

United States Army
Fort Monmouth, New Jersey

**Underground Storage Tank
Closure and Site/Remedial
Investigation Report**

***Building 875
Main Post-West Area***

NJDEP UST Registration No. 0081533-234

October 2000

SITE/REMEDIAL INVESTIGATION REPORT

BUILDING 875

**MAIN POST-WEST AREA
NJDEP UST REGISTRATION NO. 0081533-234**

OCTOBER 2000

PREPARED FOR:

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

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EXECUTIVE SUMMARY

UST Closure

On May 11, 1998, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) at the Main Post-West area of the U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 0081533-234 (Fort Monmouth ID No. 875), was located west of Building 876. UST No. 0081533-234 was a 1,000-gallon No. 2 fuel oil UST. The fill port was located directly above the UST. The Standard Reporting Form and signed Site Assessment Summary form for UST No. 0081533-234 are included in Appendices A and B, respectively.

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. Numerous holes were noted in the UST. Soils at the location of the holes were dark in color and appeared to be contaminated. Standing water was encountered at 2.0 feet below ground surface and sheen was observed.

Site/Remedial Investigation and Post-Excavation Soil Sampling

Versar was retained by the U.S. Army DPW to implement a site/remedial investigation adjacent to a former No 2 fuel oil UST. The UST was associated with former Building 875 at the Main Post-West area of the U.S. Army Fort Monmouth Base. The objective of the site/remedial investigation activities were to remove from the ground all soil potentially impacted as the result of the past operation of the former UST. The site/remedial investigation was performed by Versar personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*.

Visibly stained soils and soils exhibiting elevated PID levels (greater than 5 ppm) of VOCs were excavated. Excavation activities continued until potentially impacted soil had been removed. To confirm the PID readings and verify the effectiveness of the soil excavation activities, 26 post-excavation soil samples were collected from within the excavation between January 6 and January 11, 1999. All samples were initially analyzed for TPHC and total solids. Samples revealing TPHC results above 1,000 mg/kg were additionally analyzed for volatile organic compounds. The post-excavation

soil samples collected from the excavation contained concentrations of TPHC and volatile organic compounds below the NJDEP soil cleanup criteria.

Management of Excavated Soils

All contaminated soil characterization and disposal was handled directly by the U.S. Army Fort Monmouth DPW.

Site Restoration

Upon receiving analytical results and confirming the effectiveness of the excavation activities completed at the site, the excavation was back filled to grade with certified clean crushed stones, sand and clean overburden soil removed from the excavation.

Conclusions and Recommendations

All post excavation soil samples collected from the UST excavation at Building 875 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).

In response to the observation of potentially contaminated soil near the water table, two (2) groundwater samples were collected at Building 875. On April 22, 2000, and May 22, 2000, Building 875 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. 81533-234 at Building 875.

1.0 BACKGROUND INFORMATION

1.1 OVERVIEW

Versar was retained by the United States Army Directorate of Public Works (DPW) to implement a site/remedial investigation adjacent to a former No 2 fuel oil underground storage tank (UST). The UST, New Jersey Department of Environmental Protection (NJDEP) Registration No. 81533-234, was associated with former Building 875 at the Main Post-West area of the U.S. Army Fort Monmouth Base, Fort Monmouth, New Jersey. Refer to site location map on Figure 1.

This report describes the results of the site/remedial investigation activities completed at the site. The objective of the site/remedial investigation activities were to remove from the ground all soil potentially impacted as the result of the past operation of the former UST.

This report outlines background information, the site/remedial investigation activities, the results of these activities, and conclusions and recommendations drawn from these results.

1.2 SITE DESCRIPTION

Former Building 875 was located in the Main Post-West area of the Fort Monmouth Army Base. The former UST was located 150 feet west of Building 876. 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 former Building 875. 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 (Zapeczka, 1989). These sediments, predominantly derived from deltaic, shallow marine, and continental shelf environments,

date from Cretaceous through the Quaternary Periods. The mineralogy ranges from quartz to glauconite.

The formations record several major transgressive/regressive cycles and contain units which are generally thicker to the southeast and reflect a deeper water environment. Over 20 regional geologic units are present within the sediments of the Coastal Plain. Regressive, upward coarsening deposits are usually aquifers (e.g., Englishtown and Kirkwood Formations, and the Cohansey Sand) while the transgressive deposits act as confining units (e.g., the Merchantville, Marshalltown, and Navesink Formations). The individual thickness 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 875 was located approximately 600 feet south of Husky Brook, the nearest water body. Based on the Main Post topography, the groundwater flow in the area of Building 875 is anticipated to be to the north.

1.3 HEALTH AND SAFETY

During all site/remedial investigation activities, hazards at the work site, which may have posed a threat to the Health and Safety of personnel, 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 safe, as defined by OSHA.

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

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

- A Sub-Surface Evaluator from the DPW was present during all site assessment activities.

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a hole was made in the UST to allow for proper cleaning. Approximately 225 gallons of liquid from the UST and its associated piping were transported by Casie Protank to Casie Ecology Oil Salvage, Inc. facility, a NJDEP-approved petroleum recycling and disposal company located in Vineland, New Jersey. Refer to Appendix C for the waste manifest.

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP 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 at the location of the holes were dark in color and appeared to be contaminated. Standing water was encountered at 2.0 feet below ground surface and sheen was observed. See Figure 3 for a cross-sectional view of the excavated area.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The UST was transported to Mazza & Sons, Inc., Recycling Division. The transportation of the UST was in compliance with all applicable regulations and laws. 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

2.0 SITE/REMEDIAL INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site/Remedial Investigation was managed and carried out by Versar personnel. All analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory, an 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*. Sampling frequency and parameters analyzed complied with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E).

