

United States Army

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

Building 165
Main Post-East Area

NJDEP UST Registration No. 90010-16 Dicar No. 94-7-19-1331-59

December 1998

UNDERGROUND STORAGE TANK CLOSURE AND SITE INVESTIGATION REPORT

BUILDING 165

MAIN POST-EAST AREA NJDEP UST REGISTRATION NO. 90010-16

DECEMBER 1998

PREPARED FOR:

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

PREPARED BY:

VERSAR 1900 FROST ROAD SUITE 110 BRISTOL, PA 19007

PROJECT NO. 2429-308

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EXECUTIVE SUMMARY

UST Closure

On July 19, 1994, a steel underground storage tank (UST) was closed by removal in accordance with New Jersey Department of Environmental Protection (NJDEP) closure procedures at the Main Post-East area of the U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 0090010-16 (Fort Monmouth ID No. 165), was located northwest of Building 165. UST No. 0090010-16 was a 1,000-gallon #2 fuel oil UST. The fill port was located directly above the tank.

Site Assessment

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.* The sampling and laboratory analysis conducted during the site assessment were performed in accordance with Section 7:26E-2.1 of the *Technical Requirements for Site Remediation.* 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 or punctures. A small pinhole was noted in the UST. Soils at the location of the pinhole were dark in color and appeared to be contaminated. Based on the inspection of the UST, Directorate of Public Works (DPW) concluded that a discharge was associated with this UST. The NJDEP hotline was notified and the case was assigned DICAR No. 94-7-19-1331-59. Soil samples contained TPHC concentrations ranging from non-detect to 109.00 mg/kg. Groundwater was encountered at a depth of 6.0 feet bgs and no sheen was observed.

All post excavation soil samples collected from the UST excavation at Building 165 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 and the potential of groundwater contamination, two (2) groundwater samples were collected at Building 165. On October 13, 1998, and November 14, 1998, Building 165 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOC's). All groundwater analytical results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC).

No further action is proposed in regard to the closure and site assessment of UST No. 90010-16 at Building 165.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 90010-16, was closed at Building 165 at the Main Post-East area of U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on July 19, 1994. Refer to the site location map on Figure 1. This report presents the results of the Department of Public Works' (DPW) implementation of the UST Decommissioning/Closure Plan approved by the NJDEP on September 7, 1993. The UST was a steel 1,000-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 90010-16 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. The decommissioning activities were conducted by DPW personnel who are registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 90010-16 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST Closure Approval Letter and signed Site Assessment Summary form for UST No. 90010-16 are included in Appendices A and B, respectively.

After removal of the potentially contaminated soil, the site was assessed. Based on inspecting the UST, field screening of remaining subsurface soils, and reviewing analytical results of collected soil samples and groundwater 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 Versar, to assist the U.S. Army DPW in complying with the 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. October 1990 and revisions dated November 1, 1991).

This report was prepared using information collected 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 and groundwater investigation, are presented in the final section of this report.

1.2 SITE DESCRIPTION

Building 165 is located in the Main Post-East area of the Fort Monmouth Army Base. UST No. 0090010-16 was located northwest of Building 165 and appurtenant piping ran approximately ten (10) feet southeast to Building 165. 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 165. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

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

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

Local Geology

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

Shallow groundwater is locally influenced within the Main Post area by the following factors:

- tidal influence (based on proximity to the Atlantic Ocean, rivers, and tributaries)
- topography
- nature of the fill material within the Main Post area
- presence of clay and silt lenses in the natural overburden deposits
- local groundwater recharge areas (i.e., streams, lakes)

Due to the fluvial nature of the overburden deposits (i.e., sand and clay lenses), shallow groundwater flow direction is best determined on a case-by-case basis. This is consistent with lithologies observed in borings installed within the Main Post area, which primarily consisted of fine-to-medium grained sands, with occasional lenses or laminations of gravel silt and/or clay.

Building 165 is located approximately 300 feet southwest of Parkers Creek, the nearest water body. Based on the Main Post topography, the groundwater flow in the area of Building 165 is anticipated to be to the northeast.

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 involved 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

- The contractor performing the closure prior to excavation activities identified all underground obstructions (utilities, etc.)
- 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 1000 gallons of liquid from the UST and its associated piping were pumped directly into a L & L Oil Service truck where it was then transported to L & L Oil Service Co., Inc. Refer to Appendix C for a copy of the waste manifest.

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. Numerous 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. Soils were stained and appeared to be contaminated. OVA readings were non-detectable. Soil screening was also performed along the piping associated with the UST. No contamination was noted anywhere along the piping length. Groundwater was encountered at a depth of 6.0 feet bgs and no sheen was observed. See Figure 3 for a cross-sectional view of the excavated area.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported in compliance with all applicable regulations and laws to Mazza and Sons, Inc., Metal Recyclers. Please refer to Appendix D for the UST Disposal Certificate.

The UST was labeled prior to transport with the following information:

- Site of origin
- Contact person
- NJDEP UST Facility ID number
- Former contents
- Destination site
- Date

1,6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and TPHC analysis results from the post-excavation soil samples, no soils exhibited signs of contamination. Therefore, the excavated soils 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 (October 1990 and revisions dated November 1, 1991) which was the applicable regulation at the date of the closure. The Fort Monmouth DPW Environmental Office maintains all records of the Site Investigation activities.

The following Parties participated in Closure and Site Investigation Activities:

 Subsurface Evaluator: Dinker DeSai Employer: U.S. Army, Fort Monmouth Phone Number: (908) 532-0989
 NJDEP Certification No.: 0010173

Analytical Laboratory: U.S.Army Fort Monmouth Environmental laboratory

Contact Person: Daniel K. Wright Phone Number: (908) 532-4359

NJDEP Company Certification No.: 13461

Hazardous Waste Hauler: L & L Oil Service

Contact Person: Gary Lo Bella Phone Number: (908) 462-1001

NJDEP Company Certification No.: P56601

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. Soil excavated from around the tank appeared to be contaminated. OVA readings taken during the assessment were non-detect. Groundwater was encountered at a depth of 6.0 feet bgs and no sheen was observed.

2.3 SOIL SAMPLING

On July 19, 1994, following the removal of the UST and associated piping, post-excavation soil samples A, B, C, D, E, F, G, and H (DUP B) were collected from a total of seven (7) locations of the UST excavation. Sidewall samples A, B, C, D, E, F, and H (DUP B) were collected at a depth of 6.0 feet bgs. Piping sample I was collected along the former piping length of the excavation, which was approximately ten (10) feet in length. The piping sample was collected at a depth of 1.0 feet bgs. All samples were analyzed for total petroleum hydrocarbons (TPHC) and total solids.

U.S. Army personnel in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual performed the site assessment. A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using NJDEP *Field Sampling Procedures Manual* (1992) standard sampling procedures. 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

On October 13, 1998, and November 14, 1998, Building 165 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOC's), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOC's). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*. Refer to Appendix F for the field sampling documentation.

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 on July 19,1994 from a total of seven (7) locations. All samples were analyzed for TPHC and total solids. 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 locations are shown on Figure 4. The analytical data package is provided in Appendix E.

All post-excavation soil samples collected on July 19, 1994, from the UST excavation and from below piping associated with the UST contained concentrations of TPHC below the NJDEP soil cleanup criteria. Soil samples, which were collected after the removal of the potentially contaminated soil, contained TPHC concentrations ranging from non-detect to 109.00 mg/kg.

3.2 GROUNDWATER SAMPLING RESULTS

The sample collected from Building 165 on October 13, 1998, contained bis (2-Ethylhexyl) phthalate at 2.23 ug/l. No other compounds were detected.

The sample collected from Building 165 on November 14, 1998, contained Chlorobenzene at 1.17 ug/l and 2-Methylnaphtalene at 4.29 ug/l. No other compounds were detected. Bis (2-ethylhexyl) phthalate was detected in the field blank at a concentration of 4.01 ug/l. No other compounds were detected in the field blank.

A summary of the analytical results and comparison to the NJDEP groundwater cleanup criteria is provided in Table 3 and the groundwater sampling locations are shown on Figure 5. The analytical data package is provided in Appendix F. The full data package, including quality control, is on file at U.S. Fort Monmouth,

Groundwater samples collected on October 13, 1998, and November 14,1998, were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC).

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 165 were below the NJDEP soil cleanup criteria for total organic contaminants.

Based on the post-excavation sampling results, soil 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 at Building 165 on October 13, 1998, and November 14, 1998, groundwater quality at Building 165 was either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC).

No further action is proposed in regard to the closure and site assessment of UST No. 90010-16 at Building 165.

TABLES

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 165, MAIN POST-EAST AREA
FORT MONMOUTH, NEW JERSEY

Page 1 of 2

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
Α	7/19/94	7/20/94	Soil	Post-Excavation	TPHC	418.1
В	7/19/94	7/20/94	Soil	Post-Excavation	TPHC	418.1
С	7/19/94	7/20/94	Soil	Post-Excavation	TPHC	418.1
D	7/19/94	7/20/94	Soil	Post-Excavation	TPHC	418.1
E	7/19/94	7/20/94	Soil	Post-Excavation	TPHC	418.1
F	7/19/94	7/20/94	Soil	Post-Excavation	TPHC	418.1
G	7/19/94	7/20/94	Soil	Post-Excavation	TPHC	418.1
H(DUP B)	7/19/94	7/20/94	Soil	Post-Excavation	TPHC	418.1

Note:

TPHC Total Petroleum Hydrocarbons

TABLE 1 SUMMARY OF GROUNDWATER SAMPLING ACTIVITIES **BUILDING 165, MAIN POST-EAST AREA** FORT MONMOUTH, NEW JERSEY

Page 2 of	ρf	2
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Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Sampling Method**
3973.01	10/13/98	10/21/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
3973.02	10/13/98	10/21/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
3973.05	10/13/98	10/21/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
3973.07	10/13/98	10/21/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4056.01	11/14/98	11/20/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4056.02	11/14/98	11/20/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4056.03	11/14/98	11/20/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP
4056.04	11/14/98	11/20/98	Aqueous	Groundwater	VOCs, SVOCs	PPNDP

Note:

*VOCs:

Volatile Organic Compounds plus 15 tentatively identified compounds Semivolatile organic compounds plus 15 tentatively identified compounds Passively Placed Narrow Diameter Point

*SVOCs: **PPNDP:

TABLE 2 POST-EXCAVATION SOIL SAMPLING RESULTS BUILDING 165, MAIN POST-EAST AREA

FORT MONMOUTH, NEW JERSEY

Page 1 of 1

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Parameters	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
A/6.0=	1572.1	7/19/94	7/20/94	Total Solid			88.00 %		***
				TPHC	6.6	yes	109.00	10,000	No
B/6.0 =	1572.2	7/19/94	7/20/94	Total Solid			88.00 %		
				TPHC	6.6	Yes	39.00	10,000	No
C/6.0=	1572.3	7/19/94	7/20/98	Total Solid			87.00 %		
	•	•	*	TPHC	6.6	Yes	13.00	10,000	No
D/6.0 =	1572.4	7/19/94	7/20/98	Total Solid			87.00 %		
				TPHC	6.6	yes	ND	10,000	No
E/6.0 =	1572.5	7/19/94	7/20/98	Total Solid			85.00 %	-	
•				TPHC	6.6	yes	ND	10,000	No
F/6.0=	1572.6	7/19/94	7/20/98	Total Solid			89.00 %		
				TPHC	6.6	yes	ND	10,000	No
G/6.0=	1572.7	7/19/94	7/20/98	Total Solid			86.00 %	, 	
				TPHC	6.6	Yes	ND	10,000	No
H(DUPB)/6.0=	1572.8	7/19/94	7/20/98	Total Solid			97.00 %	 ,	
		•		TPHC	6.6	yes	ND	10,000	No

Note:

Total Solid results are expressed as a percentage.

NJDEP Residential Direct Contact soil cleanup criteria for total organics

Not detected above stated method detection limit **

ND

TPHC Total Petroleum Hydrocarbons

Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u> 165</u>

Lab Sample ID: 3973.01(Trip Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected		50	по
107131	Acrylonitrile	2.78	Not Detected	-	50	no
75650	tert-Butyl alcohol	8.52	Not Detected		nte	no
1634044	Methyl-tert-Butyl ether	0,16	Not Detected		nle	no
108203	Di-isopropyl ether	0,25	Not Detected	-	nle	no
	Dichlorodifluoromethane	1.68	Not Detected		nle	no
74-87-3	Chloromethane	1.16	Not Detected	-	30	no
75-01-4	Vinyl Chloride	1.06	Not Detected		5	no
74-83-9	Bromomethane	1.10	Not Detected	- (10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	no
75-69-4	Trichlorofluoromethane	0.50	Not Detected		nle	ро
75-35-4	1, 1-Dichloroethene	0.24	Not Detected		2	по
67-64-1	Acetone	1.36	Not Detected		700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	ю
75-09-2	Methylene Chloride	0.24	Not Detected	-	2	во
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	no
75-35-3	1,1-Dichloroethane	0.12	Not Detected		70	no
108-05-4	Vinyl Acetate	0.78	Not Detected	w	nle	no
78-93-3	2-Butanone	0.62	Not Detected		₹ 300 .	no
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected		10	no
67-66-3	Chloroform	0.30	Not Detected	-	6	no
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected	-	30	no
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	ne
71-43-2	Венхеге	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected	"	2	100
79-01-6	Trichloroethene	0.23	Not Detected	-	1	по
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	no
75-27-4	Bromodichloromethane	0.55	Not Detected		1 .	no
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected	-	nle	no
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nle	до

Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

13461

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u> 165</u>

Lab Sample ID: 3973.01(Trip Blank)

-						
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	110
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected	-	nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected		nle	no
126-48-1	Dibromochloromethane	0.86	Not Detected	-	10	по
108-90-7	Chlorobenzene	0.39	Not Detected		4	по
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	по
1330-20-7	o-Xylene	0.62	Not Detected		nle	no
100-42-5	Styrene	0.56	Not Detected		100	no
75-25-2	Bromoform	0.70	Not Detected		4	11:0
79-34-5	1,1,2,2-Tetrachloroethane	0,47	Not Detected		2	no
541-73-1	1,3-Dichlorobenzene	0,55	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected	-	75	по
95-50-1	1,2-Dichlorobenzene	0,64	Not Detected		600	no

Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u>165</u>

Lab Sample ID: 3973.02(Field Blank)

z ate oump	100. <u>10115150</u>					
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1,85	Not Detected		50	no
107131	Acrylonitrile	2,78	Not Detected		50	no
75650	tert-Butyl alcohol	8.52	Not Detected	-	nle	no
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	no
108203	Di-isopropyl ether	0.25	Not Detected	-	nle	no
	Dichlorodifluoromethane	1,68	Not Detected	-	nle	no
74-87-3	Chloromethane	1 16	Not Detected	-	30	no
75-01-4	Vinyl Chloride	1.06	Not Detected	-	5	по
74-83-9	Bromomethane	1.10	Not Detected		10	no
75-00-3	Chloroethane	1.01	Not Detected	_	nle	по
75-69-4	Trichlorofluoromethane	0,50	Not Detected		nle	no
75-35-4	1, 1-Dichloroethene	0.24	Not Detected	<u>.</u>	2	no
67-64-1	Асетопе	1.36	Not Detected	-	700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	'nо
75-09-2	Methylene Chloride	0.24	Not Detected		2	ро
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected	_	100	по
75-35-3	1, 1-Dichloroethane	0.12	Not Detected	<u></u>	70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	no
78-93-3	2-Butanone	0.62	Not Detected	-	300	no
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected	-	10	no
67-66-3	Chloroform	0.30	Not Detected	•	6	no
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected	-	30	no
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Веплете	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	no
79-01-6	Trichloroethene	0.23	Not Detected	-	1	no
78-87-5	1, 2-Dichleropropane	0.40	Not Detected	-	1	no
75-27-4	Bromodichloromethane	0.55	Not Detected		1	no
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected	-	nle	по
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected	-	nle	no

Table 3 **VOLATILE ORGANICS ANALYSIS DATA SHEET**

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u>165</u>

Lab Sample ID: 3973.02(Field Blank)

Date Sampi	ed. <u>10/15/70</u>	Doune.	<u>100</u>	13400	umpre 151 <u>551510</u>	Dia rold Diality
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	no
108-88-3	Toluene	0.37	Not Detected		1000	по
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected	-	nle	по
126-48-1	Dibromochloromethane	0.86	Not Detected	-	10	по
108-90-7	Chlorobenzene	0,39	Not Detected		4	no
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1,14	Not Detected		nle	по
1330-20-7	o-Xylene	0.62	Not Detected		nle	но
100-42-5	Styrene	0,56	Not Detected		100	по
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected	-	2	по
541-73-1	1,3-Dichlorobenzene	0,55	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected		75	по
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	no

Table 3 **VOLATILE ORGANICS ANALYSIS DATA SHEET**

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u>165</u>

Lab Sample ID: 3973.05(Bldg 165)

G. G. Y.	GOVERNATION AND AND AND AND AND AND AND AND AND AN	1.00	DEGLET MG	01117 17717	DECIMATIONS	Difarino a
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected	-	50	no
107131	Acrylonitrile	2.78	Not Detected	-	50	no
75650	tert-Butyl alcohol	8.52	Not Detected	-	nle	no
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	по
108203	Di-isopropyl ether	0,25	Not Detected	-	nle	no
	Dichlorodifluoromethane	1.68	Not Detected		nle	no
74-87-3	Chloromethane	1,16	Not Detected		30	no
75-01-4	Vinyl Chloride	1.06	Not Detected	-	5	no
74-83-9	Bromomethane	1,10	Not Detected		10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	по
75-69-4	Trichlorofluoromethane	0.50	Not Detected	-	nle	no
75-35-4	I, 1-Dichloroethene	0,24	Not Detected		2	ю
67-64-1	Acetone	1.36	Not Detected		700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	по
75-09-2	Methylene Chloride	0.24	Not Detected		2	пo
156-60-5	trans-1,2-Dichloroethene	0,16	Not Detected		100	no
75-35-3	1,1-Dichloroethane	0,12	Not Detected		70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	no
78-93-3	2-Butanone	0.62	Not Detected		300	no
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected		10	no
67-66-3	Chloroform	0.30	Not Detected	'	6	no
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	no
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	по
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	110
79-01-6	Trichloroethene	0.23	Not Detected		1	ро
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	110
75-27-4	Bromodichloromethane	0.55	Not Detected		1	no
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	по
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nle	по

Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u> 165</u>

Lab Sample ID: <u>3973.05(Bldg 165)</u>

Date Gampr	ca. <u>10/15/70</u>	Doution	105	1240 0	umpio 115. <u>5775.</u>	75(DIG 105)
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	110
108-88-3	Тошеле	0.37	Not Detected		1000	во
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected		. nle	no
126-48-1	Dibromochloromethane	0.86	Not Detected	_	10	no
108-90-7	Chlorobenzene	0,39	Not Detected		4	по
100-41-4	Ethylbenzene	0,65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	no
1330-20-7	o-Xylene	0,62	Not Detected		nle	no
100-42-5	Styrene	0,56	Not Detected	-	100	no
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected	-	2	no
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected	-	75	no
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected	-	600	по

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u>165</u>

Lab Sample ID: 3973.02(Field Blank)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	2.52	Not Detected		nle	no
62-75-9	N-nitroso-dimethylamine	2.64	Not Detected		20	no
62-53-3	Aniline	2.90	Not Detected		nle	по
111-44-4	bis(2-Chloroethyl)ether	2,45	Not Detected		10	no
541-73-1	1,3-Dichlorobenzene	2.65	Not Detected	-	600	no
106-46-7	1,4-Dichlorobenzene	2.50	Not Detected		75	no
100-51-6	Benzył alcohol	2.09	Not Detected	<u></u>	nie	no
95-50-1	1,2-Dichlorobenzene	2.44	Not Detected		600	по
108-60-1	bis(2-chloroisopropyl)ether	2.96	Not Detected		300	no
621-64-7	n-Nitroso-di-n-propylamine	2.22	Not Detected	-	20	no
67-72-1	Hexachloroethane	2.59	Not Detected	<u></u>	10	no
98-95-3	Nitrobenzene	2.45	Not Detected		10	по
78-59-1	Isophorone	2.31	Not Detected		100	по
111-91-1	bis(2-Chloroethoxy)methane	2.54	Not Detected		nle	no
120-82-1	1,2,4-Trichlorobenzene	2.58	Not Detected		9	по
91-20-3	Naphthalene	3.03	Not Detected	-	nle	во
106-47-8	4-Chloroaniline	2.55	Not Detected	· -	nle	no
87-68-3	Hexachlorobutadiene	0.64	Not Detected		1	и́о
91-57-6	2-Methylnaphthalene	2.49	Not Detected		nle	по
77-47-4	Hexachlorocyclopentadiene	1.59	Not Detected		50	no
91-58-7	2-Chloronaphthalene	2.15	Not Detected	-	nle	no
88-74-4	2-Nitroaniline	1,62	Not Detected		nle	ю
131-11-3	Dimethylphthalate	2.74	Not Detected		7000	по
208-96-8	Acenaphthylene	2.35	Not Detected	_	nle	по

