

United States Army

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

***Building 745
Main Post***

**NJDEP UST Registration No. 081533-119
NJDEP Closure Approval No. C-93-3907**

July 1998

**UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT**

BUILDING 745

MAIN POST

NJDEP UST REGISTRATION NO. 081533-119

NJDEP CLOSURE APPROVAL NO. C-93-3907

JULY 1998

PROJECT NO.: 09-5004-12

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PREPARED FOR:

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EXECUTIVE SUMMARY

On May 10, 1994, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval No. C-93-3907 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 081533-119, was located immediately adjacent to Building 745 in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-119 was a 550-gallon No. 2 fuel oil UST. The UST fill port was located directly above the tank. The tank closure was performed by U.S. Army Base Operation Contractor, Cleaning Up the Environment Inc. (CUTE), under the direct supervision of the Directorate of Public Works (DPW).

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. Holes were noted in the UST and evidence of potentially contaminated soils was observed surrounding the tank.

On May 10, 1994, following removal of the UST, post-excavation soil samples were collected along the sidewalls of the excavation, immediately above groundwater. Groundwater was present at approximately 4.0 feet bgs. Following removal of the UST fuel lines, soil samples were collected at a depth of 3.0 feet along the former piping length of the excavation, which was approximately 17 feet in length. The soil samples were analyzed for TPHC.

Based on an inspection of the UST, and field screening of subsurface soils the DPW concluded that an historical discharge was associated with the UST. On May 10, 1994, a spill was reported to the NJDEP "Hotline" for UST No. 081533-119 and was assigned Spill Case No. 94-5-10-0831-11.

All post-excavation soil samples collected from the UST excavation and from below piping associated with the former UST at Building 745 contained 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). 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. The excavation site was then restored to its original condition.

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 745 area on September 13, 1994. On May 23, 1995, and June 16, 1995, MW-1 was sampled for volatile organic compounds calibrated for xylene plus 10 tentatively identified compounds (VOCs), methyl tertiary butyl ether, tertiary butyl alcohol, and semivolatile organic compounds plus 10 tentatively identified compounds (SVOCs). On January 29, 1997, MW-1 was sampled for VOCs. Sampling

and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*.

The sample collected from MW-1 on May 23, 1995, contained trichloroethene at a concentration of 1.1 ug/l, which exceeded the Groundwater Quality Standard (GWQS) of 1.0 ug/l. All other groundwater analytical results from MW-1 were either non-detectable or below the GWQS.

The sample collected from MW-1 on June 16, 1995, contained methylene chloride at a concentration of 2.4 ug/l, and 1,2-dichloroethane at 7.7 ug/l. These concentrations exceeded the GWQS of 2.0 ug/l. All other groundwater analytical results from MW-1 were either non-detectable or below the GWQS.

The sample collected from MW-1 on January 29, 1997, contained either non-detectable concentrations of volatile organic compounds or concentrations below the Groundwater Quality Standard (GWQS).

Based on the post-excavation soil 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 23, 1995, June 16, 1995, and January 29, 1997, groundwater quality at the Building 745 UST closure site complies with the New Jersey Groundwater Quality Criteria for VOCs and SVOCs. Monitoring well will be monitored during the site-wide investigation currently being conducted at Fort Monmouth under Defense Environmental Restoration Program (DERP), a long term monitoring program, approved by NJDEP.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-119 at Building 745.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-119, was closed at Building 745 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on May 10, 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 August 2, 1993. The plan was approved on September 7, 1993 and assigned TMS No. C-93-3907. The UST was a steel 550-gallon tank containing No. 2 fuel oil.

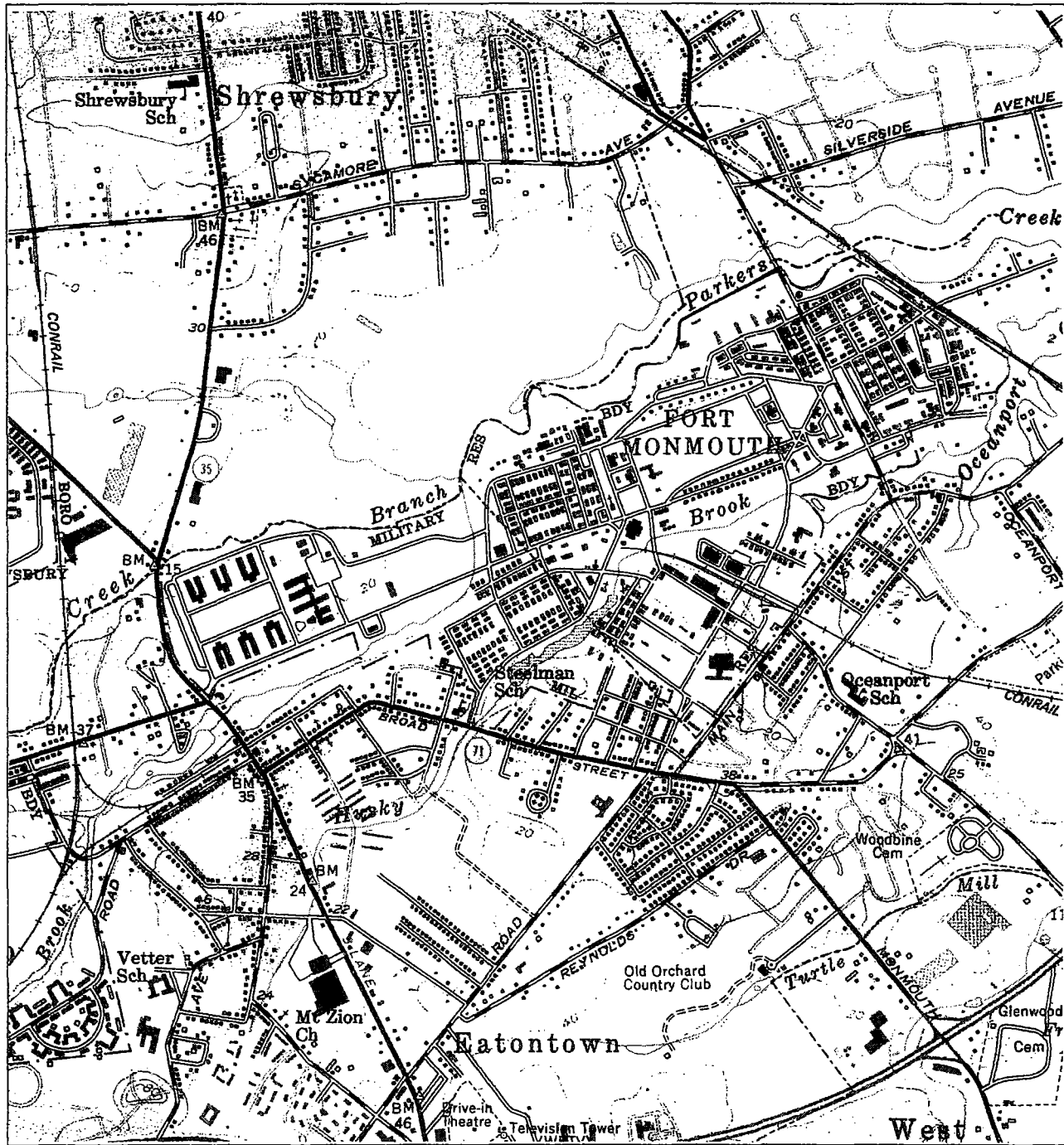
Decommissioning activities for UST No. 081533-119 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. CUTE, the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 081533-119 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. 081533-119 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 no significant historical discharges are associated with the UST or associated piping.

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.

Source: Long Branch, New Jersey Quadrangle



SCALE
0 2000 FT.

NEW JERSEY



QUADRANGLE LOCATION

1.2 SITE DESCRIPTION

Building 745 is located in the southern portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 081533-119 was located south of Building 745 and appurtenant piping ran approximately 17 feet east from the excavation to Building 745. 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 745. 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.

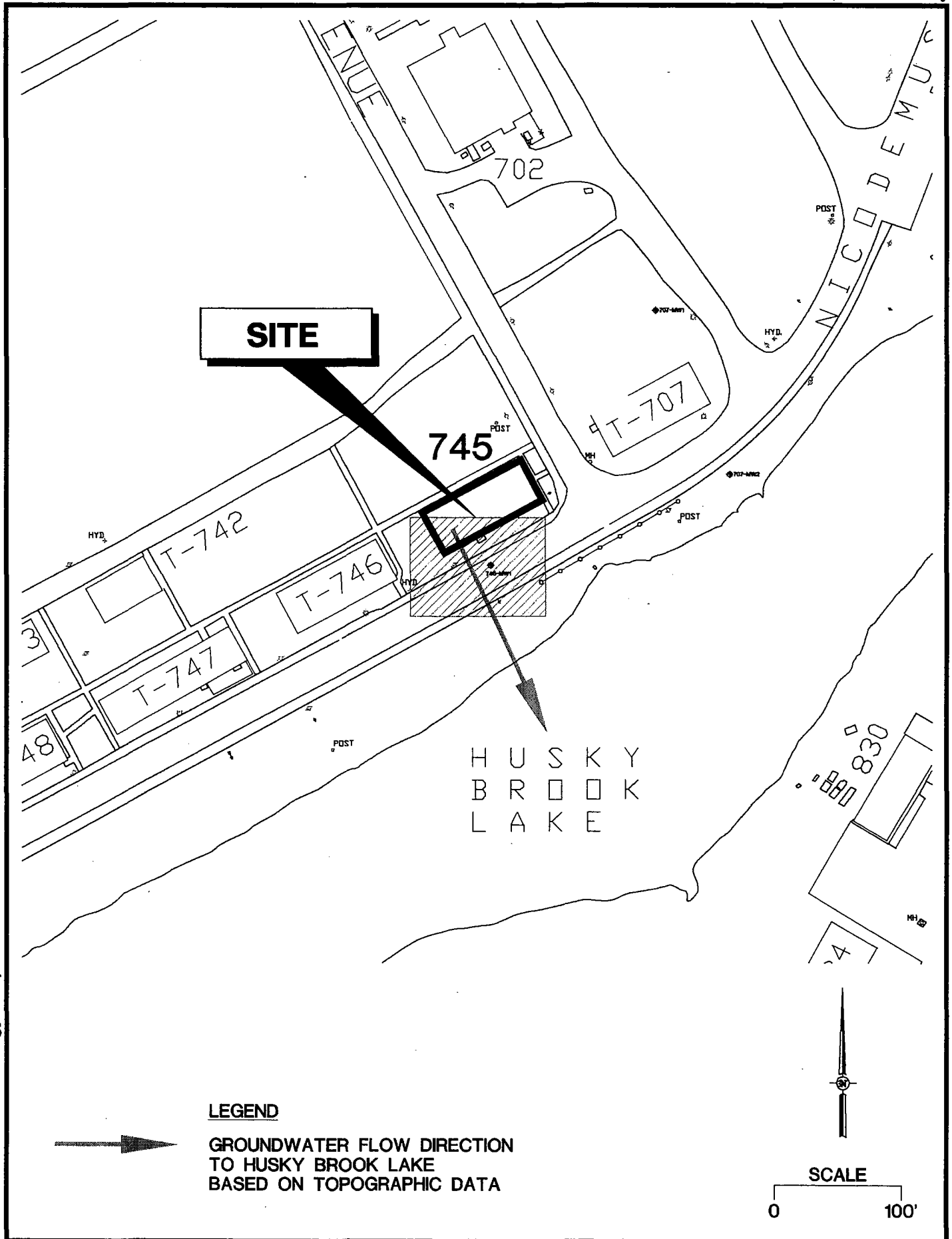
In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapcza, 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 Zapcza, 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-

Source: Smith Technology Corporation (172)



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 the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Approximately 306 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 manifest (NJ-1603245).

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. Holes 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 tank was transported by CUTE to Mazza and Sons Inc. 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 10 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 290 area 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 the 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 Certification No.: 3248
- Subsurface Evaluator: Charles M. Appleby
Employer: U.S. Army, Fort Monmouth
Phone Number: (908) 532-6224
NJDEP Certification No.: 2056
- 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. 081533-119 until no evidence of contamination remained.

2.3 SOIL SAMPLING

On May 10, 1994, post-excavation soil samples D, E, F, and G were collected from a total of four (4) locations along the sidewalls of the UST excavation, at a depth of 3.5 feet below ground surface (bgs). The samples were analyzed for TPHC.

Following removal of the UST fuel lines, soil samples A, B, DUP B, and C were collected along the piping trench of the excavation, which was approximately 17 feet in length. Samples A, B, and DUP B were collected at a depth of 3.0 feet bgs. Piping sample C was collected at a depth of 2.0 feet bgs. The samples were analyzed for 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 1,090.0 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 745 area on September 13, 1994. It was installed approximately 17 feet south of the UST excavation in the downgradient direction. It was screened in the 2.5 to 12.5 foot interval, across the water table, which is approximately 3.0 feet below grade 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 E.

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 sand pack was extended approximately 2 feet 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

TABLE 1
SUMMARY OF SAMPLING ACTIVITIES
BUILDING 745, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	5/10/94	Soil	Post-Excavation	TPHC	Polystyrene Scoops
B	5/10/94	Soil	Post-Excavation	TPHC	Polystyrene Scoops
C	5/10/94	Soil	Post-Excavation	TPHC	Polystyrene Scoops
D	5/10/94	Soil	Post-Excavation	TPHC	Polystyrene Scoops
E	5/10/94	Soil	Post-Excavation	TPHC	Polystyrene Scoops
F	5/10/94	Soil	Post-Excavation	TPHC	Polystyrene Scoops
G	5/10/94	Soil	Post-Excavation	TPHC	Polystyrene Scoops
DUP E	5/10/94	Soil	Post-Excavation	TPHC	Polystyrene Scoops
MW-1	5/23/95	Aqueous	Groundwater	VOCs, SVOCs	Teflon Bottom Fill Bailer
MW-1	6/16/95	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)

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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 offsite disposal.