The following Parties participated in Site/Remedial Investigation Activities:

- Subsurface Evaluator: Tim Walker
Employer: Versar
Phone Number: (215) 788-7844
- Project Manager: Charles Appleby
Employer: DPW U.S. Army, Fort Monmouth
Phone Number: (732) 532-6224
NJDEP Certification No.: 2056
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Daniel K. Wright
Phone Number: (732) 532-4359
NJDEP Company Certification No.: 13461

2.2 FIELD SCREENING/MONITORING

Field screening and visual observations to identify potentially contaminated material was performed by a NJDEP Certified Sub-Surface Evaluator. During the excavation activities, all soil removed was screened with a photoionization detector (PID) to check for the presence of elevated volatile organic concentrations (VOCs).

Soils, which displayed elevated PID readings (i.e., above 5 ppm) were stockpiled separately from other excavated soils which did not display elevated PID readings (i.e., less than 5 ppm). The ground surface in the areas used to stockpile contaminated soils was covered with tarps. All stockpiled contaminated soil was covered with tarps at the completion of each day of excavation.

2.3 POST-EXCAVATION SOIL SAMPLING AND RESULTS

To confirm the PID readings and verify the effectiveness of the soil excavation activities, 26 post-excavation soil samples were collected from within the excavation between January 6 and January 11, 1999. Of these, 11 soil samples were collected along the former piping length of the excavation at a depth of 2.0 feet bgs. The piping samples were designated 875-P1 through 875-P12, where as sample 875-P12 was the duplicate. The remaining 15 post-excavation soil samples were collected from the bottom and sidewalls of the excavation at depths between 6.0 to 8.5 feet bgs. The samples were designated 875-1 through 875-6, HS1, HS2, and 875-RF1 through 875-RF9. Samples 875-2 and 875-8 were the duplicates.

Versar personnel in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual performed the post-excavation soil sampling activities. A summary of sampling activities including parameters analyzed is provided in Table 1. Following soil sampling activities, the samples were chilled and delivered to the U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis.

All samples were initially analyzed for total petroleum hydrocarbons (TPHC) and total solids. Samples revealing TPHC results above 1,000 mg/kg were additionally analyzed for volatile organic compounds. The TPHC 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 TPHC analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2. A summary of the results of the volatile organic compounds and comparison to the NJDEP soil cleanup criteria is provided in Table 3. The analytical data packages are provided in Appendix E.

The post-excavation soil samples collected from the excavation contained concentrations of TPHC and volatile organic compounds below the NJDEP soil cleanup criteria.

Upon receiving analytical results and confirming the effectiveness of the excavation activities completed at the site, the excavation was back filled to grade with certified clean crushed stones and sand. Two samples were collected from the overburden material and analyzed for TPHC. The clean stockpile soil samples (875-SP1 and 875-SP2) revealed non-detectable TPHC levels; therefore, the soil was used as backfill material.

2.4 GROUNDWATER SAMPLING

On April 22, 2000, and May 22, 2000, Building 875 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*.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

Versar was retained by the U.S. Army DPW to implement a site/remedial investigation adjacent to a former No 2 fuel oil UST. The UST was associated with Building 875 at the Main Post-West area of the U.S. Army Fort Monmouth Base. The objective of the site/remedial investigation activities were to remove from the ground all soil potentially impacted as the result of the past operation of the former UST.

Visibly stained soils and soils exhibiting elevated PID levels (greater than 5 ppm) of VOCs were excavated. Excavation activities continued until potentially impacted soil had been removed. All contaminated soil characterization and disposal was handled directly by the U.S. Army Fort Monmouth DPW.

Upon receiving analytical results and confirming the effectiveness of the excavation activities completed at the site, the excavation was back filled to grade with certified clean crushed stones, sand and clean overburden material.

3.2 GROUNDWATER SAMPLING RESULTS

No compounds were detected in the sample collected from Building 875 on April 22, 2000, and May 22, 2000.

A summary of the analytical results and comparison to the NJDEP groundwater cleanup criteria is provided in Table 4. The analytical data package is provided in Appendix F. The full data package, including quality control, is on file at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey.

Groundwater samples collected on April 22, 2000, and May 22, 2000, were either below the detection limit or in compliance with the New Jersey Ground Water Quality Criteria (GWQC).

3.3 CONCLUSION AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 875 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 875 on April 22, 2000, and May 22, 2000, groundwater quality at Building 875 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. 81533-234 at Building 875.

TABLES

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 875, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Page 1 of 4

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
P1	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P2	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P3	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P4	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P5	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
**P6	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P7	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P8	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P9	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P10	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P11	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
P12	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total Petroleum Hydrocarbons

** Sample location was further remediated and resampled

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 875, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Page 2 of 4

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
1	1/7/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
2	1/7/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
3	1/7/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
4	1/7/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
5	1/7/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
6	1/7/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total Petroleum Hydrocarbons

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 875, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Page 3 of 4

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
**HS1	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
**HS2	1/6/99	1/8/99	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total Petroleum Hydrocarbons

** Sample location was further remediated and resampled

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 875, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Page 4 of 4

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	Analysis Method
RF1	1/11/99	1/12/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
RF2	1/11/99	1/12/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
RF3	1/11/99	1/12/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
RF4	1/11/99	1/12/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
RF5	1/11/99	1/12/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
RF6	1/11/99	1/12/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
RF7	1/11/99	1/12/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
RF8	1/11/99	1/12/99	Soil	Post-Excavation	TPHC	OQA-QAM-025
RF9	1/11/99	1/12/99	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total Petroleum Hydrocarbons

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 875, MAIN POST-WEST AREA
 FORT MONMOUTH, NEW JERSEY

Page 1 of 4

Sample ID/ Depth	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Method Detection Limit (mg/kg)	Compound of Concern	Results (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
P1/2.0' =	4174.01	1/6/99	1/8/00	Total Solid	--	--	87.91 %	--	--
				TPHC	170	yes	ND	10,000	No
P2/2.0' =	4174.02	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
P3/2.0' =	4174.03	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
P4/2.0' =	4174.04	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
P5/2.0' =	4174.05	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
***P6/2.0' =	4174.06	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	909.13	10,000	No
P7/2.0' =	4174.07	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
P8/2.0' =	4174.08	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No