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u>165</u>

Lab Sample ID: 3973.02(Field Blank)

Date Sample	a. <u>10/13/98</u>	Location	. 105	Lau S	ampie 1D. <u>39[3.</u>	OZITICIA DIAIIKI
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	1.54	Not Detected		nle	no
99-09-2	3-Nitroaniline	1.62	Not Detected		nle	no
83-32-9	Acenaphthene	1.98	Not Detected	-	400	no
132-64-9	Dibenzofuran	2.13	Not Detected		nle	no
121-14-2	2,4-Dinitrotoluene	1.22	Not Detected		10	no
84-66-2	Diethylphthalate	1.68	Not Detected		5000	no
86-73-7	Fluorene	1.93	Not Detected		300	no
7005-72-3	4-Chloropheny i-pheny lether	1.53	Not Detected		nle	no
100-01-6	4-Nitroaniline	2,70	Not Detected		nle	no
86-30-6	n-Nitrosodiphenylamine	1.73	Not Detected		20	no
103-33-3	Azobenzene	1.92	Not Detected		nle	no
101-55-3	4-Bromophenyl-phenylether	1.54	Not Detected	-	nle	no
118-74-1	Hexachlorobenzene	1.88	Not Detected		10	no
85-01-8	Phenanthrene	1.67	Not Detected	-	nle	no
120-12-7	Anthracene	1.79	Not Detected		2000	ро
84-74-2	Di-n-butylphthalate	1.83	Not Detected	-	900	. no
206-44-0	Fluoranthene	1,85	Not Detected		300	no
92-87-5	Benzidine	4.11	Not Delected	-	50	no
129-00-0	Pyrene	1.02	Not Detected		200	по
85-68-7	Butylbenzylphthalate	1.15	Not Detected		100	по
56-55-3	Benzo[a]anthracene	1.57	Not Detected	-	10	no
91-94-1	3,3'-Dichlorobenzidine	2.28	Not Detected	-	60	но
218-01-9	Chrysène	2.32	Not Detected		20	во
117-81-7	bis(2-Ethylhexyl)phthalate	1.29	Not Detected		30	no
117-84-0	Di-n-octylphthalate	1.30	Not Detected		100	no
205-99-2	Benzo[b]fluoranthene	1.31	Not Detected		10	no
207-08-9	Benzo[k]fluoranthene	1,57	Not Detected		2	no
50-32-8	Вепло[а]рутеле	1.36	Not Detected		20	no
193-39-5	Indeno[1,2,3-cd]pyrene	1.22	Not Detected		20	no
53-70-3	Dibenz[a,h]anthracene	3.12	Not Detected		20	no
191-24-2	Benzo[g,h,i]perylene	1.13	Not Detected		nle	no

Lab Name:

FMETL

NJDEP#

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u>165</u>

<u>13461</u>

Lab Sample ID: 3973.02(Bldg 165)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	2.52	Not Detected		nle	no
62-75-9	N-nitroso-dimethylamine	2.64	Not Detected		20	no
62-53-3	Aniline	2.90	Not Detected	-	nle	no
111-44-4	bis(2-Chlaroethyl)ether	2.45	Not Detected		10	по
541-73-1	1,3-Dichlorobenzene	2.65	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	2.50	Not Detected	-	75	no
100-51-6	Benzyl alcohol	2.09	Not Detected	_	nle	по
95-50-1	1,2-Dichlorobenzene	2.44	Not Detected		600	по
108-60-1	bis(2-chloroisopropyl)ether	2.96	Not Detected	_	300	no
621-64-7	n-Nitroso-di-n-propylamine	2.22	Not Detected		20	no
67-72-1	Hexachloroethane	2.59	Not Detected	_	10	no
98-95-3	Nitrobenzene	2,45	Not Detected		10	no
78-59-1	Isophorone	2.31	Not Detected		100	no
111-91-1	bis(2-Chloroethoxy)methane	2.54	Not Detected		nie	no
120-82-1	1,2,4-Trichlorobenzene	2.58	Not Detected		9	no
91-20-3	Naphthalene	3.03	Not Detected		nle	no
106-47-8	4-Chloroaniline	2.55	Not Detected		nle	no
87-68-3	Hexachlorobutadiene	0.64	Not Detected		1	no
91-57-6	2-Methylnaphthalene	2,49	Not Detected		nle	no
77-47-4	Hexachlorocyclope ntadiene	1.59	Not Detected		50	no
91-58-7	2-Chloronaphthalene	2.15	Not Detected		nle	no
88-74-4	2-Nitroaniline	1.62	Not Detected		nle	по
131-11-3	Dimethylphthalate	2.74	Not Detected		7000	. oo
208-96-8	Acenaphthylene	2,35	Not Detected	-	nle	по

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

10/13/98

Location:

<u>165</u>

Lab Sample ID: 3973.07(Bldg165)

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CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	1.54	Not Detected		nle	no
99-09-2	3-Nitroaniline	1.62	Not Detected		nle	no
83-32-9	Acenaphthene	1.98	Not Detected		400	no
132-64-9	Dibenzofuran	2.13	Not Detected		nle	no
121-14-2	2,4-Dinitrotoluene	1,22	Not Detected		10	no
84-66-2	Diethylphthalate	1.68	Not Detected		5000	no
86-73-7	Fluorene	1,93	Not Detected		300	по
7005-72-3	4-Chlorophenyl-phenylether	1.53	Not Detected	-	nie	110
100-01-6	4-Nitroaniline	2.70	Not Detected		nie	по
86-30-6	n-Nitrosodiphenylamine	1.73	Not Detected	4-4	20	no
103-33-3	Azobenzene	1.92	Not Detected		nle	no
101-55-3	4-Bromophenyl-phenylether	1,54	Not Detected		nle	во
118-74-1	Hexachlorobenzene	1.88	Not Detected		10	no
85-01-8	Phenauthrene	1.67	Not Detected		nle	no
120-12-7	Anthracene	1,79	Not Detected	**	2000	по
84-74-2	Di-n-butylphthalate	1.83	Not Detected		900	no
206-44-0	Fluoranthene	1.85	Not Detected		300	no
92-87-5	Benzidine	4.11	Not Detected		50	во
129-00-0	Ругеле	1.02	Not Detected		200	no
85-68-7	Butylbenzylphthalate	1.15	Not Detected		100	no
56-55-3	Benzo[a]anthracene	1.57	Not Detected		10.	no
91-94-1	3,3'-Dichlorobenzidine	2.28	Not Detected		60	, no
218-01-9	Chrysene	2.32	Not Detected		20	no
117-81-7	bis(2-Ethylhexyl)phthalate	1.29	2.23	-	30	no
117-84-0	Di-n-octylphthalate	1.30	Not Detected		100	по
205-99-2	Benzo[b]fluoranthene	1,31	Not Detected		10	no
207-08-9	Benzo[k]fluoranthene	1.57	Not Detected		2	no
50-32-8	Benzo[a]pyrene	1.36	Not Detected		20	по
193-39-5	Indeno[1,2,3-cd]pyrene	1.22	Not Detected		20	no
53-70-3	Dibenz[a,h]anthracene	3.12	Not Detected	-	20	no
191-24-2	Benzo[g, h, i]perylene	1.13	Not Detected		nle	по
						

Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/14/98

Location:

<u> 165</u>

Lab Sample ID: 4056.01(Trip Blank)

COMPOUND NAME RESULTS QUALIFIER REGULATORY CAS NO. MDL **EXCEEDS** (ug/L) LEVEL(ug/L) **CRITERIA** Acrolein DO 107028 1.85 Not Detected 50 107131 Acrylonitrile 2.78 Not Detected 50 no no 75650 tert-Butyl alcohol 8.52 Not Detected nle 1634044 Methyl-tert-Butyl ether 0.16 Not Detected nle по 108203 Di-isopropyl ether 0.25 Not Detected nle Dichlorodifluoromethane 110 1.68 Not Detected nle no 74-87-3 Chloromethane 1.16 Not Detected 30 no 75-01-4 Vinyl Chloride 1.06 Not Detected по 74-83-9 1.10 Not Detected Bromomethane 10 no 75-00-3 Chloroethane 1.01 Not Detected nle по 75-69-4 Trichlorofluoromethane 0.50 Not Detected nle 75-35-4 1, 1-Dichloroethene 0.24 Not Detected no 67-64-1 Acetone 1.36 Not Detected __ 700 no 75-15-0 Carbon Disulfide 0.46 Not Detected nle no 75-09-2 Methylene Chloride 0.24 Not Detected 2 no 156-60-5 trans-1,2-Dichloroethene 0.16 Not Detected 100 no 0.12 75-35-3 1,1-Dichloroethane Not Detected 70 ВО 108-05-4 Vinyl Acetate 0.78 Not Detected nle 78-93-3 2-Butanone 0.62 Not Detected 300 110 'nО 156-59-2 cis-1,2-Dichloroethene 0.17 Not Detected 10 0.30 67-66-3 Chloroform Not Detected no 75-55-6 1,1,1-Trichloroethane 0.23 Not Detected 30 56-23-5 Carbon Tetrachloride 0.47 no Not Detected 2 __ no 71-43-2 Benzeze 0.23 Not Detected 1 no 107-06-2 1,2-Dichloroethane 0.18 Not Detected 2 no 79-01-6 0.23 Not Detected Trichloroethene 1 no 78-87-5 1, 2-Dichloropropane 0.40 Not Detected 1 no 75-27-4 Bromodichloromethane 0.55 Not Detected 0.65 110-75-8 2-Chloroethyl vinyl ether Not Detected nle 10061-01-5 0.69 Not Detected cis-1,3-Dichloropropene nle

Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

<u>FMETL</u>

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled: 11/14/98

Location:

<u>165</u>

Lab Sample ID: 4056.01(Trip Blank)

Date Samp	10d. <u>1114/70</u>	Docution	105	240 0	ampio 115. <u>+050.c</u>	MATTE DIGHE
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	no
108-88-3	Toluene	0.37	Not Detected	-	1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	по
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected	<u>-</u>	3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0.71	Not Detected		nle	по
126-48-1	Dibromochloromethane	0.86	Not Detected		10	nò
108-90-7	Chlorobenzene	0.39	Not Detected		4	no
100-41-4	Ethylbenzene	0.65	Not Detected		700	по
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	no
1330-20-7	o-Xylene	0.62	Not Detected		nle	по
100-42-5	Styrene	0.56	Not Detected	-	100	по
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected		2	no
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected	<u> </u>	600	no .
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected		75	no
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	no

Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/14/98

Location:

<u> 165</u>

Lab Sample ID: 4056.02(Field Blank)

-					-	
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected		50	no .
107131	Acrylonitrile	2.78	Not Detected		50	no
75650	tert-Butyl alcohol	8.52	Not Detected	**	nle	ро
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	по
108203	Di-isopropyl ether	0.25	Not Detected	(nle	во
	Dichlorodiffuoromethane	1.68	Not Detected		nle	no
74-87-3	Chloromethane	1.16	Not Detected	-	30	по
75-01-4	Vinyl Chloride	1.06	Not Detected	-	5	no
74-83-9	Bromomethane	1.10	Not Detected	_	10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	no
75-69-4	Trichlorofluoromethane	0.50	Not Detected		nle	во
75-35-4	1, 1-Dichloroethene	0.24	Not Detected		2	DO
67-64-1	Acetone	1.36	Not Detected		700	no
75-15-0	Carbon Disulfide	0.46	Not Detected		nle	no
75-09-2	Methylene Chloride	0,24	Not Detected		2	no
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	по
75-35-3	1,1-Dichloroethane	0.12	Not Detected		70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	по
78-93-3	2-Butanone	0.62	Not Detected	-	300	во
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected		10	по
67-66-3	Chloroform	0.30	Not Detected	-	6	по
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	по
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	no
79-01-6	Trichloroethene	0.23	Not Detected		1	no
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	no
75-27-4	Bromodichloromethane	0.55	Not Detected		1	но
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	no
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nte	no
	<u> </u>			1	<u> </u>	

Table 3 **VOLATILE ORGANICS ANALYSIS DATA SHEET**

Lab Name:

FMETL

NJDEP#

13461

Matrix: (soil/water) WATER

Date Sampled:

11/14/98

Location:

<u>165</u>

Lab Sample ID: 4056.02(Field Blank)

Date Sampl	ieu. <u>11/14/98</u>	Location	. <u>105</u>	Laus	ample 1D: 4030,0	22(Freid Dialik)
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected	<u>-</u>	400	no
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected		nle	110
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected		3	no
127-18-4	Tetrachloroethene	0.32	Not Detected		1	no
591-78-6	2-Hexanone	0,71	Not Detected		nle	RO
126-48-1	Dibromochloromethane	0.86	Not Detected		10	по
108-90-7	Chlorobenzene	0.39	Not Detected		4	по
100-41-4	Ethylbenzene	0.65	Not Detected		700	no
1330-20-7	m+p-Xylenes	1.14	Not Detected	-	nle	no
1330-20-7	o-Xylene	0.62	Not Detected	_	nle	ю
100-42-5	Styrene	0.56	Not Detected		100	no
75-25-2	Bromoform	0,70	Not Detected	-	4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected		2	no
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected	-	600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected	-	75	no
95-50-1	1,2-Dichtorobenzene	0,64	Not Detected		600	no

Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

13461

Matrix: (soil/water) WATER

Date Sampled:

11/14/98

Location:

<u>165</u>

Lab Sample ID: 4056.03(Bldg 165)

	<u> </u>				. ——	
CAS NO.	COMPOUND NAME	· MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
107028	Acrolein	1.85	Not Detected	-	50	no
107131	Acrylonitrile	2.78	Not Detected		50	no
75650	tert-Butyl alcohol	8.52	Not Detected		nle	no
1634044	Methyl-tert-Butyl ether	0.16	Not Detected		nle	no
108203	Di-isopropyl ether	0.25	Not Detected	_	nle	по
	Dichlorodifluoromethane	1.68	Not Detected		nle	по
74-87-3	Chloromethane	1.16	Not Detected		30	no
75-01-4	Vinyl Chloride	1.06	Not Detected	_	5	no
74-83-9	Bromomethane	1.10	Not Detected		10	no
75-00-3	Chloroethane	1.01	Not Detected		nle	по
75-69-4	Trichlorofluoromethane	0,50	Not Detected		nle	no
75-35-4	1, 1-Dichloroethene	0.24	Not Detected		2	no
67-64-1	Acetone	1,36	Not Detected		700	по
75-15-0	Carbon Disulfide	0.46	Not Detected	••	nle	по
75-09-2	Methylene Chloride	0.24	Not Detected		2	no
156-60-5	trans-1,2-Dichloroethene	0.16	Not Detected		100	no
75-35-3	1,1-Dichloroethane	0.12	Not Detected		70	no
108-05-4	Vinyl Acetate	0.78	Not Detected		nle	100
78-93-3	2-Butanone	0.62	Not Detected		300	во
156-59-2	cis-1,2-Dichloroethene	0.17	Not Detected		10	no
67-66-3	Chloroform	0.30	Not Detected		6	no
75-55-6	1,1,1-Trichloroethane	0.23	Not Detected		30	по
56-23-5	Carbon Tetrachloride	0.47	Not Detected		2	no
71-43-2	Benzeze	0.23	Not Detected		1	no
107-06-2	1,2-Dichloroethane	0.18	Not Detected		2	ло
79-01-6	Trichloroethene	0.23	Not Detected		1	no
78-87-5	1, 2-Dichloropropane	0.40	Not Detected		1	no
75-27-4	Bromodichloromethane	0.55	Not Detected		1	no
110-75-8	2-Chloroethyl vinyl ether	0.65	Not Detected		nle	no
10061-01-5	cis-1,3-Dichloropropene	0.69	Not Detected		nle	no

Table 3 VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/14/98

Location:

<u>165</u>

Lab Sample ID: 4056.03(Bldg 165)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
108-10-1	4-Methyl-2-Pentanone	0.59	Not Detected		400	по
108-88-3	Toluene	0.37	Not Detected		1000	no
10061-02-6	trans-1,3-Dichloropropene	0.87	Not Detected	-	nle	no
79-00-5	1,1,2-Trichloroethane	0.48	Not Detected	-	3	ю
127-18-4	Tetrachloroethene	0.32	Not Detected	-	1	no
591-78-6	2-Hexanone	0,71	Not Detected	-	nle	no
126-48-1	Dibromochloromethane	0.86	Not Detected		10	no
108-90-7	Chlorobenzene	0.39	1.17	_	4	по
100-41-4	Ethylbenzene	0.65	Not Detected	-	700	ю
1330-20-7	m+p-Xylenes	1.14	Not Detected		nle	no
1330-20-7	o-Xylene	0.62	Not Detected		nle	no
100-42-5	Styrene	0.56	Not Detected	<u></u>	100	no ;
75-25-2	Bromoform	0.70	Not Detected		4	no
79-34-5	1,1,2,2-Tetrachloroethane	0.47	Not Detected		2	по
541-73-1	1,3-Dichlorobenzene	0.55	Not Detected		600	no
106-46-7	1,4-Dichlorobenzene	0.57	Not Detected	-	75	110
95-50-1	1,2-Dichlorobenzene	0.64	Not Detected		600	no

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

<u>11/14/98</u>

Location:

<u> 165</u>

Lab Sample ID: 4056.02(Field Blank)

						-
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	2.52	Not Detected	7.7	nle	no
62-75-9	N-nitroso-dimethylamine	2.64	Not Detected		20	по
62-53-3	Aniline	2.90	Not Detected	**	nle	по
111-44-4	bis(2-Chloroethyl)ether	2.45	Not Detected		10	по
541-73-1	1,3-Dichlorobenzene	2.65	Not Detected		600	во
106-46-7	1,4-Dichlorobenzene	2.50	Not Detected		75	no
100-51-6	Benzyl alcohol	2.09	Not Detected	-	nle	йо
95-50-1	1,2-Dichlorobenzene	2,44	Not Detected		600	no
108-60-1	bis(2-chloroisopropyl)ether	2.96	Not Detected		300	no
621-64-7	n-Nitroso-di-n-propylamine	2.22	Not Detected	-	20	no
67-72-1	Hexachloroethane	2.59	Not Detected		10	по
98-95-3	Nitrobenzene	2.45	Not Detected		10	no
78-59-1	Isophorone	2.31	Not Detected		100	no
111-91-1	bis(2-Chloroethoxy)methane	2.54	Not Detected		nle	во
120-82-1	1,2,4-Trichlorobenzene	2,58	Not Detected	·	9	во
91-20-3	Naphihalene	3.03	Not Detected		nle	no
106-47-8	4-Chloroaniline	2.55	Not Detected		nle	до
87-68-3	Hexachlorobutadiene	0.64	Not Detected	-	1	ĐΟ
91-57-6	2-Methylnaphthalene	2.49	Not Detected	-	nle	no
77-47-4	Hexachlorocyclopentadiene	1.59	Not Detected		50	no
91-58-7	2-Chloronaphthalene	2.15	Not Detected		nle	no
.88-74-4	2-Nitroaniline	1.62	Not Detected		nle	no
131-11-3	Dimethylphthalate	2.74	Not Detected		7000	no
208-96-8	Acenaphthylene	2.35	Not Detected		nle	no

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

<u>11/14/98</u>

Location:

<u>165</u>

Lab Sample ID: 4056.02(Field Blank)