2.4.2 Monitoring Well Sampling

On May 23, 1995 and June 16, 1995, MW-1 was sampled for volatile organic compounds calibrated for xylene plus 10 tentatively identified compounds (VOCs), methyl tertiary butyl ether, tertiary butyl alcohol, and semivolatile organic compounds plus 10 tentatively identified compounds (SVOCs). Monitoring well MW-1 was also sampled for VOCs on January 29, 1997. 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.

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 seven (7) locations on May 10, 1994. The samples were analyzed for TPHC. The post-excavation 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 May 10, 1994 from the UST excavation and from below piping associated with the UST contained concentrations of TPHC below the NJDEP soil cleanup criteria.

Sample D contained a non-detectable concentration of TPHC. Samples E, F, and G contained TPHC concentrations of 356.0 mg/kg, 27.3 mg/kg, and 63.0 mg/kg, respectively. Piping samples A, DUP B, and C contained TPHC concentrations of 7.03 mg/kg, 71.0 mg/kg, and 545.0 mg/kg, respectively. Piping sample B contained a non-detectable concentration of TPHC.

3.2 GROUNDWATER SAMPLING RESULTS

The sample collected from MW-1 on May 23, 1995, contained methylene chloride at a concentration of 1.0 ug/l, which is below the criteria of 2.0 ug/l. The sample also contained trichloroethene at a concentration of 1.1 ug/l, which is slightly above the criteria of 1.0 ug/l. No other compounds were detected.

The sample collected from MW-1 on June 16, 1995, contained methylene chloride at 2.4 ug/l, chloroethane at 0.8 ug/l, and 1,2-dichloroethane at 7.7 ug/l. The results for methylene chloride exceeded the GWQS of 2.0 ug/l. This compound was detected in the trip blank and field blank at a concentration of 0.8 ug/l, and is also a common laboratory contaminant. The results for 1,2-dichloroethane exceeded the GWQS of 2.0 ug/l. The trip blank and field blank contained 1,2-dichloroethane at 8.4 ug/l and 7.3 ug/l, respectively. The presence of this compound in MW-1 is therefore contributed to field or laboratory contamination and is not representative of water quality in MW-1. No other compounds were detected.

The sample collected from MW-1 on January 29, 1997 contained methylene chloride at 1.0 ug/l, which is below the criteria of 2.0 ug/l. No other compounds were detected.

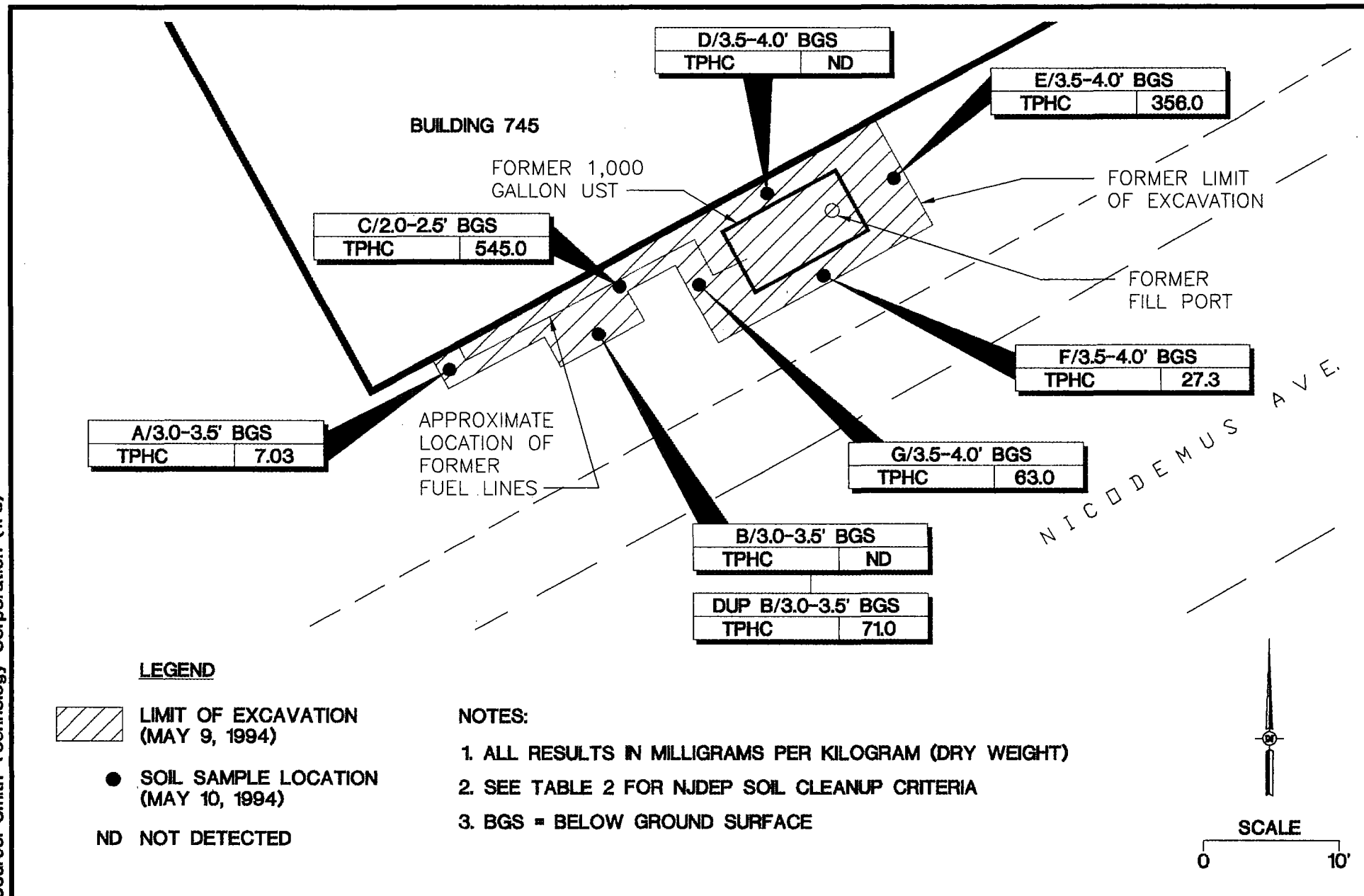


TABLE 2
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 745, MAIN POST
FORT MONMOUTH, NEW JERSEY

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	1487.1	5/10/94	5/11/94	Total % Solid	--	--	83 %	--	--
				TPHC	6.6	yes	7.03	10,000	--
B	1487.2	5/10/94	5/11/94	Total % Solid	--	--	81 %	--	--
				TPHC	9.9	yes	ND	10,000	--
C	1487.3	5/10/94	5/11/94	Total % Solid	--	--	81 %	--	--
				TPHC	9.9	yes	545	10,000	--
D	1487.4	5/10/94	5/11/94	Total % Solid	--	--	77 %	--	--
				TPHC	6.6	yes	ND	10,000	--
E	1487.5	5/10/94	5/11/94	Total % Solid	--	--	81 %	--	--
				TPHC	6.6	yes	356	10,000	--
F	1487.6	5/10/94	5/11/94	Total % Solid	--	--	79 %	--	--
				TPHC	6.6	yes	27.3	10,000	--
G	1487.7	5/10/94	5/11/94	Total % Solid	--	--	80 %	--	--
				TPHC	6.6	yes	63	10,000	--
DUP E	1487.8	5/10/94	5/11/94	Total % Solid	--	--	80 %	--	--
				TPHC	9.9	yes	71	10,000	--

NOTES:

--: 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 1,090 mg/kg.

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

745TBL.XLS

No product or sheen was observed in MW-1 on any of the sampling dates. The depth to the water table was 3.06 feet below grade surface on May 23, 1995, 3.08 feet below grade surface on June 16, 1995, and 2.35 feet below grade on January 29, 1997.

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.

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 745 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.

The compound trichloroethene was detected at a concentration slightly above the GWQS in the sampling round on May 23, 1995. This compound was not detected in subsequent rounds collected on June 16, 1995 and January 29, 1997. Based on this and other analytical results of the groundwater samples collected on May 23, 1995, June 16, 1995, and January 29, 1997, groundwater quality at the Building 745 UST closure site complies with the New Jersey Groundwater Quality Standard for VOCs and SVOCs. Monitoring well will be abandoned after the site investigation currently being conducted at Fort Monmouth under Defense Environmental Restoration Program (DERP) is completed.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-119 at Building 745.