Note:

- * Total Solid results are expressed as a percentage.
 ** NJDEP Residential Direct Contact soil cleanup criteria for total organics
 *** Sample location was further remediated and resampled
 ND Not detected above stated method detection limit
 TPHC Total Petroleum Hydrocarbons
 -- Non Applicable

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 875, MAIN POST-WEST AREA
 FORT MONMOUTH, NEW JERSEY

Page 2 of 4

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Method Detection Limit (mg/kg)	Compound of Concern	Result (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
P9/2.0' =	4174.09	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
P10/2.0' =	4174.10	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
P11/2.0' =	4174.11	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
P12/2.0' =	4174.12	1/6/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
1/6.0' =	4174.13	1/7/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
2/6.0' =	4174.14	1/7/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
3/6.0' =	4174.15	1/7/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
4/6.0' =	4174.16	1/7/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
5/6.0' =	4174.17	1/7/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	yes	ND	10,000	No
6/7.0' =	4174.18	1/7/99	1/8/00	Total Solid	--	--	89.69 %	--	--
				TPHC	170	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 sample quantitation limit

TPHC Total Petroleum Hydrocarbons

TABLE 2
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 875, MAIN POST-WEST AREA
FORT MONMOUTH, NEW JERSEY

Page 3 of 4

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Method Detection Limit (mg/kg)	Compound of Concern	Result (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
***HS1/5.0' =	4175.01	1/6/99	1/8/99	Total Solid	--	--	94.60%	--	--
				TPHC	162	Yes	2399.89	10,000	No
***HS2/6.0' =	4175.02	1/6/99	1/8/99	Total Solid	--	--	94.13%	--	--
				TPHC	162	Yes	2321.72	10,000	No

Note:

- * Total Solid results are expressed as a percentage.
- ** NJDEP Residential Direct Contact soil cleanup criteria for total organics
- *** Sample location was further remediated and resampled
- Not detected above stated sample quantitation limit

TABLE 2

POST-EXCAVATION SOIL SAMPLING RESULTS
 BUILDING 875, MAIN POST-WEST AREA
 FORT MONMOUTH, NEW JERSEY

Page 4 of 4

Sample ID	Sample Laboratory ID	Sample Date	Analysis Date	Analytical Method Used	Method Detection Limit (mg/kg)	Compound of Concern	Result (mg/kg) *	NJDEP Soil Cleanup Criteria ** (mg/kg)	Exceeds Cleanup Criteria
RF1/8.5' =	4180.01	1/12/99	1/12/99	Total Solid	--	--	84.44%	--	--
				TPHC	184	Yes	ND	10,000	No
RF2/7.0' =	4180.02	1/12/99	1/12/99	Total Solid	--	--	82.34%	--	--
				TPHC	189	Yes	1792.63	10,000	No
RF3/7.0' =	4180.03	1/12/99	1/12/99	Total Solid	--	--	91.28%	--	--
				TPHC	172	Yes	ND	10,000	No
RF4/7.0' =	4180.04	1/12/99	1/12/99	Total Solid	--	--	84.96%	--	--
				TPHC	183	Yes	ND	10,000	No
RF5/7.0' =	4180.05	1/12/99	1/12/99	Total Solid	--	--	89.70%	--	--
				TPHC	172	Yes	ND	10,000	No
RF6/7.0' =	4180.06	1/12/99	1/12/99	Total Solid	--	--	98.93%	--	--
				TPHC	157	Yes	ND	10,000	No
RF7/7.0' =	4180.07	1/12/99	1/12/99	Total Solid	--	--	88.02%	--	--
				TPHC	175	Yes	ND	10,000	No
RF8/7.0' =	4180.08	1/12/99	1/12/99	Total Solid	--	--	86.94%	--	--
				TPHC	175	Yes	ND	10,000	No
RF9/8.5' =	4180.09	1/12/99	1/12/99	Total Solid	--	--	84.79%	--	--
				TPHC	185	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 sample quantitation limit

TPHC Total Petroleum Hydrocarbons

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Project: 99-0008
Case No.: 4180 Location: 875 SDG No.:
Matrix: (soil/water) SOIL Lab Sample ID: RF2

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

CAS NO.	PARAMETER	RESULTS	QUALIFIER	RESIDENTIAL	NON-RESIDENTIAL
107028	Acrolein	2000	U	NA	NA
107131	Acrylonitrile	2000	U	1000	5000
75650	tert-Butyl alcohol	3800	U	NA	NA
1634044	Methyl-tert-Butyl ether	870	U	NA	NA
108203	Di-isopropyl ether	580	U	NA	NA
	Dichlorodifluoromethane	1200	U	NA	NA
74-87-3	Chloromethane	290	U	520000	1000000(d)
75-01-4	Vinyl Chloride	870	U	2000	7000
74-83-9	Bromomethane	580	U	79000	1000000(d)
75-00-3	Chloroethane	870	U	NA	NA
75-69-4	Trichlorofluoromethane	580	U	NA	NA
75-35-4	1, 1-Dichloroethene	290	U	8000	150000
67-64-1	Acetone	580	U	1000000(d)	1000000(d)
75-15-0	Carbon Disulfide	290	U	NA	NA
75-09-2	Methylene Chloride	1900		49000	210000
156-60-5	trans-1,2-Dichloroethene	580	U	1000000(d)	1000000(d)
75-35-3	1,1-Dichloroethane	290	U	570000	1000000(d)
108-05-4	Vinyl Acetate	870	U	NA	NA
78-93-3	2-Butanone	870	U	1000000(d)	1000000(d)
156-59-2	cis-1,2-Dichloroethene	290	U	79000	1000000(d)
67-66-3	Chloroform	290	U	19000(k)	28000(k)