	COMPOUND NAME) (D)	·			•
		MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	1,54	Not Detected		nle	no
99-09-2	3-Nitroaniline	1,62	Not Detected	~~	nle	no
83-32-9	Acenaphthene	1,98	Not Detected		400	по
132-64-9	Dibenzofuran	2,13	Not Detected		nle	ю
121-14-2	2,4-Dinitrotoluene	1.22	Not Detected		10	no
84-66-2	Diethylphthalate	1.68	Not Detected	-	5000	no
86-73-7	Fluorene	1.93	Not Detected		300	no
7005-72-3	4-Chlorophenyl-phenylether	1.53	Not Detected	-	nle	no
100-01-6	4-Nitroaniline	2.70	Not Detected		nle	no
86-30-6	n-Nitrosodiphenylamine	1.73	Not Detected		20	no
103-33-3	Azobenzene	1.92	Not Detected		nle	по
101-55-3	4-Bromophenyl-phenylether	1.54	Not Detected	CH	nle	ло
118-74-1	Hexachlorobenzene	1.88	Not Detected		10	по
85-01-8	Phenanthrene	1.67	Not Detected		nle	no
120-12-7	Anthracene	1.79	Not Detected		2000	no
84-74-2	Di-n-butylphthalate	1.83	Not Detected		900	ю
206-44-0	Fluoranthene	1.85	Not Detected		300	no
92-87-5	Benzidine	4.11	Not Detected		50	по
129-00-0	Pyrene	1,02	Not Detected	-	200	no
85-68-7	Butylbenzylphthalate	1.15	Not Detected		100	no
56-55-3	Benzo[a]anthracene	1.57	Not Detected	-	10	no
91-94-1	3,3'-Dichlorobenzidine	2.28	Not Detected		60	по
218-01-9	Chrysene	2.32	Not Detected	_	20	во
117-81-7	bis(2-Ethylhexyl)phthalate	1.29	4,01	-	30	100
117-84-0	Di-n-octylphthalate	1.30	Not Detected		100	по
205-99-2	Benzo[b]fluoranthene	1,31	Not Detected		10	no
207-08-9	Benzo[k]fluoranthene	1.57	Not Detected		2	no
50-32-8	Benzo[a]pyrene	1,36	Not Detected		20	no
193-39-5	Indeno[1,2,3-cd]pyrene	1.22	Not Detected		. 20	no
53-70-3	Dibenz[a,h]anthracene	3.12	Not Detected		20	no
191-24-2	Benzo[g,h,i]perylene	1.13	Not Detected		nle	no

Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

<u>11/14/98</u>

Location:

<u>165</u>

Lab Sample ID: 4056.04(Bldg 165)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	2.52	Not Detected		nle	по
62-75-9	N-nitroso-dimethylamine	2,64	Not Detected		20	ло
62-53-3	Aniline	2.90	Not Detected		nle	no
111-44-4	bis(2-Chloroethyl)ether	2.45	Not Detected	- /	10	no
541-73-1	1,3-Dichlorobenzene	2.65	Not Detected		600	по
106-46-7	1,4-Dichlorobenzene	2.50	Not Detected		75	цо
100-51-6	Benzyl alcohol	2.09	Not Detected	••	nle	no
95-50-1	1,2-Dichlorobenzene	2.44	Not Detected		600	по
108-60-1	bis(2-chloroisopropyl)ether	2.96	Not Detected		300	no
621-64-7	n-Nitroso-di-n-propylamine	2.22	Not Detected		20	по
67-72-1	Hexachloroethane	2.59	Not Detected		10	по
98-95-3	Nitrobenzene	2,45	Not Detected		10	по
78-59-1	Isophorone	2.31	Not Detected	-	100	по
111-91-1	bis(2-Chloroethoxy)methane	2.54	Not Detected		nle '	no
120-82-1	1,2,4-Trichlorobenzene	2.58	Not Detected	·	9	no
91-20-3	Naphthalene	3.03	Not Detected		nle	no
106-47-8	4-Chloroaniline	2.55	Not Detected	-	nle	no
87-68-3	Hexachlorobutadiene	0.64	Not Detected		1	во
91-57-6	2-Methylnaphthalene	2,49	4.29		nle	по
77-47-4	Hexachlorocyclopentadiene	1,59	Not Detected		50	по
91-58-7	2-Chloronaphthalene	2.15	Not Detected		nle	по
88-74-4	2-Nitroaniline	1.62	Not Detected		nle	no
131-11-3	Dimethylphthalate	2.74	Not Detected		7000	no
208-96-8	Acenaphthylene	2.35	Not Detected		nle	по

Table 3 SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name:

FMETL

NJDEP#

<u>13461</u>

Matrix: (soil/water) WATER

Date Sampled:

11/14/98

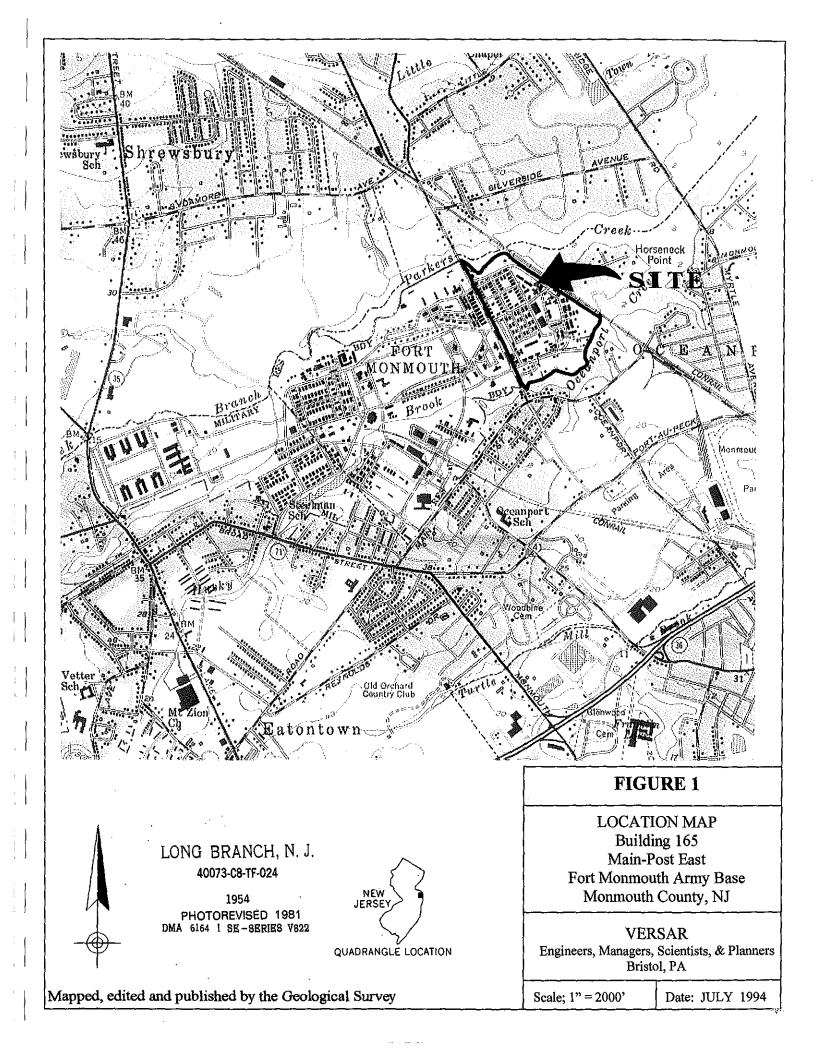
Location:

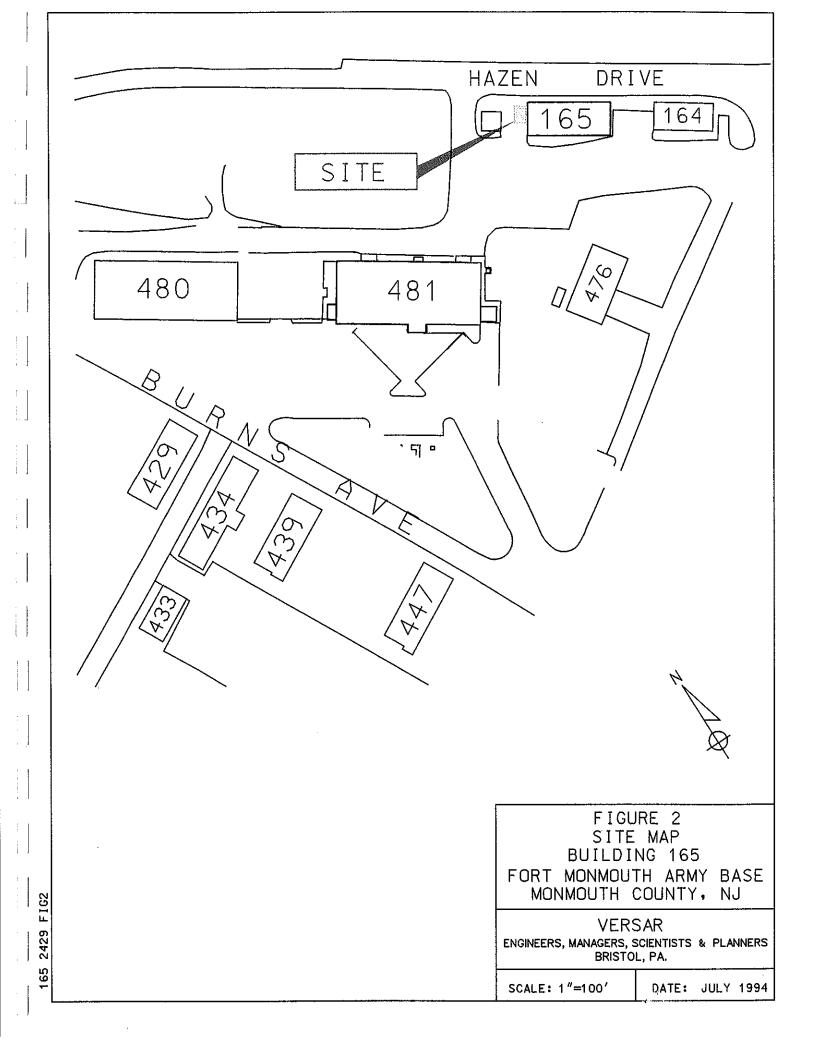
<u> 165</u>

Lab Sample ID: 4056.04(Bldg 165)

Date Sample	u. <u>11/14/96</u>	Location.	103	Laus	атріє тр. <u>4050.</u>	34(D)(08 103)
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	1.54	Not Detected		nle	no
99-09-2	3-Nitroaniline	1.62	Not Detected		nle	no
83-32-9	Acenaphthene	1.98	Not Detected		400	no
132-64-9	Dibenzofuran	2.13	Not Detected		nle	no
121-14-2	2,4-Dinitrotoluene	1.22	Not Detected		10	no
84-66-2	Diethylphthalate	1.68	Not Detected		5000	no
86-73-7	Fluorene	1.93	Not Detected	-~	300	no
7005-72-3	4-Chlorophenyl-phenylether	1.53	Not Detected		nle	НO
100-01-6	4-Nitroaniline	2.70	Not Detected		nle	no
86-30-6	n-Nitrosodiphenylamine	1.73	Not Detected		20	no
103-33-3	Azobenzene	1.92	Not Detected		nle	no
101-55-3	4-Bromophenyl-phenylether	1.54	Not Detected		nle	no
118-74-1	Hexachlorobenzene	1.88	Not Detected		10	по
85-01-8	Phenanthrene	1.67	Not Detected		nle	no
120-12-7	Anthracene	1.79	Not Detected		2000	no
84-74-2	Di-n-butylphthalate	1.83	Not Detected		900	no
206-44-0	Fluoranthene	1.85	Not Detected		300	no
92-87-5	Benzidine	4.11	Not Detected		50	no
129-00-0	Pyrene	1.02	Not Detected		200	no
85-68-7	Butylbenzylphthalate	1.15	Not Detected		100	no
56-55-3	Benzo[a]anthracene	1.57	Not Detected		10	no
91-94-1	3,3'-Dichlorobenzidine	2.28	Not Detected	-~	60	no
218-01-9	Chrysene	2.32	Not Detected		20	no
117-81-7	bis(2-Ethylhexyl)phthalate	1.29	Not Detected		30	no
117-84-0	Di-n-octylphthalate	1.30	Not Detected		100	по
205-99-2	Benzo[b]fluoranthene	1.31	Not Detected		10	no
207-08-9	Benzo[k]fluoranthene	1.57	Not Detected		2	no
50-32-8	Benzo[a]pyrene	1.36	Not Detected		20	no
193-39-5	Indeno[1,2,3-cd]pyrene	1.22	Not Detected		20	no
53-70-3	Dibenz[a,h]anthracene	3.12	Not Detected		20	no
191-24-2	Benzo[g,h,i]perylene	1.13	Not Detected		nle	по







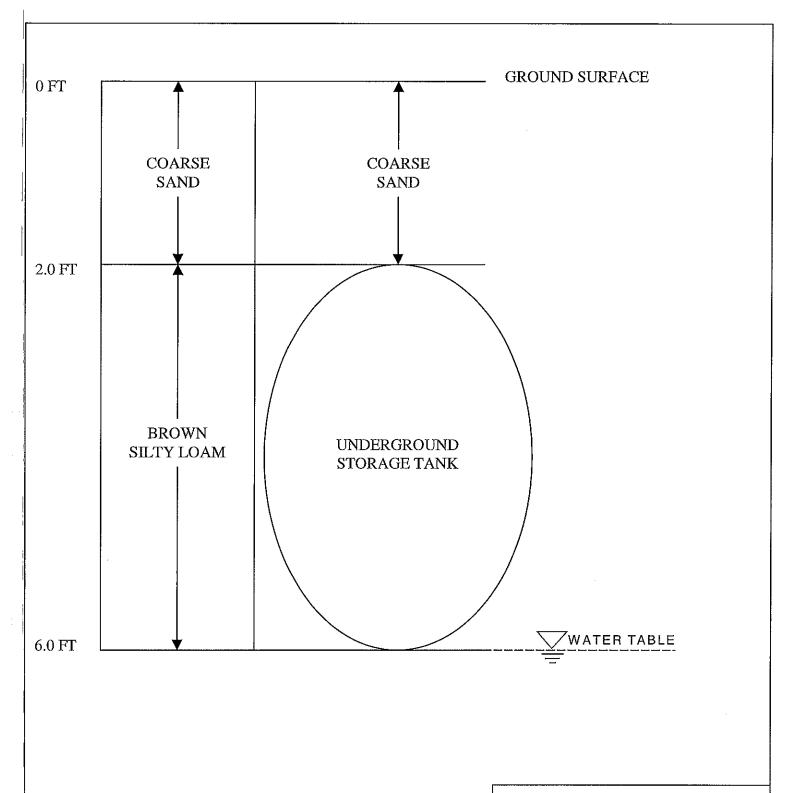


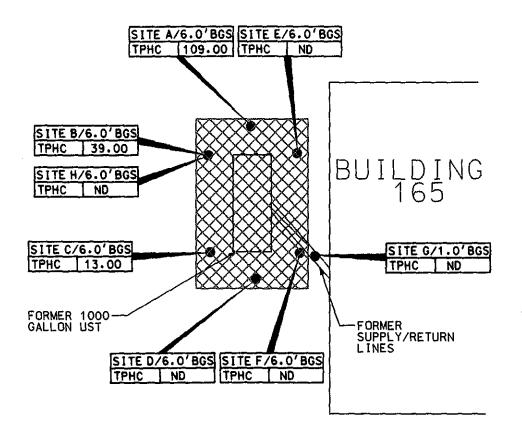
FIGURE 3
CROSS SECTIONAL VIEW
BUILDING 165
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR

Engineers, Managers, Scientists & Planners Bristol, Pennsylvania

SCALE: NTS

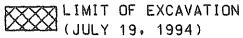
DATE: JULY 1994





LEGEND





NOTES:

- 1. ALL RESULTS IN MG/KG.
- 2. SEE TABLE 2 FOR NJDEP SOIL CLEANUP CRITERIA
- 3. BGS = BELOW GROUND SURFACE

FIGURE 4
SOIL SAMPLING LOCATION MAP
BUILDING 165
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

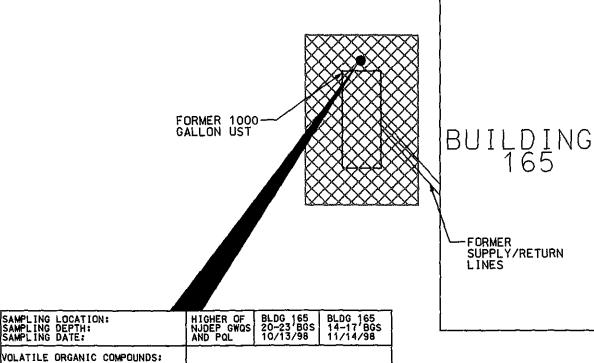
VERSAR ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS BRISTOL, PA.

SCALE: 1"=10'

DATE: JULY 1994

2429 FIG4

165





LEGEND

CHLOROBENZENE:

2-METHYLNAPHTHALENE:

SEMIVOLATILE ORGANIC COMPOUNDS: BIS (2-ETHYLHEXYL)PHTHALATE:

GROUNDWATER SAMPLE LOCATION
(OCTOBER 13, 1998 AND NOVEMBER 14, 1998)

4

30

NLE

ΝĐ

2.23

ND

1.17

ND

4.29

LIMIT OF EXCAVATION
(JULY 19, 1994)

NOTES:

- 1. ND=INDICATES COMPOUND NOT DETECTED
- 2. NLE = NO LIMIT ESTABLISHED
- 3. ALL RESULTS IN UG/L
- 4. BGS = BELOW GROUND SURFACE

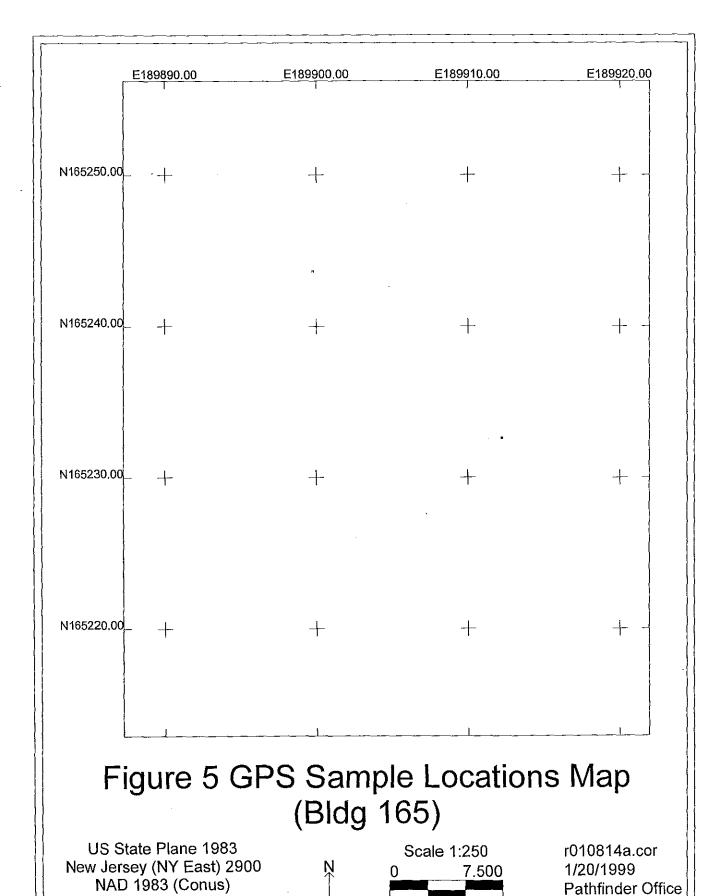
FIGURE 5
GROUNDWATER SAMPLING MAP
BUILDING 165
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR ENGINEERS, MANAGERS, SCIENTISTS & PLANNERS BRISTOL, PA.

SCALE: 1"=10'

DATE: JULY 1994

165 2429 FIG5



⚠ Trimble

Meters

Figure 5 GPS Sample Point Location Data

US State Plane 1983 NJ (NY East) 2900 NAD 1983 (CONUS)

(in Meters)

Sample Point

Location / Desc.

Y Coord. (Northing)

X Coord. (Easting)

165GW

165232.645

189912.236

(GW denotes Ground Water)

Reference Point

Location / Desc.

Y Coord. (Northing)

X Coord. (Easting)

165 HYDRANT

165243.699

189899.733

APPENDIX A NJDEP-BUST CLOSURE APPROVAL LETTER

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-93-3902

0090010

US Army BLDG: 165 Ft. Monmouth, N3

Hermenich

THE ABOVE LISTED FACILITY IS HEREBY GRANTED APPROVAL TO PERFORM THE FOLLOWING ACTIVITY IN ACCORDANCE WITH N.J.A.C. 7.148-1.<u>ol.880</u>.

Removal of: one 1 000 gallon #2 diese! UST(8) and appurtenent piping.