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/4/95	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	--	--
			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 az	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	--
			Benzidine	1	--	ND	50	--
			Pyrene	2	--	ND	200	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/4/95	Butylbenzylphthalate	9	--	ND	--	--
			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	--	--	17 J	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/5/95	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	1.0	--	1.0 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	--	1.10	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	1.1	--	1.1	1	yes
			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	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/5/95	Tetrachloroethene	0.5	--	ND	1	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--
			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-Trichloropropane	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-Trichlorobenzene	0.5	--	ND	--	--
			Methyl tertiary butyl ether	0.6	--	0.6	70	--
			Tertiary Butyl Alcohol	2.0	--	ND	500	--
			VOLATILE TICS:					
			Unknown	--	--	1 J	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/3/95	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	6.3	--	6.3 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	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/3/95	Tetrachloroethene	0.5	--	ND	1	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--
			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-Trichloropropane	0.5	--	ND	--	--
			n-Propylbenzene	0.5	--	ND	--	--
			2-Chlorotoluene	1.5	--	1.5	--	--
			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-Trichlorobenzene	0.5	--	ND	--	--
			Methyl tertiary butyl ether	0.5	--	ND	70	--
			Tertiary Butyl Alcohol	2.0	--	ND	500	--
			VOLATILE TICS:					
			Column Bleed	--	--	1 J	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/4/95	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	--	--
			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 az	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	--
			Benzidine	1	--	ND	50	--
			Pyrene	2	--	ND	200	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/4/95	Butylbenzylphthalate	9	--	ND	--	--
			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	--	--	26 J	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/3/95	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	5.0	--	5.0	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	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	5/23/95	6/3/95	Tetrachloroethene	0.5	--	ND	1	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--
			Toluene	0.5	--	0.5	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-Trichloropropane	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-Trichlorobenzene	0.5	--	ND	--	--
			Methyl tertiary butyl ether	0.5	--	ND	70	--
			Tertiary Butyl Alcohol	2.0	--	ND	500	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	7/1/95	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	--	--
			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 az	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	--
			Benzidine	1	--	ND	50	--
			Pyrene	2	--	ND	200	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	7/1/95	Butylbenzylphthalate	9	--	ND	--	--
			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:					
			NONE FOUND	--	--	--	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	6/28/95	Dichlorodifluoromethane	0.5	--	ND	1,000	--
			Chloromethane	0.8	--	0.8	30	--
			Vinyl Chloride	0.5	--	ND	5	--
			Bromomethane	0.5	--	ND	10	--
			Chloroethane	0.5	--	ND	--	--
			Trichlorofluoromethane	0.5	--	ND	--	--
			1,1-Dichloroethene	0.5	--	ND	2	--
			Methylene Chloride	2.4	--	2.4	2	yes
			trans,1,2-Dichloroethene	0.5	--	ND	100	--
			1,1-Dichloroethane	0.5	--	ND	70	--
			2,2-Dichloropropane	0.5	--	ND	--	--
			cis-1,2-Dichloroethene	0.5	--	ND	10	--
			Bromochloromethane	0.5	--	ND	--	--
			Chloroform	0.5	--	ND	6	--
			1,1,1-Trichloroethane	0.5	--	ND	30	--
			Carbon Tetrachloride	0.5	--	ND	2	--
			1,1-Dichloropropene	0.5	--	ND	--	--
			Benzene	0.5	--	ND	1	--
			1,2-Dichloroethane	7.7	--	7.7	2	yes
			Trichloroethene	0.5	--	ND	1	--
			1,2-Dichloropropane	0.5	--	ND	1	--
			Dibromomethane	0.5	--	ND	--	--
			Bromodichloromethane	0.5	--	ND	1	--
			cis-1,3-Dichloropropene	0.5	--	ND	NA	--
			Toluene	0.5	--	ND	1,000	--
			trans-1,3-Dichloropropene	0.5	--	ND	NA	--
			1,1,2-Trichloroethane	0.5	--	ND	3	--
			Tetrachloroethene	0.5	--	ND	1	--
			1,3-Dichloropropane	0.5	--	ND	--	--
			Dibromochloromethane	0.5	--	ND	10	--
			1,2-Dibromomethane	0.5	--	ND	--	--
			Chlorobenzene	0.5	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.5	--	ND	10	--
			Ethylbenzene	0.5	--	ND	700	--
			Xylene (total)	0.5	--	ND	40	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	6/28/95	Styrene	0.5	--	ND	100	--
			Bromoform	0.5	--	ND	4	--
			Isopropylbenzene	0.5	--	ND	--	--
			Bromobenzene	0.5	--	ND	--	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--
			1,2,3-Trichloropropane	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	--
			4-Isopropyltoluene	0.5	--	ND	--	--
			1,4-Dichlorobenzene	0.5	--	ND	75	--
			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-Trichlorobenzene	0.5	--	ND	--	--
			VOLATILE TICS:					
			Ethane,1-bromo-2-chloro	--	--	3 J	--	--
			Column Bleed	--	--	1 J	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	6/27/95	Dichlorodifluoromethane	0.5	--	ND	1,000	--
			Chloromethane	1.0	--	1.0	30	--
			Vinyl Chloride	0.5	--	ND	5	--
			Bromomethane	0.5	--	ND	10	--
			Chloroethane	0.5	--	ND	--	--
			Trichlorofluoromethane	0.5	--	ND	--	--
			1,1-Dichloroethene	0.5	--	ND	2	--
			Methylene Chloride	0.8	--	0.8	2	--
			trans,1,2-Dichloroethene	0.5	--	ND	100	--
			1,1-Dichloroethane	0.5	--	ND	70	--
			2,2-Dichloropropane	0.5	--	ND	--	--
			cis-1,2-Dichloroethene	0.5	--	ND	10	--
			Bromochloromethane	0.5	--	ND	--	--
			Chloroform	0.5	--	ND	6	--
			1,1,1-Trichloroethane	0.5	--	ND	30	--
			Carbon Tetrachloride	0.5	--	ND	2	--
			1,1-Dichloropropene	0.5	--	ND	--	--
			Benzene	0.5	--	ND	1	--
			1,2-Dichloroethane	8.4	--	8.4	2	yes
			Trichloroethene	0.5	--	ND	1	--
			1,2-Dichloropropane	0.5	--	ND	1	--
			Dibromomethane	0.5	--	ND	--	--
			Bromodichloromethane	0.5	--	ND	1	--
			cis-1,3-Dichloropropene	0.5	--	ND	NA	--
			Toluene	0.5	--	ND	1,000	--
			trans-1,3-Dichloropropene	0.5	--	ND	NA	--
			1,1,2-Trichloroethane	0.5	--	ND	3	--
			Tetrachloroethene	0.5	--	ND	1	--
			1,3-Dichloropropane	0.5	--	ND	--	--
			Dibromochloromethane	0.5	--	ND	10	--
			1,2-Dibromomethane	0.5	--	ND	--	--
			Chlorobenzene	0.5	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.5	--	ND	10	--
			Ethylbenzene	0.5	--	ND	700	--
			Xylene (total)	0.5	--	ND	40	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	6/27/95	Styrene	0.5	--	ND	100	--
			Bromoform	0.5	--	ND	4	--
			Isopropylbenzene	0.5	--	ND	--	--
			Bromobenzene	0.5	--	ND	--	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--
			1,2,3-Trichloropropane	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	--
			4-Isopropyltoluene	0.5	--	ND	--	--
			1,4-Dichlorobenzene	0.5	--	ND	75	--
			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-Trichlorobenzene	0.5	--	ND	--	--
			VOLATILE TICS:					
			Ethane, 1-bromo-2-chloro	--	--	3 J	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	7/1/95	Phenol	3	--	3 JB	4,000	--
			bis(2-Chloroethyl)Ether	10	--	ND	10	--
			2-chlorophenol	10	--	ND	40	--
			1,3-Dichlorobenzene	10	--	ND	600	--
			1,4-Dichlorobenzene	10	--	ND	75	--
			1,2-Dichlorobenzene	10	--	ND	600	--
			2-methylphenol	10	--	ND	--	--
			bis(2-chloroisopropyl)ether	10	--	ND	--	--
			4-methylphenol	10	--	ND	--	--
			N-Nitroso-Di-N-propylamine	10	--	ND	20	--
			Hexachloroethane	10	--	ND	10	--
			Nitrobenzene	10	--	ND	10	--
			Isophorone	10	--	ND	100	--
			2-nitrophenol	10	--	ND	--	--
			2,4-dimethylphenol	10	--	ND	100	--
			bis(2-Chloroethoxy)methane	10	--	ND	--	--
			2,4-dichlorophenol	10	--	ND	20	--
			1,2,4-Trichlorobenzene	10	--	ND	9	--
			Naphthalene	10	--	ND	300	--
			4-chloroaniline	10	--	ND	--	--
			Hexachlorobutadiene	10	--	ND	1	--
			4-chloro-3-methylphenol	10	--	ND	--	--
			2-methylnaphthalene	10	--	ND	--	--
			Hexachlorocyclopentadiene	10	--	ND	50	--
			2,4,6-trichlorophenol	10	--	ND	20	--
			2,4,5-trichlorophenol	25	--	ND	700	--
			2-chloronaphthalene	10	--	ND	--	--
			2-nitroaniline	25	--	ND	--	--
			Dimethylphthalate	10	--	ND	--	--
			Acenaphthylene	10	--	ND	NA	--
			2,6-Dinitrotoluene	10	--	ND	NA	--
			3-nitroaniline	25	--	ND	--	--
			Acenaphthene	10	--	ND	400	--
			2,4-dinitrophenol	25	--	ND	40	--
			4-nitrophenol	25	--	ND	--	--
			Dibenzofuran	10	--	ND	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	7/1/95	2,4-Dinitrotoluene	10	--	ND	10	--
			Diethylphthalate	10	--	ND	5,000	--
			Fluorene	10	--	ND	300	--
			4-Chlorophenyl-phenylether	10	--	ND	--	--
			4-Nitroaniline	25	--	ND	--	--
			4,6-Dinitro-2-methylphenol	25	--	ND	--	--
			N-nitrosodimethylamine	10	--	ND	20	--
			4-Bromophenyl-phenylether	10	--	ND	--	--
			Hexachlorobenzene	10	--	ND	10	--
			Pentachlorophenol	25	--	ND	1	--
			Phenanthrene	10	--	ND	NA	--
			Anthracene	10	--	ND	2,000	--
			Carbazole	10	--	ND	--	--
			Di-n-butylphthalate	10	--	ND	900	--
			Fluoranthene	10	--	ND	300	--
			Pyrene	10	--	ND	200	--
			Butylbenzylphthalate	10	--	ND	--	--
			Benzo(a)anthracene	10	--	ND	0.05	--
			3,3'-Dichlorobenzidine	20	--	ND	60	--
			Chrysene	10	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	10	--	ND	30	--
			Di-n-octylphthalate	10	--	ND	100	--
			Benzo(b)fluoranthene	10	--	ND	0.05	--
			Benzo(k)fluoranthene	10	--	ND	0.5	--
			Benzo(a)pyrene	10	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	10	--	ND	0.05	--
			Dibenz(a,h)anthracene	10	--	ND	0.005	--
			Benzo(g,h,i)perylene	10	--	ND	NA	--
			SEMIVOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	6/27/95	Dichlorodifluoromethane	0.5	--	ND	1,000	--
			Chloromethane	0.9	--	0.9	30	--
			Vinyl Chloride	0.5	--	ND	5	--
			Bromomethane	0.5	--	ND	10	--
			Chloroethane	0.5	--	ND	--	--
			Trichlorofluoromethane	0.5	--	ND	--	--
			1,1-Dichloroethene	0.5	--	ND	2	--
			Methylene Chloride	0.8	--	0.8 B	2	--
			trans-1,2-Dichloroethene	0.5	--	ND	100	--
			1,1-Dichloroethane	0.5	--	ND	70	--
			2,2-Dichloropropane	0.5	--	ND	--	--
			cis-1,2-Dichloroethene	0.5	--	ND	10	--
			Bromochloromethane	0.5	--	ND	--	--
			Chloroform	0.5	--	ND	6	--
			1,1,1-Trichloroethane	0.5	--	ND	30	--
			Carbon Tetrachloride	0.5	--	ND	2	--
			1,1-Dichloropropene	0.5	--	ND	--	--
			Benzene	0.5	--	ND	1	--
			1,2-Dichloroethane	7.3	--	7.3	2	yes
			Trichloroethene	0.5	--	ND	1	--
			1,2-Dichloropropane	0.5	--	ND	1	--
			Dibromomethane	0.5	--	ND	--	--
			Bromodichloromethane	0.5	--	ND	1	--
			cis-1,3-Dichloropropene	0.5	--	ND	NA	--
			Toluene	0.5	--	ND	1,000	--
			trans-1,3-Dichloropropene	0.5	--	ND	NA	--
			1,1,2-Trichloroethane	0.5	--	ND	3	--
			Tetrachloroethene	0.5	--	ND	1	--
			1,3-Dichloropropane	0.5	--	ND	--	--
			Dibromochloromethane	0.5	--	ND	10	--
			1,2-Dibromomethane	0.5	--	ND	--	--
			Chlorobenzene	0.5	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.5	--	ND	10	--
			Ethylbenzene	0.5	--	ND	700	--
			Xylene (total)	0.5	--	ND	40	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	6/16/95	6/27/95	Styrene	0.5	--	ND	100	--
			Bromoform	0.5	--	ND	4	--
			Isopropylbenzene	0.5	--	ND	--	--
			Bromobenzene	0.5	--	ND	--	--
			1,1,2,2-Tetrachloroethane	0.5	--	ND	2	--
			1,2,3-Trichloropropane	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	--
			4-Isopropyltoluene	0.5	--	ND	--	--
			1,4-Dichlorobenzene	0.5	--	ND	75	--
			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-Trichlorobenzene	0.5	--	ND	--	--
VOLATILE TICS:								
			Ethane,1-bromo-2-chloro	--	--	3 J	--	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	1/29/97	2/12/97	Dichlorodifluoromethane	0.04	--	ND	--	--
			Chloromethane	0.13	--	ND	30	--
			Vinyl Chloride	0.08	--	ND	5	--
			Bromomethane	0.09	--	ND	--	--
			Chloroethane	0.08	--	ND	--	--
			Trichlorofluoromethane	0.12	--	ND	--	--
			1,1-Dichloroethene	0.11	--	ND	2	--
			Methylene Chloride	0.04	--	1.0	2	--
			trans,1,2-Dichloroethene	0.06	--	ND	100	--
			1,1-Dichloroethane	0.08	--	ND	70	--
			Chloroform	0.03	--	ND	6	--
			1,1,1-Trichloroethane	0.02	--	ND	30	--
			Carbon Tetrachloride	0.09	--	ND	2	--
			1,2-Dichloroethane	0.02	--	ND	2	--
			Trichloroethene	0.06	--	ND	1	--
			1,2-Dichloropropane	0.03	--	ND	1	--
			Bromodichloromethane	0.08	--	ND	1	--
			2 Chloroethylvinyl ether	0.08	--	ND	--	--
			cis-1,3-Dichloropropene	0.07	--	ND	NA	--
			trans-1,3-Dichloropropene	0.01	--	ND	NA	--
			1,1,2-Trichloroethane	0.02	--	ND	3	--
			Tetrachloroethene	0.07	--	ND	1	--
			Dibromochloromethane	0.07	--	ND	10	--
			Bromoform	0.03	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.02	--	ND	10	--
			Benzene	0.05	--	ND	1	--
			Toluene	0.04	--	ND	1,000	--
			Chlorobenzene	0.04	--	ND	4	--
			Ethylbenzene	0.05	--	ND	700	--
			Xylene (total)	0.04	--	ND	40	--
			1,3-Dichlorobenzene	0.16	--	ND	600	--
			1,4-Dichlorobenzene	0.18	--	ND	75	--
			1,2-Dichlorobenzene	0.18	--	ND	600	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	1/29/97	2/12/97	Dichlorodifluoromethane	0.04	--	ND	--	--
			Chloromethane	0.13	--	ND	30	--
			Vinyl Chloride	0.08	--	ND	5	--
			Bromomethane	0.09	--	ND	--	--
			Chloroethane	0.08	--	ND	--	--
			Trichlorofluoromethane	0.12	--	ND	--	--
			1,1-Dichloroethene	0.11	--	ND	2	--
			Methylene Chloride	0.04	--	2.51	2	yes
			trans,1,2-Dichloroethene	0.06	--	ND	100	--
			1,1-Dichloroethane	0.08	--	ND	70	--
			Chloroform	0.03	--	ND	6	--
			1,1,1-Trichloroethane	0.02	--	ND	30	--
			Carbon Tetrachloride	0.09	--	ND	2	--
			1,2-Dichloroethane	0.02	--	ND	2	--
			Trichloroethene	0.06	--	ND	1	--
			1,2-Dichloropropane	0.03	--	ND	1	--
			Bromodichloromethane	0.08	--	ND	1	--
			2 Chloroethylvinyl ether	0.08	--	ND	--	--
			cis-1,3-Dichloropropene	0.07	--	ND	NA	--
			trans-1,3-Dichloropropene	0.01	--	ND	NA	--
			1,1,2-Trichloroethane	0.02	--	ND	3	--
			Tetrachloroethene	0.07	--	ND	1	--
			Dibromochloromethane	0.07	--	ND	10	--
			Bromoform	0.03	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.02	--	ND	10	--
			Benzene	0.05	--	ND	1	--
			Toluene	0.04	--	ND	1,000	--
			Chlorobenzene	0.04	--	ND	4	--
			Ethylbenzene	0.05	--	ND	700	--
			Xylene (total)	0.04	--	ND	40	--
			1,3-Dichlorobenzene	0.16	--	ND	600	--
			1,4-Dichlorobenzene	0.18	--	ND	75	--
			1,2-Dichlorobenzene	0.18	--	ND	600	--

TABLE 3
GROUNDWATER SAMPLING RESULTS
BUILDING 745, 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	1/29/97	2/12/97	Dichlorodifluoromethane	0.04	--	ND	--	--
			Chloromethane	0.13	--	ND	30	--
			Vinyl Chloride	0.08	--	ND	5	--
			Bromomethane	0.09	--	ND	--	--
			Chloroethane	0.08	--	ND	--	--
			Trichlorofluoromethane	0.12	--	ND	--	--
			1,1-Dichloroethene	0.11	--	ND	2	--
			Methylene Chloride	0.04	--	3.49	2	yes
			trans,1,2-Dichloroethene	0.06	--	ND	100	--
			1,1-Dichloroethane	0.08	--	ND	70	--
			Chloroform	0.03	--	ND	6	--
			1,1,1-Trichloroethane	0.02	--	ND	30	--
			Carbon Tetrachloride	0.09	--	ND	2	--
			1,2-Dichloroethane	0.02	--	ND	2	--
			Trichloroethene	0.06	--	ND	1	--
			1,2-Dichloropropane	0.03	--	ND	1	--
			Bromodichloromethane	0.08	--	ND	1	--
			2 Chloroethylvinyl ether	0.08	--	ND	--	--
			cis-1,3-Dichloropropene	0.07	--	ND	NA	--
			trans-1,3-Dichloropropene	0.01	--	ND	NA	--
			1,1,2-Trichloroethane	0.02	--	ND	3	--
			Tetrachloroethene	0.07	--	ND	1	--
			Dibromochloromethane	0.07	--	ND	10	--
			Bromoform	0.03	--	ND	4	--
			1,1,1,2-Tetrachloroethane	0.02	--	ND	10	--
			Benzene	0.05	--	ND	1	--
			Toluene	0.04	--	ND	1,000	--
			Chlorobenzene	0.04	--	ND	4	--
			Ethylbenzene	0.05	--	ND	700	--
			Xylene (total)	0.04	--	ND	40	--
			1,3-Dichlorobenzene	0.16	--	ND	600	--
			1,4-Dichlorobenzene	0.18	--	ND	75	--
			1,2-Dichlorobenzene	0.18	--	ND	600	--

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

No product or sheen was observed in MW-1 on any of the sampling dates. The depth to the water table was 3.06 feet below grade surface on May 23, 1995, 3.08 feet below grade surface on June 16, 1995, and 2.35 feet below grade on January 29, 1997.