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Project: 99-0008

Case No.: 4180 Location: 875 SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: RF2

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

CAS NO.	PARAMETER	RESULTS	QUALIFIER	RESIDENTIAL	NON-RESIDENTIAL
75-55-6	1,1,1-Trichloroethane	290	U	NA	NA
56-23-5	Carbon Tetrachloride	580	U	2000(k)	4000(k)
71-43-2	Benzeze	290	U	3000	13000
107-06-2	1,2-Dichloroethane	580	U	6000	24000
79-01-6	Trichloroethene	290	U	23000	54000(k)
78-87-5	1, 2-Dichloropropane	290	U	10000	43000
75-27-4	Bromodichloromethane	290	U	11000(g)	46000(g)
110-75-8	2-Chloroethyl vinyl ether	580	U	NA	NA
10061-01-5	cis-1,3-Dichloropropene	290	U	NA	NA
108-10-1	4-Methyl-2-Pentanone	580	U	1000000(d)	1000000(d)
108-88-3	Toluene	290	U	1000000(d)	1000000(d)
10061-02-6	trans-1,3-Dichloropropene	580	U	NA	NA
79-00-5	1,1,2-Trichloroethane	580	U	22000	420000
127-18-4	Tetrachloroethene	290	U	4000(k)	6000(k)
591-78-6	2-Hexanone	580	U	NA	NA
126-48-1	Dibromochloromethane	580	U	NA	NA
108-90-7	Chlorobenzene	290	U	37000	680000
100-41-4	Ethylbenzene	580	U	1000000(d)	1000000(d)
1330-20-7	m+p-Xylenes	870	U	NA	NA

Table 3
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETL NJDEP # 13461 Project: 99-0008
Case No.: 4180 Location: 875 SDG No.:
Matrix: (soil/water) SOIL Lab Sample ID: RF2

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

CAS NO.	PARAMETER.	RESULTS	QUALIFIER	RESIDENTIAL	NON-RESIDENTIAL
1330-20-7	o-Xylene	580	U	NA	NA
100-42-5	Styrene	580	U	23000	97000
75-25-2	Bromoform	580	U	86000	370000
79-34-5	1,1,2,2-Tetrachloroethane	580	U	34000	70000(k)

SOIL CLEANUP CRITERIA (MG/KG)

(LAST REVISED-7/11/96)

- (A) CRITERIA ARE HEALTH BASED USING AN INCIDENTAL INGESTION EXPOSURE PATHWAY EXCEPT WHERE NOTED BELOW.**
- (B) CRITERIA ARE SUBJECT TO CHANGE BASED ON SITE SPECIFIC FACTORS (E.G., AQUIFER CLASSIFICATION, SOIL TYPE, NATURAL BACKGROUND, ENVIRONMENTAL IMPACTS, ETC.)**
- (C) HEALTH BASED CRITERION EXCEEDS THE 10,000 MG/KG MAXIMUM FOR TOTAL ORGANIC CONTAMINANTS.**
- (D) HEALTH BASED CRITERION EXCEEDS THE 1000 MG/KG MAXIMUM FOR TOTAL VOLATILE ORGANIC CONTAMINANTS**
- (E) CLEANUP STANDARD PROPOSAL WAS BASED ON NATURAL BACKGROUND.**
- (F) HEALTH BASED CRITERION IS LOWER THAN ANALYTICAL LIMITS; CLEANUP CRITERION BASED ON PRACTICAL QUANTITATION LEVEL.**
- (G) CRITERION HAS BEEN RECALCULATED BASED ON NEW TOXICOLOGICAL DATA.**
- (H) THE IMPACT TO GROUND WATER VALUES FOR INORGANIC CONSTITUENTS WILL BE DEVELOPED BASED UPON SITE SPECIFIC CHEMICAL AND PHYSICAL PARAMETERS.**
- (I) ORIGINAL CRITERION WAS INCORRECTLY CALCULATED AND HAS BEEN RECALCULATED.**
- (J) TYPOGRAPHICAL ERROR.**
- (K) CRITERIA BASED ON INHALATION EXPOSURE PATHWAY, WHICH YIELDED A MORE STRINGENT CRITERION THAN THE INCIDENTAL INGESTION EXPOSURE PATHWAY.**
- (L) NEW CRITERION DERIVED USING METHODOLOGY IN THE BASIS AND BACKGROUND DOCUMENT.**
- (M) CRITERION BASED ON ECOLOGICAL (PHYTOTOXICITY) EFFECTS.**
- (N) LEVEL OF THE HUMAN HEALTH BASED CRITERION IS SUCH THAT EVALUATION FOR POTENTIAL ENVIRONMENTAL IMPACTS ON A SITE BY SITE BASIS IS RECOMMENDED.**
- (O) LEVEL OF THE CRITERION IS SUCH THAT EVALUATION FOR POTENTIAL ACUTE EXPOSURE HAZARD IS RECOMMENDED.**

- (P) CRITERION BASED ON THE USEPA INTEGRATED EXPOSURE UPTAKE BIOKINETIC (IEUBK) MODEL UTILIZING THE DEFAULT PARAMETERS. THE CONCENTRATION IS CONSIDERED TO PROTECT 95% OF TARGET POPULATION (CHILDREN) AT A BLOOD LEVEL OF 10 UG/DL.
- (Q) CRITERIA WAS DERIVED FROM A MODEL DEVELOPED BY THE SOCIETY FOR ENVIRONMENTAL GEOCHEMISTRY AND HEALTH (SEGH) AND WAS DESIGNED TO BE PROTECTIVE FOR ADULTS IN THE WORKPLACE.
- (R) INSUFFICIENT INFORMATION AVAILABLE TO CALCULATE IMPACT TO GROUND WATER CRITERIA.