SIPE ASDESSMENT: Soil samples will be taken every live (5) feet along the denter 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 sorcemed readings. Samples will be analyzed for TRHC. If sample results are greater than 1,000ppm than 25% of the samples will be analyzed for VD*10.

ONSTEMANAGER C. Appleby

TERPRINE CELTS

er Nes

TE EDITORIE

inderivedates Sp. 17 (c)

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

> KEVIN F. KRATINA, BUREAU GHIEF BUREAU OF UNDERGROUND STORAGE TANKS



State of New Jersey Department of Environmental Protection and Energy

Division of Responsible Party Site Remediation

CN 029. Trenton, NJ 08625-0029 Tel. # 609-984-3156 Fax. # 609-292-5604

Scott A. Weiner Commissioner

SEP 08 1993

Kari J. De

Dear Applicant:

The Department of Environmental Protection (the Department) received an "Underground Storage Tank Closure Plan Approval Application" for your facility. This application detailed the procedures to be implemented as required by the Underground Storage Tank Systems Technical Requirements and Procedures at N.J.A.C. 7:14B-1 et seq. Based upon our review of the information submitted, a Closure Approval is hereby granted.

A Standard Reporting Form (SRF) must be submitted to the Department within seven (7) days of removal or abandonment of the tank(s). The date of removal or abandonment must be included with the SRF. The SRF will be used to delist the tank(s) from the Bureau of Underground Storage Tanks (BUST) registration files. A copy of the SRF is attached.

Within ninety (90) days of completion of the tank(s) closure, a Site Assessment Summary pursuant to N.J.A.C. 7:14B-9.5 must be submitted to BUST (copy attached). If contamination is discovered during closure, you are required to initiate corrective action as per N.J.A.C. 7:14B-8 and outlined in the Department's Scope of Work document. All discharges must be reported to the Spill Hotline at (609) 292-7172.

Once you have obtained a Closure Approval, a demolition permit issued pursuant to N.J.A.C. 5:23 et seg. and authorized by the Department of Community Affairs (DCA), Construction Code Element must be procured from your local construction code official. For further information in obtaining a demolition permit, please contact the local construction code official directly, or DCA's Code Assistance Unit at (609) 530-8793.

If you require further information or assistance, please contact the Tank Management Section of BUST at (609) 984-3156.

Attachments: Closure Approval

SRF SAS

New Jersey is an Equal Opportunity Employer
Recycled Paper





Department of Environmental Protection and Energy Division of Responsible Party Site Remediation CN 028

Trenton. NJ 08625-0029

ATTN: UST Program

CONTRACTOR BUILDING TO THE Date Rec'd. The second state of the second Application of Application and the state of the Application of the state of the sta UST NO.

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	是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个
- I A A A A A A A A A A A A A A A A A A	NDARD REPORTING FORM
Wild Wild Wild State of the Manne	
General Facility Informatio	
Closure (Abandonment or Temporary Closure	
Change in Service	Financial Responsibility Address Change Only
Check ONLY One Type	e of Activity - Complete, Form For That Activity
More than	one tank can be listed per activity)
NOTE -	IEW tank installations at existing registered
facilities must submit e	Registration Questionnaire for the new tanks.
The same displacement of the second s	The same of the sa
Answer questions 1 through 5 and others as appl	The state of the second
Company name and address (as it	Survey of Son A 7 mm from war in some
SORSES OF registration directionspirel:	Director of Public works
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2 Facility name and location	The same of the sa
(i) citierent mont above): 5 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 - 6 -	A SERVICE OF WAY COME
The second secon	
3. Contact person for this activity:	DINKER M DESAI
· Aberlanger	Telephone Number: (908) 532-1475
metric vicini	and the property of the control of t
and the state of the contract	as it appears in Question Number 12 on the Registration Questionnaire:
BLD9 165	
5. Registration Number (* known):	usi: 0090010
6. For GENERAL FACILITY INFORMATION change	es (againsts, telephone, contact person, etc. — supply NEW information only):
a. Facility name:	
b Facily Center:	
c. Owner's making actives:	A TOTAL TOTAL TOTAL AND STATE OF THE STATE O
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Let:	And the second s
e. Contact person (facility operator):	The second secon
Comact telephone number: (
g. Other (Specify):	
	· · · · · · · · · · · · · · · · · · ·

APPENDIX B SITE ASSESSMENT SUMMARY

New Jersey Department of Environmental Protection Site Remediation Program UST Site/Remedial Investigation Report Certification Form

A. Facility Name : <u>U.S. Arn</u>	ny Fort Monmouth New Jersey
Facility Street Address:	Directorate of Public Works Building 173
Municipality: Oceanpo	County: Monmouth
Block:	Lot(s):Telephone Number :_732-532-6224
B. Owner (RP)'s Name:	
Street Address:	City :
State:	Zip: Telephone Number :
C. (Check as appropriate) Site Investigation Report (SIR) \$500 Fee Remedial Investigation Report (RIR) \$1000 Fee X NA – Federal Agreement	D. (Complete all that apply) Assigned Case Manager: Ian Curtis, Federal Case Manager UST Registration Number: 90010-16 (7 digits) Incident Report Number • • (10 or 12 digits) Tank Closure Number: Federal Case Manager
Name: <u>Dinker DeSai</u> Firm: <u>U.S. Army Fort Mo</u> Firm Address: <u>Directorate</u>	orms to the specific reporting requirements of N.J.A.C. 7:26E
(NOTE: Certification number	s required only if work was conducted on USTs regulated per N.J.S.A. 58:10A-21 et seq.)
The following certification s 1. For a Corporation by a presolution, certified as a t 2. For a partnership or sole p	ponsible Party(ies) of the Facility: chall be signed [according to the requirements of N.J.A.C. 7:14B-1.7(b)]as follows: derson authorized by a resolution of the board of directors to sign the document. A copy of the rue copy by the secretary of the corporation, shall be submitted along with the certification; or proprietorship, by a general partner or the proprietor, respectively; or federal or other public agency by either a principal executive officer or ranking elected Official.
application and information, I significant civ committing a c	penalty of law that I have personally examined and am familiar with the information submitted in this I all attached documents, and that based on my inquiry of those individuals responsible for obtaining the believe that the submitted information is true, accurate, and complete. I am aware that there are il penalties for knowingly submitting false, inaccurate, or incomplete information and that I am rime of the fourth degree if I make a written false statement which I do not believe to be true. I am also knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."
Name (Print or Type): _	James Ott Title: Directorate of Public Works
Signature:	U.S. Army Fort Monmouth Date: 3/25/95

APPENDIX C WASTE MANIFEST



on ent

or print in block letters. (Form designed	Itate of New Jersey Department of Environmental Protectio Division of Hazardous Waste Manageme Manifest Section CN 028, Trenton, NJ 08625
INIFORM HAZARDOUS	1. Generator's US EPA ID No. Manife

Form Approved.	OMB No. 2050-0039.	Expires 9-30-94

b ii b x

	NIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US E N プラメルル	PA ID No. 	71/P3	lanifest ument No.	2. Page of	i Inform	nation in ot requi	the shaded red by Fed	areas deral
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Tra	nsporter 2 Company Name	8.		ID Numbe		D. Tra	nsporter's Pho le Trans. ID			788
De	signated Facility Name and Site Addres	s 10.	. US EPA	ID Numbe	r	F. Tran	sporter's Phon	ie ()		的 制 库 分类液
	LIOVA ROAD	· · · · · · · · · · · · · · · · · · ·		or at this	13.	G. Sta	te Facility's ID	, į		
	PROMON NJ 077				12. Cont		ility's Phone (* 13.	14.		
US	DOT Description (Including Proper Sh M	ipping Name, Hazard Cl. j	ass, and ID Numbe	er)	No.	Туре	Total Quantity	Unit Wt/Vol	Waste N	lo.
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Ad	ditional Descriptions for Materials Liste					K. Ha	ndling Codes f	or Wastes	Listed Above	
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Sp	ecial Handling Instructions and Addition	nal Information		Dec	44	and a	4334	6 5	116 #	77
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orc acc If I	NERATOR'S CERTIFICATION: I hereby per shipping name and are classified, p ording to applicable international and r am a large quantity generator, I certify the momically practicable and that I have sele ure threat to human health and the environ best waste management method that is	acked, marked, and labe national government reg nat I have a program in pla ected the practicable meth nment: OR. if I am a small	eled, and are in all ulations. ace to reduce the vi nod of treatment, st lauantity generato	respects ir olume and orage, or d	n proper co toxicity of v isoosal curr	ndition f waste ger rently ava	or transport by nerated to the d allable to me wh	highway egree I hav ich minimi	ve determined izes the presen neration and s	to be at and select
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	sitity Owner or Operator: Certification on the output of the or Operator: Op	f receipt of hazardous m	Signature	y this man	ifest except	t as note		·	Mazar Day	Year

APPENDIX D UST DISPOSAL CERTIFICATE

3 142A	- ust 20010 - ust 00900	Metal Recyclers -16 Auto and Truck	no date∂ <i>§ </i> Д. <u>14 94</u>
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		- 369401 LB 6	Copper #2
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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 #: 1572.1-.8

Sample Rec'd: 07/19/94

Analysis Start: 07/20/94

Analysis Comp: 07/20/94

Analysis: 418.1 (TPH)

Matrix: Soil

Analyst: S. Hubbard

Ext. Meth: Sonc.

NJDEPE UST Reg.#:

Closure #: DICAR #:

Location #: Bldg. 165

Lab ID.	Description		%Solid	Result	
1572.1	Site A, E. Wall 6'	OVA= ND	88	109.	6.6
1572.2	Site B, N.E. Wall 6'	OVA= ND	88	39.0	6.6
1572.3	Site C, N.W. Wall 6'	OVA= ND	87	13.0	6.6
1572.4	Site D, W. Wall 6'	OVA= ND	87	ND	6.6
1572.5	Site E, S.W. Wall 6'	OVA= ND	85	ND	6.6
1572.6	Site F, S.E. Wall 6'	OVA= ND	89	ND	6.6
1572.7	Site G, Pipe chase 1'	OVA= ND	86	ND	6.6
1572.8	Site H, Dup	OVA= NA	97	N D	6.6
					
				-	
				-	
M. Bl.	Method Blank		100	ND	3.3

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

* = Silica Gel Added, NA = Not Applicable

1572.1 dup= 100% 1572.1 s= 86% 1572.1 sd= 80% RPD= 7.2%

Brian K. McKee

Laboratory Director

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 #: 1572.1-.8

Sample Rec'd: 07/19/94

Analysis Start: 07/20/94

Analysis Comp: 07/20/94

Analysis: Munsel

Lab ID#	Soil Color
1572.1	10YR 4/2 Dark Grayish Brown
1572.2	10YR 4/2 Dark Grayish Brown
1572.3	10YR 3/3 Dark Brown
1572.4	10YR 4/2 Dark Grayish Brown
1572.5	10YR 3/2 Very Dark Grayish Brown
1572.6	10YR 4/2 Dark Grayish Brown
1572.7	10YR 4/2 Dark Grayish Brown
1572.8	10YR 4/3 Brown
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Brian K. McKee Laboratory Director

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1572.7 3MV	
1572.8 21.41	
1573.1 341	
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1573.3 245	
1573.4 941	
1573.5 1140	
1573.6 4M	
1573.7 2 AV	
	1
573.8 441	-00

185-6270-00

7

PHC Conformance/Non-conformance Summary Report	<u>No</u>	<u>Yes</u>
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.		1/19
5. Extraction holding time met. (If not met, list number of days exceeded for each sample)	<u></u>	<u></u>
6. Analysis holding time met. (If not met,list number of days exceeded for each sample)		<u>'</u>
Comments:		

Laboratory Authentication Statement

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

Project #1572

Brian K. McKee Laboratory Manager

APPENDIX F GROUNDWATER ANALYTICAL DATA PACKAGE

FORT MONMOUTH ENVIRONMENTAL

TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732)532-6224 FAX: (732)532-3484
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
NJDEP LABORATORY CERTIFICATION # 13461



ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIROMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

BLDG. 165

Field Location No. &	Laboratory	Matrix	Date and Time	Date Received		
Location	Sample ID#		Of Collection			
Trip Blank	3973.01	Aqueous	13-Oct-98	10/13/98		
Field Blank	3973.02	Aqueous	13-Oct-98 09:24	10/13/98		
Bldg. 165 – 20-23'	3973.05	Aqueous	13-Oct-98 13:45	10/13/98		
Bldg. 165 – 20-23'	3973.07	Aqueous	13-Oct-98 15:05	10/13/98		

ANALYSIS: FORT MONMOUTH ENVIRONMENTAL LAB. VOA+15, BN+15

> Daniel Wright/Date Laboratory Director

ENCLOSURE: CHAIN OF CUSTODY FIELD DOCUMENTATION RESULTS

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CHAIN OF CUSTODY



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-3484 EMail:appleby@doim6.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: CHAS. APPLEBY / SME		Project No: 4.5.7.			Analysis Parameters								Comments:	
Phone #: XQ (4224		Location: Be065. 270, 29/ +		V	书							NO ONA		
()DERA ()OMA ()Other:					ちん									
Samplers Name / Company: MARK LAURA		- T.V.S.	1WS-007	Sample			+							
Lab Sample I.D.	Sample Location	Date	Time	Туре	bottles	/5	15							Remarks / Preservation Method
3973. 1	TRIP BLANK	10-13-98		AQ.	2	×	<u> </u>							
	FIELD BLANK	71	0924	AQ.	3	×_	×							
3	BLOG. 270 - 8-11	ч	1000	AQ.	3	\times	X							
4	BUDG. 291 - 7-10'	11	1105	AQ.	3	×	×		ļ					
5	BLOG. 165 - 20-231	11	1345	AQ.	2	×	<u> </u>]	
6	FIELD BUP.	81		AQ.	3	<u>~</u>	X							
7	BLUS, 165 - 20-23'		1505	AQ.	1		X			<u> </u>	<u> </u>			
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Relinquished by (signature): Date/Time: Received/by (signature):		Relin	Relinquished by (signature):):	Date/Time: Received b		ved by	(signature):				
		Received by (signature): Relin		quished by (signature): Date/Time;			Time;	Received by (signature):						
Report Type: ()Full, ()Reduced, ()Sympton, ()Screen / non-certified				Rema	Remarks:									
Turnaround time: (Standard 4 wks, ()Rush Days, ()ASAP Verbal Hrs.														

FIELD DOCUMENTATION

Post Remedial Groundwater Sampling At Former Underground Storage Tank Site[# 2 fuel oil]

FOR BLDG. # 165

Ground Water Sampling with the use of a Passively Placed Narrow Diameter Point (PPNDP)

Objective:

To collect a representative groundwater sample utilizing a narrow diameter point [PPNDP] This is a small diameter [1-inch OD] screened casing passively placed in a borehole. The casing is of p.v.c. construction.

1. Methods

A. A solid push - rod (bull point) is used to create a narrow diameter hole to a depth below the water table. A piece of schedule 40 PVC screen with 0.010-inch slots and an end cap is placed to the bottom of the hole. Glues or adhesives are not used for joining the casing. Threaded PVC casing is used. No filter or gravel pack is used.

2. Installation

- A. Using a Geoprobe, a borehole was advanced with a pre-probe with a diameter slightly larger than the casing. The hole was made to a depth of 20 feet. The water table was at 14 feet below ground surface.
- B. The screened section of PVC was placed into the borehole so the screened section was across the ground water table from 12 17 feet. Riser casing from 17 +2 feet.

3. Purging

A. Three volumes of the standing water in the point were purged. The amount of water extracted was app. 0.123 gal. Three to five volumes are purged due to the potential for cross contamination of the screen from upper soil horizons. This was accomplished utilizing a peristaltic pump, and utilizing food grade tubing.

4. Sampling

A. Sampling methods, sample preservation requirements, sample handling times, decontamination procedure for field equipment, and frequency for field blanks, field duplicates and trip blanks conform to applicable industry methods such as those specified in the NJDEP "Field Sampling Procedures Manual" in effect as of the date on which sampling is performed. Any deviations from the methods in the "Field Sampling Procedures Manual" pursuant to N.J.A.C. 7:26E-1.6(c) has been approved by the person responsible for conducting the remediation.

All samples were preserved in the field immediately after collection and submitted to the laboratory as soon as possible and no later than 48 hours after sample collection.

The acquisition of samples and water level measurements were performed as recommended and described in the May 1992 edition of NJDEP Field Sampling Procedures Manual.

5. Quality Assurance/Quality Control

A. Decontamination

The associated equipment (bull point, riser pipe, etc.) was decontaminated between borings using the following procedure:

- 1. Remove all adherent soil material.
- 2. Wash with a laboratory grade glassware detergent.
- 3. Rinsed with potable water.
- 4. Rinse with distilled and deionized ASTM Type II water.

B. Field Blanks

- 1 Field blank was shared with bldgs. 270 and 291.
- C. Sample bottles: Supplied by Environmental Sampling Supply, Oakland, Calif. The sample bottles are certified clean and are sealed upon delivery.
- D. P.V.C. Screens: Supplied by Bedrock Enterprises, Forked River N.J.

Geoprobe Operator: Mark Laura

Employer: U.S. Army, Fort Monmouth

Phone Number: [732] 532-8990

NJDEP License #: J-1486

Mark Laura / Date

METHODOLOGY REVIEW

Methodology Summary

EPA Method 624 Gas Chromatographic Determination of Volatiles in Water

Surrogates and internal standards are added to a 5 ml aliquot of sample. The sample is then purged and desorbed into a GC/MS system. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer. Volatiles are identified and quantitated.

EPA Method 3510/8270 Gas Chromatographic Determination of Semi-volatiles in Water

Surrogates are added to a measured volume of sample, usually 1 liter, at a specified pH. The sample is serially extracted with Methylene Chloride using a separatory funnel. The extract concentrated and internal standards are added. The sample is injected into a GC/MS system. Semi-volatiles are identified and quantitated.

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 3973

Site: Bldg. 165

		Date	Hold Time
Da	te Sampled	10/13/98	NA
Re	cceipt/Refrigeration	10/13/98	NA
Ex	tractions		
1.	Base Neutrals	10/20/98	14 days
An	nalyses		
1. 2.	Volatiles Base Neutrals	10/21/98 10/26,27/98	14 days 40 days

CONFORMANCE/ NON-CONFORMANCE SUMMARIES

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

			Indicate Yes, No, N/A
1.	Chromatograms lal	beled/Compounds identified	
		and method blanks)	Yes_
2.	Retention times for	chromatograms provided	yes
3.	GC/MS Tune Spec	ifications	
	a.	BFB Meet Criteria	URS
	b.	DFTPP Meet Criteria	Jes
4.		equency – Performed every 24 hours for 600	١. ٥
	series and 12 hours	for 8000 series	<u>yes</u>
5.	GC/MS Calibration	a – Initial Calibration performed before sample	
		uing calibration performed within 24 hours of	
	sample analysis for	600 series and 12 hours for 8000 series	yes_
6.	GC/MS Calibration	n requirements	
	a.	Calibration Check Compounds Meet Criteria	yes_
	b.	System Performance Check Compounds Meet Criteria	400
7.	Blank Contamination	on - If yes, List compounds and concentrations in each blank:	<u>NO</u>
	a.	VOA Fraction	
	ъ.	B/N Fraction	
	c.	Acid Fraction NA	
8.	Surrogate Recoveri	es Meet Criteria	-yes
	If not met, list outside the acc	those compounds and their recoveries, which fall eptable range:	
	a.	VOA Fraction	
	ъ.	B/N Fraction	
	c.	Acid Fraction NA	
	If not met, wer as "estimated"	e the calculations checked and the results qualified	
9.	Matrix Spike/Matri	x Spike Duplicate Recoveries Meet Criteria	<u>4es</u>
•		e compounds and their recoveries, which fall	
	a.	VOA Fraction	
	b.	B/N Fraction	
	c.	Acid Fraction NA	

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (cont.)