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.

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 745 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.

The compound trichloroethene was detected at a concentration slightly above the GWQS in the sampling round on May 23, 1995. This compound was not detected in subsequent rounds collected on June 16, 1995 and January 29, 1997. Based on this and other analytical results of the groundwater samples collected on May 23, 1995, June 16, 1995, and January 29, 1997, groundwater quality at the Building 745 UST closure site complies with the New Jersey Groundwater Quality Standard for VOCs and SVOCs. Monitoring well will be abandoned after the site investigation currently being conducted at Fort Monmouth under Defense Environmental Restoration Program (DERP) is completed.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-119 at Building 745.

APPENDIX A

NJDEP BUST CLOSURE APPROVAL

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
BUREAU OF UNDERGROUND STORAGE TANKS
CN-029, TRENTON, NJ 08625-0029

TMS #

UST #

C-93-3907

0081533

US Army
BLDG. 745
Ft. Monmouth, NJ

Monmouth

THE ABOVE LISTED FACILITY IS HEREBY GRANTED APPROVAL TO PERFORM
THE FOLLOWING ACTIVITY IN ACCORDANCE WITH N.J.A.C. 7:14B-1 et. seq.:

Removal of: one 550 gallon #2 diesel UST(s) and appurtenant
piping.

SITE ASSESSMENT: Soil samples will be taken every five (5) feet
along the center line of each tank and one (1) soil sample for
every 15 feet along all associated piping. Two (2) additional
samples will be taken from around the tank and biased to the areas
of highest field screened readings. Samples will be analyzed for
TPHC. If sample results are greater than 1,000ppm than 25% of the
samples will be analyzed for VO+10.

ON-SITE MANAGER: C. Appleby

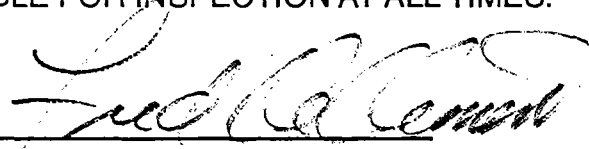
TELEPHONE: 908-532-1475

OWNER:

TELEPHONE:

EFFECTIVE DATE: **SEP 07 1993**

THIS FORM MUST BE DISPLAYED AT THE SITE DURING THE APPROVED
ACTIVITY AND MUST BE MADE AVAILABLE FOR INSPECTION AT ALL TIMES.


KEVIN F. KRATINA, BUREAU CHIEF
BUREAU OF UNDERGROUND STORAGE TANKS

APPENDIX B

CERTIFICATIONS

**UNDERGROUND STORAGE TANK (UST)
CLOSURE CERTIFICATION**

BUILDING NO. 745

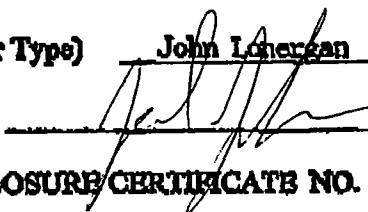
NJDEP UST REGISTRATION NO. 81533-119

DATE TANK REMOVED 5/9/94

UO / 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 Loneragan

SIGNATURE 

NJDEP UST CLOSURE CERTIFICATE NO. 0003248

COMPANY PERFORMING TANK DECOMMISSIONING GUTE Inc

NJDEP UST CLOSURE CORPORATE CERTIFICATE NO. 0200128

DATE OF SUBMITTAL 6/10/94

APPENDIX C
WASTE MANIFEST

Bldg 745 -

UNDERGROUND STORAGE TANK REMOVAL (UST)

(Submit one form for each tank)

Building No. 745 NJDEPE UST Reg. No. 81533 - 119

IJO No. 91-0148 Date Tank Removed _____

ITEM NO.	ITEM OF WORK	UNIT	UNIT PRICE	QUANTITY	TOTAL PRICE
01100-1.1	Rmv ID#27 soil to stockpile	TN	\$14.50		\$ N/A
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	306	\$ 211.14
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		\$ N/A
02050-5.1	Sawcut blacktop *	TN	\$27.50		\$ N/A
02050-5.2	Sawcut concrete *	TN	\$29.50		\$ N/A
02050-5.3	Sawcut reinforced concrete	TN	\$32.50		\$ N/A
02222-1.1	Backfill cert. clean fill *	TN	\$16.25		\$ N/A
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. \$ 211.14

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. #: 003248 DATE: 5/12/94

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

UNDERGROUND STORAGE TANK REMOVAL (UST)

(Submit one form for each tank)

Building No. 745 NJDEPE UST Reg. No. 0081533 - 119

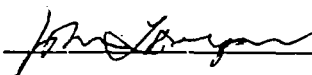
IJO No. 91-0148 Date Tank Removed 5/9/94

ITEM NO.	ITEM OF WORK	UNIT	UNIT PRICE	QUANTITY	TOTAL PRICE
01100-1.1	Rmv ID#27 soil to stockpile	TN	\$14.50	52.38	\$ 759.51
01100-1.2	Supply, fill & relocate 55 Gal containers to storage	CT	\$47.50	1	\$ 47.50
01100-1.4	Rmv & dispose of #2 fuel mixed with water Manifest #:NJA	GL	\$ 0.69		\$ N/A
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	1000	\$ 975.00
02050-5.1	Sawcut blacktop *	TN	\$27.50	16.67	\$ 458.43
02050-5.2	Sawcut concrete *	TN	\$29.50		\$ N/A
02050-5.3	Sawcut reinforced concrete	TN	\$32.50		\$ N/A
02222-1.1	Backfill cert. clean fill *	TN	\$16.25	34.30	\$ 557.38
02222-1.2	3/4" clean stone *	TN	\$17.50	18.08	\$ 316.40
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	120	\$ 648.00

* Supply certified weight tickets to Contracting Officer at time of request for payment.

\$3,762.22

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: 

NJDEPE UST Closure Cert. #: 0003248 DATE: June 9, 1994

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

NJDEPE UST Closure Corp. Cert. #: 0200128

List of Abbreviations:



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

Use type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.) 03245 Form Approved. OMB No. 2050-0039. Expires 9-30-94

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.	
3. Generator's Name and Mailing Address c/o James Shirghio, Bldg 2504, ATTN: SELFM-DL-EM-MS, Fort Monmouth, NJ 07703 MAIN POST		US Army Communications Electronics Center		A. State Manifest Document Number NJ 1603245		
4. Generator's Phone (908) 532-6224		5. Transporter 1 Company Name Freehold Cartagwe, Inc.		B. State Generator's ID a) 8122 789 c-8122 789 b) 8122 745 0012 707		
6. US EPA ID Number NJ D 0 5 4 1 1 2 6 1 1 6 4		7. Transporter 2 Company Name		C. State Trans. ID NJ DEPE 512 2165		
8. US EPA ID Number		9. Designated Facility Name and Site Address Lionetti Oil Recovery Co., Inc. Runyon & Cheesequake Rds. Old Bridge, NJ 08857		D. Transporter's Phone (908) 462-1001		
10. US EPA ID Number NJ D 0 8 4 0 4 4 0 16 4		11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HM		E. State Trans. ID		
12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		
15. 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		16. Containers No. Type		17. Total Quantity		
X Petroleum oil, Nos Class 3 (Petroleum oil) combustible liquid UN 1270 PG III		18. Containers No. Type		19. Total Quantity		
X Petroleum oil, Nos Class 3 (Petroleum oil) combustible liquid UN 1270 PG III		20. Containers No. Type		21. Total Quantity		
X Petroleum oil, Nos Class 3 (Petroleum oil) combustible liquid UN 1270 P		22. Containers No. Type		23. Total Quantity		
J. Additional Descriptions for Materials Listed Above T,L Petroleum Oil 70% Water 30%		K. Handling Codes for Wastes Listed Above T04 = Filtration		T04 = Filtration		
T,L Petroleum Oil 70% Water 30%		T,L Petroleum Oil 70% Water 30%		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# 55462		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.		17. Discrepancy Indication Space		
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name David S Smith		Signature David S Smith		Month Day Year 10/12/1984		
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year		
19. Discrepancy Indication Space						

CALCULATION SHEET

Building No. 745

NJDEPE Reg. No. 0081533-119

Tank Size 1000 gal

Tank Void 7.5 tons

CLEAN FILL

ITEM NO.	DESCRIPTION	QUANTITY	TICKET #
02222-1.1	Clean fill	21.45	18730
11	11	20.35	18731

TOTAL 41.80

STONE

ITEM NO.	DESCRIPTION	QUANTITY	TICKET #
02222-1.2	3/4" clean stone	18.08	924127

TOTAL

ID#27 soil to stockpile $(41.8 + 18.08) - 7.5 = 52.38$ tons

Chargeable clean fill $41.8 - 7.5 = 34.30$

Chargeable stone 18.08

S.C.M.I. - BOUND BROOK



CUSTOMER'S COPY

 CONTROL NO.
A-924127

Stavola Construction Materials, Inc.

PLANT: CHIMNEY ROCK ROAD, BOUND BROOK, N.J. • 808/366-5700

121.88
 - 18.08 Aids 745
 103.80 Aids 789

Tonne 789 + 745

 X
 DRIVER'S SIGNATURE

RECEIVED & ACCEPTED BY

 X
 CUSTOMER'S SIGNATURE

 EXECUTIVE OFFICE
 HAMILTON ROAD
 TINTON FALLS, N.J.
 808/342-2828

CRUSHED STONE • SAND

GRAVEL

 ADDRESS REPLY TO
 P.O. BOX 482
 RED BANK, N.J. 07701

THIS COMPANY WILL NOT BE RESPONSIBLE FOR DAMAGE CAUSED BY VEHICLES DELIVERING MATERIALS OFF PUBLIC ROADS.

EXPLANATION OF DELIVERY CODES

- 1 - F.O.B.
- 2 - DELIVERED
- 3 - NET DELIVERED

DATE	05/11/94	CUST. NO.	08008	JOB NO.	13:30	TICKET NO.	924127
CUSTOMER				DELIVER TO		GROSS	
CLEANING UP THE ENVIRONMENT				ZONE: FT MONMOUTH		37.18	
103 BODWIN AVE.				BLDG 296		TARE	
P.O. BOX 237						15.30	
MIDLAND PARK NJ 07432						NET	
						21.88	
TRUCKER	TRUCK NO.	DRIVER NO.	METHOD OF PAYMENT			DELIVERY CODE	ZONE
04251	1		CHARGE			2	030
QUANTITY	PRODUCT CODE/DESCRIPTION		UNIT OF MEASURE	UNIT PRICE	EXTENDED	FREIGHT	SALES TAX
21.08	13 3/4 INCH CLEAN 9					4.30	
COMMENTS						WAIT TIME	
LOADS						GRAND TOTAL	
ACCU. TONS							
1						21.88	



1453 W. Park Ave., Wayside
Asbury Park, N.J. 07712
908-483-3333

Name Cute INC
Address BIG A #10
CRAN FILL

Order Date Max 10/94
Deliver Date 11/11
Delivered ☒ C.O.D. ☐
F.O.B./P.U. ☐ Charge ☒

18730

Item(s)	Quantity / Measure (tons, lbs., yds., ea.)	Unit Price	Total
	B: 69,500	21.45 tons	
	T: 26,600		
	N: 42,900		

Driver INTOK
Received [Signature]

Sub Total

Delivery

N.J. Tax

Total

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

*Have gravel with gravel
since 1925*



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

18731.

Order Date

MAY 10, 94

Name

CUTE INC.

Deliver Date

Address

BIG-A #10

Delivered

C.O.D.

Clean Fill

F.O.B./P.U.

Charge

Item(s)	Quantity / Measure (tons, lbs., yds., ea.)	Unit Price.	Total
	G: 67,300		
	T: 26,600	20.35	
	N: 40,700		

Driver

Sub Total

Received

Delivery

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

N.J. Tax

Have gravel well traveled
since 1985

Total

APPENDIX D

UST DISPOSAL CERTIFICATE

Fort Monmouth tanks

MAZZA & SONS, INC.

NO. _____

Bldg # _____ List # _____

Metal Recyclers

Auto and Truck

3230 Shafto Rd.

Tinton Falls, NJ

(908) 922-8282

DATE May 94

745 / 0081533-119

702 / 0081533-114

789 / 0081533-126

707 - No closure

Customer's Name

Cute inc.

Address

Make of
Auto

Fort Monmouth ~~Bldg # 745~~ ~~789~~ ~~707~~ ~~No closure~~
Tanks

Thes

Tank

Price

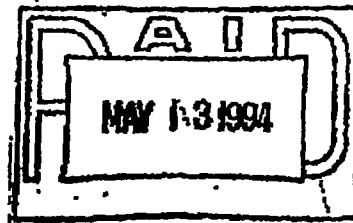
612 / 745 AT DEP 0081533-119 39360 LB 6

702 AT DEP 0081533-114 35720 LB 6

789 AT DEP 0081533-126

707 No closure

3640



Weight

Price

Cast Iron

Steel

LI Iron

Copper #1

Copper #2

LI Copper

Brass

Alum Clean

Lead

Stainless

Radiators

Battery

TOTAL AMOUNT:

Weigher

Customer

Don Ellis

MAZZA & SONS, INC.

