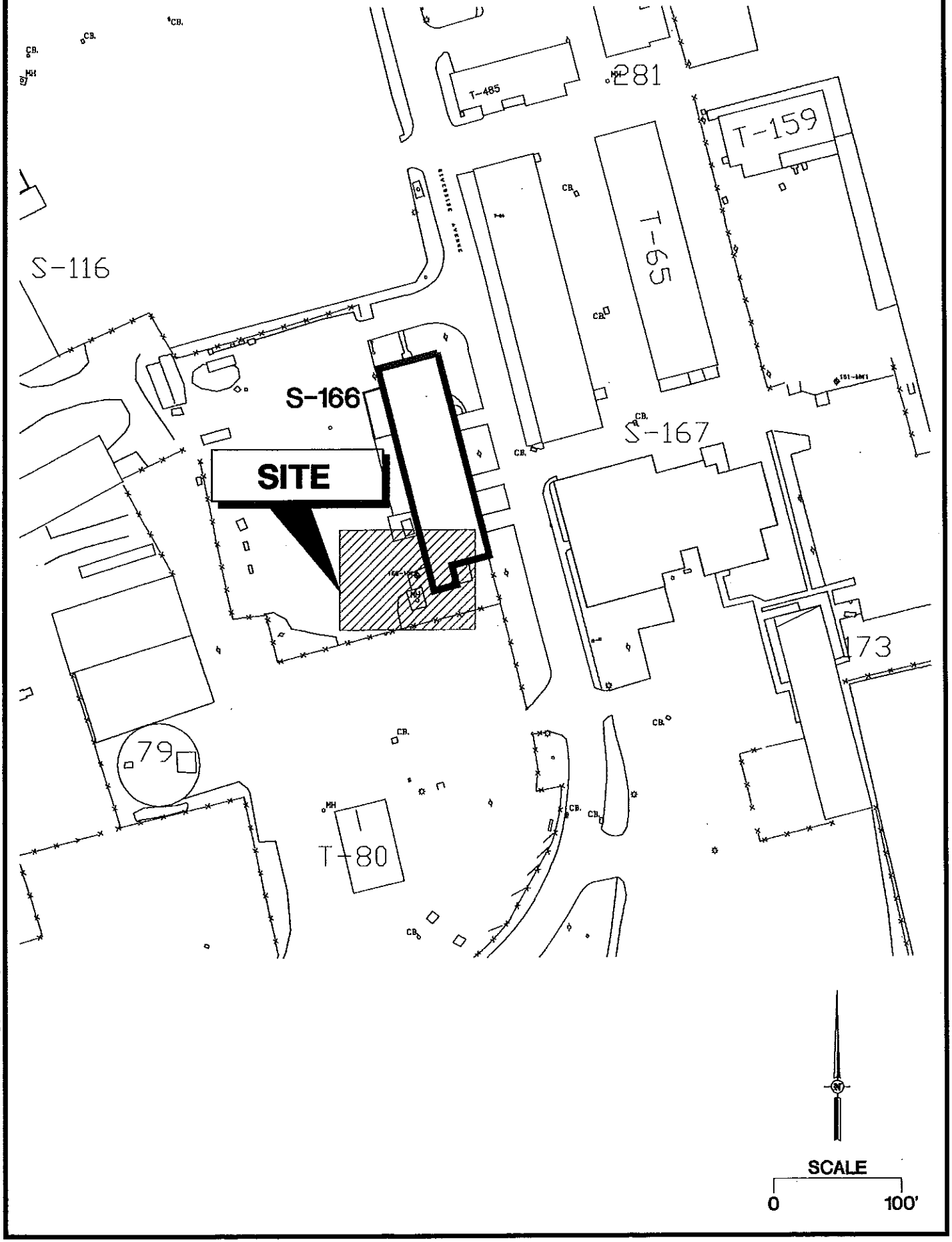


Source: Smith Technology Corporation (160)

Project No. 09-5004-12

Figure 2
Building 166
Site Map

coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member (Sandy Hook) is a dark gray to black, medium-to-fine grained sand with abundant clay, mica, and glauconite.

The Tinton sand conformably overlies the Red Bank Sand and ranges from a clayey medium to very coarse grained feldspathic quartz and glauconite sand to a glauconitic coarse sand. The color varies from dark yellowish orange or light brown to moderate brown and from light olive to grayish olive. Glauconite may constitute 60 to 80 percent of the sand fraction in the upper part of the unit (Minard, 1969). The upper part of the Tinton is often highly oxidized and iron oxide encrusted (Minard).

Hydrogeology

The water table aquifer in the Main Post area is identified as part of the "composite confining units," or minor aquifers. The minor aquifers include the Navesink formation, Red Bank Sand, Tinton Sand, Hornerstown Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation, and the basal clay of the Kirkwood Formation.

Based on records of wells drilled in the Main Post area, water is typically encountered at depths of 2 to 9 feet below ground surface (bgs). According to Jablonski, wells drilled in the Red Bank and Tinton Sands may produce 2 to 25 gallons per minute (gpm). Some well owners have reported acidic water that requires treatment to remove iron.

Due to the proximity of the Atlantic Ocean to Fort Monmouth, shallow groundwater may be tidally influenced and may flow toward creeks and brooks as the tide goes out, and away from creeks and brooks as the tide comes in. However, an abundance of clay lenses and sand deposits were noted in borings installed throughout Fort Monmouth. Therefore the direction of shallow groundwater should be determined on a case by case basis.

1.3 HEALTH AND SAFETY

Before, during, and after all decommissioning activities, hazards at the work site which may have posed a threat to the Health and Safety of all personnel who were involve with, or were affected by, the decommissioning of the UST system were minimized. All areas which posed, or may have been suspected to pose a vapor hazard were monitored by a qualified individual utilizing an organic vapor analyzer (OVA). The individual ascertained if the area was properly vented to render the area safe, as defined by OSHA.

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

- All underground obstructions (utilities, etc.) were marked out by the contractor performing the closure prior to excavation activities.
- All activities were carried out with the greatest regard to safety and health and the safeguarding of the environment.
- All excavated soils were visually examined and screened with an OVA for evidence of contamination. Potentially contaminated soils were identified and logged during closure activities.
- Surface materials (i.e., asphalt, concrete, etc.) were excavated and staged separately from all soil and recycled in accordance with all applicable regulations and laws.
- A Sub-Surface Evaluator from the DPW was present during all site assessment activities.

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST and all associated piping were removed. Approximately 3,348 gallons of liquid were removed from the UST prior to removal from the ground, and approximately 1,738 gallons were removed from the UST four days after the UST was removed from the excavation. A total of 5,086 gallons of liquid were transported by Freehold Cartage Inc. to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal company located in Old Bridge, New Jersey. Refer to Appendix C for the waste manifests (NJA-1603243 and NJA-1603186).

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. No holes or punctures were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. Evidence of contamination was observed.

Soil screening was also performed along the piping associated with the UST. No contamination was noted anywhere along the piping length.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The fiberglass tank was transported by CUTE, Inc. to Fort Monmouth Reclamation Center for disposal in compliance with all applicable regulations and laws. See Appendix D for UST Disposal Certificate.

The removal contractor labeled the UST prior to transport with the following information:

- site of origin
- contact person
- NJDEP UST Facility ID number
- name of transporter/contact person
- destination site/contact person

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on visual observations, approximately 24 cubic yards of potentially contaminated soils were excavated from the UST excavation. Potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to a designated site on Main Post for storage prior to ultimate disposal at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site Investigation was managed and carried out by U.S. Army DPW personnel. All analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP-certified testing laboratory. All sampling was performed under the direct supervision of a NJDEP Certified Sub-Surface Evaluator according to the methods described in the NJDEP *Field Sampling Procedures Manual* (1992). Sampling frequency and parameters analyzed complied with he NJDEP-BUST document *Interim Closure Requirements for Underground Storage Tank Systems* (September 1990 and revisions dated November 1, 1991) which was the applicable regulation at the date of the closure. All records of the Site Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Site Investigation Activities.

- Closure Contractor: Cleaning Up the Environment Inc. (CUTE)
  Closure Supervisor: John Lonergan
  Phone Number: (201)427-2881
  NJDEP Company Certification No. 200128
  NJDEP UST Closure Certification No.: 3248

- Subsurface Evaluator: Dinkerrai M. Desai
  Employer: U.S. Army, Fort Monmouth
  Phone Number: (908) 532-1475
  NJDEP Certification No.: E0002266

- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
  Contact Person: Brian K. McKee
  Phone Number: (908)532-4359
  NJDEP Certification No.: 13461

- Hazardous Waste Hauler: Freehold Cartage Inc.
  Contact Person: Barry Olsen
  Phone Number: (908)721-0900
  NJDEP Hazardous Waste Hauler No.: 2265

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP Certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Additional soils were removed

from the excavation surrounding UST No. 090017-17 until no evidence of contamination remained.

2.3 SOIL SAMPLING

On June 16, 1994, post-excavation soil samples A, DUP A, B, C, D, E, F, G, and H were collected from a total of eight (8) locations along the sidewalls of the excavation, immediately above groundwater. The samples were collected at a depth of 7.5 feet below ground surface (bgs). Groundwater was present at approximately 8.0 feet bgs.

Following removal of the UST fuel lines, sample J was collected along the former piping length of the excavation, which ran less than 10 feet in length. The piping sample was collected at a depth of at 2.0 feet bgs. All soil samples were analyzed for total petroleum hydrocarbons (TPHC).

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements* and the NJDEP *Field Sampling Procedures Manual.* A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using polystyrene scoops. Actual soil TPHC values may be higher than reported, due to sample utensil absorbency. If absorbency resulted in reducing the actual soil TPHC concentration by 50 %, the highest soil contaminant would have been 1,472.0 mg/kg, still below the applicable NJDEP soil cleanup standard for total organic contaminants of 10,000 mg/kg. Following soil sampling activities, the samples were chilled and delivered to U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis.

2.4 GROUNDWATER SAMPLING

2.4.1 Monitoring Well Installation

In response to the observation of potentially contaminated soil near the shallow water table, one shallow monitoring well (MW-1) was installed at the Building 166 area on September 14, 1994. It was installed approximately 12 feet southwest of Building 166 in the downgradient direction. It was screened in the 2 to 10 feet depth interval, across the water table, which is approximately 3.0 feet below ground surface.

The well was constructed in accordance with the NJDEP's well construction protocols outlined in its May 1992 *Field Sampling Procedures Manual.* The NJDEP well drilling permit and a well construction log is presented in Appendix F.

The well was constructed with 4-inch (ID) PVC riser and 0.020 slotted PVC well screen. A silica sand pack was installed in the annulus between the borehole wall and the screen. The

TABLE 1

SUMMARY OF SAMPLING ACTIVITIES

BUILDING 166, MAIN POST

FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
B	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
C	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
E	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
F	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
G	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
H	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
DUP A	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
J	6/16/94	Soil	Post-Excavation	TPHC	Polystyrene Scoop
MW-1	5/18/95	Aqueous	Groundwater	VOCs, SVOCs	Teflon Bottom Fill Bailer
MW-1	6/13/95	Aqueous	Groundwater	VOCs, SVOCs	Teflon Bottom Fill Bailer

*Note:

TPHC: Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)

VOCs: Volatile Organic Compounds calibrated for xylene plus 10 tentativley identified compounds (Method 524.2 / aqueous)

SVOCs: Semivolatile Organic Compounds plus 15 tentatively identified compounds (Method 625 / aqueous)

Source: Smith Technology Corporation (Smith Project No. 09-5004-12)

GWT166.XLS

sandpack was extended approximately one foot above the top of the screen. The sand pack above the well screen was graded down to a fine sand to minimize grout intrusion.

The borehole was tremie-grouted with bentonite-cement grout from the top of the sand pack to 0.5 inches bgs. The well was secured with a water-tight, flush-mounted locking road box. The road box was set in place with concrete, which was placed in the remaining open borehole. The elevation of the well riser was surveyed to the nearest 0.01 feet by a New Jersey-licensed surveyor. The well permit number was marked on the well casing as required.

The monitoring well was developed using a peristaltic surface pump. The well was pumped for 1 hour or until silt free. All residual soils and liquids generated during monitoring well installation and development program were collected in New Jersey Department of Transportation-approved 55-gallon drums. The drums were placed in a designated secure location for waste characterization and off-site disposal.

2.4.2 Monitoring Well Sampling

On May 18, 1995 and June 13, 1995, MW-1 was sampled for VOCs and SVOCs. Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements for Site Remediation.*

Prior to sampling, the water level was measured to the nearest 0.01 feet, and the distance to the bottom of the well was to be measured to the nearest 0.1 feet. The well was checked for floating product (light non-aqueous phase liquids). The well was purged of three to five well volumes of standing water. Sample volume was then collected using a dedicated decontaminated Teflon bottom-filled bailer attached to PTFE (Teflon)-coated stainless steel cable.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected from a total of nine (9) locations on June 16, 1994. All samples were analyzed for TPHC. The post-excavation soil sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and the soil sampling results are shown on Figure 3. The analytical data package is provided in Appendix E.

All post-excavation soil samples collected on June 16, 1994 from the UST excavation and from below piping associated with the UST, contained concentrations of TPHC below the NJDEP soil cleanup criteria. Post-excavation soil samples A, DUP A, B, C, D, E, F, H, and J, contained TPHC concentrations ranging from 13.1 mg/kg to 786.0 mg/kg. Sample G contained a non-detectable concentration of TPHC.

3.2 GROUNDWATER SAMPLING RESULTS

All VOC and SVOC results were either below the detection limit or in compliance with the New Jersey Groundwater Quality Criteria (GWQC).

The sample collected on May 18, 1995 from MW-1 contained methylene chloride at a concentration of 1.8 ug/l, and di-n-butylphthalate at 64 ug/l. No other compounds were detected. The trip blank contained methylene chloride at 5.1 ug/l. The field blank contained di-n-butylphthalate at 55 ug/l, and methylene chloride at 5.1 ug/l.

The sample collected on June 13, 1995 from MW-1 contained methylene chloride at 1.5 ug/l, and chloroform at 0.7 ug/l. No other compounds were detected. The trip blank contained methylene chloride at 2.3 ug/l. The field blank contained methylene chloride at 2.1 ug/l.

No product or sheen was observed in MW-1 on either of the sampling dates. The depth to the water table was 3.02 feet below ground surface on May 18, 1995 and 3.34 feet below ground surface on June 13, 1995.

All groundwater analytical results are presented in Table 3 and shown on Figure 4. The groundwater analytical data package is provided in Appendix F. The full data package, including quality control, is on file at U.S. Army Fort Monmouth, DPW.