			Indicate Yes, No, N/A
10.		ea/Retention Time Shift Meet Criteria compounds, which fall outside the acceptable range)	- Yes
	a.	VOA Fraction	
	b .	B/N Fraction	
	c.	Acid Fraction	
11.	Extraction Holding	ime Met	Yes
	If not met, list the nu	mber of days exceeded for each sample:	
12.	Analysis Holding Tin	ne Met	<u>yes</u>
	If not met, list the nu	nber of days exceeded for each sample:	·
Addi	tional Comments: Field Duple	cate Bulgined on 3973.04 (Bldg 2917	10')
 Labo	ratory Manager:	Date: 11 Z4 94	

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY NJDEPE # 13461

Definition of Qualifiers

MDL: Method Detection Limit

J: Compound identified below detection limit
B: Compound in both sample and blank
D: Results from dilution of sample

U : Compound searched for but not detected

Volatile Analysis Report U.S. Army, Fort Monmouth Environmental Laboratory **NJDEP Certification #13461**

Data File Nam VB01773.D Skelton

Sample Name

VBLK56 VBLK56

Operator Date Acquired 21 Oct 98 12:14 pm Field ID Sample Multiplier

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2,78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8,52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16_ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	_ 0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46_ug/L	
75-09-2	Methylene Chloride	 }		not detected	2	0.40 ug/L 0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.24 ug/L 0.16 ug/L	
75-35-3	1.1-Dichloroethane			not detected	70		
108-05-4	Vinyl Acetate	1		not detected		0.12 ug/L	
78-93-3		 -		not detected	nie	0.78 ug/L	
18-93-3	2-Butanone			not detected	300	0.62 ug/L	
(7.66.2	cis-1,2-Dichloroethene				10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene	 j		not detected	1 -1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not_detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane	}		not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1 1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	···
108-88-3	Toluene			not detected	1000	0.37 ug/L	
	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1 - 1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
	Dibromochloromethane		ļ	not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene]	not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene]		not detected	700	0.65 ug/L	
	m+p-Xylenes			not detected	nle	1.14 ug/L	
	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene		1	not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			Project		DLV99	
NJDEP#	13461	Case No.:	3973	SDG No	Location	UST	_
Matrix: (soil/	water)	WATER		Lab Sample	D: VBLK56	<u> </u>	_
Sample wt/v	ol:	5.0 (g/ml)	ML	Lab File ID:	VB0177	3.D	
Level: (low/i	med)	LOW		Date Recei	ved: 10/13/9	В	
% Moisture:	not dec.			Date Analyz	zed: <u>10/21/9</u> 8	3	
GC Column:	HP5M	S ID: <u>0.25</u> (n	nm)	Dilution Fac	tor: <u>1.0</u>		
Soil Extract \	/olume:	(uL)		Soil Aliquot	Volume:	(u	ıL)
Number TICs	s found:	0		DNCENTRATION UN g/L or ug/Kg) UG	•		
CAS NO.	ľ	COMPOUND NA	ME	RT	EST. CON	C. Q	

Volatile Analysis Report U.S. Army, Fort Monmouth Environmental Laboratory NJDEP Certification #13461

Data File Nam vb01777.d

Sample Name

3973.01

Operator Skelton

Field ID

Trip Blank

Date Acquired 21 Oct 98 4:09 pm Sample Multiplier

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nlo	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene	·		not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1.1-Dichloroethane			not detected	70	0.10 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0,62 ug/L	
<u> </u>	cis-1.2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	- 	0,23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected		0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected		0.48 ug/L	
591-78-6	2-Hexanone			not detected	nte	0.71 ug/L	
	Dibromochloromethane	1		not detected	10	0.71 ug/L 0.86 ug/L	
					4		
108-90-7	Chlorobenzene			not detected		0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
	m+p-Xylenes		 -	not detected	nle i	1.14 ug/L	
1330-20-7	o-Xylene	}		not detected	nle	0.62 ug/L	
100-42-5	Styrene	 ∤		not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene	لمبيي		not detected ad Ground Water Quality Criteria	600	0.64 ug/L	

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

0017

1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL		Project				ih Diai	'K
NJDEP#	13461	Case No.: 39	73 SDG	No	_ Lo	cation	UST	
Matrix: (soil/	water)	WATER	!	Lab Sample	ID: 3	3973.01		
Sample wt/ve	ol:	5.0 (g/ml) M	LI	Lab File ID:	<u> </u>	VB0177	7.D	
Level: (low/r	ned)	LOW	•	Date Receive	ed: _	10/13/98	3	
% Moisture:	not dec.		ı	Date Analyze	ed:	10/21/98	3	
GC Column:	HP5M	S ID: <u>0.25</u> (mm)	1	Dilution Fact	or: _	1.0		
Soil Extract \	/olume:	(uL)	;	Soil Aliquot \	Volu n	ne:		_ (uL)
Number TICs	s found:	0	CONCENTR (ug/L or ug/K	•				
CAS NO.		COMPOUND NAME		RT	EST	. CONC	3.	Q_

voiame Analysis Report U.S. Army, Fort Monmouth Environmental Laboratory **NJDEP Certification #13461**

Data File Nam vb01778.d Operator

Skelton

Date Acquired 21 Oct 98 4:53 pm

Sample Name Field ID

3973,02 Field Blank

Sample Multiplier

107028 Aerolein	CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107131 Aerylontirile			1,411	itcspuise.	· · · · · · · · · · · · · · · · · · ·			Quantier
15550 tert-Butyl alcohol not detected nle 0.16 \(\text{ by } \text{ log } log						1		
1634044 Methyl-tert-Butyl ether not detected nle 0.16 ug/l.						 		
Dishlorodiffluoromethan								
Dichlorodifluoromethan								
T4-87-3	100203							
75-01-4 Vinyl Chloride	74-87-3					1		
T4-83-9 Bromomethane								
75-00-3								
75-69-4					The state of the s			
75-35-4								
67-64-1 Acetone								
75-15-0 Carbon Disulfide						 		
75-09-2 Methylene Chloride not detected 2 0.24 ug/L 156-60-5 trans-1,2-Dichloroethene not detected 100 0.16 ug/L 77-35-3 1,1-Dichloroethene not detected not detected not detected ne 0.78 ug/L 108-05-4 Vinyl Acetate not detected ne 0.78 ug/L 78-93-3 2-Butanone not detected not detected not detected not detected 0.0.17 ug/L 0 0;1,2-Dichloroethene not detected 0 0.17 ug/L 0 0;1,2-Dichloroethene not detected 0 0.17 ug/L 0 0;1,1-Trichloroethane not detected 30 0.23 ug/L 0 0;2,3-C 0;3 ug/L 0 0;4,1-Trichloroethane not detected 2 0.47 ug/L 0 0;4,1-Trichloroethane not detected 2 0.47 ug/L 0 0;4,1-Trichloroethane not detected 2 0.47 ug/L 0 0;4,1-Trichloroethene not detected 1 0.23 ug/L 0 0;4,1-Trichloroethene not detected 1 0.23 ug/L 0 0;5,2,1-Trichloroethane not detected 1 0.23 ug/L 0 0;5,1-Trichloroethane not detected 1 0.55 ug/L 10061-01-5 0;5,1-Trichloroethane not detected ne 0.65 ug/L 108-10-1 4-Methyl-2-Pentanone not detected ne 0.69 ug/L 108-10-1 4-Methyl-2-Pentanone not detected ne 0.69 ug/L 108-88-3 Toluene not detected ne 0.69 ug/L 108-10-1 4-Methyl-2-Pentanone not detected ne 0.69 ug/L 108-10-1 4-Methyl-2-Pentanone not detected ne 0.69 ug/L 108-90-7 1,1,2-Trichloroethane not detected ne 0.69 ug/L 127-18-4 Tetrachloroethene not detected ne 0.69 ug/L 128-90-7 Chlorobenzene not detected ne 0.71 ug/L 129-18-6 2-Hexanone not detected ne 0.71 ug/L 129-18-6 2-Hexanone not detected ne 0.71 ug/L 100-42-5 Styrene not detected ne 0.69 ug/L 100-46-7 1,4-Dichloroethane						 		
156-60-5 trans-1,2-Dichloroethene not detected 100 0.16 ug/L 75-35-3 1,1-Dichloroethene not detected 70 0.12 ug/L 108-05-4 Vinyl Acctate not detected nle 0,78 ug/L 78-93-3 2-Butanone not detected 300 0.62 ug/L cis-1,2-Dichloroethene not detected 10 0.17 ug/L 67-66-3 Chloroform not detected 6 0.30 ug/L 56-23-5 Carbon Tetrachloride not detected 2 0.47 ug/L 75-55-6 1,1,1-Trichloroethane not detected 2 0.47 ug/L 71-43-2 Benzene not detected 1 0.23 ug/L 107-06-2 1,2-Dichloroethane not detected 1 0.23 ug/L 79-01-6 Trichloroethane not detected 1 0.23 ug/L 78-87-5 1,2-Dichloroethane not detected 1 0.40 ug/L 75-27-4 Bromodichloromethane not detected 1 0.40 ug/L 75-27-4 Bromodichloromethane not detected 1 0.55 ug/L 110-75-8 2-Chloroethyl vinyl ethe not detected nle 0.65 ug/L 10061-01-5 cis-1,3-Dichloropropene not detected nle 0.65 ug/L 108-10-1 4-Methyl-2-Pentanone not detected nlo 0.59 ug/L 108-10-1 4-Methyl-2-Pentanone not detected nlo 0.37 ug/L 109-10-5 1,1,2-Trichloroethane not detected nlo 0.87 ug/L 79-00-5 1,1,1-Trichloroethane not detected nlo 0.32 ug/L 109-178-6 2-Hexanone not detected nlo 0.32 ug/L 109-19-6 1,1,2-Trichloroethane not detected nlo 0.32 ug/L 109-19-6 1,1,2-Trichloroethane not detected nlo 0.32 ug/L 109-19-6 1,1,2-Trichloroethane not detected nlo 0.65 ug/L 1330-20-7 n+p-Xylenes not detected nlo 0.65 ug/L 1330-20-7 n+p-Xylenes not detected nlo 0.65 ug/L 1330-20-7 n+p-Xylenes not detected nlo 0.65 ug/L 130-42-5 Styrene not detected not 0.55 ug/L 100-42-5 Styrene not detected 0.05 ug/L 100-42-5 Styrene not detected 0.05 ug/L 100-46-7 1,4-Dichlorobenzene not detected 0.05 ug/L								
75-35-3								
108-05-4								
78-93-3 2-Butanone								
cis-1,2-Dichloroethene not detected 10 0.17 ug/L 67-66-3 Chloroform not detected 6 0.30 ug/L 75-55-6 1,1,1-Trichloroethane not detected 30 0.23 ug/L 56-23-5 Carbon Tetrachloride not detected 2 0.47 ug/L 71-43-2 Benzene not detected 1 0.23 ug/L 107-06-2 1,2-Dichloroethane not detected 2 0.18 ug/L 79-01-6 Trichloroethene not detected 1 0.23 ug/L 78-87-5 1,2-Dichloropropane not detected 1 0.40 ug/L 75-27-4 Bromodichloromethane not detected 1 0.40 ug/L 110-75-8 2-Chloroethyl vinyl ethe not detected 1 0.55 ug/L 110-75-8 2-Chloroethyl vinyl ethe not detected nle 0.69 ug/L 108-10-1 4-Methyl-2-Pentanone not detected nle 0.69 ug/L 108-10-1 4-Methyl-2-Pentanone not detected 1000 0.37 ug/L 108-10-1 4-Methyl-2-Pentanone not detected 1000 0.37 ug/L 108-10-2-6 trans-1,3-Dichloroprope not detected nle 0.87 ug/L 79-00-5 1,1,2-Trichloroethane not detected nle 0.87 ug/L 127-18-4 Tetrachloroethane not detected nle 0.71 ug/L 127-18-4 Dibromochloromethane not detected nle 0.71 ug/L 108-90-7 Chlorobenzene not detected nle 0.71 ug/L 100-48-1 Dibromochloromethane not detected nle 0.71 ug/L 1330-20-7 m+p-Xylenes not detected nle 1.14 ug/L 1330-20-7 c-Xylene not detected nle 0.65 ug/L 130-20-7 ns-p-Xylene not detected 100 0.56 ug/L 130-46-7 1,4-Dichlorobenzene not detected 100 0.55 ug/L								
67-66-3 Chloroform	10325					,		
75-55-6	67-66-3							
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106-46-7 1,4-Dichlorobenzene not detected 75 0.57 ug/L	_							
								· · · · · · · · · · · · · · · · · · ·
		1,2-Dichlorobenzene	一十		not detected	600	0.64 ug/L	

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			Project			Fie	ld Bia	ınk
NJDEP#	13461		se No.: 39	·	No	Lo	cation	UST	
Matrix: (soil/v	vater)	WATER	-	1	Lab Sample I	ID:	3973.02	<u> </u>	
Sample wt/vo	ol:	5.0	(g/ml) <u>N</u>	1L	Lab File ID:		VB0177	8.D	
Level: (low/n	ned)	LOW	_	i	Date Receive	ed:	10/13/98	3	
% Moisture: r	not dec.		·	ļ	Date Analyze	ed:	10/21/9	3	_
GC Column:	HP5M	S ID: 0.2	25 (mm)	Dilution Facto	or:	1.0		
Soil Extract \	/olume:		_ (uL)	:	Soil Aliquot V	/olu	me:		(uL)
				CONCENTR	ATION UNIT	rs:			
Number TICs	found:	0		(ug/L or ug/k	(g) UG/L	•			
CAS NO.		COMPOU	IND NAME	=	RT	ES	T, CON	S .	Q

Volatile Analysis Report U.S. Army, Fort Monmouth Environmental Laboratory NJDEP Certification #13461

Data File Nam vb01781.d

Sample Name

3973.05

Operator

Skelton

Field ID

Bldg 165 20-23'

Date Acquired 21 Oct 98 7:07 pm

Sample Multiplier

1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein	<u> </u>	T T	not detected	50	1.85 ug/L	Quantier
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether		 	not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
100203	Dichlorodifluoromethan		f	not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride		 	not detected	2	0.40 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1.1-Dichloroethane	{		not detected	70	0.10 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone		· — · · · · · · · · · · · · · · · · · ·	not detected	300	0.78 ug/L 0.62 ug/L	
78-93-3	cis-1,2-Dichloroethene	}		not detected	10	0.02 ug/L 0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.17 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.30 ug/L 0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.23 ug/L	
71-43-2	Benzene			not detected	1	0.47 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.13 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
	trans-1,3-Dichloroprope			not detected	nle	0.37 ug/L	 -
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected		0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane			not detected	10	0.71 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene	 †		not detected	700	0.65 ug/L	 -{
1330-20-7	m+p-Xylenes		 -	not detected	nle	1.14 ug/L	
	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
	Bromoform			not detected	4	0.30 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2		
541-73-1	1,3-Dichlorobenzene			not detected		0.47 ug/L	
	1,4-Dichlorobenzene	+			600	0.55 ug/L	
				not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene	1	CROTI	not detected	600	0.64 ug/L	

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name;	FMETL			Project			Blag	105 2	:0-23
NJDEP#	13461	Cas	se No.: 3973	SDG	No	Loc	cation	UST	
Matrix: (soil/	water)	WATER	_	Į.	Lab Sample	ID: 3	3973.05	<u> </u>	
Sample wt/v	ol:	5.0	(g/ml) ML		Lab File ID:	_	VB0178	1.D	
Level: (low/	med)	LOW	<u>.</u>	I	Date Receiv	red:	10/13/98	3	 -
% Moisture:	not dec.			ī	Date Analyz	ed: _	10/21/98	3	
GC Column:	HP5M	S ID: 0.2	25 (mm)	ı	Dilution Fac	tor: 1	1.0		
Soil Extract \	Volume:		_ (uL)	•	Soil Aliquot	Volun	ne:		(uL)
Number TICs	s found:	0		CONCENTR (ug/L or ug/K			··		
	T		-						
CAS NO.	ļ	COMPOU	ND NAME		RT	EST	CON	c.	Q

BASE NEUTRALS

Semi-Volatile Analysis Report U.S. Army, Fort Monmouth Environmental Laboratory NJDEP Certification #13461

Data File Name bna00993.d

Sample Name

Sblk145

Operator

Skelton

Misc Info

Sblk145 A 981020

10/27/19 -1:8: Date Acquired

Sample Multiplier 1

CAS#	Name	_ R.T	Response	Result	GW Criteria	MDL		Qualifiers
110-86-1	Pyridine		1.55	not detected	NLE	2.52	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	2.64	ug/L	
62-53-3	Aniline			not detected	NLE	2.90	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	2.45	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.65	ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	2.50	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	2.09 ι	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	2.44	ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	2.96 t	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	2.22	ug/L	
67-72-1	Hexachloroethane			not detected	10	2.59	ug/L	
98-95-3	Nitrobenzene			not detected	10	2.45 ι	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.54 ı	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.58 ı	ug/L	
91-20-3	Naphthalene			not detected	NLE	3.03 t	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	2.55 u	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.64 t	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	2.49 ı	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.59 t	ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	2.15 ι	ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	1.62 t	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	2.74 ι	ug/L	
208-96-8	Acenaphthylene			not detected	NLE	2.35 ı	ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	1.54 u	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.62 t	ug/L	
83-32-9	Acenaphthene			not detected	400	1.98 u	ug/L	
132-64-9	Dibenzofuran	1		not detected	NLE	2.13 1	ug/L	

Semi-Volatile Analysis Report Page 2

Data File Name bna00993.d

Sample Name

Sblk145

Operator

Skelton

Misc Info

Sblk145 A 981020

Date Acquired 10/27/19 -1:8:

Sample Multiplier 1

121-14-2	2,4-Dinitrotoluene	not detected	10	1.22	ug/L	
84-66-2	Diethylphthalate	 not detected	5000	1.68	ug/L	
86-73-7	Fluorene	not detected	300	1.93	ug/L	
7005-72-3	4-Chlorophenyl-phenylether	not detected	NLE	1.53	ug/L	
100-01-6	4-Nitroaniline	not detected	NLE		ug/L	
86-30-6	n-Nitrosodiphenylamine	not detected	20	1.73	ug/L	
103-33-3	Azobenzene	not detected	NLE	1.92	ug/L	
101-55-3	4-Bromophenyl-phenylether	not detected	NLE		ug/L	
118-74-1	Hexachlorobenzene	not detected	10	1.88	ug/L	
85-01-8	Phenanthrene	not detected	NLE	1.67	ug/L	
120-12-7	Anthracene	not detected	2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate	not detected	900	1.83	ug/L	
206-44-0	Fluoranthene	not detected	300	1.85	ug/L	
92-87-5	Benzidine	 not detected	50	4.11		
129-00-0	Pyrene	 not detected	200	1.02	ug/L	
85-68-7	Butylbenzylphthalate	not detected	100	1.15	ug/L	
56-55-3	Benzo[a]anthracene	 not detected	10	1.57	ug/L	
91-94-1	3,3'-Dichlorobenzidine	not detected	60	2.28	ug/L	
218-01-9	Chrysene	 not detected	20	2.32	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	 not detected	30	1.29	ug/L	
117-84-0	Di-n-octylphthalate	not detected	100	1.30	ug/L	
205-99-2	Benzo[b]fluoranthene	not detected	10	1.31	ug/L	
207-08-9	Benzo[k]fluoranthene	not detected	2	1.57	ug/L	
50-32-8	Benzo[a]pyrene	not detected	20	1.36	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene	not detected	20	1.22		
53-70-3	Dibenz[a,h]anthracene	not detected	20	3.12	ug/L	
191-24-2	Benzo[g,h,i]perylene	not detected	NLE	1.13		

Qualifiers

E = Value exceded linear range

D = Value from dilution

B = Compound in related blank

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET FIEL

TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			L	ab Code 13461	Sbik145	
Project	980932 Case No.: 3973				Location UST SI	DG No.:	
Matrix: (soil/v	water)	WATER			Lab Sample ID:	Sblk145	
Sample wt/vo	ol:	1000	(g/ml) ML		Lab File ID:	BNA00993.D	
Level: (low/n	ned)	LOW			Date Received:	10/13/98	
% Moisture:		de	canted: (Y/N)	N	Date Extracted:	10/20/98	
Concentrated	d Extract	Volume:	1000 (uL)		Date Analyzed:	10/27/98	
Injection Volu	ume: 1.0	0 (uL)			Dilution Factor:	1.0	
GPC Cleanu	p: (Y/N)	N	pH: <u>7</u>				

CONCENTRATION UNITS:

16.99

18.05

UG/L

10

8

JΝ

JN

(ug/L or ug/Kg)

				1
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000629-50-5	Tridecane	12.09	9	JN
2. 000629-59-4	Tetradecane	13.43	12	JN
3. 000629-62-9	Pentadecane	14.68	12	JN
4 000544-76-3	Hexadecane	15.86	12	JN

Number TICs found:

000629-78-7

6. 000593-45-3

Heptadecane

Octadecane

Semi-Volatile Analysis Report U.S. Army, Fort Monmouth Environmental Laboratory **NJDEP Certification #13461**