Recycling Division

3230 Shafto Road • Tinton Falls, NJ 07753

(908) 922-9282

75059

Recycling Material Receipt Form

Customer: Cutco Inc

Address: Middleland Park

Job Location: Eaton town

Date: 24 May 94

Truck/Container No DT-1

License Plate/D.E.P.# KA3 4391

☒ 10 yd

☐ 20 yd

☐ 30 yd

☐ 40 yd

☐ 50 yd

18

Asphalt +

Concrete from

Bldg's 3050, 3027, + 745

60760 LB 6

27420

33340

16.67

Concrete	
Asphalt	<u>16.67</u>
Stumps	
Brush	
Wood	
Pallets	
Glass	
Tires	
Painted Wood	
Shingles	
TOTAL	

Weighmaster: [Signature]

Customer: Don [Signature]

APPENDIX E

MONITORING WELL PERMIT AND CONSTRUCTION LOG

SERIAL # 41179

DWR-133M (10/93)

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

Mail to

NJDEPE
Bureau Water Allocation
C-426
NJ 08625

MONITORING WELL PERMIT

Permit No.

2931742
745 MW-1
2913656

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

COORD #

Owner U.S. Army - Fort Monmouth

Driller Tyrre Organization, Ltd

Address SELF M - PW - EV

Address 1380 P.S. Hwy 130

Fort Monmouth, New Jersey 07703

Burlington NJ 08016

Name of Facility T-745

Address Main Post

Fort Monmouth, New Jersey

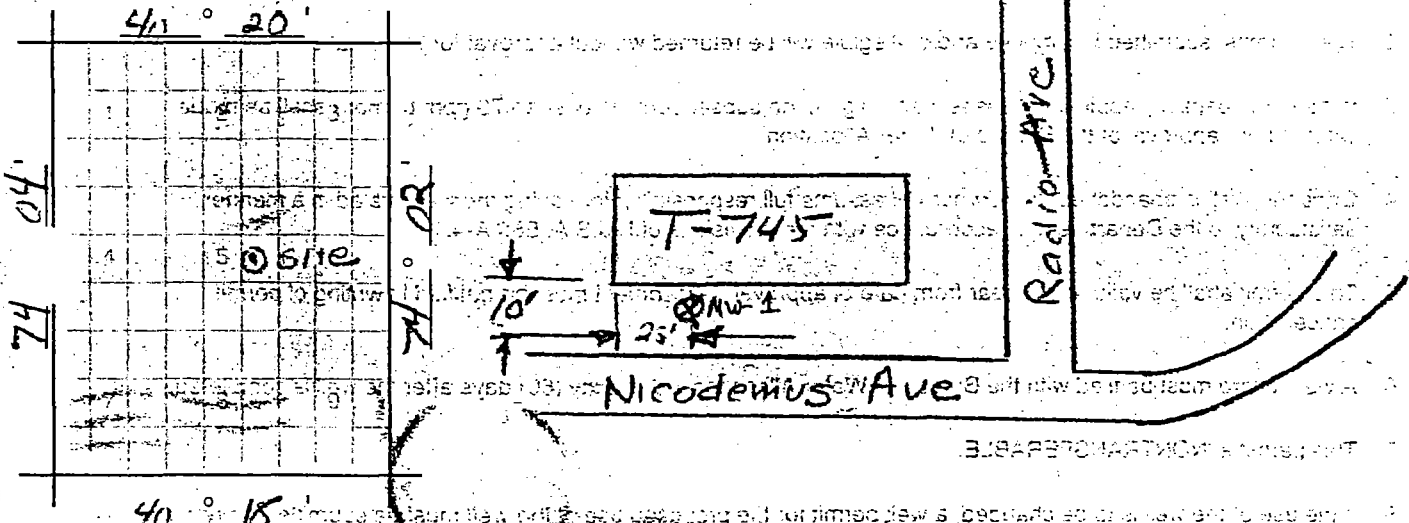
Diameter of Well(s) <u>4</u> inches	Proposed Depth of Well(s) <u>15</u> Feet
# of Wells Applied for (max. 10) <u>1</u>	Will pumping equipment be installed? YES ☐ NO ☒
Type of Well (see reverse) <u>Monitoring</u>	If Yes, give pump capacity <u>N/A</u> GPM

LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
		<u>Fort Monmouth</u>	<u>Monmouth</u>

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.

State Atlas Map No. 29



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

94-5-10-0831-11
(Sit Bldg. 745)

This Space for Approval Stamp

WELL PERMIT APPROVED NJDEP
AUG 3 1994
BUREAU OF WATER ALLOCATION

FOR D.E.P.E. ☒ 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 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

License # 1421

Signature of Owner

SELF M - PW - EV

COPIES

Water Allocation — White and Pink

Health Dept. — Yellow

Owner — Blue

Driller — White



U.S. ARMY
FORT MONMOUTH
SEI.FM PW EV

LOG OF BORING 745-mw1

(Page 1 of 1)

Produced for Charles Appleby

Project Name : BLDG. 745
NJDEP Case # : 94-5-10-0831-11
Logged By : TYREE INC.
Start Date : 9/13/94

Completion Date : 9/13/94
Northing : N 538339.281
Easting : E 2173001.539
Driller : M. Beck

Depth in Feet	29-31782 ELEV: 10.58	DESCRIPTION	GRAPHIC	USCS	Samples	Blows/Ft	Well Construction Information
0		Asphalt/sub-base		14			Well Construction Date Completed : 9/13/94 Hole Diameter : 8 in Drill Method : HSA Company Rep : R. Barnes 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 745 MW1
.6		Brown medium sands w/pebbles		SW			
1				SW			
2		Olive gray medium sand		SW			
2.5		Olive gray fine sand		SW			
2.5	9/94			SW			
4				SW			
6				SW			
8		Olive gray, soft clay		CL			
10				CL			
12				CL			
12.5				CL			
14				CL			

MONITORING WELL RECORD

Well Permit No. 29-31782
Atlas Sheet Coordinates 29 13 65C ☐OWNER IDENTIFICATION - Owner US ARMY CORP MONMOUTH
Address SKIRM PW IV
City PORT MONMOUTH State NJ Zip Code _____WELL LOCATION - If not the same as owner please give address. Owner's Well No. B14. 745
County BURLINGTON Municipality OCEANPORT BORO Lot No. _____ Block No. _____
Address _____TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 9, 13, 94
Regulatory Program Requiring Well UST Case I.D. # 24-5-10-0031-11
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) _____ Tele. # _____

WELL CONSTRUCTION

Total depth drilled 12 1/2 ft.Well finished to 12 1/2 ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☐ above grade
☒ flush mountedWell finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☐ NoStatic water level after drilling 2' 11" ft.Water level was measured using TapeWell was developed for 1 hours at 10 gpmMethod of development PUMPPermanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Pump Method AugerFluid _____ Type of Rig B80Name of Driller Michael E. BrockSafety Plan submitted? ☒ Yes ☐ NoProtection used on site (circle one) (None) D C B APermit No. 1421

Drilling Company _____

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	6"	2 1/2'	4	PVC
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	2 1/2'	12 1/2'	4	20 slot PVC
Tail Piece				
Gravel Pack	1'	12 1/2'		#2 Marine sand
Annular Seal/Grout	6"	1'		Bestonite Portland
Method of Grouting	Tremie			

GEOLOGIC LOG

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

0-6" Asphalt / Subbase
6"-2' Brown, medium sands w/
p. bbbles
2'-3' Blue gray medium sand
3'-7' Olive gray fine sand
7'-12 1/2' Olive gray, soft clay

TYPE ENVIRONMENTAL TECHNOLOGY

I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
rules and regulations.Driller's Signature Michael E. Brock Date 11-13-94

THIS FORM MUST BE COMPLETED BY THE PERMITTEE AND/OR SURVEYOR

MONITORING WELL CERTIFICATION-FORM B-LOCATION CERTIFICATION

Name of Permittee: U.S. ARMY
Name of Facility: FORT MONMOUTH
Location: MONMOUTH COUNTY, NJ
NJDES Number: 94-5-10-0331-11
Discharge

LAND SURVEYOR'S CERTIFICATION

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

29-31782-

Longitude (to nearest second):

West 74°02'46.88"

Latitude (to nearest second):

North 40°18'34.69"

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

10.58

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

11.06

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: _____

☐ 1927 ☐ 1983

Elev.: _____

Owners Well Number (As shown on
application or plans):

BLDG. 745 MW-1

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 (mile)^{1/2}. For
sections less than 0.1 mile, 1st 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 #

APPENDIX E

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 #: 1487.1-.8
Sample Rec'd: 05/10/94
Analysis Start: 05/11/94
Analysis Comp: 05/11/94

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

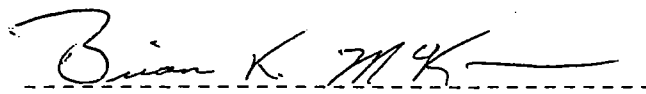
NJDEPE UST Reg.#: 0081533-119
Closure #: C-93-3907
DICAR #:
Location #: Bldg. 745

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1487.1	Site A, W.LN BOTTOM 3' OVA= 5.0	83	7.03	6.6
1487.2	Site B, E.LN BOTTOM 3' OVA= 200.	81	ND	9.9
1487.3	Site C, W. CHIMNEY 2' OVA= 50.	81	545.	9.9
1487.4	Site D, N.SIDEWALL 3.5' OVA= ND	77	ND	6.6
1487.5	Site E, E.SIDEWALL 3.5' OVA= 4.0	81	356.	6.6
1487.6	Site F, S.SIDEWALL 3.5' OVA= 6.0	79	27.3	6.6
1487.7	Site G, W.SIDEWALL 3.5' OVA= 5.0	80	63.0	6.6
1487.8	Site H, DUPE. (DUPE=B) OVA= ND	80	71.0	9.9
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit

* = Silica Gel Added, NA = Not Applicable

1487.4dup= 100% 1487.4spike= 127% 1474.4spike dup= 131% RPD= 2.0%



Brian K. McKee
Laboratory Director

Brian K. McKee
Laboratory Director



SERV-AIR, INC.

An E-SYSTEMS Company

P.O. #: PWS-007

Chain of Custody

Project #: C-93-3907		Sampler: C. Appleby		Date / Time: 5/10/94 1410		Analysis Parameters		Start:	
Customer: C. Appleby		Site Name: Bldg. 745						Finish:	
Phone: x 26224		UST #: 0081533-119							
		TMS- C93-3907							
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	TPHC	% Solids	Munsell		Preservation Method
1487.1	5/10/94 1436	Site A - West Line Bottom 3'	Soil	1	X	X	X		5. Samples Kept 4°C
2	1437	Site B - East Line Bottom 3'		1	X	X	X		200
3	1440	Site C - West - Chimney 2'		1	X	X	X		50
4	1455	Site D - N-Side Wall 3.5'		1	X	X	X		ND
5	1450	Site E - E-Side Wall 3.5'		1	X	X	X		4
6	1445	Site F - S-Side Wall 3.5'		1	X	X	X		6 OUN-128 EC - SN - 45244
7	1459	Site G - W-Side Wall 3.5'		1	X	X	X		5 Calibrated w/ Zero BIC 2.95 psi
8	NA	Site H Dupe		1	X	X	X		methane - Read 90 ppm
									Gas select - 300
									C. Appleby 5/10/94 1400hrs

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
	5/10/94 1510		5/10/94 1510

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

Attached

May 11, 1994

1008

Shah J. Hubbard

Blank 0 MV

40.75 107 MV81.5 213 MV163 415 MV1487.1 5 MV1487.2 3 MV1487.3 59 MV1487.4 (ND) 0 MV1487.4 (ND) 0 MV Dup1487.4 100 MV Spk.1487.4 103 MV Dup Spk1487.5 113 MV1487.6 11 MV1487.7 22 MV1487.8 10 MV

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.

— N/A

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.

Brian K. McKee
Brian K. McKee
Laboratory Manager

D. Hubbard

Sample	Ext.	M.V.	Mg/Kg	W.Wt.	D.Wt.	%S
--------	------	------	-------	-------	-------	----

APPENDIX E

GROUNDWATER ANALYTICAL DATA PACKAGE

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

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: #94510083111

EMSL Project: # 9508402

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection		Date Received
California 1846.1 Bldg. 745 MW1-2931782	95-23792	Aqueous	5/23/95	17:09	5/24/95
1844.3 Trip Blank	95-23788	Aqueous	5/23/95	06:20	5/24/95
Florida 1844.4 Field Blank	95-23789	Aqueous	5/23/95	16:41	5/24/95

Laboratory Name

Certification No.

Supervisor/Manager Signature
Printed Name

Date

EMSL ANALYTICAL, INC.

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

Paul V. Laraia
Paul V. Laraia

06-27-95

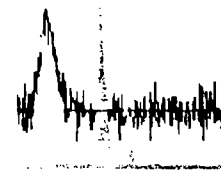


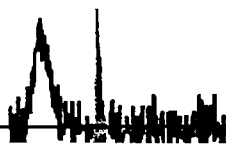
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003

EMSL

SAMPLE DATA SUMMARY PACKAGE



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

Date of Report: 06/22/95
Project Number: 09508402
Lab ID: 95-0023792
Date Collected: 05/23/95 17:09
Collected By: Client
Date Received: 05/24/95 07:00

Client Project: 94510083111

Client Designation: Bldg.745 MW1-2931782

Conc.	Unit
-------	------

-----	-----
-------	-------

ORGANIC

Semi-Volatiles

BN by 625 with Library Search

see attached ug/l

Volatiles

Methyl tertiary-butyl ether

see attached ug/l

tert-Butyl alcohol

see attached ug/l

Volatiles by 524.2 w/ Library Search

see attached ug/l

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

9523792B

005

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9523792B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B7823.D

Level: (low/med)

Date Received: 5/24/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 5/30/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH: _____

Concentration Units:

CAS No.	Compound	(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

SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: EMSL ANALYTICAL

Contract:

9523792B

Bldg 745 MA1-2931782

Project No.:

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: 9523792B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B7823.D

Level: (low/med)

Date Received: 5/24/95

% Moisture:

decanted: (Y/N): N

Date Extracted: 5/30/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

Concentration Units:

[illegible]

1F

SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

9523792B

Bldg 745 M/L-231782

007

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9523792B

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B7823.D

Level: (low/med) _____

Date Received: 5/24/95

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 5/30/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.88	17	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

US Army Ft. Monmouth N.J.