TABLE 2
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 166, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
A/7.5-8.0'	1529.1	6/16/94	6/17/94	Total % Solid	--	--	86%	--	--
				TPHC	6.6	yes	42.9	10,000	--
B/7.5-8.0'	1529.2	6/16/94	6/17/94	Total % Solid	--	--	87%	--	--
				TPHC	6.6	yes	103	10,000	--
C/7.5-8.0'	1529.3	6/16/94	6/17/94	Total % Solid	--	--	85%	--	--
				TPHC	6.6	yes	13.1	10,000	--
D/7.5-8.0'	1529.4	6/16/94	6/17/94	Total % Solid	--	--	78%	--	--
				TPHC	6.6	yes	224	10,000	--
E/7.5-8.0'	1529.5	6/16/94	6/17/94	Total % Solid	--	--	86%	--	--
				TPHC	6.6	yes	70.6	10,000	--
F/7.5-8.0'	1529.6	6/16/94	6/17/94	Total % Solid	--	--	85%	--	--
				TPHC	6.6	yes	786	10,000	--
G/7.5-8.0'	1529.7	6/16/94	6/17/94	Total % Solid	--	--	86%	--	--
				TPHC	6.6	yes	ND	10,000	--
H/7.5-8.0'	1529.8	6/16/94	6/17/94	Total % Solid	--	--	83%	--	--
				TPHC	6.6	yes	63.6	10,000	--
DUP A/7.5-8.0'	1529.9	6/16/94	6/17/94	Total % Solid	--	--	88%	--	--
				TPHC	6.6	yes	21.0	10,000	--
J/2.0-2.5'	1529.10	6/16/94	6/17/94	Total % Solid	--	--	93%	--	--
				TPHC	6.6	yes	28.4	10,000	--

--: Not applicable / does not exceed criteria
*: Cleanup criteria for total organics
ND: Indicates compound not detected

Actual soil TPHC values may be higher than reported due to absorbancy by polystyrene scoops. If absorbancy resulted in reducing the actual soil TPHC concentration by 50%, the highest soil contaminant would be 1,572 mg/kg.

Source: Smith Technology Corporation (Smith Project No. 09-5004-12)

GWT166.XLS

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, MW-1

FORT MONMOUTH, NEW JERSEY

SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/2/95	N-nitrosodimethylamine	2	--	ND	20	--
			bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			bis(2-chloroisopropyl)ether	5	--	ND	300	--
			N-Nitroso-Di-N-propylamine	2	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	2	--	ND	10	--
			Isophorone	1	--	ND	100	--
			bis(2-Chloroethoxy)methane	3	--	ND	--	--
			1,2,4-Trichlorobenzene	2	--	ND	9	--
			Naphthalene	2	--	ND	300	--
			Hexachlorobutadiene	2	--	ND	1	--
			Hexachlorocyclopentadiene	12	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	1	--	ND	--	--
			Acenaphthylene	5	--	ND	NA	--
			2,6-Dinitrotoluene	2	--	ND	NA	--
			Acenaphthene	3	--	ND	400	--
			2,4-Dinitrotoluene	3	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			Fluorene	3	--	ND	300	--
			4-Chlorophenyl-phenylether	3	--	ND	--	--
			n-Nitrosodiphenylamine	6	--	ND	20	--
			1,2-Diphenylhydrazine(as azo)	6	--	ND	0.04	--
			4-Bromophenyl-phenylether	2	--	ND	--	--
			Hexachlorobenzene	2	--	ND	10	--
			Phenanthrene	2	--	ND	NA	--
			Anthracene	2	--	ND	2,000	--
			Di-n-butylphthalate	64	--	64	900	--
			Fluoranthene	1	--	ND	300	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 166, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/2/95	Benzidine	1	--	ND	50	--
			Pyrene	2	--	ND	200	--
			Butylbenzylphthalate	9	--	ND	100	--
			Benzo(a)anthracene	2	--	ND	0.05	--
			3,3'-Dichlorobenzidine	15	--	ND	60	--
			Chrysene	2	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	4	--	ND	30	--
			Di-n-octylphthalate	2	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	2	--	ND	0.5	--
			Benzo(a)pyrene	2	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	2	--	ND	0.05	--
			Dibenz(a,h)anthracene	3	--	ND	0.005	--
			Benzo(g,h,i)perylene	2	--	ND	NA	--
			SEMIVOLATILE TICS:					
			Unknown Hydrocarbon	--	--	5 J	--	--
			Undecane,3,6-dimethyl-	--	--	6 J	--	--
			Heptadecane,2,6,10,14-tetra	--	--	13 J	--	--
			Dodecane,2,7,10-trimethyl-	--	--	9 J	--	--
			Unknown	--	--	6 J	--	--
			TOTAL TICS:	--	--	39	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, MW-1

FORT MONMOUTH, NEW JERSEY

VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/2/95	Dichlorodifluoromethane	0.5	--	ND	1,000	--
			Chloromethane	0.5	--	ND	30	--
			Bromomethane	0.5	--	ND	10	--
			Vinyl Chloride	0.5	--	ND	5	--
			Chloroethane	0.5	--	ND	--	--
			Trichlorofluoromethane	0.5	--	ND	--	--
			Methylene Chloride	1.8	--	1.8 B	2	--
			trans-1,2-Dichloroethene	0.5	--	ND	100	--
			1,1-Dichloroethene	0.5	--	ND	2	--
			1,1-Dichloroethane	0.5	--	ND	70	--
			2,2-Dichloropropane	0.5	--	ND	--	--
			Bromochloromethane	0.5	--	ND	--	--
			cis-1,2-Dichloroethene	0.5	--	ND	10	--
			Chloroform	0.5	--	ND	6	--
			1,1-Dichloropropene	0.5	--	ND	--	--
			1,2-Dichloroethane	0.5	--	ND	2	--
			1,1,1-Trichloroethane	0.5	--	ND	30	--
			Dibromomethane	0.5	--	ND	--	--
			Carbon Tetrachloride	0.5	--	ND	2	--
			Bromodichloromethane	0.5	--	ND	1	--
			1,2-Dichloropropane	0.5	--	ND	1	--
			cis-1,3-Dichloropropene	0.5	--	ND	NA	--
			1,3-Dichloropropane	0.5	--	ND	--	--
			Trichloroethene	0.5	--	ND	1	--
			Dibromochloromethane	0.5	--	ND	10	--
			1,1,2-Trichloroethane	0.5	--	ND	3	--
			Benzene	0.5	--	ND	1	--
			trans-1,3-Dichloropropene	0.5	--	ND	NA	--
			Bromoform	0.5	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.5	--	ND	10	--
			Tetrachloroethene	0.5	--	ND	1	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 166, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/2/95	Toluene	0.5	--	ND	1,000	--
			1,2-Dibromoethane	0.5	--	ND	--	--
			Chlorobenzene	0.5	--	ND	4	--
			Ethylbenzene	0.5	--	ND	700	--
			Xylene (total)	0.5	--	ND	40	--
			Styrene	0.5	--	ND	100	--
			Isopropylbenzene	0.5	--	ND	--	--
			Bromobenzene	0.5	--	ND	--	--
			1,2,3-Tricloropropane	0.5	--	ND	40	--
			n-Propylbenzene	0.5	--	ND	--	--
			2-Chlorotoluene	0.5	--	ND	--	--
			4-Chlorotoluene	0.5	--	ND	--	--
			1,3,5-Trimethylbenzene	0.5	--	ND	--	--
			tert-Butylbenzene	0.5	--	ND	--	--
			1,2,4-Trimethylbenzene	0.5	--	ND	--	--
			sec-Butylbenzene	0.5	--	ND	--	--
			1,3-Dichlorobenzene	0.5	--	ND	600	--
			1,4-Dichlorobenzene	0.5	--	ND	75	--
			4-Isopropyltoluene	0.5	--	ND	--	--
			1,2-Dichlorobenzene	0.5	--	ND	600	--
			n-Butylbenzene	0.5	--	ND	--	--
			1,2-Dibromo-3-chloropropane	0.5	--	ND	NA	--
			1,2,4-Trichlorobenzene	0.5	--	ND	9	--
			Hexachlorobutadiene	0.5	--	ND	1	--
			Naphthalene	0.5	--	ND	300	--
			1,2,3-Trichorobenzene	0.5	--	ND	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 166, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE TICs

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	5/18/95	6/2/95	Unknown	--	--	1 J	--	--
			Naphthalene,decahydro-2-met	--	--	2 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown	--	--	1 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown Hydrocarbon	--	--	1 J	--	--
			Unknown	--	--	3 J	--	--
			Unknown	--	--	3 J	--	--
			Unknown	--	--	3 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown	--	--	1 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown	--	--	1 J	--	--
			Unknown	--	--	1 J	--	--
			TOTAL TICS:	--	--	27	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, TRIP BLANK

FORT MONMOUTH, NEW JERSEY

VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
TRIP BLANK	5/18/95	6/1/95	Dichlorodifluoromethane	0.5	--	ND	1,000	--
			Chloromethane	0.5	--	ND	30	--
			Bromomethane	0.5	--	ND	10	--
			Vinyl Chloride	0.5	--	ND	5	--
			Chloroethane	0.5	--	ND	--	--
			Trichlorofluoromethane	0.5	--	ND	--	--
			Methylene Chloride	5.1	--	5.1 B	2	yes
			trans-1,2-Dichloroethene	0.5	--	ND	100	--
			1,1-Dichloroethene	0.5	--	ND	2	--
			1,1-Dichloroethane	0.5	--	ND	70	--
			2,2-Dichloropropane	0.5	--	ND	--	--
			Bromochloromethane	0.5	--	ND	--	--
			cis-1,2-Dichloroethene	0.5	--	ND	10	--
			Chloroform	0.5	--	ND	6	--
			1,1-Dichloropropene	0.5	--	ND	--	--
			1,2-Dichloroethane	0.5	--	ND	2	--
			1,1,1-Trichloroethane	0.5	--	ND	30	--
			Dibromomethane	0.5	--	ND	--	--
			Carbon Tetrachloride	0.5	--	ND	2	--
			Bromodichloromethane	0.5	--	ND	1	--
			1,2-Dichloropropane	0.5	--	ND	1	--
			cis-1,3-Dichloropropene	0.5	--	ND	NA	--
			1,3-Dichloropropane	0.5	--	ND	--	--
			Trichloroethene	0.5	--	ND	1	--
			Dibromochloromethane	0.5	--	ND	10	--
			1,1,2-Trichloroethane	0.5	--	ND	3	--
			Benzene	0.5	--	ND	1	--
			trans-1,3-Dichloropropene	0.5	--	ND	NA	--
			Bromoform	0.5	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.5	--	ND	10	--
			Tetrachloroethene	0.5	--	ND	1	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, TRIP BLANK

FORT MONMOUTH, NEW JERSEY

VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
TRIP BLANK	5/18/95	6/1/95	Toluene	0.5	--	ND	1,000	--
			1,2-Dibromoethane	0.5	--	ND	--	--
			Chlorobenzene	0.5	--	ND	4	--
			Ethylbenzene	0.5	--	ND	700	--
			Xylene (total)	0.5	--	ND	40	--
			Styrene	0.5	--	ND	100	--
			Isopropylbenzene	0.5	--	ND	--	--
			Bromobenzene	0.5	--	ND	--	--
			1,2,3-Tricloropropane	0.5	--	ND	40	--
			n-Propylbenzene	0.5	--	ND	--	--
			2-Chlorotoluene	0.5	--	ND	--	--
			4-Chlorotoluene	0.5	--	ND	--	--
			1,3,5-Trimethylbenzene	0.5	--	ND	--	--
			tert-Butylbenzene	0.5	--	ND	--	--
			1,2,4-Trimethylbenzene	0.5	--	ND	--	--
			sec-Butylbenzene	0.5	--	ND	--	--
			1,3-Dichlorobenzene	0.5	--	ND	600	--
			1,4-Dichlorobenzene	0.5	--	ND	75	--
			4-Isopropyltoluene	0.5	--	ND	--	--
			1,2-Dichlorobenzene	0.5	--	ND	600	--
			n-Butylbenzene	0.5	--	ND	--	--
			1,2-Dibromo-3-chloropropane	0.5	--	ND	NA	--
			1,2,4-Trichlorobenzene	0.5	--	ND	9	--
			Hexachlorobutadiene	0.5	--	ND	1	--
			Naphthalene	0.5	--	ND	300	--
			1,2,3-Trichorobenzene	0.5	--	ND	--	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
FIELD BLANK	5/18/95	6/2/95	N-nitrosodimethylamine	2	--	ND	20	--
			bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			bis(2-chloroisopropyl)ether	5	--	ND	300	--
			N-Nitroso-Di-N-propylamine	2	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	2	--	ND	10	--
			Isophorone	1	--	ND	100	--
			bis(2-Chloroethoxy)methane	3	--	ND	--	--
			1,2,4-Trichlorobenzene	2	--	ND	9	--
			Naphthalene	2	--	ND	300	--
			Hexachlorobutadiene	2	--	ND	1	--
			Hexachlorocyclopentadiene	12	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	1	--	ND	--	--
			Acenaphthylene	5	--	ND	NA	--
			2,6-Dinitrotoluene	2	--	ND	NA	--
			Acenaphthene	3	--	ND	400	--
			2,4-Dinitrotoluene	3	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			Fluorene	3	--	ND	300	--
			4-Chlorophenyl-phenylether	3	--	ND	--	--
			n-Nitrosodiphenylamine	6	--	ND	20	--
			1,2-Diphenylhydrazine(as azo)	6	--	ND	0.04	--
			4-Bromophenyl-phenylether	2	--	ND	--	--
			Hexachlorobenzene	2	--	ND	10	--
			Phenanthrene	2	--	ND	NA	--
			Anthracene	2	--	ND	2,000	--
			Di-n-butylphthalate	55	--	55	900	--
			Fluoranthene	1	--	ND	300	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 166, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
FIELD BLANK	5/18/95	6/2/95	Benzidine	1	--	ND	50	--
			Pyrene	2	--	ND	200	--
			Butylbenzylphthalate	9	--	ND	100	--
			Benzo(a)anthracene	2	--	ND	0.05	--
			3,3'-Dichlorobenzidine	15	--	ND	60	--
			Chrysene	2	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	4	--	ND	30	--
			Di-n-octylphthalate	2	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	2	--	ND	0.5	--
			Benzo(a)pyrene	2	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	2	--	ND	0.05	--
			Dibenz(a,h)anthracene	3	--	ND	0.005	--
			Benzo(g,h,i)perylene	2	--	ND	NA	--
			SEMIVOLATILE TICS:					
			Unknown	--	--	14 J	--	--
			TOTAL TICS:	--	--	14	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
FIELD BLANK	5/18/95	6/1/95	Dichlorodifluoromethane	0.5	--	ND	1,000	--
			Chloromethane	0.5	--	ND	30	--
			Bromomethane	0.5	--	ND	10	--
			Vinyl Chloride	0.5	--	ND	5	--
			Chloroethane	0.5	--	ND	--	--
			Trichlorofluoromethane	0.5	--	ND	--	--
			Methylene Chloride	5.1	--	5.1 B	2	yes
			trans-1,2-Dichloroethene	0.5	--	ND	100	--
			1,1-Dichloroethene	0.5	--	ND	2	--
			1,1-Dichloroethane	0.5	--	ND	70	--
			2,2-Dichloropropane	0.5	--	ND	--	--
			Bromochloromethane	0.5	--	ND	--	--
			cis-1,2-Dichloroethene	0.5	--	ND	10	--
			Chloroform	0.5	--	ND	6	--
			1,1-Dichloropropene	0.5	--	ND	--	--
			1,2-Dichloroethane	0.5	--	ND	2	--
			1,1,1-Trichloroethane	0.5	--	ND	30	--
			Dibromomethane	0.5	--	ND	--	--
			Carbon Tetrachloride	0.5	--	ND	2	--
			Bromodichloromethane	0.5	--	ND	1	--
			1,2-Dichloropropane	0.5	--	ND	1	--
			cis-1,3-Dichloropropene	0.5	--	ND	NA	--
			1,3-Dichloropropane	0.5	--	ND	--	--
			Trichloroethene	0.5	--	ND	1	--
			Dibromochloromethane	0.5	--	ND	10	--
			1,1,2-Trichloroethane	0.5	--	ND	3	--
			Benzene	0.5	--	ND	1	--
			trans-1,3-Dichloropropene	0.5	--	ND	NA	--
			Bromoform	0.5	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.5	--	ND	10	--
			Tetrachloroethene	0.5	--	ND	1	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
FIELD BLANK	5/18/95	6/1/95	Toluene	0.5	--	ND	1,000	--
			1,2-Dibromoethane	0.5	--	ND	--	--
			Chlorobenzene	0.5	--	ND	4	--
			Ethylbenzene	0.5	--	ND	700	--
			Xylene (total)	0.5	--	ND	40	--
			Styrene	0.5	--	ND	100	--
			Isopropylbenzene	0.5	--	ND	--	--
			Bromobenzene	0.5	--	ND	--	--
			1,2,3-Tricloropropane	0.5	--	ND	40	--
			n-Propylbenzene	0.5	--	ND	--	--
			2-Chlorotoluene	0.5	--	ND	--	--
			4-Chlorotoluene	0.5	--	ND	--	--
			1,3,5-Trimethylbenzene	0.5	--	ND	--	--
			tert-Butylbenzene	0.5	--	ND	--	--
			1,2,4-Trimethylbenzene	0.5	--	ND	--	--
			sec-Butylbenzene	0.5	--	ND	--	--
			1,3-Dichlorobenzene	0.5	--	ND	600	--
			1,4-Dichlorobenzene	0.5	--	ND	75	--
			4-Isopropyltoluene	0.5	--	ND	--	--
			1,2-Dichlorobenzene	0.5	--	ND	600	--
			n-Butylbenzene	0.5	--	ND	--	--
			1,2-Dibromo-3-chloropropane	0.5	--	ND	NA	--
			1,2,4-Trichlorobenzene	0.5	--	ND	9	--
			Hexachlorobutadiene	0.5	--	ND	1	--
			Naphthalene	0.5	--	ND	300	--
			1,2,3-Trichorobenzene	0.5	--	ND	--	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, MW-1