Data File Name bna00981.d

Sample Name

Operator

Skelton

3973.07 Misc Info **Bldg 165**

Date Acquired

10/27/19 -1:7:

Sample Multiplier 1

CAS#	Name	R.T.	Response	Response Result		MDL		Qualifiers
110-86-1	Pyridine		·	not detected	NLE	2.52	ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	2.64	ug/L	
62-53-3	Aniline			not detected	NLE	2.90	ug/L	
111-44-4	bis(2-Chloroethyl)ether		· · ·	not detected	10	2.45	ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2.65	ug/L	
106-46-7	1,4-Dichlorobenzene		: 44 8	not detected	75	2.50	ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	2.09	ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	2.44	ug/L	
108-60-1	bis(2-chloroisopropyl)ether		, i	not detected	300	2.96	ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	2.22	ug/L	
67-72-1	Hexachloroethane			not detected	10	2.59	ug/L	
98-95-3	Nitrobenzene			not detected	10	2.45	ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.54	ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.58	ug/L	
91-20-3	Naphthalene			not detected	NLE	3.03	ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	2,55	ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.64	ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	2.49	ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.59	ug/L	
91-58-7	2-Chloronaphthalene		ا شو شورت ا -	not_detected	ŅLE	2.15	ug/L	
88-74-4	2-Nitroaniline			" not detected	NLE	1.62	ug/L	
131-11-3	Dimethylphthalate			not detected	7000	2.74	ug/L	
208-96-8	Acenaphthylene	Γ	77.5	not detected	NLE	2.35	ug/L	
606-20-2	2,6-Dinitrotoluene		ph. 1 2 2	not detected	NLE	1.54	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.62		
83-32-9	Acenaphthene			not detected	400	1.98	ug/L	
132-64-9	Dibenzofuran			not detected	NLE	2.13		

Semi-Volatile Analysis Report Page 2

Data File Name bna00981.d

Date Acquired

Operator

Skelton

10/27/19 -1:7:

Sample Name

3973.07

Misc Info

Bldg 165

	Sam	ple	Multi	plier	1
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121-14-2	2,4-Dinitrotoluene			not detected	10	1.22	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.68	ug/L	
86-73-7	Fluorene			not detected	300	1.93	ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE		ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	2.70	ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.73	ug/L	L
103-33-3	Azobenzene			not detected	NLE	1.92	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	1.54	ug/L	
118-74-1	Hexachlorobenzene			not detected	_ 10	1.88	ug/L	
85-01-8	Phenanthrene			not detected	NLE_	1.67	ug/L	
120-12-7	Anthracene			not detected	2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.83	ug/L	
206-44-0	Fluoranthene			not detected	300	1.85	ug/L	
92-87-5	Benzidine			not detected	50	4.11	ug/L	
129-00-0	Pyrene			not detected	200	1.02	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.15	ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.57	ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	2.28	ug/L	
218-01-9	Chrysene			not detected	20	2.32	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	24.74	86598	2.23 ug/L	30	1.29	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.30	ug/L	
205-99-2	Benzo[b]fluoranthene		·	not detected	10	1.31	ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.57	ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.36	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	1.22	ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20		ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	1.13	ug/L	

Qualifiers

E = Value exceded linear range

D = Value from dilution

B = Compound in related blank

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			Lab Cod	de 13461		Bldg 1	165
Project	980932	Case No.	: 3973	Locat	ion UST	SI	DG No.:	
Matrix: (soil/	water)	WATER	200	l	_ab Sample	ID:	3973.07	
Sample wt/vo	oi:	1000 (g/m	l) ML		_ab File ID:		BNA00981.D)
Level: (low/r	ned)	LOW		[Date Receiv	ed:	10/13/98	
% Moisture:		decanted:	(Y/N)	<u>N</u> [Date Extrac	ted:	10/20/98	
Concentrated	d Extract	Volume; 1000	(uL)	[Date Analyz	ed:	10/27/98	- <u>-</u>
Injection Volu	ume: <u>1.</u> 0	<u>)</u> (uL)		[Dilution Fac	tor:	1.0	
GPC Cleanu	p: (Y/N)	NpH:	7					
Number TICs	s found:	0		CONCEN (ug/L or u	NTRATION ug/Kg)	UNIT		
CAS NUME	BER	COMPOUND N	AME		RT	ES	T. CONC.	Q

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits, practical quantitation limits, and the laboratory and/or sample numbers be included in one section of the data package <u>and</u> in the main body of the report.

1.	Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted	
2.	Table of Contents submitted	
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted	<u>~</u>
4.	Document paginated and legible	
5.	Chain of Custody submitted	
6.	Samples submitted to lab within 48 hours of sample collection	
7.	Methodology Summary submitted	1
8.	Laboratory Chronicle and Holding Time Check submitted	
9.	Results submitted on a dry weight basis	
10.	Method Detection Limits submitted	
11.	Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP	
	oratory Manager or Environmental Consultant's Signature	

Laboratory Certification #13461

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

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.

Daniel K. Wright Laboratory Manager

FORT MONMOUTH ENVIRONMENTAL

TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732)532-6224 FAX: (732)532-3484
WET-CHEM - METALS - ORGANICS - FIELD SAMPLING
NJDEP LABORATORY CERTIFICATION # 13461



ANALYTICAL DATA REPORT
Fort Monmouth Environmental Laboratory
ENVIRONMENTAL DIVISION
Fort Monmouth, New Jersey
PROJECT: UST Program

BLDG. 165

Field Location No. &	Laboratory	Matrix	Date and Time	Date Received
Location	Sample ID#		Of Collection	
Trip Blank	4056.01	Aqueous	14-Nov-98	11/16/98
Field Blank	4056.02	Aqueous	14-Nov-98 09:10	11/16/98
Bldg. 165 14-17'	4056.03	Aqueous	14-Nov-98 09:40	11/16/98
Bldg. 165–14-17'	4056.04	Aqueous	14-Nov-98 11:30	11/16/98

ANALYSIS: FORT MONMOUTH ENVIRONMENTAL LAB. VOA+15, BN+15

Daniel Wright/Date

Laboratory Director

ENCLOSURE: CHAIN OF CUSTODY FIELD DOCUMENTATION RESULTS

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CHAIN OF CUSTODY



Fort Monmouth Environmental Testing Laboratory

Bldg. 173, SELFM-PW-EV, Fort Monmouth, NJ 07703
Tel (732)532-4359 Fax (732)532-3484 EMail:appleby@doim6.monmouth.army.mil
NJDEP Certification #13461

Chain of Custody Record

Customer: CA/	VERSAR_	Project No:				Analysis Parameters						Comments:		
Phone #: × Z	6624	Location: Z	BLAGIS 16	55, 16	74									
()DERA (96MA ()Other:	291			Ö	1612 14								
Samplers Name / Company : Mark Laur		4-7. V.S.	PWS02	Sample	#	A	+							
Lab Sample I.D. Sample Location		Date	Time	Туре	bottles	15	型2 十 15							Remarks / Preservation Method
4956 1	This BLANK	11-14-98		AQ.		X								HCL
2_	FIELD BLANK	(1	0910	d	3	×	×							HC4/240C
3	BLAG. 165 - 14-17'	1/	0940	11	2	X								11
4	BUS. 165 - "	ιι	1130	11	1		×							١,
5	BLOG. 167 - 8-11'	41	1025	li.	3	×	×							ll .
6	BLDG. 291- 7-10'	4	1//1	4	3	\times	X							Lį
7 Fierd Dup x		٤,		11	3	×	<u>×</u>							\1
				<u> </u>										
				<u> </u>								<u> </u>		
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		·												
<u> </u>								{						
Relinquished by (signatu	re): Date/Time:	Received by			Relin	quished	i by (sig	gnature)):	Date/	Time:	Recei	ved by	(signature):
Matthen	11-16-98 0730	4.//LL	MUL											
Relinquished by (signature): Date/Time: Rec			(signature):		Relin	quished	l by (si	gnature)):	Date/	Time:	Recei	ved by	(signature):
ļ <u></u>					<u> </u>									
Report Type: (_)Full, Reduced, (_)Standard, (_)Screen / non-certified Remarks:														
Turnaround time: (XStandard 4 wks, ()Rush Days, ()ASAP Verbal Hrs.														

FIELD DOCUMENTATION

Post Remedial Groundwater Sampling At Former Underground Storage Tank Site[# 2 fuel oil]

FOR BLDG. # 165

Ground Water Sampling with the use of a Passively Placed Narrow Diameter Point (PPNDP)

Objective:

To collect a representative groundwater sample utilizing a narrow diameter point [PPNDP] This is a small diameter [1-inch OD] screened casing passively placed in a borehole. The casing is of p.v.c. construction.

1. Methods

A. A solid push - rod (bull point) is used to create a narrow diameter hole to a depth below the water table. A piece of schedule 40 PVC screen with 0.010-inch slots and an end cap is placed to the bottom of the hole. Glues or adhesives are not used for joining the casing. Threaded PVC casing is used. No filter or gravel pack is used.

2. Installation

- A. Using a Geoprobe, a borehole was advanced with a pre-probe with a diameter slightly larger than the casing. The hole was made to a depth of 20 feet. The water table was at 14 feet below ground surface.
- B. The screened section of PVC was placed into the borehole so the screened section was across the ground water table from 12 17 feet. Riser casing from 17 +2 feet.

3. Purging

A. Three volumes of the standing water in the point were purged. The amount of water extracted was app. 0.123 gal. Three to five volumes are purged due to the potential for cross contamination of the screen from upper soil horizons. This was accomplished utilizing a peristaltic pump, and utilizing food grade tubing.

4. Sampling

A. Sampling methods, sample preservation requirements, sample handling times, decontamination procedure for field equipment, and frequency for field blanks, field duplicates and trip blanks conform to applicable industry methods such as those specified in the NJDEP "Field Sampling Procedures Manual" in effect as of the date on which sampling is performed. Any deviations from the methods in the "Field Sampling Procedures Manual" pursuant to N.J.A.C. 7:26E-1.6(c) has been approved by the person responsible for conducting the remediation.

All samples were preserved in the field immediately after collection and submitted to the laboratory as soon as possible and no later than 48 hours after sample collection.

The acquisition of samples and water level measurements were performed as recommended and described in the May 1992 edition of NJDEP Field Sampling Procedures Manual.

5. Quality Assurance/Quality Control

A. Decontamination

The associated equipment (bull point, riser pipe, etc.) was decontaminated between borings using the following procedure:

- 1. Remove all adherent soil material.
- 2. Wash with a laboratory grade glassware detergent.
- 3. Rinsed with potable water.
- 4. Rinse with distilled and deionized ASTM Type II water.

B. Field Blanks

- 1 Field blank was taken at this site.
- C. Sample bottles: Supplied by Environmental Sampling Supply, Oakland, Calif. The sample bottles are certified clean and are sealed upon delivery.
- D. P.V.C. Screens: Supplied by Bedrock Enterprises, Forked River N.J.

Geoprobe Operator: Mark Laura

Employer: U.S. Army, Fort Monmouth

Phone Number: [732] 532-8990

NJDEP License #: J-1486

000005

METHODOLOGY SUMMARY

Methodology Summary

EPA Method 624 Gas Chromatographic Determination of Volatiles in Water

Surrogates and internal standards are added to a 5 ml aliquot of sample. The sample is then purged and desorbed into a GC/MS system. The organic compounds are separated by the gas chromatograph and detected using the mass spectrometer. Volatiles are identified and quantitated.

EPA Method 3510/8270 Gas Chromatographic Determination of Semi-volatiles in Water

Surrogates are added to a measured volume of sample, usually 1 liter, at a specified pH. The sample is serially extracted with Methylene Chloride using a separatory funnel. The extract concentrated and internal standards are added. The sample is injected into a GC/MS system. Semi-volatiles are identified and quantitated.

CONFORMANCE/ NON-CONFORMANCE SUMMARY

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

			Indicate Yes, No, N/A
1.	Chromatograms lab	eled/Compounds identified	
		and method blanks)	VS
2.	Retention times for	chromatograms provided	40
3.	GC/MS Tune Speci	fications	
	a.	BFB Meet Criteria	_\\25
	ъ.	DFTPP Meet Criteria	425
4.	GC/MS Tuning Free	quency — Performed every 24 hours for 600	
	series and 12 hours	for 8000 series	<u> </u>
5.	GC/MS Calibration	- Initial Calibration performed before sample	•
	analysis and continu	sing calibration performed within 24 hours of	
	sample analysis for	600 series and 12 hours for 8000 series	<u> Yes</u>
6.	GC/MS Calibration	requirements	ı
	a.	Calibration Check Compounds Meet Criteria	$_ackslash \varepsilon S$
	b .	System Performance Check Compounds Meet Criteria	VES
7.	Blank Contaminatio	n - If yes, List compounds and concentrations in each blank:	NO
	a.	VOA Fraction	
	ь.	B/N Fraction	
	c.	Acid Fraction NA	
8.	Surrogate Recoverie	s Meet Criteria	yes_
	If not met, list the outside the acce	hose compounds and their recoveries, which fall ptable range:	¥
	a.	VOA Fraction	
	ъ.	B/N Fraction	
	c.	Acid Fraction ()A	
	If not met, were as "estimated"?	the calculations checked and the results qualified	
9.	Matrix Spike/Matrix	Spike Duplicate Recoveries Meet Criteria	VPS
•		compounds and their recoveries, which fall	
	outside the acceptab		
	a.	VOA Fraction	
	b .	B/N Fraction	
	c.	Acid Fraction ALA	

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT (cont.)

		Indicate Yes, No, N/A
10.	Internal Standard Area/Retention Time Shift Meet Criteria (If not met, list those compounds, which fall outside the acceptable range)	400
	a. VOA Fraction	
	b. B/N Fraction	
	c. Acid Fraction /) P	
11.	Extraction Holding Time Met	1100
	If not met, list the number of days exceeded for each sample:	ť
12.	Analysis Holding Time Met	1100
	If not met, list the number of days exceeded for each sample:	
Add	itional Comments: 10 dup tatien with this batch 4056 07 Bldg/6	48-11'
Labo	oratory Manager: Date: 12-8-9	

LABORATORY CHRONICLE

Laboratory Chronicle

Lab ID: 4056

Site: Bldg165

	Date	Hold Time
Date Sampled	11/14/98	NA
Receipt/Refrigeration	11/16/98	NA
Extractions	11/1/100	14.1
1. Base Neutrals	11/16/98	14 days
Analyses		
1. Volatile Organics	11/20/98	14 days
2. Base Neutrals	11/24/98	40 days

VOLATILE ORGANICS

US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY NJDEPE # 13461

Definition of Qualifiers

MDL: Method Detection Limit

J : Compound identified below detection limitB : Compound in both sample and blank

D: Results from dilution of sample

U : Compound searched for but not detected

U.S. Army, Fort Monmouth Environmental Laboratory **NJDEP Certification #13461**

Data File Nam vb02158.d Skelton Operator

Sample Name Field ID

Vblk65

Date Acquired 20 Nov 98 11:54 am

Sample Multiplier

Vblk65 1

Regulatory
TAVAT

					Regulatory Level	•	
CAS#	Compound Name	R.T.	Response	Result	(ug/l)*	MDL	Qualifler
107028	Acrolein		<u> </u>	not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	_ nle	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	<u> </u>
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1.1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.47 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	
73-20-1	1,2 Diemorocomono	* Hìgh	er of POL's	and Ground Water Quality Criteri			

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit NLE = No Limit Established

U.S. Army, Fort Monmouth Environmental Laboratory **NJDEP Certification #13461**

Data File Nam vb02159.d Operator

Skelton

Date Acquired 20 Nov 98 1:07 pm

Sample Name Field ID

4056.01 Trip Blank

Sample Multiplier

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0,25 ug/L	
100203	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-69-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
75-35-4				not detected	700	1.36 ug/L	
67-64-1	Acetone Carbon Disulfide			not detected	nle	0.46 ug/L	
75-15-0	Methylene Chloride			not detected	2	0.40 ug/L 0.24 ug/L	
75-09-2	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
156-60-5				not detected	70	0.12 ug/L	
75-35-3	1,1-Dichloroethane			not detected	nle	0.78 ug/L	
108-05-4	Vinyl Acetate			not detected	300	0.62 ug/L	
78-93-3	2-Butanone			not detected	10	0.02 ug/L 0.17 ug/L	
(7.66.2	cis-1,2-Dichloroethene			not detected	6	0.30 ug/L	
67-66-3	Chloroform			not detected	30	0.23 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	2	0.23 ug/L 0.47 ug/L	
56-23-5	Carbon Tetrachloride			not detected	1	0.47 ug/L 0.23 ug/L	
71-43-2	Benzene			not detected	2	0.18 ug/L	
107-06-2	1,2-Dichloroethane		-	not detected	1	0.18 ug/L	
79-01-6	Trichloroethene			not detected	1	0.40 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.55 ug/L	
75-27-4	Bromodichloromethane			not detected	nle	0.65 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.69 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	400	0.09 ug/L 0.59 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	1000	0.37 ug/L	
108-88-3	Toluene			not detected	nle	0.37 ug/L 0.87 ug/L	
10061-02-6				not detected	3	0.48 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	1	0.48 ug/L 0.32 ug/L	
127-18-4	Tetrachloroethene			not detected			
591-78-6	2-Hexanone		 		nle 10	0.71 ug/L 0.86 ug/L	
126-48-1	Dibromochloromethane		<u> </u>	not detected	4		
108-90-7	Chlorobenzene			not detected	+	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	1.14 ug/L	
1330-20-7	o-Xylene		ļ	not detected	nle	0.62 ug/L	
100-42-5	Styrene		ļ <u></u>	not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	1
79-3 <u>4-5</u>	1,1,2,2-Tetrachloroethan	_		not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
95-50-1	1,2-Dichlorobenzene]	not detected	600	0.64 ug/L	

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

U.S. Army, Fort Monmouth Environmental Laboratory **NJDEP Certification #13461**

Data File Nam vb02160.d Operator

Skelton

Date Acquired 20 Nov 98 1:52 pm

Sample Name

Field ID

4056.02 Field Blank

Sample Multiplier

CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/l)*	MDL		Qualifier
107028	Acrolein			not	detected	50	1.85 ı	ıg/L	
107131	Acrylonitrile			not	detected	50	2.78 ı		
75650	tert-Butyl alcohol			not	detected	nle	8.52 ı		
1634044	Methyl-tert-Butyl ether			not	detected	nle	0.16 ι		
108203	Di-isopropyl ether	"		not ·	detected	nle	0.25 ι		
	Dichlorodifluoromethan			not	detected	nle	1.68 ı		
74-87-3	Chloromethane			not :	detected	30	1.16 ı		
75-01-4	Vinyl Chloride			not (detected	5	1.06 เ		
74-83-9	Bromomethane			not (detected	10	1.10 ı	ıg/L	
75-00-3	Chloroethane			not (detected	nle	1,01 ι		
75-69-4	Trichlorofluoromethane			not	detected	nle	0.50 ι		
75-35-4	1.1-Dichloroethene			not (detected	2	0.24 ι		
67-64-1	Acetone			not	detected	700	1.36 ı		
75-15-0	Carbon Disulfide			not (detected	nle	0.46 ι		
75-09-2	Methylene Chloride			not (detected	2	0.24 ı		
156-60-5	trans-1,2-Dichloroethene			not «	detected	100	0.16 ι		
75-35-3	1,1-Dichloroethane			not	detected	70	0.12 ι		
108-05-4	Vinyl Acetate			not (detected	nle	0.78 ı		
78-93-3	2-Butanone			not e	detected	300	0.62 ι		
	cis-1,2-Dichloroethene			not e	detected	10	0.17 1		
67-66-3	Chloroform			not o	detected	6	0.30 ι		
75-55-6	1.1.1-Trichloroethane				detected	30	0.23 ι		
56-23-5	Carbon Tetrachloride			not o	detected	2	0.47 ι		
71-43-2	Benzene			not o	detected	ı	0.23 ι		
107-06-2	1,2-Dichloroethane			not o	detected	2	0.18 เ		
79-01-6	Trichloroethene				detected	1	0.23 L		
78-87-5	1,2-Dichloropropane				detected	1	0.40 เ		
75-27-4	Bromodichloromethane			not (detected	1	0.55 τ		
110-75-8	2-Chloroethyl vinyl ethe			not (detected	nle	0.65 ι		
	cis-1,3-Dichloropropene			not (detected	nle	0.69 เ		
108-10-1	4-Methyl-2-Pentanone			not (detected	400	0.59 1		***
108-88-3	Toluene			not	detected	1000	0.37 ι		
10061-02-6	trans-1,3-Dichloroprope			not (detected	nle _	0.87 ı		
79-00-5	1,1,2-Trichloroethane			not (detected	3	0.48 ι		
127-18-4	Tetrachloroethene			not (detected	1	0.32 ι		
591-78-6	2-Hexanone			not (detected	nle	0.71 ι		
	Dibromochloromethane			not (detected	10	0.86 ı	19/L	
108-90-7	Chlorobenzene			not (detected	4	0.39 ι		
100-41-4	Ethylbenzene				detected	700	0.65 ı		
	m+p-Xylenes				detected	nle	1.14 ι		
	o-Xylene				detected	nle	0.62 ι		
100-42-5	Styrene				detected	100	0.56 เ		
75-25-2	Bromoform		1		detected	4	0.70 เ		
79-34-5	1,1,2,2-Tetrachioroethan				detected	2	0.47 ı		
541-73-1	1,3-Dichlorobenzene				detected	600	0.55 ι		
	1,4-Dichlorobenzene				detected	75	0,57 ı		
	1,2-Dichlorobenzene				detected	600	0.64 1		