008

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1846.1

Bids 745 MWI-2931782

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: 9523792
Lab File ID: C8362.D
Date Received: 05/24/95
Date Analyzed: 06/05/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (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	1.0	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	1.1	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

BLDG.#: 745 MW#: 1 NJDEPE WELL ID # 2931782
 U.S. ARMY FORT MONMOUTH, NJ
 MONITORING WELL SAMPLING DATASHEET
 DATE: 5-23-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #:

SAMPLERS NAMES: Tom Baxter Susan Palonis

WEATHER CONDITIONS: clear, sunny, breezy

ELEVATION OF CASING SURVEY MARK: _____

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 12.59 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: _____ FT

LENGTH OF SCREENED SECTION: _____ FT

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 3.06 FT

ELEVATION OF GW PRIOR TO PURGING: _____ FT

THICKNESS OF LNAPL PRIOR TO PURGING: _____ FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: 21 PPM 16²⁶ None Detected. DO 1.6 ppm
 pH: 6.47 TEMP: 63.0 °F SPECIFIC CONDUCTIVITY: 244 $\mu\text{S/cm}$

DEPTH OF WELL: _____ FT

HEIGHT OF WATER: 9.53 FT

EVACUATED GAL. H2O: 19 GAL (9.53 X .65 X 3 = 18.5835)

PURGING START TIME: 1046 1046⁴⁰ END TIME: 1059 1059⁴⁰

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

GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 19 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 7.24 FT

DISSOLVED OXYGEN: 1.2 ppm pH: 6.46 TEMP: 60.6 °F

SPECIFIC CONDUCTIVITY: 262 $\mu\text{S/cm}$

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 1706 END TIME: 1709

DISSOLVED OXYGEN: 1.2 ppm pH: 6.47 TEMP: 60.4 °F

SPECIFIC CONDUCTIVITY: 255 $\mu\text{S/cm}$

COMMENTS: on site 1022 flush surface well.

See query / for info!

FF 1641 ppm

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

Date of Report: 06/22/95
Project Number: 09508400
Lab ID: 95-0023788
Date Collected: 05/23/95 06:20
Collected By: Client
Date Received: 05/24/95 07:00

Client Project: None

Client Designation: Trip Blank

	Conc.	Unit
	-----	-----
ORGANIC		
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1844.3

Bldg 745

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: 9523788
Lab File ID: C8352.D
Date Received: 05/24/95
Date Analyzed: 06/03/95
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	6.3	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

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL #1844.3

DLG 745

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: 9523788
Lab File ID: C8352.D
Date Received: 05/24/95
Date Analyzed: 06/03/95
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	1.5	
106-43-4-----	4-Chlorotoluene	.50	
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
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected

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

Date of Report: 06/22/95
Project Number: 09508400
Lab ID: 95-0023789
Date Collected: 05/23/95 16:41
Collected By: Client
Date Received: 05/24/95 07:00

Client Project: None

Client Designation: Field Blank

	Conc.	Unit
	-----	-----
METALS		
Lead	<0.0025	mg/l
ORGANIC		
Semi-Volatiles		
BN by 625 with Library Search	see attached	ug/l
Volatiles		
Methyl tertiary-butyl ether	see attached	ug/l
tert-Butyl alcohol	see attached	ug/l
Volatiles by 524.2 w/ Library Search	see attached	ug/l

US ARMY Ft. Monmouth NJ
1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

FMETC #1844,4
SAMPLE NO.

bls 745
9523789B
Field Blank

015

Lab Name: EMSL ANALYTICAL Contract: _____
Project No.: _____ Site: _____ Location: _____ Group: _____
Matrix: (soil/water) WATER Lab Sample ID: 9523789B
Sample wt/vol: 1000.0 (g/mL ML) Lab File ID: B7822.D
Level: (low/med) _____ Date Received: 5/24/95
% Moisture: _____ decanted: (Y/N): N Date Extracted: 5/30/95
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

Concentration Units:

CAS No.	Compound	(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

1 B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

Bldg 745

9523789B

Field Blank

Lab Name: EMSL ANALYTICAL

Contract:

Project No.:

Site:

Location:

Group:

Matrix: (soil/water) WATER

Lab Sample ID: 9523789B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B7822.D

Level: (low/med)

Date Received: 5/24/95

% Moisture:

decanted: (Y/N): N

Date Extracted: 5/30/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N)

N

pH:

Concentration Units:

[illegible]

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

Bldg 745
9523789B
Field Blank

017

Lab Name: EMSL ANALYTICAL Contract: _____

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

Matrix: (soil/water) WATER Lab Sample ID: 9523789B

Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B7822.D

Level: (low/med) _____ Date Received: 5/24/95

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/30/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 6/4/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

Concentration Units: _____

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

CAS Number	Compound Name	RT	Est. Conc	Q
1.	Unknown	29.88	26	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANIC ANALYSIS DATA SHEET
EPA 524.2

FMETL # 1844.4

Bldg 745

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: 9523789
Lab File ID: C8353.D
Date Received: 05/24/95
Date Analyzed: 06/03/95
Dilution Factor: 1
Soil Aliquot Volume: NA

CONCENTRATION UNITS:

CAS NO. COMPOUND (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	5.0	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

FMETR #1844.Y

Bldg 745

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: 9523789
 Lab File ID: C8353.D
 Date Received: 05/24/95
 Date Analyzed: 06/03/95
 Dilution Factor: 1
 Soil Aliquot Volume: NA

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

CAS NO. COMPOUND 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
1634-04-4----	Methyl-tertiary butyl ether	.50	U
75-65-0-----	tertiary-Butyl alcohol	2.0	U

COMMENT

U= Not Detected



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 SELF-M-PW-EV Building 173 Fort Monmouth, NJ 07703

PROJECT : #94510083111

EMSL Project: # 95064016

Field Sample No. & Location	Laboratory Sample ID	Matrix	Date & Time of Collection	Date Received
1876.1, Trip Blank	95-26797	Aqueous	6/16/95 @ 0545	6/16/95
1876.2, Field Blank	95-26798	Aqueous	6/16/95 @ 1345	6/16/95
1876.3, MW1-2931782, Bldg. #745	95-26802	Aqueous	6/16/95 @ 0920	6/16/95

Laboratory Name

Certification No.

Supervisor/Manager Signature
Printed Name

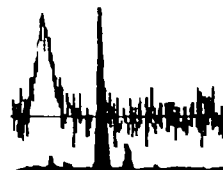
Date

EMSL ANALYTICAL, INC.

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

Paul V. Laraia
Paul V. Laraia

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.

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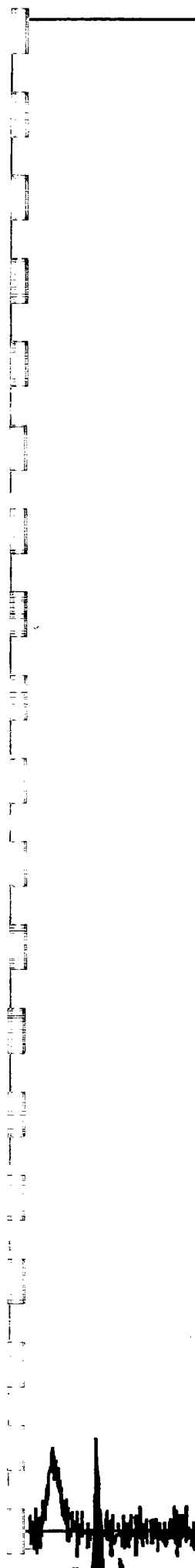
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. Initial Calibration Data	
. Continuing Calibration BFB Tune	
. Continuing Calibration Data	
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. Method Blank Data	
. Matrix Spike/Matrix Spike Duplicate Data	
Statement of Authentication	-----

003



SAMPLE DATA SUMMARY PACKAGE



004

EMSL

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

Date of Report: 07/14/95
Project Number: 95064013
Lab ID: 95-0026797
Date Collected: 06/16/95 05:45
Collected By: Client
Date Received: 06/16/95 18:10

Client Project: None

Client Designation: Trip Blank

Conc.	Unit
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ORGANIC

Volatiles

Volatiles by 524.2 w/ Library Search

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see attached	ug/l

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

000

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1876.1

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 952679

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8686.D

Level: (low/med) LOW

Date Received: 6/16/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

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

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	<u>ug/L</u>
			Q
75-71-8	Dichlorodifluoromethane	.50	U
74-87-3	Chloromethane	1.0	
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	.80	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	.50	U
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	8.4	
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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

006

1876.1

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: TRIP BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526797

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8686.D

Level: (low/med) LOW

Date Received: 6/16/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/L</u>	
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

IE
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FMETL#

1876.1

007

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg#: _____

NJDEPMW#: TRIP BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526797V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8686.D

Level: (low/med) LOW

Date Received: 6/16/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 1

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 107-04-0	Ethane, 1-bromo-2-chloro-	13.88	3	J
2.				
3.				
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008

EMSL

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

Date of Report: 07/14/95
Project number: 95064013
Lab ID: 95-0026798
Date Collected: 06/16/95 13:54
Collected By: Client
Date Received: 06/16/95 18:10

Client Project: None

Client Designation: Field Blank

Conc.	Unit
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ORGANIC

Semi-Volatiles

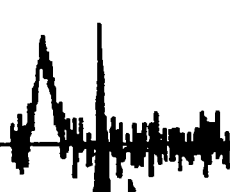
TCL BNA;s with Library Search

see attached ug/l

Volatiles

Volatiles by 524.2 w/ Library Search

see attached ug/l



US Army Fort Belvoir 40.12 1B
Bldg # 607
FIELD = 1376 2

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

9526798B

009

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9526798B

Sample wt/vol: 1000.0 (g/mL ML

Lab File ID: B8087.D

Level: (low/med) _____

Date Received: 6/16/95

% Moisture: _____

decanted: (Y/N): N

Date Extracted: 6/23/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 7/1/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
108-95-2	Phenol	3		JB
111-44-4	bis(2-Chloroethyl)ether	10		U
95-57-8	2-Chlorophenol	10		U
541-73-1	1,3-Dichlorobenzene	10		U
106-46-7	1,4-Dichlorobenzene	10		U
95-50-1	1,2-Dichlorobenzene	10		U
95-48-7	2-Methylphenol	10		U
108-60-1	bis(2-chloroisopropyl)ether	10		U
106-44-5	4-Methylphenol	10		U
621-64-7	N-Nitroso-Di-n-propylamine	10		U
67-72-1	Hexachloroethane	10		U
98-95-3	Nitrobenzene	10		U
78-59-1	Isophorone	10		U
88-75-5	2-Nitrophenol	10		U
105-67-9	2,4-Dimethylphenol	10		U
111-91-1	bis(2-Chloroethoxy)methane	10		U
120-83-2	2,4-Dichlorophenol	10		U
120-82-1	1,2,4-Trichlorobenzene	10		U
91-20-3	Naphthalene	10		U
106-47-8	4-Chloroaniline	10		U
87-68-3	Hexachlorobutadiene	10		U
59-50-7	4-Chloro-3-methylphenol	10		U
91-57-6	2-Methylnaphthalene	10		U
77-47-4	Hexachlorocyclopentadiene	10		U
88-06-2	2,4,6-Trichlorophenol	10		U
95-95-4	2,4,5-Trichlorophenol	25		U
91-58-7	2-Chloronaphthalene	10		U
88-74-4	2-Nitroaniline	25		U
131-11-3	Dimethylphthalate	10		U
208-96-8	Acenaphthylene	10		U
606-20-2	2,6-Dinitrotoluene	10		U
99-09-2	3-Nitroaniline	25		U
83-32-9	Acenaphthene	10		U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

9526798B

010

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: 9526798BSample wt/vol: 1000.0 g/mL MLLab File ID: B8087.D

Level: (low/med) _____

Date Received: 6/16/95% Moisture: _____ decanted: (Y/N): NDate Extracted: 6/23/95Concentrated Extract Volume: 1000 (uL)Date Analyzed: 7/1/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)	ug L	Q
51-28-5	2,4-Dinitrophenol	25		U
100-02-7	4-Nitrophenol	25		U
132-64-9	Dibenzofuran	10		U
121-14-2	2,4-Dinitrotoluene	10		U
84-66-2	Diethylphthalate	10		U
86-73-7	Fluorene	10		U
7005-72-3	4-Chlorophenyl-phenylether	10		U
100-01-6	4-Nitroaniline	25		U
534-52-1	4,6-Dinitro-2-methylphenol	25		U
86-30-6	n-Nitrosodiphenylamine	10		U
101-55-3	4-Bromophenyl-phenylether	10		U
118-74-1	Hexachlorobenzene	10		U
87-86-5	Pentachlorophenol	25		U
85-01-08	Phenanthrene	10		U
120-12-7	Anthracene	10		U
86-74-8	Carbazole	10		U
84-74-2	Di-n-butylphthalate	10		U
206-44-0	Fluoranthene	10		U
129-00-0	Pyrene	10		U
85-68-7	Butylbenzylphthalate	10		U
56-55-3	Benzo[a]anthracene	10		U
91-94-1	3,3'-Dichlorobenzidine	20		U
218-01-9	Chrysene	10		U
117-81-7	bis(2-Ethylhexyl)phthalate	10		U
117-84-0	Di-n-octylphthalate	10		U
205-99-2	Benzo[b]fluoranthene	10		U
207-08-9	Benzo[k]fluoranthene	10		U
50-32-8	Benzo[a]pyrene	10		U
193-39-5	Indeno[1,2,3-cd]pyrene	10		U
53-70-3	Dibenz[a,h]anthracene	10		U
191-24-2	Benzo[g,h,i]perylene	10		U