FORT MONMOUTH, NEW JERSEY

SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/22/95	N-nitrosodimethylamine	2	--	ND	20	--
			bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			bis(2-chloroisopropyl)ether	5	--	ND	300	--
			N-Nitroso-Di-N-propylamine	2	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	2	--	ND	10	--
			Isophorone	1	--	ND	100	--
			bis(2-Chloroethoxy)methane	3	--	ND	--	--
			1,2,4-Trichlorobenzene	2	--	ND	9	--
			Naphthalene	2	--	ND	300	--
			Hexachlorobutadiene	2	--	ND	1	--
			Hexachlorocyclopentadiene	12	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	1	--	ND	--	--
			Acenaphthylene	5	--	ND	NA	--
			2,6-Dinitrotoluene	2	--	ND	NA	--
			Acenaphthene	3	--	ND	400	--
			2,4-Dinitrotoluene	3	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			Fluorene	3	--	ND	300	--
			4-Chlorophenyl-phenylether	3	--	ND	--	--
			n-Nitrosodiphenylamine	6	--	ND	20	--
			1,2-Diphenylhydrazine(as azo)	6	--	ND	0.04	--
			4-Bromophenyl-phenylether	2	--	ND	--	--
			Hexachlorobenzene	2	--	ND	10	--
			Phenanthrene	2	--	ND	NA	--
			Anthracene	2	--	ND	2,000	--
			Di-n-butylphthalate	5	--	ND	900	--
			Fluoranthene	1	--	ND	300	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 166, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/22/95	Benzidine	1	--	ND	50	--
			Pyrene	2	--	ND	200	--
			Butylbenzylphthalate	9	--	ND	100	--
			Benzo(a)anthracene	2	--	ND	0.05	--
			3,3'-Dichlorobenzidine	15	--	ND	60	--
			Chrysene	2	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	4	--	ND	30	--
			Di-n-octylphthalate	2	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	2	--	ND	0.5	--
			Benzo(a)pyrene	2	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	2	--	ND	0.05	--
			Dibenz(a,h)anthracene	3	--	ND	0.005	--
			Benzo(g,h,i)perylene	2	--	ND	NA	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 166, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILE TICS:

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/22/95	Undecane,2,6-dimethyl-	--	--	5 J	--	--
			Cyclohexane,2-butyl-1,1,3-t	--	--	6 J	--	--
			Octane,3-ethyl-	--	--	13 J	--	--
			Unknown Hydrocarbon	--	--	5 J	--	--
			Unknown Hydrocarbon	--	--	4 J	--	--
			Dodecane,2,7,10-trimethyl	--	--	7 J	--	--
			Decahydo-4,4,8,9,10-pentame	--	--	12 J	--	--
			Naphthalene,2,3-dimethyl-	--	--	5 J	--	--
			Unknown Hydrocarbon	--	--	5 J	--	--
			Undecane,4,6-dimethyl-	--	--	21 J	--	--
			Unknown Hydrocarbon	--	--	10 J	--	--
			Unknnown	--	--	5 J	--	--
			1,1'-Biphenyl,4-methyl-	--	--	12 J	--	--
			Undecane,3,6-dimethyl-	--	--	23 J	--	--
			3-Tetradecene,(E)-	--	--	5 J	--	--
			Azulene,7-ethyl-1,4-dimethy	--	--	4 J	--	--
			Heptadecane,2-6-dimethyl-	--	--	53 J	--	--
			Tridecane,6-propyl-	--	--	30 J	--	--
			Unknown Hydrocarbon	--	--	4 J	--	--
			TOTAL TICS:	--	--	229	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, MW-1

FORT MONMOUTH, NEW JERSEY

VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/27/95	Dichlorodifluoromethane	0.5	--	ND	1,000	--
			Chloromethane	0.5	--	ND	30	--
			Bromomethane	0.5	--	ND	10	--
			Vinyl Chloride	0.5	--	ND	5	--
			Chloroethane	0.5	--	ND	--	--
			Trichlorofluoromethane	0.5	--	ND	--	--
			Methylene Chloride	1.5	--	1.5 B	2	--
			trans-1,2-Dichloroethene	0.5	--	ND	100	--
			1,1-Dichloroethene	0.5	--	ND	2	--
			1,1-Dichloroethane	0.5	--	ND	70	--
			2,2-Dichloropropane	0.5	--	ND	--	--
			Bromochloromethane	0.5	--	ND	--	--
			cis-1,2-Dichloroethene	0.5	--	ND	10	--
			Chloroform	0.7	--	0.7	6	--
			1,1-Dichloropropene	0.5	--	ND	--	--
			1,2-Dichloroethane	0.5	--	ND	2	--
			1,1,1-Trichloroethane	0.5	--	ND	30	--
			Dibromomethane	0.5	--	ND	--	--
			Carbon Tetrachloride	0.5	--	ND	2	--
			Bromodichloromethane	0.5	--	ND	1	--
			1,2-Dichloropropane	0.5	--	ND	1	--
			cis-1,3-Dichloropropene	0.5	--	ND	NA	--
			1,3-Dichloropropane	0.5	--	ND	--	--
			Trichloroethene	0.5	--	ND	1	--
			Dibromochloromethane	0.5	--	ND	10	--
			1,1,2-Trichloroethane	0.5	--	ND	3	--
			Benzene	0.5	--	ND	1	--
			trans-1,3-Dichloropropene	0.5	--	ND	NA	--
			Bromoform	0.5	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.5	--	ND	10	--
			Tetrachloroethene	0.5	--	ND	1	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 166, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/27/95	Toluene	0.5	--	ND	1,000	--
			1,2-Dibromoethane	0.5	--	ND	--	--
			Chlorobenzene	0.5	--	ND	4	--
			Ethylbenzene	0.5	--	ND	700	--
			Xylene (total)	0.5	--	ND	40	--
			Styrene	0.5	--	ND	100	--
			Isopropylbenzene	0.5	--	ND	--	--
			Bromobenzene	0.5	--	ND	--	--
			1,2,3-Tricloropropane	0.5	--	ND	40	--
			n-Propylbenzene	0.5	--	ND	--	--
			2-Chlorotoluene	0.5	--	ND	--	--
			4-Chlorotoluene	0.5	--	ND	--	--
			1,3,5-Trimethylbenzene	0.5	--	ND	--	--
			tert-Butylbenzene	0.5	--	ND	--	--
			1,2,4-Trimethylbenzene	0.5	--	ND	--	--
			sec-Butylbenzene	0.5	--	ND	--	--
			1,3-Dichlorobenzene	0.5	--	ND	600	--
			1,4-Dichlorobenzene	0.5	--	ND	75	--
			4-Isopropyltoluene	0.5	--	ND	--	--
			1,2-Dichlorobenzene	0.5	--	ND	600	--
			n-Butylbenzene	0.5	--	ND	--	--
			1,2-Dibromo-3-chloropropane	0.5	--	ND	NA	--
			1,2,4-Trichlorobenzene	0.5	--	ND	9	--
			Hexachlorobutadiene	0.5	--	ND	1	--
			Naphthalene	0.5	--	ND	300	--
			1,2,3-Trichorobenzene	0.5	--	ND	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 166, MAIN POST, MW-1
FORT MONMOUTH, NEW JERSEY
VOLATILE TICS:

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-1	6/13/95	6/27/95	Unknown Hydrocarbon	--	--	2 J	--	--
			Unknown Hydrocarbon	--	--	3 J	--	--
			Unknown Hydrocarbon	--	--	2 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown	--	--	4 J	--	--
			Unknown	--	--	3 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown	--	--	2 J	--	--
			Unknown	--	--	2 J	--	--
			Naphthalene,decahydro-2-met	--	--	5 J	--	--
			Unknown	--	--	3 J	--	--
			Unknown	--	--	11 J	--	--
			Unknown	--	--	3 J	--	--
			TOTAL TICS:	--	--	48	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, TRIP BLANK

FORT MONMOUTH, NEW JERSEY

VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
TRIP BLANK	6/13/95	6/21/95	Dichlorodifluoromethane	0.5	--	ND	1,000	--
			Chloromethane	0.5	--	ND	30	--
			Bromomethane	0.5	--	ND	10	--
			Vinyl Chloride	0.5	--	ND	5	--
			Chloroethane	0.5	--	ND	--	--
			Trichlorofluoromethane	0.5	--	ND	--	--
			Methylene Chloride	2.3	--	2.3 B	2	yes
			trans-1,2-Dichloroethene	0.5	--	ND	100	--
			1,1-Dichloroethene	0.5	--	ND	2	--
			1,1-Dichloroethane	0.5	--	ND	70	--
			2,2-Dichloropropane	0.5	--	ND	--	--
			Bromochloromethane	0.5	--	ND	--	--
			cis-1,2-Dichloroethene	0.5	--	ND	10	--
			Chloroform	0.5	--	ND	6	--
			1,1-Dichloropropene	0.5	--	ND	--	--
			1,2-Dichloroethane	0.5	--	ND	2	--
			1,1,1-Trichloroethane	0.5	--	ND	30	--
			Dibromomethane	0.5	--	ND	--	--
			Carbon Tetrachloride	0.5	--	ND	2	--
			Bromodichloromethane	0.5	--	ND	1	--
			1,2-Dichloropropane	0.5	--	ND	1	--
			cis-1,3-Dichloropropene	0.5	--	ND	NA	--
			1,3-Dichloropropane	0.5	--	ND	--	--
			Trichloroethene	0.5	--	ND	1	--
			Dibromochloromethane	0.5	--	ND	10	--
			1,1,2-Trichloroethane	0.5	--	ND	3	--
			Benzene	0.5	--	ND	1	--
			trans-1,3-Dichloropropene	0.5	--	ND	NA	--
			Bromoform	0.5	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.5	--	ND	10	--
			Tetrachloroethene	0.5	--	ND	1	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, TRIP BLANK