Table 4
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 4/22/00Location: 875Lab Sample ID: 5368.03(Bldg 875)

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	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	no
75-35-4	1, 1-Dichloroethene	0.24	Not Detected	--	2	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
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	Benzene	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	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 4
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 4/22/00Location: 875Lab Sample ID: 5368.03(Bldg 875)

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	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	no
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	no

Table 4
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 4/22/00Location: 875Lab Sample ID: 5368.03(Bldg 875)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	1.83	Not Detected	--	nle	no
62-75-9	N-nitroso-dimethylamine	0.91	Not Detected	--	20	no
62-53-3	Aniline	1.63	Not Detected	--	nle	no
111-44-4	bis(2-Chloroethyl)ether	1.28	Not Detected	--	10	no
541-73-1	1,3-Dichlorobenzene	1.19	Not Detected	--	600	no
106-46-7	1,4-Dichlorobenzene	1.02	Not Detected	--	75	no
100-51-6	Benzyl alcohol	1.02	Not Detected	--	nle	no
95-50-1	1,2-Dichlorobenzene	1.13	Not Detected	--	600	no
108-60-1	bis(2-chloroisopropyl)ether	1.39	Not Detected	--	300	no
621-64-7	n-Nitroso-di-n-propylamine	1.50	Not Detected	--	20	no
67-72-1	Hexachloroethane	0.97	Not Detected	--	10	no
98-95-3	Nitrobenzene	1.01	Not Detected	--	10	no
78-59-1	Isophorone	1.21	Not Detected	--	100	no
111-91-1	bis(2-Chloroethoxy)methane	1.75	Not Detected	--	nle	no
120-82-1	1,2,4-Trichlorobenzene	1.22	Not Detected	--	9	no
91-20-3	Naphthalene	1.27	Not Detected	--	nle	no
106-47-8	4-Chloroaniline	1.09	Not Detected	--	nle	no
87-68-3	Hexachlorobutadiene	0.71	Not Detected	--	1	no
91-57-6	2-Methylnaphthalene	1.08	Not Detected	--	nle	no
77-47-4	Hexachlorocyclopentadiene	1.32	Not Detected	--	50	no
91-58-7	2-Chloronaphthalene	1.01	Not Detected	--	nle	no
88-74-4	2-Nitroaniline	0.79	Not Detected	--	nle	no
131-11-3	Dimethylphthalate	1.52	Not Detected	--	7000	no
208-96-8	Acenaphthylene	0.96	Not Detected	--	nle	no

Table 4
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 4/22/00Location: 875Lab Sample ID: 5368.03(Bldg 875)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	0.81	Not Detected	--	nle	no
99-09-2	3-Nitroaniline	0.79	Not Detected	--	nle	no
83-32-9	Acenaphthene	1.10	Not Detected	--	400	no
132-64-9	Dibenzofuran	1.00	Not Detected	--	nle	no
121-14-2	2,4-Dinitrotoluene	0.87	Not Detected	--	10	no
84-66-2	Diethylphthalate	1.62	Not Detected	--	5000	no
86-73-7	Fluorene	0.99	Not Detected	--	300	no
7005-72-3	4-Chlorophenyl-phenylether	1.10	Not Detected	--	nle	no
100-01-6	4-Nitroaniline	1.05	Not Detected	--	nle	no
86-30-6	n-Nitrosodiphenylamine	1.01	Not Detected	--	20	no
103-33-3	Azobenzene	0.67	Not Detected	--	nle	no
101-55-3	4-Bromophenyl-phenylether	0.76	Not Detected	--	nle	no
118-74-1	Hexachlorobenzene	0.94	Not Detected	--	10	no
85-01-8	Phenanthrene	1.23	Not Detected	--	nle	no
120-12-7	Anthracene	1.12	Not Detected	--	2000	no
84-74-2	Di-n-butylphthalate	1.70	Not Detected	--	900	no
206-44-0	Fluoranthene	1.64	Not Detected	--	300	no
92-87-5	Benzidine	4.18	Not Detected	--	50	no
129-00-0	Pyrene	1.25	Not Detected	--	200	no
85-68-7	Butylbenzylphthalate	1.05	Not Detected	--	100	no
56-55-3	Benzo[a]anthracene	1.19	Not Detected	--	10	no
91-94-1	3,3'-Dichlorobenzidine	1.75	Not Detected	--	60	no
218-01-9	Chrysene	1.38	Not Detected	--	20	no
117-81-7	bis(2-Ethylhexyl)phthalate	1.74	Not Detected	--	30	no
117-84-0	Di-n-octylphthalate	1.44	Not Detected	--	100	no
205-99-2	Benzo[b]fluoranthene	1.25	Not Detected	--	10	no
207-08-9	Benzo[k]fluoranthene	1.29	Not Detected	--	2	no
50-32-8	Benzo[a]pyrene	1.05	Not Detected	--	20	no
193-39-5	Indeno[1,2,3-cd]pyrene	0.83	Not Detected	--	20	no
53-70-3	Dibenz[a,h]anthracene	0.64	Not Detected	--	20	no
191-24-2	Benzo[g,h,i]perylene	0.84	Not Detected	--	nle	no

Table 4
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 5/22/00Location: 875Lab Sample ID: 5427.01(Bldg 875)

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	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	no
75-35-4	1, 1-Dichloroethene	0.24	Not Detected	--	2	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
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	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	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 4
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 5/22/00Location: 875Lab Sample ID: 5427.01(Bldg 875)

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	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	no
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	no

Table 4
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 5/22/00Location: 875Lab Sample ID: 5427.01(Bldg 875)