US Army Fort Monmouth, NJ
Bldg # 697
File # 1876.2

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

011

9526798B

FILE # 1876.2

Lab Name: EMSL ANALYTICAL

Contract: _____

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATER

Lab Sample ID: 9526798B

Sample wt/vol: 1000.0 (g/mL) ML

Lab File ID: B8087.D

Level: (low/med) _____

Date Received: 6/16/95

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 6/23/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 7/1/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

Number TICs found: 0

(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	NONE FOUND			
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

012

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1876.2

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526798

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8687.D

Level: (low/med) LOW

Date Received: 6/16.95

% Moisture: not dec. NA

Date Analyzed: 6/27.95

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

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	ug/L	
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.90		
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	.80		β
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	.50		U
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	7.3		
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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

013

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1876.2

Project No.: FT. MONMOUTH NJ Bldg#:

NJDEP MW#: FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526798

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8687.D

Level: (low/med) LOW

Date Received: 6/16/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

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
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#

1876.2

014

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

Project No. FT. MONMOUTH NJ

Bldg#: _____

NJDEPMW#: FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 9526798V

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8687.D

Level: (low/med) LOW

Date Received: 6/16/95

% Moisture: not dec. NA

Date Analyzed: 6/27/95

GC Column: DB-624 X 75M

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 1

(ug/L or ug Kg) ug L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 107-04-0	Ethane, 1-bromo-2-chloro-	13.88	3	J
2.				
3.				
4.				
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015

EMSL

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

Date of Report: 07/14/95
Project Number: 95064016
Lab ID: 95-0026802
Date Collected: 06/16/95 09:20
Collected By: Client
Date Received: 06/16/95 18:10

Client Project: 94510083111

Client Designation: Bldg.745,MW1-2931782

Conc.	Unit
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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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

016

Bldg # 745

FMEC # 1876.3

Lab Name: EMSL ANALYTICAL

Contract: _____

9526802B

MW-2931782

Project No.: _____

Site: _____

Location: _____

Group: _____

Matrix: (soil/water) WATERLab Sample ID: 9526802BSample wt/vol: 1000.0 (g/mL MLLab File ID: B8091.D

Level: (low/med) _____

Date Received: 6/16/95% Moisture: _____ decanted: (Y/N): NDate Extracted: 6/23/95Concentrated Extract Volume: 1000 (uL)Date Analyzed: 7/1/95Injection Volume: 1.0 (uL)Dilution Factor: 1.0GPC Cleanup: (Y/N) N

pH: _____

Concentration Units:

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

US Army Fort Monmouth, NJ
Bldg # 745
FMETL # 1876-3

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

018

9526802B
MWI-2931782

Lab Name: EMSL ANALYTICAL Contract: _____
Project No.: _____ Site: _____ Location: _____ Group: _____
Matrix: (soil/water) WATER Lab Sample ID: 9526802B
Sample wt/vol: 1000.0 (g/mL) ML Lab File ID: B8091.D
Level: (low/med) _____ Date Received: 6/16/95
% Moisture: _____ decanted: (Y/N) N Date Extracted: 6/23/95
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/1/95
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____
Concentration Units:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc	Q
1.	NONE FOUND			
2.				
3.				
4.				
5.				
6.				
7.				
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29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

1876.3

019

Project No.: FT. MONMOUTH NJ Bldg#: 745

NJDEP MW#: 1 - 2931782

Matrix: (soil/water) WATER

Lab Sample ID: 9526802

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8706.D

Level: (low/med) LOW

Date Received: 6/16/95

% Moisture: not dec. NA

Date Analyzed: 6/28/95

GC Column: DB-624 x 75m

ID: 0.53 (mm)

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:		Q
		(ug/L or ug/Kg)	<u>ug/L</u>	
75-71-8	Dichlorodifluoromethane	.50		U
74-87-3	Chloromethane	.80		
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	2.4		β
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	.50		U
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	7.7		
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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FMETL#

020

Lab Name: EMSL ANALYTICAL

Contract: U.S. ARMY

18763

Project No.: FT. MONMOUTH NJ Bldg#: 745

NJDEP MW#: 1-2931782

Matrix: (soil/water) WATER

Lab Sample ID: 9526802

Sample wt/vol: 25.0 (g/mL) ML

Lab File ID: C8706.D

Level: (low/med) LOW

Date Received: 6/16/95

% Moisture: not dec. NA

Date Analyzed: 6/28/95

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

Dilution Factor: 1.0

CAS No.	Compound	Concentration Units:	
		(ug/L or ug/Kg)	<u>ug/L</u>
			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#

1876.3

021

Lab Name: EMSL ANALYTICALContract: U.S. ARMYProject No. FT. MONMOUTH NJBldg#: 745NJDEP MW#: 1-2931782Matrix: (soil/water) WATERLab Sample ID: 9526802VSample wt/vol: 25.0 (g/mL) MLLab File ID: C8706.DLevel: (low/med) LOWDate Received: 6/16/95% Moisture: not dec. NADate Analyzed: 6/28/95GC Column: DB-624 X 75MID: 0.53 (mm)Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Concentration Units:

Number TICs found: 2(ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1. 107-04-0	Ethane, 1-bromo-2-chloro-	13.88	3	J
2.	Column Bleed	22.92	1	J
3.				
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BLDG.#: 145 MW#: 1 NJDEPE WELL ID # 2931782 022

U.S. ARMY FORT MONMOUTH

MONITORING WELL SAMPLING DATASHEET

DATE: 6-16-95

IJO#95-0091

SAMPLING CONTRACTOR: EMSL Analytical Services Inc.

LABORATORY: EMSL Analytical Services, NJDEP CERT #: 04653

SAMPLERS NAMES: Susan Palilonis, Tam Baxter

WEATHER CONDITIONS: Breezy, Sunny

ELEVATION OF CASING SURVEY MARK:

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 12.51 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: FT 0.07 + screen

LENGTH OF SCREENED SECTION: FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 3.08 FT

ELEVATION OF GW PRIOR TO PURGING: FT from screen

THICKNESS OF LNAPL PRIOR TO PURGING: ~~8~~ FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: 41 PPM ^{0.836 cm}

D.O. 1.4 ppm

① pH: 6.29 TEMP: 18.5 °C, SPECIFIC CONDUCTIVITY: 271 ^{none detected} $\mu\text{S/cm}$

DEPTH OF WELL: FT

HEIGHT OF WATER: FT

EVACUATED GAL. H2O: 19 GAL 6.943 X .65 X 3 = 18.3885

PURGING START TIME: 0940 END TIME: 0950

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

GPM) Pump

PURGE RATE (<0.5 GPM): 2 GPM

TOTAL VOLUME PURGED: 19 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 7.92 FT

② DISSOLVED OXYGEN: 1.3 ppm pH: 6.23 TEMP: 18.6 °C

SPECIFIC CONDUCTIVITY: 267 $\mu\text{S/cm}$

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 0854 END TIME: 0902

③ DISSOLVED OXYGEN: 1.4 ppm pH: 6.34 TEMP: 18.7 °C

SPECIFIC CONDUCTIVITY: 307 $\mu\text{S/cm}$

Color grey ODOR none

COMMENTS: on site 825 am flush surface well



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703

Tel (908)532-4359 Fax (908)532-3484 EMail:appleby@doim6.monmouth.army.mil

NJDEP Certification #13461

Chain of Custody Record

Page 1 of 1

Customer:		Project No:		Location:		Analysis Parameters					Comments:	
()DERA ()OMA ()Other:				Bldg 745								
Sampler's Signature:					Sample Type	Col/Col	pH	Temp + DO	Spec cond.	H ₂ O ₂	Remarks / Preservation Method	
Lab Sample I.D.	Sample Location	Date	Time									
2297 01	Bldg 745 TRP Blank	1/24/97	0800	AQ-A	X						All Vials are H ₂ O ₂ ≤ 2ph All samples kept @ ≤ 4°C	
↓ 12	Field Blank	↓	0930	↓	Y							
↓ 13	MW1 #243/1982	↓	1040	↓	X	Y	X	X	X			
24												
Relinquished by (signature):		Date/Time:		Received by (signature):		Relinquished by (signature):		Date/Time:		Received by (signature):		
226 Btr		1/24/97 1055		B. A. [Signature]								
Relinquished by (signature):		Date/Time:		Received by (signature):		Relinquished by (signature):		Date/Time:		Received by (signature):		
Relinquished by (signature):		Date/Time:		Received for laboratory by (signature):		Date/Time:		Remarks:				

print legibly

CUSTODY.XLS 1/16/97

**U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET**

IJO#95-0091

BLDG.#: 745 MW#: 1 NJDEPE WELL ID # 2931782

LABORATORY:

NJDEP CERT #

SAMPLING CONTRACTOR: TVS

SAMPLERS NAMES: Smy Fognier

DATE: 1/24/97

WEATHER CONDITIONS: Sunny 30's

ELEVATION OF CASING SURVEY MARK: _____ FT

TOTAL DEPTH FROM TOP OF SURVEYORS MARK: _____ FT

DEPTH FROM SURVEYORS MARK TO SCREEN: _____ FT

LENGTH OF SCREENED SECTION: _____ FT

DEPTH TO H2O PRIOR TO PURGING AND SAMPLING: 2 35 FT

ELEVATION OF GW PRIOR TO PURGING: _____ FT

THICKNESS OF LNAPL PRIOR TO PURGING: _____ FT

PIDATING READING IMMEDIATELY AFTER CAP REMOVAL: 0 PPM

DEPTH OF WELL: 11 45 FT HEIGHT OF WATER: 10 1 FT

GAL OF H2O TO BE EVACUATED (EST) 19.7 GAL

$(10.1 \times 0.65 \times 3 = 19.69)$

PURGE METHOD: (FLOW OF <0.5 GPM TO >5.0 GPM) peristaltic pump

PURGE RATE (0.5 GPM): 0.3 GPM 65

PURGE START TIME: 7:20

pH: 7.15 s.u.

TEMP: 53.8 Deg.C

Dissolved Oxygen: 3.2 PPM

Specific Conductivity: 1119 us/cm

PURGE END TIME: 10:35

pH: 6.92 s.u.

TEMP: 55.5 Deg.C

Dissolved Oxygen: 3.0 PPM

Specific Conductivity: 1351 us/cm

DEPTH TO H2O AFTER PURGING AND BEFORE SAMPLING: 2 67 FT

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP FSPM 1992) TEFLON (R) SAILER

TOTAL VOLUME PURGED: 19.7 GAL

pH: 6.84 s.u.

TEMP: 55.7 Deg.C

Dissolved Oxygen: 3.0 PPM

Specific Conductivity: 1380 us/cm

COMMENTS: Highly Bilial elevation - - 7:20

purify

Rain 50's

DTW 3.65'
TOTAL 11.45'

DTW 3.75'
TOTAL 14.30'

2/11/17

44's RP

DTW 7.20'
TOTAL 15.00'

1/21/17

Bldg

D- 745

ON SITE

9:05

Sunny 30's

SAMPLES TAKEN EARLIER THIS MONTH WERE DISCARDED
VIA SO ANALYSIS. MATTER FROM IT WILL BE BORING AND SAMPLED
BY DAVE WRIGHT ON 1/25/17.

Bldg D- 745

243.182

DTW 2.135

TOTAL 11.45'

D.H. - 6.84

TEMP 55.7 °F

S COND 1380 Ω

D.O. - 3.5 ppm

Hum 0

REF SITE 10.45'

R. P. 10.45'

601/602 Analysis Data Sheet

Sample I.D.: ICV
 Misc. ID: 20 ppb
 Date Analyzed: 02/11/97

Lab Name: Fort Monmouth Environmental Testing Lab. Contract:
 Lab Code: 13461 Case No.:
 Matrix: Water Method: 601 2A.MTH
 Wt/Vol.: 5 mL Dilution Factor: 1
 File: C:\HPCHEM\6\DATA\02119708.D\

Results:
 Concentration Units: ug/L

Compound #	Compound	Expected R.T.	R.T.	Amount	MDL
Method 601					
1	Dichlorodifluoromethane	3.59	3.57	18.70	0.04
2	Chloromethane	3.66	3.65	20.17	0.13
3	Vinyl Chloride	4.00	3.99	18.71	0.08
4	Bromomethane	4.55	4.52	20.10	0.09
5	Chloroethane	4.81	4.78	18.10	0.08
6	Trichlorofluoromethane	5.96	5.92	20.04	0.12
7	1,1-dichloroethene	6.88	6.85	20.53	0.11
8	Methylene Chloride	7.31	7.27	21.14	0.04
9	Trans-1,2-dichloroethene	8.92	8.89	19.79	0.06
10	1,1-Dichloroethane	9.67	9.65	20.03	0.08
12	Chloroform	12.68	12.66	19.69	0.03
13	1,1,1-trichloroethane	15.45	15.43	21.19	0.02
14	Carbon tetrachloride	16.68	16.66	21.13	0.09
15	1,2-Dichloroethane	15.16	15.14	21.24	0.02
16	Trichloroethene	19.12	19.11	20.95	0.06
17	1,2-dichloropropane	18.97	18.95	21.22	0.03
18	Bromodichloromethane	19.23	19.21	21.70	0.08
31	2 Chloroethylvinyl ether	20.50	20.50	20.92	0.08
19	cis-1,3-dichloropropene	20.80	20.79	21.65	0.07
20	Trans-1,3-dichloropropene	21.61	21.61	20.74	0.01
21	1,1,2-trichloroethane	21.80	21.79	21.51	0.02
22	Tetrachloroethene	23.07	23.06	21.52	0.07
23	Dibromochloromethane	22.48	22.47	19.85	0.07
25	Bromoform	24.45	24.44	20.21	0.03
27	1,1,2,2-tetrachloroethane	24.81	24.80	21.50	0.02
Method 602					
38	Benzene	16.88	16.87	18.66	0.05
41	Toluene	22.07	22.06	23.92	0.04
44	Chlorobenzene	23.89	23.89	18.54	0.04
45	Ethylbenzene	24.16	24.15	18.60	0.05
46	p&m-Xylene	24.39	24.39	37.30	0.04
47	o-Xylene	24.81	24.80	18.71	0.24
48	1,3-dichlorobenzene	26.45	26.44	17.90	0.16
49	1,4-dichlorobenzene	26.51	26.51	19.52	0.18
50	1,2-dichlorobenzene	26.86	26.85	18.22	0.18
Surrogate Recovery:					
				% Recovery	
11	Bromochloromethane	12.40	12.37	20.29	101.44
26	1,4-Dichlorobutane	24.78	24.78	16.68	83.38
32	2-bromo-1-chloropropane	22.04	22.03	21.02	105.11
52	aaa-Trifluorotoluene	19.95	19.94	19.02	95.09