FORT MONMOUTH, NEW JERSEY

VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
TRIP BLANK	6/13/95	6/21/95	Toluene	0.5	--	ND	1,000	--
			1,2-Dibromoethane	0.5	--	ND	--	--
			Chlorobenzene	0.5	--	ND	4	--
			Ethylbenzene	0.5	--	ND	700	--
			Xylene (total)	0.5	--	ND	40	--
			Styrene	0.5	--	ND	100	--
			Isopropylbenzene	0.5	--	ND	--	--
			Bromobenzene	0.5	--	ND	--	--
			1,2,3-Tricloropropane	0.5	--	ND	40	--
			n-Propylbenzene	0.5	--	ND	--	--
			2-Chlorotoluene	0.5	--	ND	--	--
			4-Chlorotoluene	0.5	--	ND	--	--
			1,3,5-Trimethylbenzene	0.5	--	ND	--	--
			tert-Butylbenzene	0.5	--	ND	--	--
			1,2,4-Trimethylbenzene	0.5	--	ND	--	--
			sec-Butylbenzene	0.5	--	ND	--	--
			1,3-Dichlorobenzene	0.5	--	ND	600	--
			1,4-Dichlorobenzene	0.5	--	ND	75	--
			4-Isopropyltoluene	0.5	--	ND	--	--
			1,2-Dichlorobenzene	0.5	--	ND	600	--
			n-Butylbenzene	0.5	--	ND	--	--
			1,2-Dibromo-3-chloropropane	0.5	--	ND	NA	--
			1,2,4-Trichlorobenzene	0.5	--	ND	9	--
			Hexachlorobutadiene	0.5	--	ND	1	--
			Naphthalene	0.5	--	ND	300	--
			1,2,3-Trichorobenzene	0.5	--	ND	--	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
FIELD BLANK	6/13/95	6/26/95	N-nitrosodimethylamine	2	--	ND	20	--
			bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			bis(2-chloroisopropyl)ether	5	--	ND	300	--
			N-Nitroso-Di-N-propylamine	2	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	2	--	ND	10	--
			Isophorone	1	--	ND	100	--
			bis(2-Chloroethoxy)methane	3	--	ND	--	--
			1,2,4-Trichlorobenzene	2	--	ND	9	--
			Naphthalene	2	--	ND	300	--
			Hexachlorobutadiene	2	--	ND	1	--
			Hexachlorocyclopentadiene	12	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	1	--	ND	--	--
			Acenaphthylene	5	--	ND	NA	--
			2,6-Dinitrotoluene	2	--	ND	NA	--
			Acenaphthene	3	--	ND	400	--
			2,4-Dinitrotoluene	3	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			Fluorene	3	--	ND	300	--
			4-Chlorophenyl-phenylether	3	--	ND	--	--
			n-Nitrosodiphenylamine	6	--	ND	20	--
			1,2-Diphenylhydrazine(as azo)	6	--	ND	0.04	--
			4-Bromophenyl-phenylether	2	--	ND	--	--
			Hexachlorobenzene	2	--	ND	10	--
			Phenanthrene	2	--	ND	NA	--
			Anthracene	2	--	ND	2,000	--
			Di-n-butylphthalate	5	--	ND	900	--
			Fluoranthene	1	--	ND	300	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 166, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
FIELD BLANK	6/13/95	6/26/95	Benzidine	1	--	ND	50	--
			Pyrene	2	--	ND	200	--
			Butylbenzylphthalate	9	--	ND	100	--
			Benzo(a)anthracene	2	--	ND	NA	--
			3,3'-Dichlorobenzidine	15	--	ND	60	--
			Chrysene	2	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	4	--	ND	30	--
			Di-n-octylphthalate	2	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	2	--	ND	0.5	--
			Benzo(a)pyrene	2	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	2	--	ND	0.05	--
			Dibenz(a,h)anthracene	3	--	ND	0.005	--
			Benzo(g,h,i)perylene	2	--	ND	NA	--
			SEMIVOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
FIELD BLANK	6/13/95	6/21/95	Dichlorodifluoromethane	0.5	--	ND	1,000	--
			Chloromethane	0.5	--	ND	30	--
			Bromomethane	0.5	--	ND	10	--
			Vinyl Chloride	0.5	--	ND	5	--
			Chloroethane	0.5	--	ND	--	--
			Trichlorofluoromethane	0.5	--	ND	--	--
			Methylene Chloride	2.1	--	2.1 B	2	yes
			trans-1,2-Dichloroethene	0.5	--	ND	100	--
			1,1-Dichloroethene	0.5	--	ND	2	--
			1,1-Dichloroethane	0.5	--	ND	70	--
			2,2-Dichloropropane	0.5	--	ND	--	--
			Bromochloromethane	0.5	--	ND	--	--
			cis-1,2-Dichloroethene	0.5	--	ND	10	--
			Chloroform	0.5	--	ND	6	--
			1,1-Dichloropropene	0.5	--	ND	--	--
			1,2-Dichloroethane	0.5	--	ND	2	--
			1,1,1-Trichloroethane	0.5	--	ND	30	--
			Dibromomethane	0.5	--	ND	--	--
			Carbon Tetrachloride	0.5	--	ND	2	--
			Bromodichloromethane	0.5	--	ND	1	--
			1,2-Dichloropropane	0.5	--	ND	1	--
			cis-1,3-Dichloropropene	0.5	--	ND	NA	--
			1,3-Dichloropropane	0.5	--	ND	--	--
			Trichloroethene	0.5	--	ND	1	--
			Dibromochloromethane	0.5	--	ND	10	--
			1,1,2-Trichloroethane	0.5	--	ND	3	--
			Benzene	0.5	--	ND	1	--
			trans-1,3-Dichloropropene	0.5	--	ND	NA	--
			Bromoform	0.5	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.5	--	ND	10	--
			Tetrachloroethene	0.5	--	ND	1	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--

TABLE 3

GROUNDWATER SAMPLING RESULTS

BUILDING 166, MAIN POST, FIELD BLANK

FORT MONMOUTH, NEW JERSEY

VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
FIELD BLANK	6/13/95	6/21/95	Toluene	0.5	--	ND	1,000	--
			1,2-Dibromoethane	0.5	--	ND	--	--
			Chlorobenzene	0.5	--	ND	4	--
			Ethylbenzene	0.5	--	ND	700	--
			Xylene (total)	0.5	--	ND	40	--
			Styrene	0.5	--	ND	100	--
			Isopropylbenzene	0.5	--	ND	--	--
			Bromobenzene	0.5	--	ND	--	--
			1,2,3-Tricloropropane	0.5	--	ND	40	--
			n-Propylbenzene	0.5	--	ND	--	--
			2-Chlorotoluene	0.5	--	ND	--	--
			4-Chlorotoluene	0.5	--	ND	--	--
			1,3,5-Trimethylbenzene	0.5	--	ND	--	--
			tert-Butylbenzene	0.5	--	ND	--	--
			1,2,4-Trimethylbenzene	0.5	--	ND	--	--
			sec-Butylbenzene	0.5	--	ND	--	--
			1,3-Dichlorobenzene	0.5	--	ND	600	--
			1,4-Dichlorobenzene	0.5	--	ND	75	--
			4-Isopropyltoluene	0.5	--	ND	--	--
			1,2-Dichlorobenzene	0.5	--	ND	600	--
			n-Butylbenzene	0.5	--	ND	--	--
			1,2-Dibromo-3-chloropropane	0.5	--	ND	NA	--
			1,2,4-Trichlorobenzene	0.5	--	ND	9	--
			Hexachlorobutadiene	0.5	--	ND	1	--
			Naphthalene	0.5	--	ND	300	--
			1,2,3-Trichorobenzene	0.5	--	ND	--	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

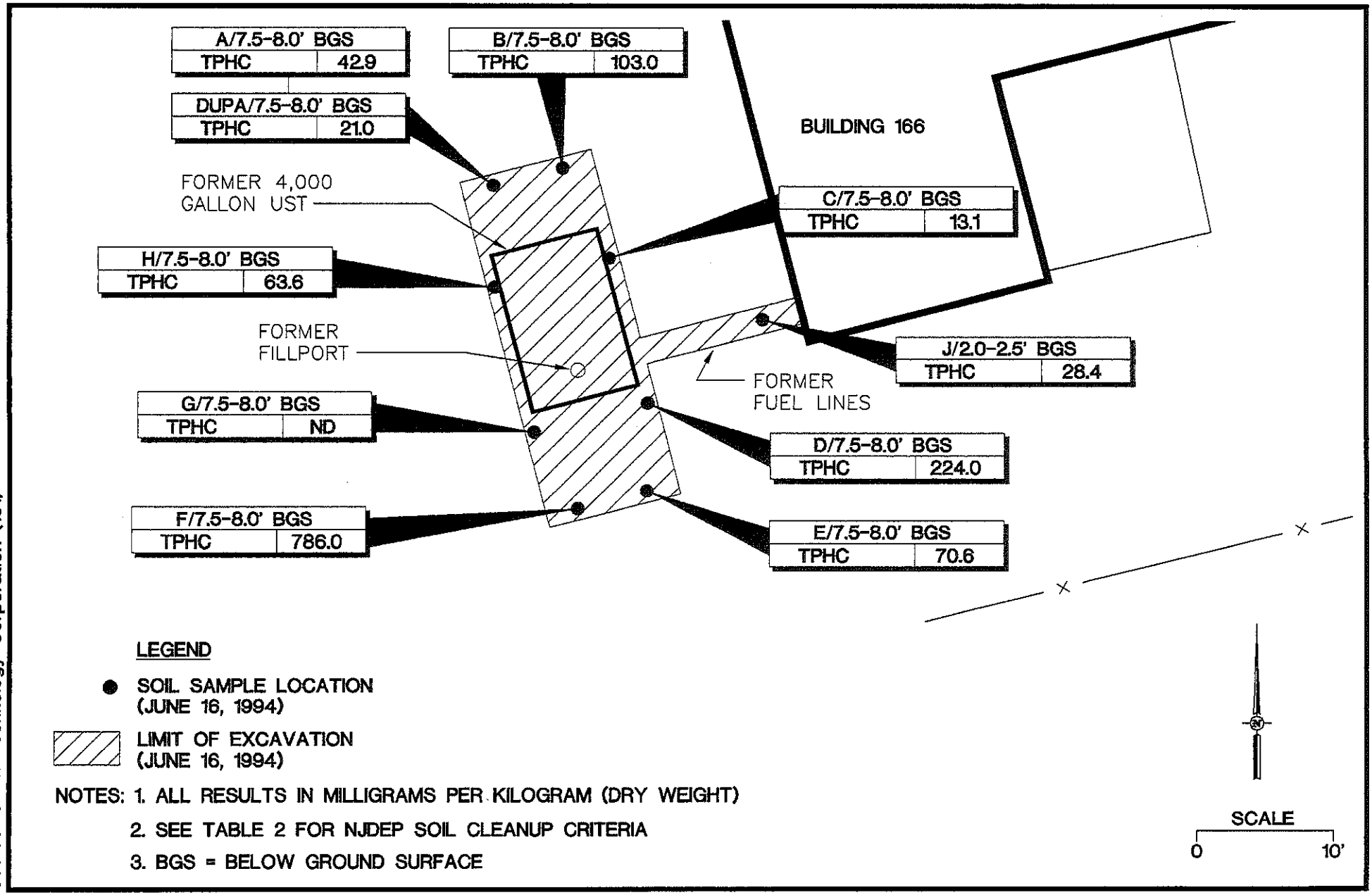
TABLE 3

DATA ANALYSIS QUALIFIER DEFINITIONS
GROUNDWATER SAMPLING
FORT MONMOUTH, NEW JERSEY

--:	Not applicable / does not exceed criteria
(J):	Indicates detected below sample quantitation limit
(B):	Indicates also present in blank
(ND):	Indicates compound not detected
(NA):	Not available for this constituent
GWQS:	Groundwater Quality Standards

SMITH

U.S. Army
Department of Public Works
Fort Monmouth, New Jersey



Source: Smith Technology Corporation (161)

Project No. 09-5004-12

Figure 3
Building 166
Soil Sampling Results

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 166 were below the NJDEP soil cleanup criteria for total organic contaminants.

Based on the post-excavation sampling results, soils with TPHC concentrations exceeding the NJDEP soil cleanup criteria for total organic contaminants of 10,000 mg/kg, do not exist in the former location of the UST or associated piping.

Based on the analytical results of the groundwater samples collected on May 18, 1995 and June 13, 1995, groundwater quality at the Building 166 closure site complies with the New Jersey Groundwater Quality Standard for VOCs and SVOCs. The trace concentrations of methylene chloride detected during both sampling rounds is attributed to sampling and/or analytical interference, based on the detection of methylene chloride, a common source of laboratory interference, in the sampling blanks.

No further action is proposed in regard to the closure and site assessment of UST No. 090017-17 at Building 166.

APPENDIX A

NJDEP BUST CLOSURE APPROVAL

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL
PROTECTION AND ENERGY

CHRISTINE TODD WHITMAN
Governor

ROBERT C. SHINN, JR.
Commissioner

Mr. Joseph Fallon
SELFM-EH-EV
Department of the Army
Headquarters CECOM Fort Monmouth
Fort Monmouth, NJ 077703-5000

JUN 7 1994

Dear Mr. Fallon:

Re: UST Closures - Fort Monmouth
Fort Monmouth Army Base
Tinton Falls, Monmouth County

The NJDEPE has reviewed the four underground storage tank closure plans for UST number 0081533 tanks 1 and 171 and for UST number 0090010 tanks 17 and 18 submitted on May 31, 1994 for NJDEPE review and approval. The NJDEPE has determined that the closure plans for these tanks are consistent with the Technical Requirements for Site Remediation.

The remedial efforts associated with the closures of these tanks may commence as scheduled in each of the associated closure plans. This letter must be made available to any authorized personnel responsible for review and oversight of UST removals. This approval does not relinquish Fort Monmouth from fulfilling any Federal, County or Municipal requirement associated with the removal of underground storage tanks.

If you should have any questions or require additional information, please do not hesitate to contact me at (609) 633-1455.

Sincerely,

Ian R. Curtis, Case Manager
Bureau of Federal Case Management

RPCE\BFCM\FTMMTH12.IRC

APPENDIX B

CERTIFICATIONS

UNDERGROUND STORAGE TANK (UST) CLOSURE CERTIFICATION

BUILDING NO. 166

NJDEP UST REGISTRATION NO. 90010-17

DATE TANK REMOVED 6/16/94

IJO / CONTRACT NUMBER 91-0148

I CERTIFY UNDER PENALTY OF LAW THAT TANK DECOMMISSIONING ACTIVITIES WERE PERFORMED IN COMPLIANCE WITH NJAC 7:14B-9.2(b)3. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE, INACCURATE, OR INCOMPLETE INFORMATION, INCLUDING FINES AND/OR IMPRISONMENT.

NAME (Print or Type) John Donegan

SIGNATURE [signature]

NJDEP UST CLOSURE CERTIFICATE NO. 0003248

COMPANY PERFORMING TANK DECOMMISSIONING CUTE Inc

NJDEP UST CLOSURE CORPORATE CERTIFICATE NO. 0200128

DATE OF SUBMITTAL 7/19/94

APPENDIX C

WASTE MANIFEST

State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 028, Trenton, NJ 08625-0028

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039. Expires 9-31

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. / Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
	NJ3210020597 / 03116		

3. Generator's Name and Mailing Address
US Army Communications Electronic Command
Main Post, c/o James Shirghio, Bldg 2504
ATTN: SELFM-DL-EM-MS, Fort Monmouth, NJ 07703
Phone: 908) 532-6224

4. State Manifest Document Number: NJA 1603186

B. State Generator's ID: Main Post Fort Monmouth, NJ — A-Bldg. 166, B-Bldg. T-8

5. Transporter 1 Company Name	6. US EPA ID Number	C. State Trans. ID
Freehold Cartage Inc.	NJD054126164	NJDEPE S226 S
7. Transporter 2 Company Name	8. US EPA ID Number	D. Transporter's Phone: 908 462-1001
		E. State Trans. ID

9. Designated Facility Name and Site Address	10. US EPA ID Number	F. Transporter's Phone
Lionetti Oil Recovery Runyon & Cheesequake Rds. Old Bridge, NJ 08857	NJD084044064	G. Facility's ID H. Facility's Phone: 908 721-0900

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

X Petroleum Oil N.O.S. Class 3 (Petroleum Oil)
Combustible Liquid UN 1270 PG III

001TT033486 X 722

X Petroleum oil, NOS Class 3 (Petroleum oil)
Combustible Liquid UN 1270 PG III

001TT000241G X 722

c.

d.