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

Data File Nam vb02161.d

Sample Name

4056.03

Operator

Skelton

Field ID

Bldg 165

Date Acquired 20 Nov 98 2:37 pm

Sample Multiplier

1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	_MDL	Qualifler
107028	Acrolein			not detecte	d 50	1.85 ug/L	1
107131	Acrylonitrile			not detecte		2.78 ug/L	
75650	tert-Butyl alcohol	 		not detecte		8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detecte		0.16 ug/L	
108203	Di-isopropyl ether	1		not detecte		0.25 ug/L	
	Dichlorodifluoromethan	1	<u> </u>	not detecte		1.68 ug/L	
74-87-3	Chloromethane	T		not detecte		1.16 ug/L	
75-01-4	Vinyl Chloride	1	 	not detecte		1.06 ug/L	
74-83-9	Bromomethane	 	<u> </u>	not detecte		1.10 ug/L	
75-00-3	Chloroethane			not detecte		1.01 ug/L	
75-69-4	Trichlorofluoromethane	1		not detecte		0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detecte		0.24 ug/L	
67-64-1	Acetone			not detecte		1.36 ug/L	
75-15-0	Carbon Disulfide	1		not detecte		0.46 ug/L	
75-09-2	Methylene Chloride			not detecte		0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detecte		0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detecte		0.12 ug/L	
108-05-4	Vinyl Acetate			not detecte		0.78 ug/L	
78-93-3	2-Butanone			not detecte		0.62 ug/L	·
	cis-1,2-Dichloroethene			not detecte	d 10	0.17 ug/L	
67-66-3	Chloroform			not detecte		0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detecte		0.23_ug/L	
56-23-5	Carbon Tetrachloride			not detecte	d 2	0.47 ug/L	
71-43-2	Benzene			not detecte	d 1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detecte	d 2	0.18 ug/L	
79-01-6	Trichloroethene			not detecte	d 1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detecte	d 1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detecte	d 1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detecte	d nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detecte	d nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detecte	1 400	0.59 ug/L	
108-88-3	Toluene			not detecte	1 1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloroprope			not detecte		0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	1 3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	i 1	0.32 ug/L	
591-78-6	2-Hexanone			not detecte	d nle	0.71_ug/L	
	Dibromochloromethane			not detected	1 10	0.86 ug/L	
108-90-7	Chlorobenzene	28.72	148664	1.17 ug/L	4	0.39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
1330-20-7	m+p-Xylenes			not detected		1.14 ug/L	
1330-20-7	o-Xylene			not detected		0.62 ug/L	
100-42-5	Styrene			not detected		0.56 ug/L	
75-25-2	Bromoform			not detected		0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not detected		0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected		0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected		0.57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected		0.64 ug/L	

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

Data File Nam vb02162.d Operator

Skelton

Date Acquired 20 Nov 98 3:22 pm

Sample Name Field ID

4056.05 **Bldg 167**

Sample Multiplier

CAS#	Compound Name	R.T.	Response	Result		Regulatory Level (ug/I)*	MDL	Qualifier
107028	Acrolein				detected	50	1.85 ug/L	<u> </u>
107131	Acrylonitrile				detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			 	detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			 	detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			 	detected	nle	0.25 ug/L	
	Dichlorodifluoromethan			 	detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not	detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride				detected	5	1.06 ug/L	
74-83-9	Bromomethane			пот	detected	10	1.10 ug/L	
75-00-3	Chloroethane				detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane				detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			}	detected	2	0.24 ug/L	
67-64-1	Acetone				detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide				detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride				detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not	detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not	detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not	detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not	detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not	detected	10	0.17 ug/L	
67-66-3	Chloroform			not	detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not	detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not	detected	2	0.47 ug/L	
71-43-2	Benzene			not	detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not	detected	2	0.18 ug/L	
79-01-6	Trichloroethene			not	detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not	detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not	detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not	detected	nle	0.65 ug/L]
10061-01-5	cis-1,3-Dichloropropene			not	detected	nle	0.69 ug/L	}
108-10-1	4-Methyl-2-Pentanone			not	detected	400	0.59 ug/L	
108-88-3	Toluene				detected	1000	0.37 ug/L	
	trans-1,3-Dichloroprope				detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane				detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene				detected	1_1_	0.32 ug/L	
591-78-6	2-Hexanone			not	detected	nle	0.71 ug/L	
126-48-1	Dibromochloromethane				detected	10	0.86 ug/L	
108-90-7	Chlorobenzene				detected	4	0.39 ug/L	
100-41-4	Ethylbenzene	[not	detected	700	0.65 ug/L]
1330-20-7	m+p-Xylenes			not	detected	nle	1.14 ug/L	
1330-20-7	o-Xylene]			detected	nle	0.62 ug/L]
100-42-5	Styrene]		not	detected	100	0.56 ug/L]
75-25-2	Bromoform			not	detected	4	0.70 ug/L	
79-34-5	1,1,2,2-Tetrachloroethan			not	detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene	I]	not	detected	600	0.55 ug/L	
106-46-7	1,4-Dichlorobenzene			not	detected	75	0.57 ug/L	
05 50 1	1.0 Diebleschenzene				1 1 1	100	2.44	

not detected 600 0.64 ug/L * Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

95-50-1 1,2-Dichlorobenzene

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

Data File Nam vb02163.d

Sample Name

4056.06

Operator Ske

Skelton

Field ID

Bldg 291

Date Acquired 20 Nov 98 4:08 pm

Sample Multiplier

1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein		, tesponaso	not detected	50	1.85 ug/L	Quantier
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane		1	not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	_ nle	0.50 ug/L	_
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46 ug/L	
75-09-2	Methylene Chloride			not detected	2	0.24 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
75-35-3	1,1-Dichloroethane			not detected	70	0.12 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	0.78 ug/L	
78-93-3	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
67-66-3	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0,23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	11	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L.	
79-01-6	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	11	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
	1,1,2-Trichloroethane	{		not detected	3	0.48 ug/L	{
127-18-4	Tetrachloroethene			not detected	11	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0,39 ug/L	
100-41-4	Ethylbenzene			not detected	700	0.65 ug/L	
	m+p-Xylenes			not detected	nle	1,14 ug/L	
1330-20-7	o-Xylene			not detected	nle	0.62 ug/L	
100-42-5	Styrene			not detected	100	0.56 ug/L	
75-25-2	Bromoform			not detected	4	0.70 ug/L	
79-34-5_	1,1,2,2-Tetrachloroethan			not detected	2	0.47 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	0.55 ug/L	
	1,4-Dichlorobenzene			not detected	75	0,57 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

Data File Nam vb02164.d

Sample Name

4056.07

Operator

Skelton

Field ID

Field Dup

Date Acquired 20 Nov 98 4:53 pm

Sample Multiplier

1

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	1.85 ug/L	<u> </u>
107131	Acrylonitrile			not detected	50	2.78 ug/L	
75650	tert-Butyl alcohol			not detected	nle	8.52 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	nle	0.16 ug/L	
	Di-isopropyl ether			not detected	nle	0.25 ug/L	
	Dichlorodifluoromethan			not detected	nle	1.68 ug/L	
74-87-3	Chloromethane			not detected	30	1.16 ug/L	
75-01-4	Vinyl Chloride			not detected	5	1.06 ug/L	
74-83-9	Bromomethane			not_detected	10	1.10 ug/L	
75-00-3	Chloroethane			not detected	nle	1.01 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	0.50 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	0.24 ug/L	
67-64-1	Acetone			not detected	700	1.36 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	0.46_ug/L	
	Methylene Chloride			not detected	2	0.24 ug/L	
	trans-1,2-Dichloroethene			not detected	100	0.16 ug/L	
	1.1-Dichloroethane			not detected	70	0.12 ug/L	
	Vinyl Acetate			not detected	nle	0.78 ug/L	
	2-Butanone			not detected	300	0.62 ug/L	
	cis-1,2-Dichloroethene			not detected	10	0.17 ug/L	
	Chloroform			not detected	6	0.30 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	0.23 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	0.47 ug/L	
71-43-2	Benzene			not detected	1	0.23 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	0.18 ug/L	
	Trichloroethene			not detected	1	0.23 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	0.40 ug/L	
75-27-4	Bromodichloromethane			not detected	1	0.55 ug/L	
110-75-8	2-Chloroethyl vinyl ethe			not detected	nle	0.65 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	0.69 ug/L	
	4-Methyl-2-Pentanone			not detected	400	0.59 ug/L	
108-88-3	Toluene			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloroprope			not detected	nle	0.87 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	0.48 ug/L	
127-18-4	Tetrachloroethene			not detected	1	0.32 ug/L	
591-78-6	2-Hexanone			not detected	nle	0.71 ug/L	
	Dibromochloromethane			not detected	10	0.86 ug/L	
108-90-7	Chlorobenzene			not detected	4	0.39 ug/L	
	Ethylbenzene			not detected	700	0.65 ug/L	
	m+p-Xylenes			not detected	nle	1.14 ug/L	
	o-Xylene			not detected	nle	0.62 ug/L	
	Styrene			not detected	100	0.56 ug/L	
	Bromoform			not detected	4	0.70 ug/L	
	1,1,2,2-Tetrachloroethan			not detected	2	0.47_ug/L	
	1,3-Dichlorobenzene		<u>-</u>	not detected	600	0.55 ug/L	
	1,4-Dichlorobenzene			not detected	75	0.57 ug/L	
	1,2-Dichlorobenzene			not detected	600	0.64 ug/L	

* Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6

Qualifiers

B = Compound found in related blank

E = Value above linear range

D = Value from dilution

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:	FMETL	•		Project	980932			Vblk65	5
NJDEP#	13461	Case No.	: 4056	_ SDG N	0	Loc	ation	UST	
Matrix: (soil/	water)	WATER		La	b Sample	D: <u>V</u>	blk65		
Sample wt/v	ol:	5.0 (g/m	1) <u>ML</u>	La	b File ID:	V	B0215	8.D	
Level: (low/	med)	LOW		Da	ate Receiv	ved: 1	1/12/9	В	
% Moisture:	not dec.			Da	ate Analyz	zed: <u>1</u>	1/20/9	B	_
GC Column:	HP5N	IS ID: 0.25	mm)	Di	lution Fac	tor: 1	.0		
Soil Extract	Volume:	(uL)		So	il Aliquot	Volum	e:		(uL)
			CO	NCENTRA	TION UN	ITS:			
Number TIC:	s found:	0	(ug/	'L or ug/Kg)) UG	/L	 -		
CAS NO.		COMPOUND N	AME		RT	EST.	CON	c .	Q

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:	FMETL			Project	980932		Tr	ip Blar	ık
NJDEP#	13461	Cas	se No.: 4056	SSDG	No	Loc	ation	UST	·
Matrix: (soil/	water)	WATER	•	I	_ab Sample	D: 4	056.01		
Sample wt/v	ol:	5.0	(g/ml) ML		.ab File ID:	Ž	/B0215	9.D	
Level: (low/i	med)	LOW		f	Date Recei	ved: 1	1/12/98	B	
% Moisture:	not dec.			Ę	Date Analy:	zed: 1	1/20/98	8	
GC Column:	HP5M	S ID: 0.2	.5 (mm)	,	Dilution Fac	ctor: 1	.0		-
Soil Extract	Volume:		_ (uL)	\$	Soil Aliquot	Volum	ne:		_ (uL)
				CONCENTR					
Number TICs	s found:	0	_						
CAS NO.		COMPOU	ND NAME		RT	EST	. CON	Э.	Q

1E VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:	FMETL			Project	980932		Fie	ia Biai	nk
NJDEP#	13461	Ca	se No.: 4056	SDG N	o	Lo	cation	UST	
Matrix: (soil/	water)	WATER	_	La	ab Sample) ID: <u>4</u>	4056.02	· 	
Sample wt/v	ol:	5.0	(g/ml) ML	La	b File ID:	1	VB0216	0.D	··-
Level: (low/i	med)	LOW	<u>-</u>	Da	ate Receiv	ved: _	11/12/98	3	
% Moisture:	not dec.			Da	ate Analyz	ːed: _	11/20/98	3	
GC Column:	HP5M	S ID: 0.2	25 (mm)	Dì	lution Fac	tor: _	1.0		<u>.</u>
Soil Extract \	Volume:		_ (uL)	So	oil Aliquot	Volun	ne:		_ (uL)
			c	ONCENTRA	TION UNI	TS:			
Number TICs	s found:	0	(ug/L or ug/Kg)) UG/	<u>"L</u>			
CAS NO.		COMPOL	ND NAME		RT	EST	Γ. CONC	D.	Q

1E VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

EST. CONC.

Q

RT

		IENIAI	IVELY IDENI	IFIED COMPO	UNDS		
Lab Name:	FMETL			Project	980932	Bldg. 16	5
NJDEP#	13461	Ca	se No.: 4056	SDG N	0L	ocation UST_	
Matrix: (soil/	water)	WATER		La	b Sample ID:	4056.03	
Sample wt/ve	ol:	5.0	(g/ml) ML	La	b File ID:	VB02161.D	_
Level: (low/r	ned)	LOW		Da	te Received:	11/12/98	_
% Moisture:	not dec.			Da	te Analyzed:	11/20/98	
GC Column:	HP5M	S ID: 0.:	25 (mm)	Dil	ution Factor:	1.0	
Soil Extract \	Volume:		(uL)	So	il Aliquot Volu	ıme:	(uL
				CONCENTRAT	TION UNITS:		
Number TICs	s found:	00	~_	(ug/L or ug/Kg)			

COMPOUND NAME

CAS NO.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

FIELD I	D
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Lab Name:	FMETL		Project	980932		Blo	ig. 16	57
NJDEP#	13461	Case No.: 4056	SDG	No	Loc	ation	UST	 _
Matrix: (soil/	water)	WATER	L	ab Sample.	D: 4	056.05		
Sample wt/v	ol:	5.0 (g/ml) ML	L	.ab File ID:	<u>\</u>	/B02162	.D	
Level: (low/	med)	LOW	0	Date Receiv	ved: 1	1/12/98		
% Moisture:	not dec.			Date Analyz	zed: <u>1</u>	1/20/98		-
GC Column:	HP5N	IS ID: 0.25 (mm)	C	Dilution Fac	tor: 1	.0		
Soil Extract	Volume:	(uL)	S	Soil Aliquot	Volun	ne:		(uL)
			CONCENTRA	ATION UNI	ITS:			
Number TIC	s found:	0	(ug/L or ug/K	g) <u>UG</u> /	/L			
CAS NO.		COMPOUND NAME		RT	EST	. CONC		Q

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:	FMETL			Project	980932		В	idg. 29	91
NJDEP#	13461	Case N	lo.: <u>4056</u>	SDG N	40	Loc	ation	UST	
Matrix: (soil/	water)	WATER		L	ab Sample	D: 4	056.06	;	
Sample wt/v	oi:	5.0 (g	/ml) ML	L	ab File ID:	<u>v</u>	B0216	3.D_	
Level: (low/i	med)	LOW		D	ate Recei	ved: <u>1</u>	1/12/98	8	
% Moisture:	not dec.			D	ate Analyz	zed: 1	1/20/9	8	_
GC Column:	HP5M	S ID: 0.25	(mm)	D	ilution Fac	tor: 1	.0	·—.	
Soil Extract \	Volume:	(uL)	s	oil Aliquot	Volum	ie:		_ (uL)
Number TICs	s found:	0		ONCENTRA g/L or ug/Kç					
CAS NO.		COMPOUND	NAME		RT	EST.	. CON	s.	Q

1E VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:	FMETL			Project	980932		Fie	eld Du	ıp.
NJDEP#	13461	Case	No.: 4056	SDG	No	Loc	cation	UST	
Matrix: (soil/	water)	WATER_		L	.ab Sample	ID: 4	1056.07		
Sample wt/v	ol:	5.0	(g/ml) ML	L	.ab File ID:	7	/B0216	4.D	
Level: (low/i	med)	LOW		E	Date Receiv	/ed: _1	1/12/98	3	
% Moisture:	not dec.			Ε	Date Analyz	zed: _1	1/20/98	3	
GC Column:	HP5M	S ID: 0.25	<u>5</u> (mm)	[Dilution Fac	tor:	1.0		
Soil Extract \	Volume:		(uL)	8	Soil Aliquot	Volun	ne:		(uL)
			,	CONCENTR	ATION UN	ITS:			
Number TICs	s found:	0		(ug/L or ug/K	g) UG	<u>/L</u>			
CAS NO.		COMPOUN	ID NAME		RT	EST	. CON	c .	Q

BASE NEUTRALS

Denti- 4 Outre muse Lieutini (Thui)am respect U.S. Army, Fort Monmouth Environmental Laboratory NJDEP Certification #13461

Data File Name bna01324.d

Sample Name

Sblk166

Operator

Skelton

Misc Info

Sblk166 A 98111

Date Acquired 20 Nov 1998 1:23 am

Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL		Qualifier
110-86-1	Pyridine	T		not detected	NLE	2,52	ıg/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	2.64		
62-53-3	Aniline			not detected	NLE	2.90 1		
	bis(2-Chloroethyl)ether			not detected	10	2.45		
111-44-4	1,3-Dichlorobenzene	-		not detected	600	2,65		
541-73-1	1,4-Dichlorobenzene			not detected	75	2.50		
106-46-7	 	1		not detected	NLB	2.09		
100-51-6	Benzyl alcohol 1,2-Dichlerobenzene	+	***	not detected	600	2,44		
95-50-1		 		not detected	300	2.96		
108-60-1	bis(2-chloroisopropyl)ether	 		not detected	20		ug/L	-
621-64-7	n-Nitroso-di-n-propylamine	1		not detected	10	2.59		
67-72-1	Hexachlorocthane	1		not detected	10		ug/L	
98-95-3	Nitrobenzene	1		not detected	190		ug/L	
78-59-1	Isophorone	┼		not detected	NLE	2.54		
111-91-1	bis(2-Chlomethoxy)methane			not detected	9	2.58		
120-82-1	1,2,4-Trichlorobenzene	-		not detected	NLE	-	ug/L	
91-20-3	Naphthalene	+-		not detected	NLE		ug/L	
106-47-8	4-Chloroaniline	+-	 	not detected	NLE]		ս <i>ցչ</i> է. սց/ե	
87-68-3	Hexachlorobutadiene	+		not detected	NLE		ug/L	
91-57-6	2-Methylnaphthalene	! 	 	not detected	50	1.59		
77-47-4	Hexachlorocyclopentadiene	+	 	not detected	NLB		ug/L	
91-58-7	2-Chloronaphthalene	+-		not detected	NLE		ug/L	
88-74-4	2-Nitroaniline	 	 	not detected	7000		ug/L	
131-11-3	Dimethylphthalate	-		not detected	NLE		ug/L	
208-96-8	Acenaphthylene	 	 		NLE	1.54		
606-20-2	2,6-Dinitrotoluene	+-	 	not detected	NLE		ug/L	
99-09-2	3-Nitroaniline	┼	 	not detected	400		ug/L	l
83-32-9	Acenaphthene	 		not detected	NLE	2.13		
132-64-9	Dibenzofuran	+	 	not detected	10		ug/L	
121-14-2	2,4-Dinitrotoluene	+		not detected	5000		ug/L	
B4-66-2	Diethylphthalate	+-		not detected	300		ug/L	
86-73-7	Fluorene	┼	 	not detected	NLE		ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE		ug/L	
100-01-6	4-Nitroaniline	+		not detected	20	1.73		
86-30-6	n-Nitrosodiphenylamine	+	ļ <u> </u>	not detected	NLE	1.92		
103-33-3	Azobenzene	-	 	not detected	NLE	1.54		
101-55-3	4-Bromophenyl-phenylether	\vdash	 	· · · · · · · · · · · · · · · · · · ·	10	1.88		
118-74-1	Hexachlorobenzene	+	 	not detected	NLE	1.67	ug/L	
85-01-8	Phenanthrene	+	1		2000	1.79	ug/L	
120-12-7	Anthracene	+	1	not detected	900			
84-74-2	Di-n-butylphthalate	+	 	not detected not detected	300		ug/L	
206-44-0	Fluoranthene	+	<u> </u>	not detected	50	4.11	ug/L	
92-87-5	Benzidine	+	 		200			
129-00-0	Pyrene	+	 	not detected	100		ug/L	
85-68-7	Butylbenzylphthalate	+	 	not detected			ug/L	
56-55-3	Benzo[a]anthracene	+	 	not detected	10		ug/L	
91-94-1	3,3'-Dichlorobenzidine	┼	 -	not detected	60		ug/L	
218-01-9	Chrysene .	+	 	not detected	20		ug/L ug/L	1
117-81-7	bis(2-Ethylhexyl)phthalate	+-	 	not detected	30			
117-84-0	Di-n-octylphthalate	 	+	not detected	100	+	ug/L	
205-99-2	Benzo[b]fluoranthene	+	 	not detected	10	_	ug/L	
207-08-9	Benzo[k]fluoranthene	+		not detected	2		ug/L	
50-32-8	Benzo[a]pyrene	+	ļ	not detected	20		ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene	 	_	not detected	20		ug/L	
53-70-3	Dibenz[a,h]anthracene	\bot	ļ	not detected	20		ug/L	
191-24-2	Henzo[g,h,i]perylene	Щ.	.l	not detected	NLE	1.13	ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-