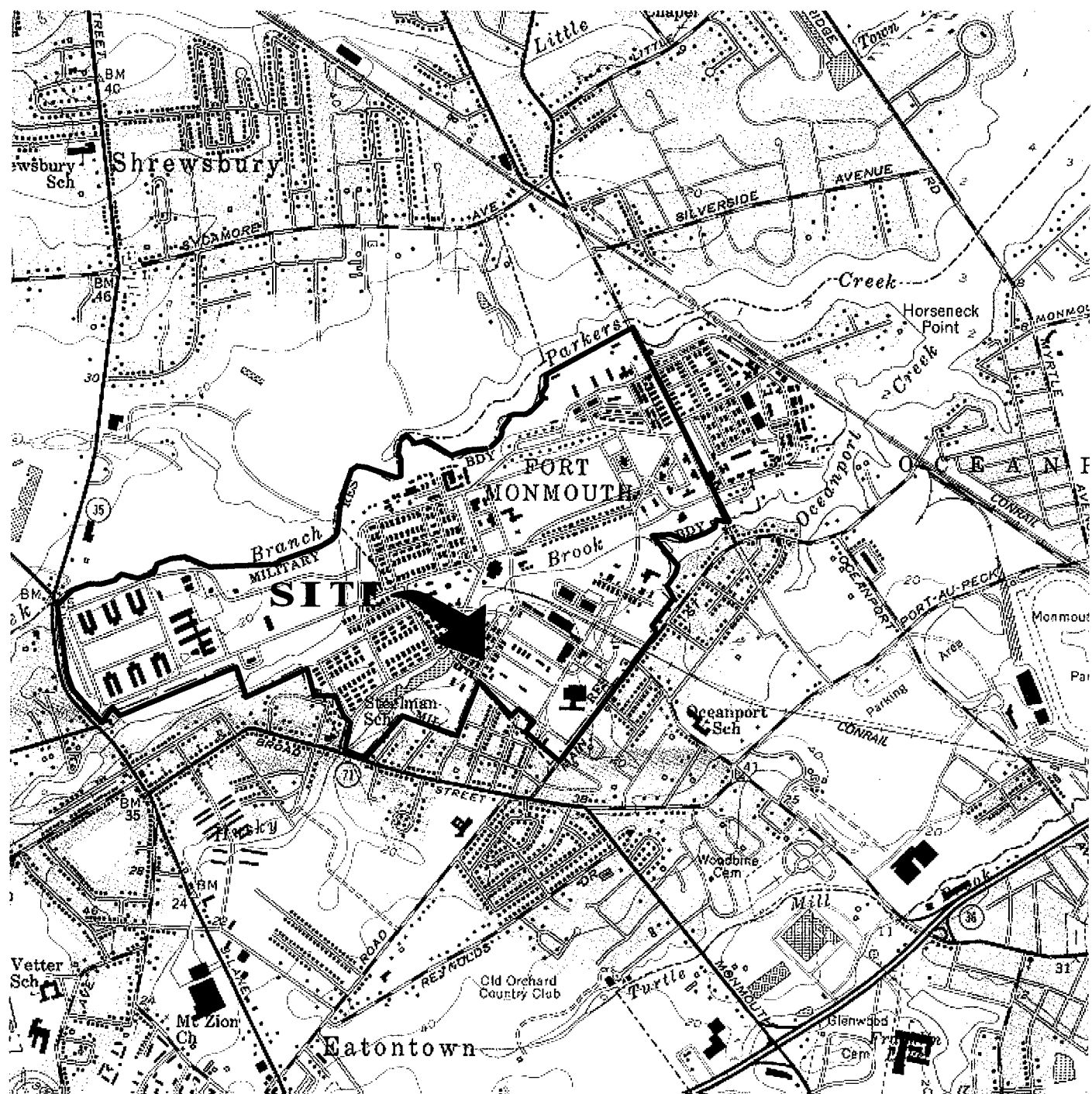
CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
110-86-1	Pyridine	1.83	Not Detected	--	nle	no
62-75-9	N-nitroso-dimethylamine	0.91	Not Detected	--	20	no
62-53-3	Aniline	1.63	Not Detected	--	nle	no
111-44-4	bis(2-Chloroethyl)ether	1.28	Not Detected	--	10	no
541-73-1	1,3-Dichlorobenzene	1.19	Not Detected	--	600	no
106-46-7	1,4-Dichlorobenzene	1.02	Not Detected	--	75	no
100-51-6	Benzyl alcohol	1.02	Not Detected	--	nle	no
95-50-1	1,2-Dichlorobenzene	1.13	Not Detected	--	600	no
108-60-1	bis(2-chloroisopropyl)ether	1.39	Not Detected	--	300	no
621-64-7	n-Nitroso-di-n-propylamine	1.50	Not Detected	--	20	no
67-72-1	Hexachloroethane	0.97	Not Detected	--	10	no
98-95-3	Nitrobenzene	1.01	Not Detected	--	10	no
78-59-1	Isophorone	1.21	Not Detected	--	100	no
111-91-1	bis(2-Chloroethoxy)methane	1.75	Not Detected	--	nle	no
120-82-1	1,2,4-Trichlorobenzene	1.22	Not Detected	--	9	no
91-20-3	Naphthalene	1.27	Not Detected	--	nle	no
106-47-8	4-Chloroaniline	1.09	Not Detected	--	nle	no
87-68-3	Hexachlorobutadiene	0.71	Not Detected	--	1	no
91-57-6	2-Methylnaphthalene	1.08	Not Detected	--	nle	no
77-47-4	Hexachlorocyclopentadiene	1.32	Not Detected	--	50	no
91-58-7	2-Chloronaphthalene	1.01	Not Detected	--	nle	no
88-74-4	2-Nitroaniline	0.79	Not Detected	--	nle	no
131-11-3	Dimethylphthalate	1.52	Not Detected	--	7000	no
208-96-8	Acenaphthylene	0.96	Not Detected	--	nle	no