J. Additional Descriptions for Materials Listed Above

	K. Handling Codes for Wastes Listed Above
a. T,L petroleum oil 90 % water 10 %	T04 Filtration
b. T,L Petroleum oil 50% Water 50%	T04 Filtration

12. Special Handling Instructions and Additional Information

NOT REGULATED BY EPA. REGULATED AS HAZARDOUS WASTE IN NJ
24 HOUR EMERGENCY PHONE: 201-427-2881
NJ DECAL# 55182 ERG# 27

a) NJDEPE# 009010-17
b) NJDEPE# 009010-06

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Charles M. Appleby SELFM-PW-EV		06	13	94

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
David S. Smith	David S. Smith	06	13	94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day

Previous editions are obsolete.

SIGNATURE AND INFORMATION MUST BE LEGIBLE ON ALL COPIES

1 — TSD MAIL TO - TSD'S STATE

State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 028, Trenton, NJ 08625-0028

Note: oil contaminated groundwater Bldg T-80 Bldg 166

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. NJ3210020597	Manifest Document No. 63243	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.

Generator's Name and Mailing Address: US Army Communications Electronics Command
c/o James Shirghio, Bldg 2504, ATTN: SELFM-DL-EM-MS,
Fort Monmouth, NJ 07703
908 532-6224

State Manifest Document Number: NJA 1603243
B. State Generator's ID: Main Post Ft. Monmouth

Transporter: Freehold Cartage Inc. — US EPA ID Number: NJD054126164 — NJDEPES 2265 — 908 462-1001

Designated Facility Name and Site Address:
Lionetti Oil Recovery Co., Inc.
Runyon & Cheesequake Rds.
Old Bridge, NJ 08857
US EPA ID Number: NJD084044064 — 908 721-0900

X Petroleum Oil N.O.S. Class 3 (Petroleum Oil)
Combustible Liquid UN 1270 PG III
001 TT 01000 G X722

X Petroleum oil, NOS class 3 (Petroleum oil)
combustible liquid UN1270 PG III — 001 TT 11138 G X922

J. Additional Descriptions for Materials Listed Above:
T,L Petroleum 1%
Water 99%
T,L Petroleum oil 1%
Water 99%

K. Handling Codes for Wastes Listed Above:
T04=Filtration
T04=Filtration

15. Special Handling Instructions and Additional Information:
NOT REGULATED BY EPA. REGULATED AS HAZARDOUS WASTE IN NJ
24 HOUR EMERGENCY# 201-427-2881
NJ DECAL# 55182
A) Bldg 580 009000-6
B) Bldg 166 009000-19

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year
X DINKER M. DESAI	[signature]	062094

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
X David S Smith	[signature]	062094

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

Pumped excavation

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year

NJA 1603243

ALL COPIES

UNDERGROUND STORAGE TANK REMOVAL (UST)

(Submit one form for each tank)

Building No. 166 **NJDEPE UST Reg. No.** 0090010 - 17

IJO No. 91-0148 **Date Tank Removed** 6/16/94

ITEM NO.	ITEM OF WORK	UNIT	UNIT PRICE	QUANTITY	TOTAL PRICE
01100-1.1	Rmv ID#27 soil to stockpile	TN	$14.50	35.15	$ 509.68
01100-1.2	Supply, fill & relocate 55 Gal containers to storage	CT	$47.50		$ N/A
01100-1.4	Rmv & dispose of #2 fuel mixed with water Manifest #:NJA	GL	$ 0.69	5,086	$ 3,509.34
01100-1.5	Rmv & dispose of #2 fuel mixed with solvent Manifest #:NJA	GL	$ 4.50		$ N/A
01100-1.6	Rmv & dispose of diesel fuel	GL	$ 0.69		$ N/A
01100-1.7	Rmv & dispose of diesel fuel mixed with water Manifest #:NJA	GL	$ 0.69		$ N/A
02050-1 & 02050-4	Tank removal	GL	$ 0.975	4,000	$ 3,900.00
02050-5.1	Sawcut blacktop *	TN	$27.50		$ N/A
02050-5.2	Sawcut concrete *	TN	$29.50	✓ 15	$ 442.50
02050-5.3	Sawcut reinforced concrete	TN	$32.50		$ N/A
02222-1.1	Backfill cert. clean fill *	TN	$16.25	35.15	$ 571.19
02222-1.2	3/4" clean stone *	TN	$17.50		$ N/A
02511-1.1	Concrete slab 4" thick	SY	$19.80		$ N/A
02511-1.2	Concrete slab 6" thick	SY	$21.80		$ N/A
02511-1.3	Concrete slab 8" thick	SY	$24.50		$ N/A
02511-1.4	6" Concrete curb	LF	$16.00		$ N/A
02551-1.1	6" Base course of 3/4" dirty blend stone	SY	$ 6.40		$ N/A
02551-1.2	4" stabilized base	SY	8.00		$ N/A
02551-1.3	2" top course	SY	$ 5.50		$ N/A
02935-1.1	4" top soil & sod	SY	$ 7.80		$ N/A
02935-1.2	4" top soil & hydroseed	SY	$ 5.40		$ N/A

* Supply certified weight tickets to Contracting Officer at time of request for payment. $8,932.71

I certify under penalty of law that tank decommissioning activities were performed in compliance with NJAC 7:14B-9.2(b)3. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment.

NAME (Print or Type): John Lonergan SIGNATURE: [signature]

NJDEPE UST Closure Cert. #: 0003248 DATE: 7/18/94

COMPANY NAME: CUTE, Inc.
(Performer of Tank Decommissioning)

NJDEPE UST Closure Corp. Cert. #: 0200128

List of Abbreviations:

CT = 55 Gallon Container GL = Gallon TN = Tons
EA = Each SY = Square Yard

CALCULATION SHEET

Building No. 166 NJDEPE Reg. No. 0090010-12

Tank Size 4000 gal Tank Void 30.0 tons

CLEAN FILL

ITEM NO.	DESCRIPTION	QUANTITY	TICKET #
02222-1.1	clean fill	22.13	18767
		21.78	18775
		21.24	18787

TOTAL 65.15

STONE

ITEM NO.	DESCRIPTION	QUANTITY	TICKET #
	N/A		

TOTAL

ID#27 soil to stockpile (65.15 + 0) - 30.0 = 35.15 tons

Chargeable clean fill 35.15 tons

Chargeable stone N/A

18767

Joseph Scarano Sand & Gravel Co.

1453 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-493-3333

Order Date [illegible] / [illegible] / [illegible]

Name T. A. Trucking

Address Clean Fill

Deliver Date ____ / ____ / ____

Delivered ☐ C.O.D. ☐

F.O.B./P.U. ☐ Charge ☑

Item(s)	Quantity / Measure (tons, lbs., yds., ea.)	Unit Price	Total
	69800		
	25550	22.13 tons	
	44250		

KRISTI HAUGE PUBLIC WEIGHER No. 25614

Driver ______

Received Don Ellis

* Company not responsible for damage done off public roads. Color not guaranteed!

Sub Total	
Delivery	
N.J. Tax	
Total	

Have gravel will travel!
since 1925

Joseph Scarano Sand & Gravel Co.

1453 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-493-3333

18775

Order Date Jan / 20 / 14

Name [illegible]

Deliver Date ___ / ___ / ___

Address [illegible]

Delivered ☐ C.O.D. ☐

F.O.B./P.U. ☐ Charge ☑

Item(s)	Quantity / Measure (tons, lbs., yds., ea.)	Unit Price	Total
	C 69100		
	T 25550	21.78 tons	
	N 43550		
		Sub Total	
		Delivery	
		N.J. Tax	
		Total	

KRISTEN HAUSE PUBLIC No. 2381 WEIGHER

Driver ___

Received Dan

* Company not responsible for damage done off public roads. Color not guaranteed!

Have gravel will travel!
since 1925

Joseph Scarano Sand & Gravel Co.

1453 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-493-3333

18787

Order Date June / 20 / 91

Name _____

Deliver Date ___ / ___ / ___

Address _____

Delivered ☐ C.O.D. ☐

F.O.B./P.U. ☐ Charge ☑

Item(s)	Quantity / Measure (tons, lbs., yds., ea.)	Unit Price	Total
	[illegible]		
	[illegible]	21.24 tons	
	[illegible]		
		Sub Total	
		Delivery	
		N.J. Tax	
		Total	

PUBLIC WEIGHMASTER No. 25814

Driver _____

Received _____

* Company not responsible for damage done off public roads. Color not guaranteed!

Have gravel will travel!
since 1925

APPENDIX D

UST DISPOSAL CERTIFICATE

Tank 271 - 0081533-55
Tank 166 - 0090010-17

MAZZA & SONS, INC.

79668

Recycling Division

3230 Shafto Road • Tinton Falls, NJ 07753

(908) 922-9292

Tank271 3.43 TONS.
Tank 166 15 Tons;

Recycling Material Receipt Form

Customer: Cute inc

Address: Midland Park

Job Location: Eatontown, Fort Monmouth

Date: 6 July 94

64280
27420
36860

18.43
Tons

(M)

Truck/Container No 1

License Plate/D.E.P.# XAE 1491

☐ 10 yd
☐ 20 yd
☐ 30 yd
☐ 40 yd
☐ 50 yd

(18)

Concrete			
Asphalt			
Stumps			
Brush			
Wood			
Pallets			
Glass			
Tires			
Painted Wood			
Shingles			
		COD	BILL ✓
TOTAL:			

Weighmaster: R

Customer: [signature]

APPENDIX E

MONITORING WELL PERMIT AND CONSTRUCTION LOG

MONITORING WL CERTIFICATION-FORM B-LOCAT | CERTIFICATION

Name of Permittee: U.S. ARMY
Name of Facility: FORT MONMOUTH
Location: MONMOUTH COUNTY, NJ
~~NJPDES~~ Number: 94-6-16-1545-09
Dear
LAND SURVEYOR'S CERTIFICATION

Well Permit Number:
This number must be permanently affixed to the well casing. 29-31773-

Longitude (to nearest second): West 74°01'44.69"

Latitude (to nearest second): North 40°19'03.08"

Elevation of Top of Inner Casing (cap off) (one-hundredth of a foot): 6.96

Elevation of ground level (1/100th ft.) 7.49

Source of elevation datum (benchmark, nail, etc.) and year. (If an alternate datum has been approved by the Department, identify here, assume datum of 100', and give approximated actual elevation.) Source: MON. FM-6

☒ 1927 ☐ 1983

Elev.:

Owners Well Number (As shown on application or plans): BLDG. 166 MW-6

Elevations are to be determined by double run, three wire leveling methods using balanced sights, commencing from a well marked and described point. This beginning point shall either be derived from Federal or State benchmarks if not more than 1000 feet from the site or from an alternate datum approved by the Department. Tolerances should meet third order standards, which are 0.05 ft x $(\text{miles})^{1/2}$. For sections less than 0.1 mile, let miles = 0.1.

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

Wayne W. Burgett
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

WAYNE W BURGETT
PROFESSIONAL LAND SURVEYOR'S NAME
(Please print or type)

SEAL

31654
PROFESSIONAL LAND SURVEYOR'S LICENSE #

SERIAL # 41182

DWR-133M (10/93)

Mail to

NJDEPE
Bureau Water Allocation
CN426
Trenton, NJ 08625

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY
TRENTON, NJ

MONITORING WELL PERMIT

VALID ONLY AFTER APPROVAL BY THE D.E.P.E.

Permit No. 2931773

COORD # 2913... 4

Owner US Army Fort Monmouth
Address SELFM-PW-EV
Fort Monmouth, NJ 07703
Name of Facility Bldg S166
Address Main Post
Fort Monmouth, NJ

Driller Tyree Organization, Ltd
Address 1350 US Hwy 130
Burlington NJ 08016

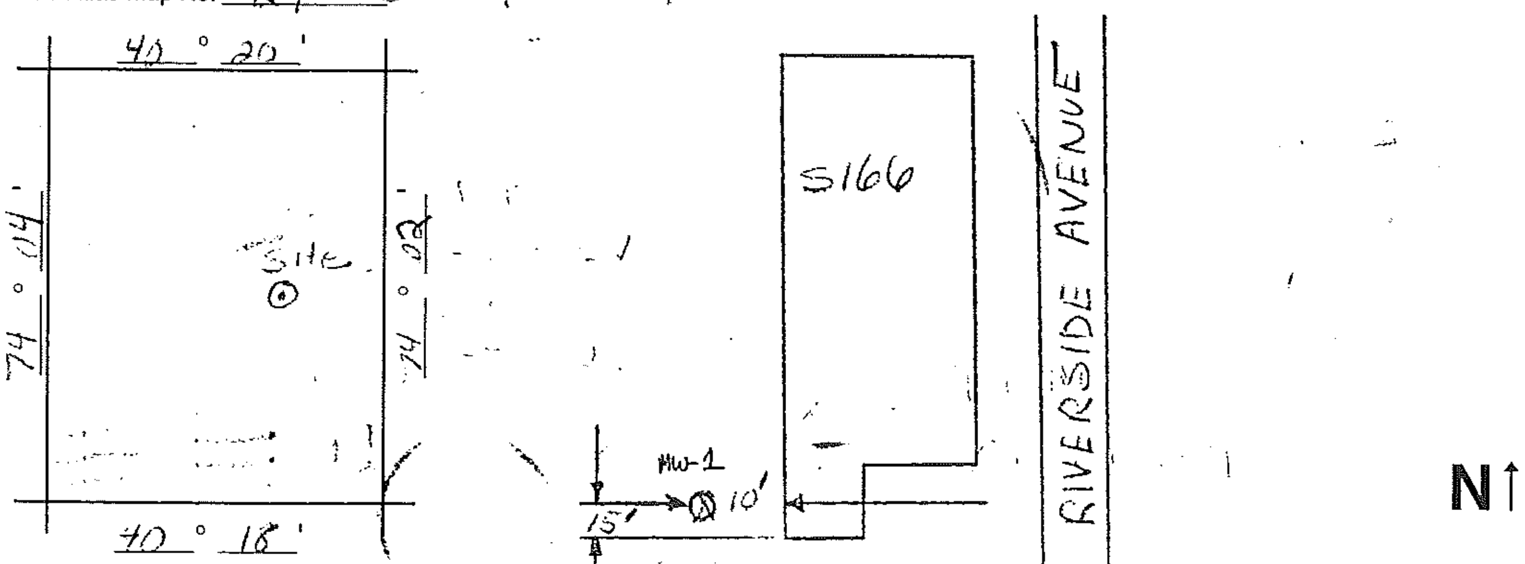
Diameter of Well(s)	4 Inches	Proposed Depth of Well(s)	15 Feet
# of Wells Applied for (max. 10)	1	Will pumping equipment be installed? YES ☐ NO ☒	
Type of Well (see reverse)	Monitoring	If Yes, give pump capacity	N/A GPM

LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
		Fort Monmouth	Monmouth

State Atlas Map No. 27 (Occupied...)