Last Cal. Update:

Thu Mar 27 15:21:31 1997

601/602 Analysis Data Sheet

Sample I.D.: 2297.1
 Misc. ID: T. Blank
 Date Analyzed: 02/12/97

Lab Name: Fort Monmouth Environmental Testiong Lab. Contract:
 Lab Code: 13461 Case No.:
 Matrix: Water Method: 601_2A.MTH
 Wt/Vol.: 5 mL Dilution Factor: 1
 File: C:\HPCHEM\6\DATA\02119717.D\

Results:
 Concentration Units: ug/L

Compound #	Compound	Expected R.T.	R.T.	Amount	MDL
Method 601					
1	Dichlorodifluoromethane	3.59	NA	<	0.04
2	Chloromethane	3.66	NA	<	0.13
3	Vinyl Chloride	4.00	NA	<	0.08
4	Bromomethane	4.55	NA	<	0.09
5	Chloroethane	4.81	NA	<	0.08
6	Trichlorofluoromethane	5.96	NA	<	0.12
7	1,1-dichloroethene	6.88	NA	<	0.11
8	Methylene Chloride	7.31	7.23	2.51	0.04
9	Trans-1,2-dichloroethene	8.92	NA	<	0.06
10	1,1-Dichloroethane	9.67	NA	<	0.08
12	Chloroform	12.68	NA	<	0.03
13	1,1,1-trichloroethane	15.45	NA	<	0.02
14	Carbon tetrachloride	16.68	NA	<	0.09
15	1,2-Dichloroethane	15.16	NA	<	0.02
16	Trichloroethene	19.12	NA	<	0.06
17	1,2-dichloropropane	18.97	NA	<	0.03
18	Bromodichloromethane	19.23	NA	<	0.08
31	2 Chloroethylvinyl ether	20.50	NA	<	0.08
19	cis-1,3-dichloropropene	20.80	NA	<	0.07
20	Trans-1,3-dichloropropene	21.61	NA	<	0.01
21	1,1,2-trichloroethane	21.80	NA	<	0.02
22	Tetrachloroethene	23.07	NA	<	0.07
23	Dibromochloromethane	22.48	NA	<	0.07
25	Bromoform	24.45	NA	<	0.03
27	1,1,2,2-tetrachloroethane	24.81	NA	<	0.02
Method 602					
38	Benzene	16.88	NA	<	0.05
41	Toluene	22.07	NA	<	0.04
44	Chlorobenzene	23.89	NA	<	0.04
45	Ethylbenzene	24.16	NA	<	0.05
46	p&m-Xylene	24.39	NA	<	0.04
47	o-Xylene	24.81	NA	<	0.24
48	1,3-dichlorobenzene	26.45	NA	<	0.16
49	1,4-dichlorobenzene	26.51	NA	<	0.18
50	1,2-dichlorobenzene	26.86	NA	<	0.18
Surrogate Recovery:					
11	Bromochloromethane	12.40	12.35	20.90	104.50
26	1,4-Dichlorobutane	24.78	24.75	20.78	103.88
32	2-bromo-1-chloropropane	22.04	22.02	18.69	93.44
52	aaa-Trifluorotoluene	19.95	19.92	20.89	104.44

Last Cal. Update:

Thu Mar 27 15:21:31 1997

601/602 Analysis Data Sheet

Sample I.D.: 2297.2
 Misc. ID: F. Blank
 Date Analyzed: 02/12/97

Lab Name: Fort Monmouth Environmental Testiong Lab. Contract: _____
 Lab Code: 13461 Case No.: _____
 Matrix: Water Method: 601 2A.MTH
 Wt/Vol.: 5 mL Dilution Factor: 1
 File: C:\HPCHEM\6\DATA\02119718.D\

Results:
 Concentration Units: ug/L

Compound #	Compound	Expected R.T.	R.T.	Amount	MDL
Method 601					
1	Dichlorodifluoromethane	3.59	NA	<	0.04
2	Chloromethane	3.66	NA	<	0.13
3	Vinyl Chloride	4.00	NA	<	0.08
4	Bromomethane	4.55	NA	<	0.09
5	Chloroethane	4.81	NA	<	0.08
6	Trichlorofluoromethane	5.96	NA	<	0.12
7	1,1-dichloroethene	6.88	NA	<	0.11
8	Methylene Chloride	7.31	7.23	3.49	0.04
9	Trans-1,2-dichloroethene	8.92	NA	<	0.06
10	1,1-Dichloroethane	9.67	NA	<	0.08
12	Chloroform	12.68	NA	<	0.03
13	1,1,1-trichloroethane	15.45	NA	<	0.02
14	Carbon tetrachloride	16.68	NA	<	0.09
15	1,2-Dichloroethane	15.16	NA	<	0.02
16	Trichloroethene	19.12	NA	<	0.06
17	1,2-dichloropropane	18.97	NA	<	0.03
18	Bromodichloromethane	19.23	NA	<	0.08
31	2 Chloroethylvinyl ether	20.50	NA	<	0.08
19	cis-1,3-dichloropropene	20.80	NA	<	0.07
20	Trans-1,3-dichloropropene	21.61	NA	<	0.01
21	1,1,2-trichloroethane	21.80	NA	<	0.02
22	Tetrachloroethene	23.07	NA	<	0.07
23	Dibromochloromethane	22.48	NA	<	0.07
25	Bromoform	24.45	NA	<	0.03
27	1,1,2,2-tetrachloroethane	24.81	NA	<	0.02
Method 602					
38	Benzene	16.88	NA	<	0.05
41	Toluene	22.07	NA	<	0.04
44	Chlorobenzene	23.89	NA	<	0.04
45	Ethylbenzene	24.16	NA	<	0.05
46	p&m-Xylene	24.39	NA	<	0.04
47	o-Xylene	24.81	NA	<	0.24
48	1,3-dichlorobenzene	26.45	NA	<	0.16
49	1,4-dichlorobenzene	26.51	NA	<	0.18
50	1,2-dichlorobenzene	26.86	NA	<	0.18
Surrogate Recovery:					
11	Bromochloromethane	12.40	12.34	21.45	107.23
26	1,4-Dichlorobutane	24.78	24.75	20.69	103.43
32	2-bromo-1-chloropropane	22.04	22.02	18.58	92.88
52	aaa-Trifluorotoluene	19.95	19.92	20.74	103.68

Last Cal. Update:

Thu Mar 27 15:21:31 1997

601/602 Analysis Data Sheet

Sample I.D.: 2297.3
 Misc. ID: MW #1
 Date Analyzed: 02/12/97

Lab Name: Fort Monmouth Environmental Testing Lab. Contract:
 Lab Code: 13461 Case No.:
 Matrix: Water Method: 601 2A.MTH
 Wt/Vol.: 5 mL Dilution Factor: 1
 File: C:\HPCHEM\6\DATA\02119719.D\

Results:
 Concentration Units: ug/L

Compound #	Compound	Expected R.T.	R.T.	Amount	MDL
Method 601					
1	Dichlorodifluoromethane	3.59	NA	<	0.04
2	Chloromethane	3.66	NA	<	0.13
3	Vinyl Chloride	4.00	NA	<	0.08
4	Bromomethane	4.55	NA	<	0.09
5	Chloroethane	4.81	NA	<	0.08
6	Trichlorofluoromethane	5.96	NA	<	0.12
7	1,1-dichloroethane	6.88	NA	<	0.11
8	Methylene Chloride	7.31	7.15	1.00	0.04
9	Trans-1,2-dichloroethene	8.92	NA	<	0.06
10	1,1-Dichloroethane	9.67	NA	<	0.08
12	Chloroform	12.68	NA	<	0.03
13	1,1,1-trichloroethane	15.45	NA	<	0.02
14	Carbon tetrachloride	16.68	NA	<	0.09
15	1,2-Dichloroethane	15.16	NA	<	0.02
16	Trichloroethene	19.12	NA	<	0.06
17	1,2-dichloropropane	18.97	NA	<	0.03
18	Bromodichloromethane	19.23	NA	<	0.08
31	2 Chloroethylvinyl ether	20.50	NA	<	0.08
19	cis-1,3-dichloropropene	20.80	NA	<	0.07
20	Trans-1,3-dichloropropene	21.61	NA	<	0.01
21	1,1,2-trichloroethane	21.80	NA	<	0.02
22	Tetrachloroethene	23.07	NA	<	0.07
23	Dibromochloromethane	22.48	NA	<	0.07
25	Bromoform	24.45	NA	<	0.03
27	1,1,2,2-tetrachloroethane	24.81	NA	<	0.02
Method 602					
38	Benzene	16.88	NA	<	0.05
41	Toluene	22.07	NA	<	0.04
44	Chlorobenzene	23.89	NA	<	0.04
45	Ethylbenzene	24.16	NA	<	0.05
46	p&m-Xylene	24.39	NA	<	0.04
47	o-Xylene	24.81	NA	<	0.24
48	1,3-dichlorobenzene	26.45	NA	<	0.16
49	1,4-dichlorobenzene	26.51	NA	<	0.18
50	1,2-dichlorobenzene	26.86	NA	<	0.18
Surrogate Recovery:					
11	Bromochloromethane	12.40	12.35	22.33	111.65
26	1,4-Dichlorobutane	24.78	24.75	20.59	102.94
32	2-bromo-1-chloropropane	22.04	22.02	18.71	93.53
52	aaa-Trifluorotoluene	19.95	19.92	21.26	106.30

Last Cal. Update:

Thu Mar 27 15:21:31 1997

601/602 Analysis Data Sheet

Sample I.D.: **BL. SPIKE**
 Misc. ID: **10 ppb**
 Date Analyzed: **02/12/97**

Lab Name: **Fort Monmouth Environmental Testiong Lab.** Contract:
 Lab Code: **13461** Case No.:
 Matrix: **Water** Method: **601 2A.MTH**
 Wt/Vol.: **5 mL** Dilution Factor: **1**
 File: **C:\HPCHEM\6\DATA\02119720.D**

Results:
 Concentration Units: **ug/L**

Compound #	Compound	Expected R.T.	R.T.	Amount	MDL
Method 601					
1	Dichlorodifluoromethane	3.59	3.57	9.00	0.04
2	Chloromethane	3.66	3.64	8.18	0.13
3	Vinyl Chloride	4.00	3.95	9.17	0.08
4	Bromomethane	4.55	4.52	9.92	0.09
5	Chloroethane	4.81	4.76	9.12	0.08
6	Trichlorofluoromethane	5.96	5.84	8.11	0.12
7	1,1-dichloroethene	6.88	6.84	9.87	0.11
8	Methylene Chloride	7.31	7.13	9.76	0.04
9	Trans-1,2-dichloroethene	8.32	8.87	9.41	0.06
10	1,1-Dichloroethane	9.67	9.63	9.58	0.08
12	Chloroform	12.68	12.63	10.07	0.03
13	1,1,1-trichloroethane	15.45	15.41	9.21	0.02
14	Carbon tetrachloride	16.68	16.64	9.71	0.09
15	1,2-Dichloroethane	15.16	15.12	10.20	0.02
16	Trichloroethene	19.12	19.08	9.50	0.06
17	1,2-dichloropropane	18.97	18.94	9.77	0.03
18	Bromodichloromethane	19.23	19.19	9.26	0.08
31	2 Chloroethylvinyl ether	20.50	20.48	9.03	0.08
19	cis-1,3-dichloropropene	20.80	20.77	9.11	0.07
20	Trans-1,3-dichloropropene	21.61	21.60	9.05	0.01
21	1,1,2-trichloroethane	21.80	21.78	9.77	0.02
22	Tetrachloroethene	23.07	23.05	10.30	0.07
23	Dibromochloromethane	22.48	22.45	8.19	0.07
25	Bromoform	24.45	24.43	8.72	0.03
27	1,1,2,2-tetrachloroethane	24.81	24.79	10.42	0.02
Method 602					
38	Benzene	16.88	16.84	10.18	0.05
41	Toluene	22.07	22.05	10.93	0.04
44	Chlorobenzene	23.89	23.88	10.74	0.04
45	Ethylbenzene	24.16	24.14	9.14	0.05
46	p&m-Xylene	24.39	24.38	19.64	0.04
47	o-Xylene	24.81	24.79	9.17	0.24
48	1,3-dichlorobenzene	26.45	26.43	9.34	0.16
49	1,4-dichlorobenzene	26.51	26.50	8.24	0.18
50	1,2-dichlorobenzene	26.86	26.84	9.24	0.18
Surrogate Recovery:				% Recovery	
11	Bromochloromethane	12.40	12.34	18.65	93.24
26	1,4-Dichlorobutane	24.78	24.75	16.58	82.91
32	2-bromo-1-chloropropane	22.04	22.01	18.64	93.20
52	aaa-Trifluorotoluene	19.95	19.92	20.73	103.66

Last Cal. Update:

Thu Mar 27 15:21:31 1997