Table 4
SEMI-VOLATILE ANALYSIS DATA SHEET

Lab Name: FMETLNJDEP # 13461Matrix: (soil/water) WATERDate Sampled: 5/22/00Location: 875Lab Sample ID: 5427.01(Bldg 875)

CAS NO.	COMPOUND NAME	MDL (ug/L)	RESULTS	QUALIFIER	REGULATORY LEVEL(ug/L)	EXCEEDS CRITERIA
606-20-2	2,6-Dinitrotoluene	0.81	Not Detected	--	nle	no
99-09-2	3-Nitroaniline	0.79	Not Detected	--	nle	no
83-32-9	Acenaphthene	1.10	Not Detected	--	400	no
132-64-9	Dibenzofuran	1.00	Not Detected	--	nle	no
121-14-2	2,4-Dinitrotoluene	0.87	Not Detected	--	10	no
84-66-2	Diethylphthalate	1.62	Not Detected	--	5000	no
86-73-7	Fluorene	0.99	Not Detected	--	300	no
7005-72-3	4-Chlorophenyl-phenylether	1.10	Not Detected	--	nle	no
100-01-6	4-Nitroaniline	1.05	Not Detected	--	nle	no
86-30-6	n-Nitrosodiphenylamine	1.01	Not Detected	--	20	no
103-33-3	Azobenzene	0.67	Not Detected	--	nle	no
101-55-3	4-Bromophenyl-phenylether	0.76	Not Detected	--	nle	no
118-74-1	Hexachlorobenzene	0.94	Not Detected	--	10	no
85-01-8	Phenanthrene	1.23	Not Detected	--	nle	no
120-12-7	Anthracene	1.12	Not Detected	--	2000	no
84-74-2	Di-n-butylphthalate	1.70	Not Detected	--	900	no
206-44-0	Fluoranthene	1.64	Not Detected	--	300	no
92-87-5	Benzidine	4.18	Not Detected	--	50	no
129-00-0	Pyrene	1.25	Not Detected	--	200	no
85-68-7	Butylbenzylphthalate	1.05	Not Detected	--	100	no
56-55-3	Benzo[a]anthracene	1.19	Not Detected	--	10	no
91-94-1	3,3'-Dichlorobenzidine	1.75	Not Detected	--	60	no
218-01-9	Chrysene	1.38	Not Detected	--	20	no
117-81-7	bis(2-Ethylhexyl)phthalate	1.74	Not Detected	--	30	no
117-84-0	Di-n-octylphthalate	1.44	Not Detected	--	100	no
205-99-2	Benzo[b]fluoranthene	1.25	Not Detected	--	10	no
207-08-9	Benzo[k]fluoranthene	1.29	Not Detected	--	2	no
50-32-8	Benzo[a]pyrene	1.05	Not Detected	--	20	no
193-39-5	Indeno[1,2,3-cd]pyrene	0.83	Not Detected	--	20	no
53-70-3	Dibenz[a,h]anthracene	0.64	Not Detected	--	20	no
191-24-2	Benzo[g,h,i]perylene	0.84	Not Detected	--	nle	no

FIGURES



LONG BRANCH, N. J.

40073-C8-TF-024

1954

PHOTOREVISED 1981
DMA 6164 I SE-SERIES V822

NEW
JERSEY

QUADRANGLE LOCATION

FIGURE 1

LOCATION MAP
Building 875
Main-Post West
Fort Monmouth Army Base
Monmouth County, NJ

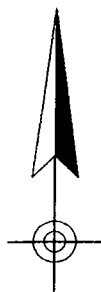
VERSAR

Engineers, Managers, Scientists, & Planners
Bristol, PA

Scale: 1" = 2000'

Date: May 1998

Mapped, edited and published by the Geological Survey



QUADRANGLE LOCATION

Scale: 1" = 2000'