Draw sketch of well(s) nearest roads, buildings, etc. with marked distances in feet. Each well MUST be labeled with a name and/or number on the sketch.



FOR MONITORING WELLS, RECOVERY WELLS, OR PIEZOMETERS, THE FOLLOWING MUST BE COMPLETED BY THE APPLICANT. PLEASE INDICATE WHY THE WELLS ARE BEING INSTALLED:

- ☐ Spill Site
- ☐ ISRA Site
- ☐ CERCLA (Superfund) Site
- ☐ RCRA Site
- ☒ Underground Storage Tank Site
- ☐ Operational Ground Water Permit Site
- ☐ Pretreatment and Residuals Site
- ☐ Water and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain)

CASE I.D. Number
~~N/A~~
94-6-16-1545-09
(Site Bldg. 166)

This Space for Approval Stamp

WELL PERMIT APPROVED
NJDEP
AUG 3 1994
BUREAU OF WATER ALLOCATION

FOR D.E.P.E. USE
☐ Issuance of this permit is subject to the conditions attached. (see next page)
☒ For monitoring purposes only
☐
☒ The well(s) may not be completed with more than 25 feet of total screen or uncased borehole.

SEE REVERSE SIDE FOR IMPORTANT PROVISIONS AND REGULATIONS PERTAINING TO THIS PERMIT.

In compliance with N.J.S.A. 58:4A-14, application is made for a permit to drill a well as described above.

Date 7-25-94 Signature of Driller [signature] License # 1421

Signature of Owner [signature] SELFM-PW-EV

COPIES: Water Allocation — White and Pink Health Dept. — Yellow Owner — Blue Driller — White

DWR-138 M
12/91

New Jersey Department of Environmental Protection and Energy
Bureau of Water Allocation

MONITORING WELL RECORD

Well Permit No. [illegible] - [illegible]
Atlas Sheet Coordinates [illegible] : [illegible] : [illegible]

OWNER IDENTIFICATION - Owner US ARMY FORT MONMOUTH
Address [illegible]
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg. 116 MW-1
County MONMOUTH Municipality OCEANPORT BORO Lot No. Block No.
Address [illegible]

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 9 / 14 / 94
Regulatory Program Requiring Well UST Case I.D. # 94 6 16 1545 [illegible]
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled ~~40~~ 13 ft.

Well finished to 10 ft.

Borehole diameter:
Top 8 in.
Bottom 8 in.

Well was finished: ☐ above grade ☑ flush mounted

If finished above grade, casing height (stick up) above land surface ____ ft.

Was steel protective casing installed? ☐ Yes ☐ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.) [From land surface]	Diameter (inches)	Type and Material
Inner Casing	~~[illegible]~~ —	—		
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	6"	10'	4	20 slot PVC
Tail Piece				
Gravel Pack	1'	10'		#2 Morie sand
Annular Seal/Grout	6"	1'		Bentonite Portland
Method of Grouting	Tremie			

Static water level after drilling 3 ft.
Water level was measured using Tape
Well was developed for 1 hours at 10 gpm
Method of development pump
Was permanent pumping equipment installed? ☐ Yes ☑ No
Pump capacity ____ gpm
Pump type:
Drilling Method [illegible]
Drilling Fluid [illegible] Type of Rig B 80
Name of Driller [illegible] E. Beck
Health and Safety Plan submitted? ☑ Yes ☐ No
Level of Protection used on site (circle one) (None) D C B A
N.J. License No. 1421
Name of Drilling Company [illegible]

GEOLOGIC LOG (Copies of other geologic logs and/or geophysical logs should be attached.)

0-6" asphalt [illegible]
6"-1' [illegible] fine sand
1'-3' Med. brown [illegible] fine sand
3'-10' Med. brown fine-medium sand
10'-11' Med. brown, fine-medium sand
11-13' [illegible]

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable State rules and regulations.

Driller's Signature [signature] Date [illegible]-94

COPIES: White & Green - DEPE Canary - Driller Pink - Owner Goldenrod - Health Dept.

U.S. ARMY
FORT MONMOUTH
SELFM PW EV

LOG OF BORING 166-MW1

Mainpost Well Logs

Project Name	: BLDG. 166	Completion Date	: 08/03/94
NJDEP CASE #	: 94-6-16-1545-09	NORTHING	: N 541238.652
Logged By	: TYREE INC.	EASTING	: E 2177852.302
start date	: 08/03/94	Driller	: M. BECK

29-31777
ELEV: 6.96

Depth in Feet	DESCRIPTION	GRAPHIC	USCS	Samples	Blows/Ft	% Recovery
0	Asphalt subbase		14			
1	Black fine sand with asphalt		SP			
2	Medium brown silts and fine sand with few pebbles		SM			
	Medium brown, fine/medium sand wet at 3ft with black fines		SP	1	12	100
4	Greenish grey soft clay with light brown, fine sand + silts		CL			
	Dark brown silts with light brown soft clay, moist at approx. 6'		CL	2	10	100
6	Brown soft clay with black fines; wet at approx. 11'		CL			
8						
10						
12						
13						
14						

10/94

Well Construction Information

WELL CONSTRUCTION
Date Compl. : 10/05/94
Hole Diameter : 8 in
Drill. Method : HSA
Company Rep. : M. BECK

WELL CASING
Material : PVC
Diameter : 4 in.
Joints : threaded

WELL SCREEN
Material : PVC
Diameter : 4 in.
Joints : threaded
Opening : 20 slot

SAND PACK : #2 MORIE SAND

ANNULUS SEAL : Bentonite/Portland
: TREMMIE

WELL SCREEN
Material : PVC
Diameter : 4 in.
Cap :

NOTES
Well #1 is 166 MW1
Flushmount
Water depth 3.5'

3-5-1996 c:\mp1\geo\166mw1.ge3

APPENDIX F

SOIL ANALYTICAL DATA PACKAGE

Report of Analysis
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEPE Certification # 13461

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1529.1-.10
Sample Rec'd: 06/16/94
Analysis Start: 06/17/94
Analysis Comp: 06/17/94

Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Meth: Sonc.

NJDEPE UST Reg.#: 0090010-
Closure #:
DICAR #: 94-6-16-1545-09
Location #: Bldg. 166

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1529.1	Site A, North W OVA= 30	86	42.9	6.6
1529.2	Site B, North E OVA= 50	87	103.	6.6
1529.3	Site C, OVA= 35	85	13.1	6.6
1529.4	Site D, OVA= 10	78	224.	6.6
1529.5	Site E, OVA= 30	86	70.6	6.6
1529.6	Site F, OVA= 90	85	786.	6.6
1529.7	Site G, OVA= 70	86	ND	6.6
1529.8	Site H, OVA= 10	83	63.6	6.6
1529.9	Site I, OVA= ND	88	21.0	6.6
1529.10	Site J, OVA= 20	93	28.4	6.6
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1529.10dup= 90% 1529.10s= 125% 1529.10sd= 105% RPD=17.3%

Brian K. McKee
Laboratory Director

SERV-AIR, INC.

P.O. #: PWS-67

Chain of Custody

Project #: LTR 7 JUNE 94

Customer: DINKER DESAI SELFM-PW-EV

Phone: X 21475

Sampler: CUTE, INC

Site Name: BLDG 166 UST 009001Φ - LTR 7 JUNE 1994 DICAR #94-6-16-1545-09 OER#20

Date / Time: 6-16-94

Analysis Parameters: TPHC, % SOLID, MUNSEL, OVA

Start:

Finish:

Preservation Method

Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	OVA	Remarks	
1529.1	6-16-94 1610	SITE A - NORTH/W	SOIL	1	30		
.2	1615	B - NORTH-E			50		
.3	1620	C			35		
.4	1625	D			10		
.5	1628	E			30		
.6	1630	F			90		
.7	1633	G			70		
.8	1637	H			10	CALIB 6/16	1110
.9	1640	I			ND	OVA-128	
.10	1647	J			25	S/N A52114	
						0% AIR 95% METHANE CAL = 94 PPM @ 3.0	

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
	6 16		

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
			6/16/94 1700

B. MIK

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.

Report of Analysis
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEPE Certification # 13461

Client: U.S. Army
DPW, SELFM-PW-EV
Bldg. 167
Ft. Monmouth, NJ 07703

Lab. ID #: 1529.1-.10
Sample Rec'd: 06/16/94
Analysis Start: 06/17/94
Analysis Comp: 06/17/94

Analysis: Munsel

Lab ID#	Soil Color
1529.1	5GY 4/1 Dark Greenish Gray
1529.2	5GY 4/1 Dark Greenish Gray
1529.3	5GY 6/1 Greenish Gray
1529.4	5GY 2.5/1 Black
1529.5	5GY 4/1 Dark Greenish Gray
1529.6	5GY 4/1 Dark Greenish Gray
1529.7	5GY 4/1 Dark Greenish Gray
1529.8	5GY 4/1 Dark Greenish Gray
1529.9	5GY 4/1 Dark Greenish Gray
1529.10	2.5Y 8/3 Pale Yellow

Brian K. McKee
Laboratory Director

June 17, 1994
Sarah J. Hubbard

Blank	0 MV	
40.75	108 MV	
81.5	209 MV	
163	412 MV	
1529.1	17 MV	
1529.2	37 MV	
1529.3	13 MV	
1529.4	69 MV	
1529.5	26 MV	
1529.6	256 MV	
1529.7	4 MV	
1529.8	23 MV	
1529.9	10 MV	
1529.10	13 MV	
1529.10	12 MV	Dup
1529.10	47 MV	Spk.
1529.10	40 MV	Dup Spk

PHC Conformance/Non-conformance Summary Report

	No	Yes
1. Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank	✓	
2. Matrix Spike/Matrix Sp Dup. Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)		✓
3. IR Spectra submitted for standards, blanks, & samples		✓
4. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.		✓
5. Extraction holding time met. (If not met, list number of days exceeded for each sample)		✓
6. Analysis holding time met. (If not met,list number of days exceeded for each sample)		✓

Comments: _____

Laboratory Authentication Statement

I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analysis. I have personally examined the information contained in this report, and to the best of my knowledge, I believe that the submitted information is true, accurate, complete, and meets the above referenced standards where applicable. I am aware that there are significant penalties for purposefully submitting falsified information, including the possibility of a fine and imprisonment.

Project #1529

Brian K. McKee
Laboratory Manager

APPENDIX G
GROUNDWATER ANALYTICAL DATA PACKAGE

Bldg 5/18/95

EMSL ANALYTICAL, INC.

Asbestos - Lead - Environmental - Materials

001

New Jersey

Corporate Office & Main Laboratory
108 Haddon Avenue
Westmont, NJ 08108
(609) 858-4800

3 Cooper Street
Westmont, NJ 08108
(609) 858-4800

1056 Stelton Road
Piscataway, NJ 08854
(908) 981-0550

New York

350 Fifth Avenue
Empire State Bldg.
Suite 1524
New York, NY 10118
(212) 290-0051

208 Stonehenge Lane
Carle Place, NY 11514
(516) 997-7251

California

1720 S. Amphlett Blvd.
Suite 130
San Mateo, CA 94402
(415) 570-5401

Florida

1878 Adams Avenue
Melbourne, FL 32935
(407) 253-4224

Georgia

1600 Rosewell Street, SE
Suite One
Smyrna, GA 30080
(404) 333-6066

Michigan

212 S. Wagner Road
Ann Arbor, MI 48103
(313) 668-6810

North Carolina

620-G Guilford College Rd.
Greensboro, NC 27409
(910) 297-1487

Texas

2501 Central Parkway
Suite C-13
Houston, TX 77092
(713) 686-3635

ANALYTICAL DATA REPORT

FOR

U.S. Army Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth, NJ 07703

PROJECT : #94616154509

EMSL Project: # 9508275

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection		Date Received
1833.1 Bldg. 166 MW1-2931773	**95-23167**	**Aqueous**	**5/18/95**	**12:25**	**5/19/95**
1830.4 Trip Blank	**95-23164**	**Aqueous**	**5/18/95**	**06:15**	**5/19/95**
1830.5 Field Blank	**95-23165**	**Aqueous**	**5/18/95**	**14:30**	**5/19/95**

Laboratory Name: EMSL ANALYTICAL, INC.

Certification No.: NJDEP No. 04653
PADER No. 68-367
NY-ELAP No. 10896

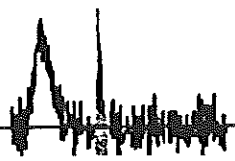
Supervisor/Manager Signature: Paul Laraia

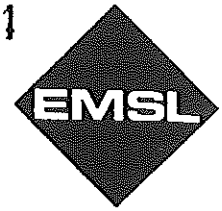
Printed Name: Paul V. Laraia

Date: 06-27-95

EMSL

SAMPLE DATA SUMMARY PACKAGE





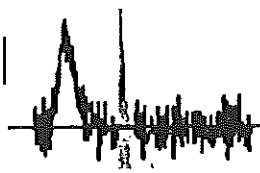
Date of Report: 06/23/95
Project Number: 09508275
Lab ID: 95-0023167
Date Collected: 05/18/95 12:25
Collected By: Client
Date Received: 05/19/95 07:00

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Client Project: 94616154509

Client Designation: Bldg.166,MW1-2931773

	Conc.	Unit
ORGANIC		
Semi-Volatiles		
BN by 625 with Library Search	see attached	ug/l
Volatiles		
Volatiles by 524.2 w/ Library Search	see attached	ug/l



U.S. ARMY ... 1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9523167B

Bldg. 166 MW1-293/773

005

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523167B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7780.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	64	
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 006

9523167B

Bldg 166 MW1-2431773

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523167B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7780.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 007

9523167B

Blg 166 MW1-2931873

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523167B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7780.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 5 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown Hydrocarbon	18.11	5	J
2. 17301-28-9	Undecane, 3,6-dimethyl-	21.02	6	J
3. 18344-37-1	Heptadecane, 2,6,10,14-tetra	21.85	13	J
4. 74645-98-0	Dodecane, 2,7,10-trimethyl-	23.28	9	J
5.	Unknown	29.91	6	J
6.				
7.				
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30.				

US Army Ft. Monmouth NJ.