Qualifiers

B = Value exceded linear range

D = Value from dilution

B = Compound in related blank

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

									Sbik1	66
Lab Name:	FMETL	<u>-</u> -		l	.ab Co	ode _	13461		_	
Project	980932	Ca	se No.: 4056		Loca	ation	UST	_ s	DG No.:	
Matrix: (soil/	water)	WATER	_			Lab	Sample	ID:	Sblk166	
Sample wt/vo	ol:	1000	(g/ml) ML			Lab	File ID:		BNA01324.0)
Level: (low/r	ned)	LOW				Date	Receiv	/ed:	11/14/98	
% Moisture:		dec	anted: (Y/N)	N		Date	Extrac	ted:	11/16/98	
Concentrate	d Extract	Volume:	1000 (uL)			Date	e Analyz	ed:	11/20/98	
Injection Volu	ume: <u>1.</u>	0 (uL)				Dilui	ion Fac	tor:	1.0	
GPC Cleanu	p: (Y/N)	N	pH: 7	_						
				С	ONCE	ENTR	ATION	UNI	TS:	
Number TICs	s found:	1		(ι	ıg/L oı	r ug/K	(g)	UG/	<u>L</u>	
CAS NUME	BER	COMPOL	IND NAME				RT	ES	ST. CONC.	Q
1,		unknown				1	26.38	-	15	J

Semi-volatile base Mentral Analysis webolr U.S. Army, Fort Monmouth Environmental Laboratory NJDEP Certification #13461

Data File Name bna01366.d

Sample Name

4056,02 Field Blank

Operator

Skelton Date Acquired 24 Nov 1998 2:28 am Misc Info Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	Regulatory Level	MDL		Qualifier
110-86-1	Pyridine	1	Itesponse	not detected	(ug/l)*		ug/L	Quantite
62-75-9	· 		-	not detected	NLE			
	N-nitroso-dimethylamine	 			20	2,64	_	
62-53-3	Aniline			not detected	NLE		ug/L	├
111-44-4	bis(2-Chloroethyl)ether			not detected	10		ug/L	
541-73-1	1,3-Dichlorobenzene	\vdash		not detected	600		ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75		ug/L	
100-51-6	Benzyl alcohol	\vdash		not detected	NLE		ug/L	 -
95-50-1	1,2-Dichlorobenzene			not detected	600			
108-60-1	bis(2-chloroisapropyl)ether			not detected	300		ug/L	
621-64-7	n-Nitroso-di-n-propylamine	 		not detected	20		ug/L	
67-72-1	Hexachloroethane	-		not detected	10		սց/Լ	├ ──
98-95-3	Nitrobenzene	-		not detected	10		ug/L	├ ──
78-59-1	Isophorone	 		not detected	100		ug/L	
111-91-1	bis(2-Chloroethoxy)methane	-		not detected	NLE		ug/L	<u> </u>
120-82-1	1,2,4-Trichlorobenzene			not detected	9		ug/L	
91-20-3	Naphthalene			not detected	NLE		ug/L	
106-47-8	4-Chloroaniline	 		not detected	NLE		ug/L	
87-68-3	Hexachlorobutadiene	┝╌┤		nut detected	 		ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE		սg/L	ļ ——
77-47-4	Hexachlorocyclopentadiene	┝╌┤		not detected	50		սց/Ն	
91-58-7	2-Chloronaphthalene			not detected_	NLE		ug/L	 ——
88-74-4	2-Nitroanilina			not detected	NLE	1.62		<u> </u>
131-11-3	Dimethy lohthalate	├╌┤		not detected	7000		ug/L	
208-96-8	Acenaphthylene	 		not detected	NLE		ug/L	
606-20-2	2,6-Dinitrotoluene	┞╌╼ぱ		nut detected	NLE		ug/L	
99-09-2	3-Nitroaniline			not detected	NLE		ug/L	<u> </u>
83-32-9	Acenaphthene	 		not detected	4D0		ug/L	├ —
132-64-9	Dibenzofuran	├ ─		not detected	NLE		ug/L	
121-14-2	2,4-Dinitrotoluene	 		nat detected	10		ug/L	}
84-66-2	Diethylphthalate	\vdash		not detected	SOOD		ug/L	<u> </u>
86-73-7	Fluorene			not_detected	300		ug/L	 _
7005-72-3	4-Chlorophenyl-phenylether	 		not detected	NLE		ng/L	<u> </u>
100-01-6	4-Nitroaniline	 		not detected	NLE		ug/L	├
B6-30-6	n-Nitrosodiphenylamine	┝		not detected	20		ug/L	<u> </u>
103-33-3	Azobenzene	\vdash		not detected	NLE	1.92	ug/L	<u> </u>
101-55-3	4-Bromophenyl-phenylether	├ —-		not detected	NLE	1.54	ug/L	<u> </u>
118-74-1	Hexachlorobenzene			not detected	10		ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.67	ug/L	ļ <u>.</u>
120-12-7	Anthracene	LI		nat detected	2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.83	ug/L	<u> </u>
206-44-0	Fluoranthene	-		not detected	30D	1.85	ug/L	
92-87-5	Benzidine			not detected	50	4.11	ug/L	
129-00-0	Pyrene			not detected	200	1.02	ug/L	
85-68-7	Butyibenzylphthalate			not detected	100		ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.57	ug/L	<u> </u>
91-94-1	3,3'-Dichlorobenzidine	oxdot		nut detected	60	2.28	ug/L	
218-01-9	Chrysene			not detected	20	2.32	ug/L	<u></u>
117-81-7	bis(2-Ethylhexyl)phthalate	24,54	97646	4.01 vg/L	30	1,29	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100		ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10		ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	$\overline{}$	υg/L	T
50-32-8	Benzo[a]pyrene			not detected	20		ug/L	\vdash
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20		ug/L	
175 37 3		\vdash		not detected		T	ug/L	
53-70-3	Dibenz[a,h]anthracene				20			

^{*} Higher of PQL's and Ground Water Criteria as per NJAC 7:9-

Qualifiers

E = Value exceded linear range

D = Value from dilution

B = Compound in related blank

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

						•			Field Blank
Lab Name:	FMETL	· <u> </u>			Lat	Code	13461		Fleid Blank
Project	980932	Ca	ase No.	: 4056	\	_ocation	UST	SI	DG No.:
Matrix: (soil/	water)	WATER	_			Lab	Sample l	D:	4056.02
Sample wt/vo	ol:	1000	(g/m	l) ML	<u>_</u>	Lab	File ID:		BNA01366.D
Level: (low/r	ned)	LOW				Date	Receive	ed:	11/14/98
% Moisture:		ded	anted:	(Y/N)	N	Date	Extracte	ed:	11/16/98
Concentrated	d Extract	Volume:	1000	_ (uL)		Date	: Analyze	ed:	11/24/98
Injection Volu	ume: <u>1.</u> 0	(uL)				Dilut	ion Facto	or:	1.0
GPC Cleanu	p: (Y/N)	N	pH:	7					
							ATION (
Number TICs	s tound:	1			(ua/	L or ua/k	ו נוסג	JG/I	

Hamber 1103 loans.		(ug/2 or ug/rtg)		
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	26.22	14	J

Data File Name

Date Acquired

bna0f367,d

Sample Name Misc Info 4056.04 Bldg 165

Operator

Skelton

24 Nov 1998 3:10 am

Sample Multiplier

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL		Qualifie
110-86-1	Pyridine	_ <u>````</u>	паринес	not detected	NLE		ug/L	Quanne
62-75-9	N-nitroso-dimethylamine			not detected	20		ug/L	
62-53-3	Aniline			not detected	NLE	-	ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10		ug/L	
541-73-1	1,3-Dichlorobenzene	1		not detected	600		ug/L	
106-46-7	1,4-Dichlorobenzene	 		not detected	75		ug/L	
100-51-6	Benzyl alcohol	 -		not detected				
95-50-1	T	┝┈┤		not detected	NLE		ug/L ug/L	
	1,2-Dichlorobenzene	-		not detected	600 300		ug/L ug/L	
108-60-1	bis(2-chloroisopropyl)ether	 						
621-64-7	n-Nitroso-di-n-propylamine			not detected	20		ug/L	
67-72-1	Hexachloroethane	1		not detected	10		ug/L	
98-95-3	Nitrobenzene	├ ┈┤		not detected	10	2.45	_	
78-59-1	Isophorone	 -		not detected	100		սց/Ն	
111-91-1	bis(2-Chloroethoxy)methane	[[not detected	NLE	2.54	_	<u> </u>
120-82-1	1,2,4-Trichlorohenzene			not detected	9	2,58		
91-20-3	Naphthalene	 	 	not detected	NLE		ug/L	
106-47-8	4-Chloroaniline	┝─┤		not detected	NLE		ug/L	
87-68-3	Hexachlorobutadiene	1,100	10010-	not detected	1	0.64	_	
91-57-6	2-Methylnaphthalene	11.88	109171	4.29 ug/L	NLE		ug/L	
77-47-4	Hexachlorocyclopentadiene	 		not detected	50	1.59		
91-58-7	2-Chloronaphthalene			not detected	NLE		ug/L	
88-74-4	2-Nitroaniline	} ∤		not detected	NLE		ug/L	
131-11-3	Dimethylphthalate	├─ ┤		not detected	7000		ug/L	
208-96-8	Acenaphthylene	 		not detected	NLB		ug/L	
606-20-2	2,6-Dinitrotoluene	 		not detected	NLE	$\overline{}$	ug/L	
99-09-2	3-Nitroaniline			not detected	NLE		ug/L	
83-32-9	Acenaphthene			not detected	400		ug/L	
132-64-9	Dibenzofuran	[not detected	NLE		ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	1.22	ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.68		
86-73-7	Flиотепе .			not detected	300		ug/L	
7005-72-3	4-Chlorophenyl-phenylether			nat detected	NLE		ug/L	
100-01-6	4-Nitroaniline	_		not detected	NLE	2.70		
86-30-6	n-Nitrosodiphenylamine			not detected	20	1,73	ug/L	
103-33-3	Azobenzene	 		not detected	NLE	1,92	ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLB	1.54	ug/L	
118-74-1	Hexachlorobenzene	 		not detected	10	1.88	ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.67	ug/L	L
120-12-7	Anthracene	<u> </u>		not detected	2000	1.79	_	
84-74-2	Di-n-butylphthalate	 		not detected	900	1.83	ug/L	
206-44-0	Fluoranthene	<u> </u>		not detected	300	1.85	ug/L	
92-87-5	Benzidine	L		not detected	50	4.11		
129-00-0	Pyrene	<u>[]</u>		not detected	200	1.02	ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.15	ug/L	
56-55-3	Benzo[a]anthracene	<u> </u>		not detected	10	1.57	ug/L	
91-94-1	3,3'-Dichlorobenzidine]		not detected	60	2.28	ug/L	
218-01-9	Chrysene	$oxed{L}$		not detected	20		ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.29	ug/L	
117-84-0	Di-n-octylphthalate			not detected	100		ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10		սջ/Լ	
207-08-9	Benzo[k]fluoranthene			not detected	2		ug/L	
50-32-8	Benzo[a]pyrene			not detected	20		ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20		ug/L	
-75 37-5		┰				$\overline{}$	บล/L	
53-70-3	Dibenz[a,h]anthracene	,		not detected	20			

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-

Qualifiers

B = Value exceded linear range

D = Value from dilution

B = Compound in related blank

PQL = Practical Quantitation Limit

MDL = Method Detection Limit

NLE = No Limit Established

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Lab Name:	FMETL			L	ab Code 13461	Bidg165
Project	980932		Case No.: 4056		Location UST S	DG No.:
Matrix: (soil/v	vater)	WATER	<u> </u>		Lab Sample ID:	4056.04
Sample wt/vo	ol:	1000	(g/ml) <u>ML</u>		Lab File ID:	BNA01367.D
Level: (low/r	ned)	LOW			Date Received:	11/14/98
% Moisture:		d	ecanted: (Y/N)	N	Date Extracted:	11/15/98
Concentrated	Extract	Volume:	1000 (uL)		Date Analyzed:	11/24/98
Injection Volu	ıme: <u>1.</u> 0) (uL)		Dilution Factor:	1.0
GPC Cleanu	p: (Y/N)	N	pH: <u>7</u>			

CONCENTRATION UNITS:

Number TICs found:	2	(ug/L or ug/Kg)	UG/L			
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q		
1. 001119-29-5	Pentanamide, 4-methyl-	23.07	9	JN		
2. 000301-02-0	9-Octadecenamide, (Z)-	26.22	. 18	JN		

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

The following Laboratory Deliverables checklist and Non-Conformance Summary shall be included in the data submission. All deviations from the accepted methodology and procedures, of performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The Technical Requirements for Site Remediation, effective June 7, 1993, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits, practical quantitation limits, and the laboratory and/or sample numbers be included in one section of the data package <u>and</u> in the main body of the report.

ı.	Cover page, Title Page listing Lab Certification #, facility name and address, & date of report submitted	
2.	Table of Contents submitted	
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds submitted	
4.	Document paginated and legible	
5.	Chain of Custody submitted	
6.	Samples submitted to lab within 48 hours of sample collection	
7 .	Methodology Summary submitted	
8.	Laboratory Chronicle and Holding Time Check submitted	
9.	Results submitted on a dry weight basis	
10.	Method Detection Limits submitted	
11.	Lab certified by NJDEP for parameters of appropriate category of parameters or a member of the USEPA CLP	
Date	oratory Manager or Environmental Consultant's Signature	
Lao	oratory Certification #13461	

*Refer to NJAC 7:26E - Appendix A, Section IV - Reduced Data Deliverables - Non-USEPA/CLP Methods for further guidance.

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.

Daniel K. Wright
Laboratory Manager

Data File Name bna00974.d

Sample Name

3973.02

Operator

Skelton

Misc Info

Field Blank

Date Acquired

10/26/19 -1:9:

Sample Multiplier 1

CAS#	Name	R.T.	Response	Result	GW Criteria	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	2.52 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	2.64 ug/L	
62-53-3	Aniline			not detected	NLE	2.90 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	2.45 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	2,65 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	2,50 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	2.09 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	2.44 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	2.96 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	2,22 ug/L	T
67-72-1	Hexachloroethane			not detected	10	2.59 ug/L	
98-95-3	Nitrobenzene			not detected	10	2,45 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	2.54 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	2.58 ug/L	
91-20-3	Naphthalene			not detected	NLE	3.03 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	2.55 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.64 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	2.49 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.59 ug/L	
91-58-7	2-Chloronaphthalene		· · · · · · · · · · · · · · · · · · ·	not detected	NLE	2.15 ug/L	
88-74-4	2-Nitroaniline		v = v· · ·	not detected	NLE	1.62 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	2.74 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	2.35 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	1.54 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	1.62 ug/L	
83-32-9	Acenaphthene			not detected	400	1.98 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	2.13 ug/L	

Semi-Volatile Analysis Report Page 2

Data File Name bna00974.d

Sample Name

3973.02

Operator

Skelton

Misc Info

Field Blank

Date Acquired

10/26/19 -1:9:

Sample Multiplier 1

						1	
121-14-2	2,4-Dinitrotoluene		not detected	10		ug/L	
84-66-2	Diethylphthalate		not detected	5000		ug/L	
86-73-7	Fluorene		not detected	300		ug/L	
7005-72-3	4-Chlorophenyl-phenylether		not detected	NLE		ug/L	
100-01-6	4-Nitroaniline		not detected	NLE		ug/L	
86-30-6	n-Nitrosodiphenylamine		not detected	20		ug/L	<u> </u>
103-33-3	Azobenzene		not detected	NLE	1.92	ug/L	L
101-55-3	4-Bromophenyl-phenylether		not detected	NLE	1.54	ug/L	<u></u>
118-74-1	Hexachlorobenzene		not detected	10	-	ug/L	
85-01-8	Phenanthrene		not detected	NLE	1.67	ug/L	
120-12-7	Anthracene		not detected	2000	1.79	ug/L	
84-74-2	Di-n-butylphthalate		not detected	900	1.83	ug/L	
206-44-0	Fluoranthene		not detected	300	1.85	ug/L	
92-87-5	Benzidine		not detected	50	4.11	ug/L	
129-00-0	Pyrene		not detected	200	1.02	ug/L	
85-68-7	Butylbenzylphthalate		not detected	100	1.15	ug/L	
56-55-3	Benzo[a]anthracene		not detected	10	1.57	ug/L	
91-94-1	3,3'-Dichlorobenzidine		not detected	60	2.28	ug/L	
218-01-9	Chrysene	. د مو د	not detected	20	2,32	ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate		not detected	30	1.29	ug/L	
117-84-0	Di-n-octylphthalate		not detected	100	1.30	ug/L	<u> </u>
205-99-2	Benzo[b]fluoranthene		not detected	10	1.31	ug/L	
207-08-9	Benzo[k]fluoranthene		not detected	2	1.57	ug/L	
50-32-8	Benzo[a]pyrene		not detected	20	1.36	ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene		not detected	20	1.22	ug/L	
53-70-3	Dibenz[a,h]anthracene		not detected	20	3.12	ug/L	<u> </u>
191-24-2	Benzo[g,h,i]perylene		not detected	NLE	1.13	ug/L	L

Qualifiers

 $\mathbf{E} = \mathbf{Value}$ exceded linear range

D = Value from dilution

B = Compound in related blank

MDL = Method Detection Limit

NLE = No Limit Established

R.T. = Retention Time

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET FIELD ID TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:	FMETL			Lab C	ode 13	461	Field B	lank
Project	980932	C	Case No.: 3973	Loc	cation L	JST S	DG No.:	
Matrix: (soil/	water)	WATER	<u> </u>		Lab Sa	ample ID:	3973.02	
Sample wt/v	ol:	1000	(g/ml) ML	<u>.</u>	Lab Fil	le ID:	BNA00974.)
Level: (low/i	med)	LOW	·		Date R	Received:	10/13/98	
% Moisture:		de	ecanted: (Y/N)	N	Date E	extracted:	10/20/98	
Concentrate	d Extract	Volume:	1000 (uL)		Date A	\nalyzed:	10/26/98	
Injection Vol	ume: <u>1.</u>	0 (uL)			Dilutio	n Factor:	1.0	<u>-</u>
GPC Cleanu	ıp: (Y/N)	N	_ pH: <u>7</u>					
				CONC	ENTRA	TION UN	ITS:	
Number TIC	s found:	0		(ug/L d	or ug/Kg)) <u>UG</u>	/L	
CAS NUMI	BER	COMPO	OUND NAME		R	T E	ST. CONC.	Q

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