003

1A

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA 524.2

FMETR #1833.1

Bldg. 166 MW1-2931773

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523167
Lab File ID: C8336.D
Date Received: 05/19/95
Date Analyzed: 06/02/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	1.8	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

US Army Ft. Monmouth N.J. 009

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET FMETL # 1833.1
EPA 524.2

Bldg. 166 MU1-2931773

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523167
Lab File ID: C8336.D
Date Received: 05/19/95
Date Analyzed: 06/02/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

BLDG.#: 166 MW#: 1 NJDEPE WELL ID # 2931773 C10

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 5-18-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #:

SAMPLERS NAMES: Tom Baxter Susan Palilonis

WEATHER CONDITIONS: overcast breezy

ELEVATION OF CASING SURVEY MARK: ____.____

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 8.20 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: ____.____ FT

LENGTH OF SCREENED SECTION: ______ FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 3.02 FT

ELEVATION OF GW PRIOR TO PURGING: ____.___ FT

THICKNESS OF LNAPL PRIOR TO PURGING : 0.0 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS
REMOVED: 34 PPM 1200 DO. 1.2 ppm

pH: 6.20 TEMP: 20.3 C, SPECIFIC CONDUCTIVITY: 698 us/cm

DEPTH OF WELL: ____.___ FT

HEIGHT OF WATER: ____.____ FT

EVACUATED GAL. H2O: 10 GAL (5.18 X .65 X 3 = 10.101)

PURGING START TIME: 1208 END TIME: 1211

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0
GPM) Pump

PURGE RATE (<0.5 GPM): 3 GPM

TOTAL VOLUME PURGED: 10 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE
SAMPLING: 3.13 FT

DISSOLVED OXYGEN: 1.2 ppm pH: 6.22 TEMP: 20.3 °C

SPECIFIC CONDUCTIVITY: 717 us/cm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP
FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 1219 END TIME: 1225

DISSOLVED OXYGEN: 0.6 ppm pH: 6.55 TEMP: 20.6 °C

SPECIFIC CONDUCTIVITY: 730 us/cm

COMMENTS: [illegible] flush [illegible] well [illegible]
[illegible]
[illegible]

US ARMY Ft. Monmouth N.J.

012

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1830,Y
Bldg 166
TRIP BLANK

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523164
Lab File ID: C8316.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	5.1	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

US ARMY Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETC# 1830, 4
Bldg 166
TRIP BLANK

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523164
Lab File ID: C8316.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

EMSL

Date of Report: 06/23/95
Project Number: 09508273
Lab ID: 95-0023165
Date Collected: 05/18/95 14:30
Collected By: Client
Date Received: 05/19/95 07:00

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Client Project: 931021191016

Client Designation: Field Blank

	Conc.	Unit
ORGANIC		
Semi-Volatiles		
BN by 625 with Library Search	see attached	ug/l
Volatiles		
Volatiles by 524.2 w/ Library Search	see attached	ug/l

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

Bldg 166
9523165B
Field Blank

015

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523165B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7778.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	55	
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

Bldg 166
9523165B
Field Blank

016

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523165B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7778.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
Bldg 166
9523165B
Field Blank

017

Lab Name: EMSL ANALYTICAL Contract: _____

Project No.: _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9523165B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7778.D

Level: (low/med) _____ Date Received: 5/19/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/25/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/2/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

Number TICs found: 1 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.92	14	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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29.				
30.				

US ARMY Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL # 1830.5
Bldg 166

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523165 Field Blank
Lab File ID: C8317.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	5.1	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

VS ARMY Ft. Monmouth N.J.

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMER #18305
Bldg. 166
Field Blank

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9523165
Lab File ID: C8317.D
Date Received: NA
Date Analyzed: 06/01/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

EMSL

LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR
ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name, address & date of report.	X
2.	Table of Contents	X
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	X
4.	Summary Table cross-referencing field ID #'s vs. Lab ID #'s.	X
5.	Document bound, paginated and legible.	X
6.	Chain of Custody	X
7.	Methodology Summary	X
8.	Laboratory Chronicle and Holding Time Check.	X
9.	Results submitted on a dry weight basis (if applicable).	X
10	Method Detection Limits.	X
11	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEP CLP.	X
12	Non-Conformance Summary	X

Paul Farag

Laboratory Manager or Environmental Consultant's Signature

8-27-95

Date

QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

A. Checklist which must be attached to the Summary

The following information must be reported in the Closure Plan Implementation Summary for all laboratory analyses performed in the compliance with the site assessment requirements:

Page #		
1	1.	Name and address of the facility.
1	2.	Name of the laboratory performing the sample analysis.
1	3.	NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18.
1	4.	Laboratory sample identification number.
1	5.	Customer sample identification number corresponding to the laboratory sample identification.
1	6.	Sample Location (also on the site diagram).
1	7.	Matrix of the sample analyzed (i.e., water or sediments; including soil, sediment, and sludges). All sediment results must be reported on a dry weight basis.
27 - 28	8.	The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136).
1	9.	The signature of the person completing the report form.
1	10.	The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed.
29	11.	A list of all parameters (constituents and conditions) for which the analyses were performed.
3 - 19	12.	Sample results and corresponding units for each parameter.

CHAIN OF CUSTODY AND PRESERVATION CHECKLIST

U.S. ARMY FORT MONMOUTH

G5083275

P.O. #: IJO # 95-0091 / SAI

Chain of Custody

oject #: 94616154509	Sampler: EMIL (Baxter)	Date / Time: 5/18/95 12:35	Analysis Parameters
stomer: Charles Appleby SELFM-PW-EV	Site Name: Bldg 166 Mon Sampling		Start: / Finish:
one: 908 532 6224			Preservation Method

VOA + 15, Xylene, 524.2 + Organics, BNA (+ library)

b Sample Number	Date/Time		Customer Sample Location/ID Number	Sample Matrix	# of Bottles								Remarks
33.1	5/18/95	12:35	Bldg 166 MW1-2931773	Aq	5	✓	✓		23163				Samples kept < 4°C
30.4	5/12/95	615	TB	Aq	5	✓			23164				
30.5	5/12/95	1430	FB	Aq	5	✓	✓		23165				

linquished By (signature): [signature]	Date / Time: 5/18/95 1640	Received By (signature): [signature]	Shipped By: Emil C
linquished By (signature): [signature]	Date / Time: 5-18-95 18:45	Received for Lab by (signature): [signature]	Date / Time: 5/19 07:00

te: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. Back (original)

Enviornmental Laboratory

EMSL ANALYTICAL, INC.

Asbestos - Lead - Environmental - Materials

New Jersey

Corporate Office & Main Laboratory
108 Haddon Avenue
Westmont, NJ 08108
(609) 858-4800

3 Cooper Street
Westmont, NJ 08108
(609) 858-4800

1056 Stelton Road
Piscataway, NJ 08854
(908) 981-0550

New York

350 Fifth Avenue
Empire State Bldg.
Suite 1524
New York, NY 10118
(212) 290-0051

208 Stonehenge Lane
Carle Place, NY 11514
(516) 997-7251

California

1720 S. Amphlett Blvd.
Suite 130
San Mateo, CA 94402
(415) 570-5401

Florida

1878 Adams Avenue
Melbourne, FL 32935
(407) 253-4224

Georgia

1600 Rosewell Street, SE
Suite One
Smyrna, GA 30080
(404) 333-6066

Michigan

212 S. Wagner Road
Ann Arbor, MI 48103
(313) 668-6810

620-G Guilford College Rd.
Greensboro, NC 27409
(910) 297-1487

2501 Central Parkway
Suite C-13
Houston, TX 77092
(713) 686-3635

ANALYTICAL DATA REPORT
FOR
U.S. ARMY, FORT MONMOUTH
SELFM-PW-EV
Building 173
Fort Monmouth, NJ 07703

PROJECT : #94616154509

EMSL Project: # 95063938

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection	Date Received
1861.1, Trip Blank	**95-26426**	**Aqueous**	**6/13/95 @ 0605**	**6/13/95**
1861.2, Field Blank	**95-26427**	**Aqueous**	**6/13/95 @ 1535**	**6/13/95**
1866.1, MW1-2931773, Bldg. #166	**95-26435**	**Aqueous**	**6/13/95 @ 1614**	**6/13/95**

Laboratory Name: EMSL ANALYTICAL, INC.

Certification No.: NJDEP No. 04653
PADER No. 68-367
NY-ELAP No. 10896

Supervisor/Manager Signature: Paul Laraia

Printed Name: Paul V. Laraia

Date: 07-17-95

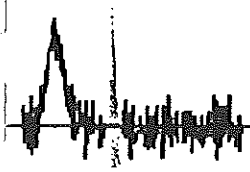
REPORT NARRATIVE

All initial runs for the Ft. Monmouth P.O. #IJO #95-0091/SAI were analyzed within hold. The samples were taken by EMSL between the dates of 5/18/95 thru 5/25/95.

There was a problem with the water used for the field and trip blanks. On certain days the field crew used DI water from the incorrect system resulting in low level contamination of Toluene, 2-Chlorotoluene and sometimes Chlorobenzene. However the resultant concentrations of these compounds were very low and the samples accompanying these field and trip blanks did not show these compounds to be present.

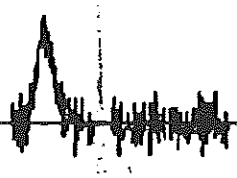
EMSL

TABLE OF CONTENTS



EMSL

SAMPLE DATA SUMMARY PACKAGE



Date of Report: 07/17/95
Project Number: 95063933
Lab ID: 95-0026426
Date Collected: 06/13/95 06:05
Collected By: Client
Date Received: 06/13/95 18:50

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Client Project: 931021191016

Client Designation: Bldg #206,Trip Blank

	Conc.	Unit
ORGANIC		
Volatiles		
Volatiles by 524.2 w/ Library Search	see attached	ug/l

Ft. Monmouth NJ FMETL# 1861/ 005
U.S. Army
TRIP BLANK

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9526426
Lab File ID: C8623.D
Date Received: 06/13/95
Date Analyzed: 06/21/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	2.3	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

FT. MONMOUTH NJ   FMERCH 18611

U.S. Army
TRIP BLANK

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9526426
Lab File ID: C8623.D
Date Received: 06/13/95
Date Analyzed: 06/21/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NO.	COMPOUND	ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

S. Army
TRIP BLANK

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9526426V

007

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9526426V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8623.D

Level: (low/med) LOW Date Received: 6/13/95

% Moisture: not dec. NA Date Analyzed: 6/21/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
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EMSL

Date of Report: 07/17/95
Project Number: 95063933
Lab ID: 95-0026427
Date Collected: 06/13/95 15:35
Collected By: Client
Date Received: 06/13/95 18:50

Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth NJ 07703

Client Project: 931021191016

Client Designation: Bldg #206,Field Blank

	Conc.	Unit
ORGANIC		
Semi-Volatiles		
BN by 625 with Library Search	see attached	ug/l
Volatiles		
Volatiles by 524.2 w/ Library Search	see attached	ug/l

U.S. Army
Field Blank

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9526427
Lab File ID: C8624.D
Date Received: 06/13/95
Date Analyzed: 06/21/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
74-83-9	Bromomethane	.50	U
75-01-4	Vinyl Chloride	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-09-2	Methylene Chloride	2.1	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
74-97-1	Bromochloromethane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
67-66-3	Chloroform	.50	U
563-58-6	1,1-Dichloropropene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
71-55-6	1,1,1-Trichloroethane	.50	U
74-95-3	Dibromomethane	.50	U
56-23-1	Carbon Tetrachloride	.50	U
75-27-4	Bromodichloromethane	.50	U
78-87-1	1,2-Dichloropropane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
79-01-6	Trichloroethene	.50	U
124-48-1	Dibromochloromethane	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
71-43-2	Benzene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
75-25-2	Bromoform	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
108-88-3	Toluene	.50	U
106-93-4	1,2-Dibromoethane	.50	U
108-90-7	Chlorobenzene	.50	U
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene(total)	.50	U

U= Not Detected

Ft. Monmouth NJ FMETC# 1861.2

U.S. Army

FIELD BLANK

010

1A

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA 524.2

Lab Name: EMSL ANALYTICAL
Matrix (soil/water): WATER
Sample wt/vol: 25 mL
Level (low/med): LOW
% Moisture: not dec.: NA
GC Column: DB-624 x 75m ID: 0.53mm
Soil Extract Volume: NA

Lab Sample ID: 9526427
Lab File ID: C8624.D
Date Received: 06/13/95
Date Analyzed: 06/21/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	COMMENT
100-42-1	Styrene	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

COMMENT
U= Not Detected

T. Monmouth NJ
FIELD BLANK

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9526427V

011

Lab Name: EMSL ANALYTICAL Contract: _____

Project No. _____ Site: _____ Location: _____ Group: _____

Matrix: (soil/water) WATER Lab Sample ID: 9526427V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8624.D

Level: (low/med) LOW Date Received: 6/13/95

% Moisture: not dec. NA Date Analyzed: 6/21/95

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	NONE FOUND			
2.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
FORT MONMOUTH, NJ

SAMPLE NO.
9526427B

012

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# 1861.2 Site: BLDG# 206 NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526427B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8025.D

Level: (low/med) Date Received: 6/13/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/19/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FORT MONMOUTH, NJ

SAMPLE NO.

9526427B 013

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# 18612 Site: BLDG# 216 NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526427B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B8025.D

Level: (low/med) Date Received: 6/13/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/19/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

FORT MONMOUTH NJ 1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
9526427B 014

Lab Name: EMSL ANALYTICAL US ARMY

FMETL# 1861.2 Site: BLDG# 226 NJDEP#

Matrix: (soil/water) WATER Lab Sample ID: 9526427B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B8025.D

Level: (low/med) Date Received: 6/13/95

% Moisture: decanted: (Y/N) N Date Extracted: 6/19/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/26/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	NONE FOUND			
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Attention: Charles Appleby
U.S. Army - Fort Monmouth
SELFM-PW-EV
Building 173
Fort Monmouth, NJ 07703

Project #: 95063938
Date Received: 06/13/95 18:50

The following results are for BN by 625 with Library Search

Lab #	Conc.	Unit	Client Designation
95 0026435	;see attached	ug/l	Bldg.166,MW1-2931773

The following results are for Volatiles by 524.2 w/ Library Search

Lab #	Conc.	Unit	Client Designation
95 0026435	;see attached	ug/l	Bldg.166,MW1-2931773

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 18661

016

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 166 NJDEP MW#: 1-2931773

Matrix: (soil/water) WATER Lab Sample ID: 9526435

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8670.D

Level: (low/med) LOW Date Received: 6/13/95

% Moisture: not dec. NA Date Analyzed: 6/28/95 7 with 7/6/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	.50	U
75-01-4	Vinyl chloride	.50	U
74-83-9	Bromomethane	.50	U
75-00-3	Chloroethane	.50	U
75-69-4	Trichlorofluoromethane	.50	U
75-35-4	1,1-Dichloroethene	.50	U
75-09-2	Methylene chloride	1.5	B
156-60-65	trans-1,2-Dichloroethene	.50	U
75-34-3	1,1-Dichloroethane	.50	U
594-20-7	2,2-Dichloropropane	.50	U
156-59-2	cis-1,2-Dichloroethene	.50	U
74-97-1	Bromochloromethane	.50	U
67-66-3	Chloroform	.70	
71-55-6	1,1,1-Trichloroethane	.50	U
56-23-1	Carbon tetrachloride	.50	U
563-58-6	1,1-Dichloropropene	.50	U
71-43-2	Benzene	.50	U
107-06-2	1,2-Dichloroethane	.50	U
79-01-6	Trichloroethene	.50	U
78-87-1	1,2-Dichloropropane	.50	U
74-95-3	Dibromomethane	.50	U
75-27-4	Bromodichloromethane	.50	U
10061-01-1	cis-1,3-Dichloropropene	.50	U
108-88-3	Toluene	.50	U
10061-02-6	trans-1,3-Dichloropropene	.50	U
79-00-1	1,1,2-Trichloroethane	.50	U
127-18-4	Tetrachloroethene	.50	U
142-28-9	1,3-Dichloropropane	.50	U
124-48-1	Dibromochloromethane	.50	U
106-93-4	1,2-Dibromomethane	.50	U
108-90-7	Chlorobenzene	.50	U
630-20-6	1,1,1,2-Tetrachloroethane	.50	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL# 1866-1

017

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#: 166 NJDEP MW#: 1-2931773

Matrix: (soil/water) WATER Lab Sample ID: 9526435

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8670.D

Level: (low/med) LOW Date Received: 6/13/95

% Moisture: not dec. NA Date Analyzed: 6/27/95

GC Column: DB-624 x 75m ID: 0.53 (mm) Dilution Factor: 1.0

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
100-41-4	Ethylbenzene	.50	U
1330-29-7	Xylene (total)	.50	U
100-42-1	Styrene	.50	U
75-25-2	Bromoform	.50	U
98-82-8	Isopropylbenzene	.50	U
108-86-1	Bromobenzene	.50	U
79-34-1	1,1,2,2-Tetrachloroethane	.50	U
96-18-4	1,2,3-Trichloropropane	.50	U
103-65-1	n-Propylbenzene	.50	U
95-49-8	2-Chlorotoluene	.50	U
106-43-4	4-Chlorotoluene	.50	U
108-67-8	1,3,5-Trimethylbenzene	.50	U
98-06-6	tert-Butylbenzene	.50	U
95-63-6	1,2,4-Trimethylbenzene	.50	U
135-98-8	sec-Butylbenzene	.50	U
541-73-1	1,3-Dichlorobenzene	.50	U
99-87-6	4-Isopropyltoluene	.50	U
106-46-7	1,4-Dichlorobenzene	.50	U
95-50-1	1,2-Dichlorobenzene	.50	U
104-51-8	n-Butylbenzene	.50	U
96-12-8	1,2-Dibromo-3-chloropropane	.50	U
120-82-1	1,2,4-Trichlorobenzene	.50	U
87-68-3	Hexachlorobutadiene	.50	U
91-20-3	Naphthalene	.50	U
87-61-6	1,2,3-Trichlorobenzene	.50	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL# 1866.1 018

Lab Name: EMSL ANALYTICAL Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ Bldg#: 166 NJDEPMW#: 1-293/773

Matrix: (soil/water) WATER Lab Sample ID: 9526435V

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: C8670.D

Level: (low/med) LOW Date Received: 6/13/95

% Moisture: not dec. NA Date Analyzed: 6/27/95 10:45

GC Column: DB-624 X 75M ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 15 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.	Unknown Hydrocarbon	20.52	2	J
2.	Unknown Hydrocarbon	21.58	3	J
3.	Unknown Hydrocarbon	21.58	2	J
4.	Unknown	22.05	2	J
5.	Unknown	22.79	2	J
6.	Unknown	23.08	2	J
7.	Unknown	23.13	4	J
8.	Unknown	23.14	3	J
9.	Unknown	23.28	2	J
10.	Unknown	23.32	2	J
11.	Unknown	23.33	2	J
12. 2958-76-1	Naphthalene, decahydro-2-met	23.50	5	J
13.	Unknown	23.56	3	J
14.	Unknown	24.25	11	J
15.	Unknown	24.26	3	J
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FORT MONMOUTH NJ USAMILMY
FMETL # 1866-1
BLDG# 166
DEP# NJL1-2931773

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 9526435B

019

Lab Name: EMSL ANALYTICAL Contract: ______

Project No.: ______ Site: ______ Location: ______ Group: ______

Matrix: (soil/water) WATER Lab Sample ID: 9526435B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7990.D

Level: (low/med) ______ Date Received: 6/13/95

% Moisture: ______ decanted: (Y/N): N Date Extracted: 6/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/22/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ______

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound	ug/L	Q
62-75-9	N-nitrosodimethylamine	2	U
111-44-4	bis(2-Chloroethyl)ether	1	U
541-73-1	1,3-Dichlorobenzene	2	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	2	U
108-60-1	bis(2-chloroisopropyl)ether	5	U
621-64-7	N-Nitroso-Di-n-propylamine	2	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	2	U
78-59-1	Isophorone	1	U
111-91-1	bis(2-Chloroethoxy)methane	3	U
120-82-1	1,2,4-Trichlorobenzene	2	U
91-20-3	Naphthalene	2	U
87-68-3	Hexachlorobutadiene	2	U
77-47-4	Hexachlorocyclopentadiene	12	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	2	U
83-32-9	Acenaphthene	3	U
121-14-2	2,4-Dinitrotoluene	3	U
84-66-2	Diethylphthalate	1	U
86-73-7	Fluorene	3	U
7005-72-3	4-Chlorophenyl-phenylether	3	U
86-30-6	n-Nitrosodiphenylamine	6	U
122-66-7	1,2-Diphenylhydrazine(as azo)	6	U
101-55-3	4-Bromophenyl-phenylether	2	U
118-74-1	Hexachlorobenzene	2	U
85-01-08	Phenanthrene	2	U
120-12-7	Anthracene	2	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	1	U
92-87-5	Benzidine	1	U

FMETL# 1866.1
BLDG# 166
WDEP# RW1-2931773

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO. 020

9526435B

Lab Name: EMSL ANALYTICAL Contract:

Project No.: Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 9526435B

Sample wt/vol: 1000.0 (g/mL ML Lab File ID: B7990.D

Level: (low/med) Date Received: 6/13/95

% Moisture: decanted: (Y/N): N Date Extracted: 6/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/22/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
129-00-0	Pyrene	2	U
85-68-7	Butylbenzylphthalate	9	U
56-55-3	Benzo[a]anthracene	2	U
91-94-1	3,3'-Dichlorobenzidine	15	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)phthalate	4	U
117-84-0	Di-n-octylphthalate	2	U
205-99-2	Benzo[b]fluoranthene	1	U
207-08-9	Benzo[k]fluoranthene	2	U
50-32-8	Benzo[a]pyrene	2	U
193-39-5	Indeno[1,2,3-cd]pyrene	2	U
53-70-3	Dibenz[a,h]anthracene	3	U
191-24-2	Benzo[g,h,i]perylene	2	U

FT MONMOUTH N.J US ARMY
METL # 1866.1
BLDG # 166
NJDEP # MW1-2931773

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO. 9526435B 021

Lab Name: EMSL ANALYTICAL Contract: ______

Project No.: ______ Site: ______ Location: ______ Group: ______

Matrix: (soil/water) WATER Lab Sample ID: 9526435B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7990.D

Level: (low/med) ______ Date Received: 6/13/95

% Moisture: ______ decanted: (Y/N) N Date Extracted: 6/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/22/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ______

Concentration Units:

Number TICs found: 19 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1. 17301-23-4	Undecane, 2,6-dimethyl-	13.53	5	J
2. 54676-39-0	Cyclohexane, 2-butyl-1,1,3-t	13.60	6	J
3. 5881-17-4	Octane, 3-ethyl-	14.65	13	J
4.	Unknown Hydrocarbon	15.40	5	J
5.	Unknown Hydrocarbon	15.46	4	J
6. 74645-98-0	Dodecane, 2,7,10-trimethyl-	16.48	7	J
7.	Decahydro-4,4,8,9,10-pentame	17.28	12	J
8. 581-40-8	Naphthalene, 2,3-dimethyl-	17.47	5	J
9.	Unknown Hydrocarbon	17.72	5	J
10. 17312-82-2	Undecane, 4,6-dimethyl-	17.92	21	J
11.	Unknown Hydrocarbon	19.39	10	J
12.	Unknown	19.41	5	J
13. 644-08-6	1,1'-Biphenyl, 4-methyl-	19.97	12	J
14. 17301-28-9	Undecane, 3,6-dimethyl-	20.83	23	J
15. 41446-68-8	3-Tetradecene, (E)-	21.12	5	J
16. 529-05-5	Azulene, 7-ethyl-1,4-dimethy	21.31	4	J
17. 54105-67-8	Heptadecane, 2,6-dimethyl-	21.66	53	J
18. 55045-10-8	Tridecane, 6-propyl-	23.10	30	J
19.	Unknown Hydrocarbon	23.90	4	J
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

BLDG.#: 166 MW#: 1 NJDEPE WELL ID # 2931773022

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 6-13-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Susan Palilonis, Tim Baxter

WEATHER CONDITIONS: Cold, cloudy, breezy

ELEVATION OF CASING SURVEY MARK: ____.____

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 7.93 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: ____.____ FT

LENGTH OF SCREENED SECTION: ______ FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 3.34 FT from screen

ELEVATION OF GW PRIOR TO PURGING: _____.___ FT

THICKNESS OF LNAPL PRIOR TO PURGING: ____.0 FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS REMOVED: 2.2 PPM 1558 D.O. ~~[illegible]~~ 0.6 ppm

① pH: 6.74 TEMP: 19.6 °C, SPECIFIC CONDUCTIVITY: 854 μS

DEPTH OF WELL: ____.___ FT

HEIGHT OF WATER: ____.____ FT

EVACUATED GAL. H2O: 9.0 GAL (4.59 X .65 X 3 = 8.9505)

PURGING START TIME: 1602 END TIME: 1607

PURGE METHOD: (FLOW RATE OF <0.5 GPM TO >5.0 GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 10 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE SAMPLING: 3.34 FT

② DISSOLVED OXYGEN: 0.9 ppm pH: 6.38 TEMP: 21.0 °C

SPECIFIC CONDUCTIVITY: 838 us/cm

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 1609 END TIME: 16~~0~~14

③ DISSOLVED OXYGEN: 0.7 pH: 6.41 TEMP: 21.3 °C

SPECIFIC CONDUCTIVITY: 838 us/cm

Color gray ODOR yes - fuel

COMMENTS: on site 1557, flush surface well

EMSL

LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR
ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures, or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name, address & date of report.	X
2.	Table of Contents	X
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	X
4.	Summary Table cross-referencing field ID #'s vs. Lab ID #'s.	X
5.	Document bound, paginated and legible.	X
6.	Chain of Custody	X
7.	Methodology Summary	X
8.	Laboratory Chronicle and Holding Time Check.	X
9.	Results submitted on a dry weight basis (if applicable).	X
10	Method Detection Limits.	X
11	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEP CLP.	X
12	Non-Conformance Summary	X

Paul Farag

Laboratory Manager or Environmental Consultant's Signature

07-17-95

Date

EMSL

QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

A. Checklist which must be attached to the Summary

The following information must be reported in the Closure Plan Implementation Summary for all laboratory analyses performed in the compliance with the site assessment requirements:

Page #		
1	1.	Name and address of the facility.
1	2.	Name of the laboratory performing the sample analysis.
1	3.	NJDEP certification number assigned to the laboratory pursuant to N.J.A.C. 7:18.
1	4.	Laboratory sample identification number.
1	5.	Customer sample identification number corresponding to the laboratory sample identification.
1	6.	Sample Location (also on the site diagram).
1	7.	Matrix of the sample analyzed (i.e., water or sediments; including soil, sediment, and sludges). All sediment results must be reported on a dry weight basis.
30-31	8.	The reference for the method used (e.g., EPA Method 625, 40 CFR Part 136).
1	9.	The signature of the person completing the report form.
1	10.	The dates the laboratory report form was prepared, as well as the dates the sample were collected, submitted and analyzed.
32	11.	A list of all parameters (constituents and conditions) for which the analyses were performed.
3-22	12.	Sample results and corresponding units for each parameter.

CHAIN OF CUSTODY

EMSL ANALYTICAL, INC.

INTERNAL CHAIN OF CUSTODY

EMSL LAB ID NO. 95-26427, 95-26435 PROJECT NO. 95063438

SAMPLE/CONTAINERS PARAMETERS

DATE	TIME	ANALYSIS	NAME (PRINT)	SIGNATURE
6/20/95		BN Extraction Prep.	Charles Bartolone	SV for CB

INTERNAL CUSTODY

Project #: 95063938

Lab ID #'s: 95-26426, 95-26427
95-26435

Analyst

	Name (please print)	Signature	Date
1. Base/Neutrals	Scott Van Etten	SVE	6/22/95
2. Acids			
3. Volatiles (GC)			
4. Volatiles (GC/MS)	Scott Kessler	SK.	6/26/95, 6:[illegible]
5. Base Neutrals/Acids			
6. Gasoline			

U.S. ARMY FORT MONMOUTH

9506 3938

P.O. #: I5o # 95-0091 /SAI

Chain of Custody

Project #: 94616154509	Sampler: EMSL (Baxter)	Date / Time 6/13/95	Analysis Parameters	Start:
Customer: Charles Appleby SELfm-PW-EV	Site Name: Bldg. #166 MW Sampling		VOA 524.2 + Xylenes; Library; BN + 15; methyl...	Finish:
Phone: 908-532-6224				Preservation Method

Lab Sample ID Number	Date	Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	VOA 524	BN + 15						Remarks
1861.1	6/13	605am	TRIP Blank	aq.	3	X		26426					Samples Kept at
1861.2	↓	1555	Field Blank	aq.	6	X	X	26427					∠4 °C
1866.1	↓	1614	Bldg. #166 MW1-2931773	aq.	6	X	X	26435					

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
X [signature]	6/13/95 1535	X [signature] Baxter	EMSL
Relinquished By (signature)	**Date / Time**	**Received for Lab by (signature):**	**Date / Time**
[signature] Baxter	6-13-95 1850		

Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. (ORIGINAL on Reverse Side)

SAI-ENV COC Form 01 Page 1 of 1 Pages Rev. 0 Date: 02 Apr 93

Environmental Laboratory

Certification ...