Date: May 1998

Mapped, edited and published by the Geological Survey

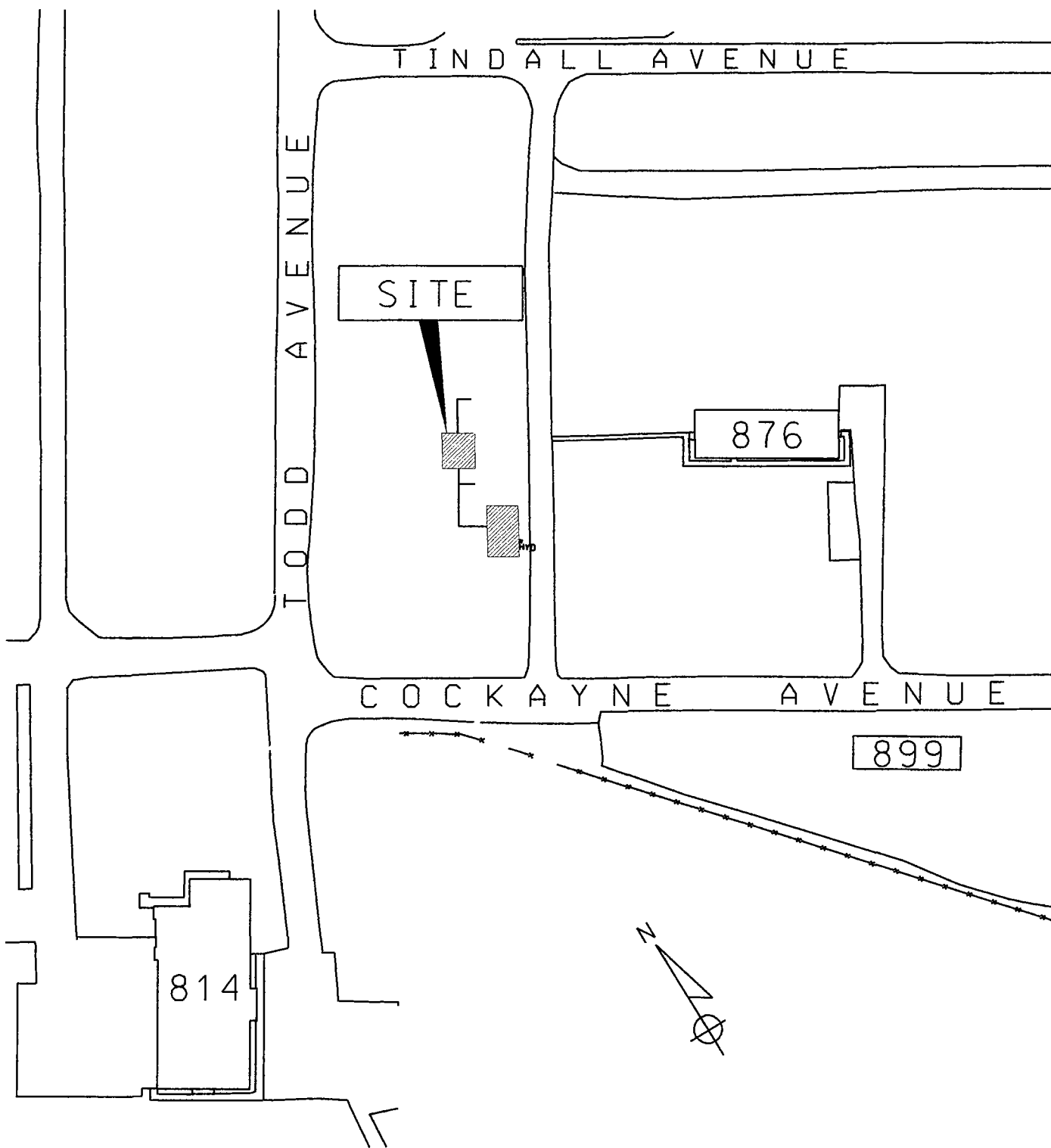


FIGURE 2
SITE MAP
BUILDING 875
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

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

SCALE: 1"=100'

DATE: MAY 1998

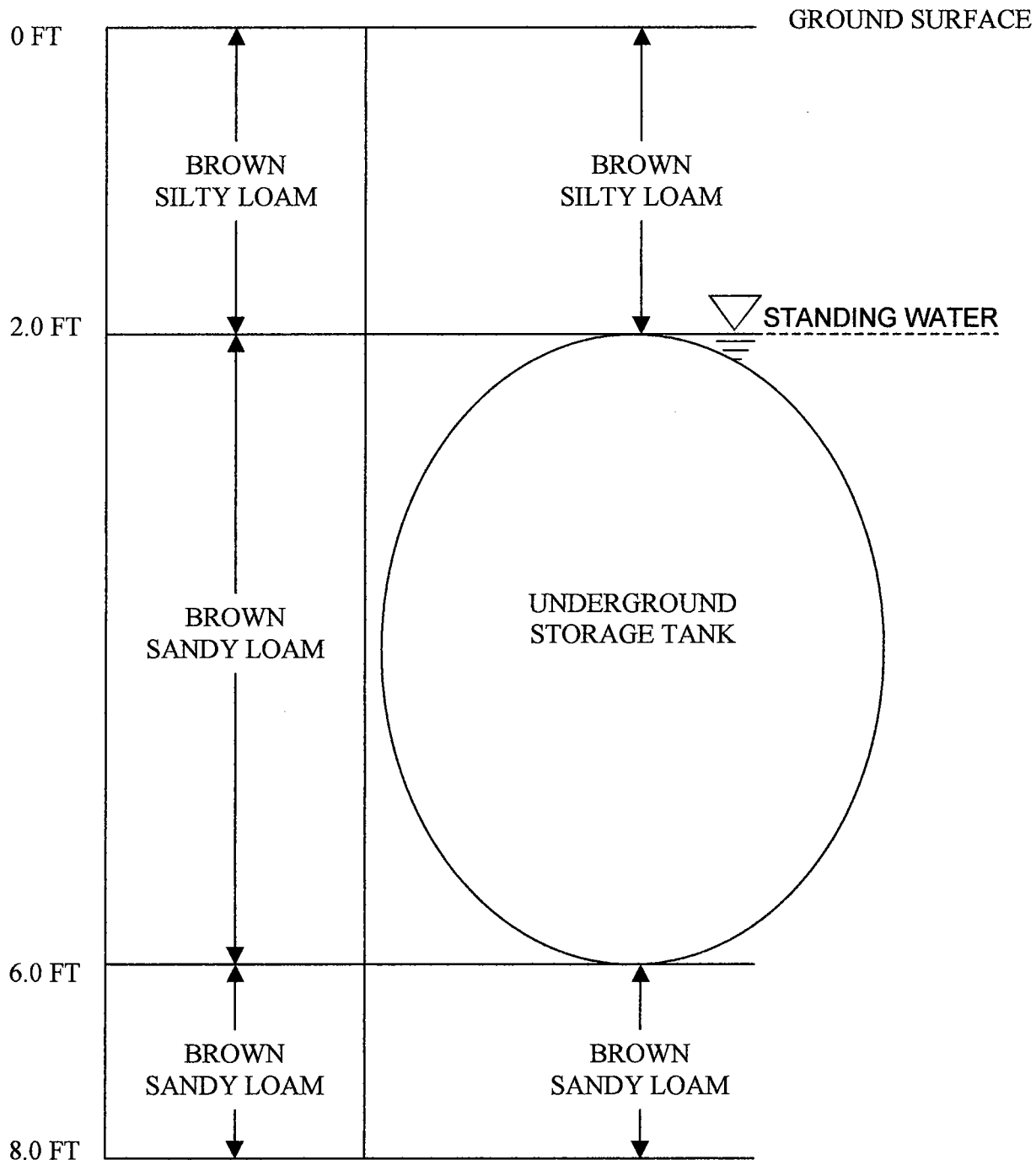
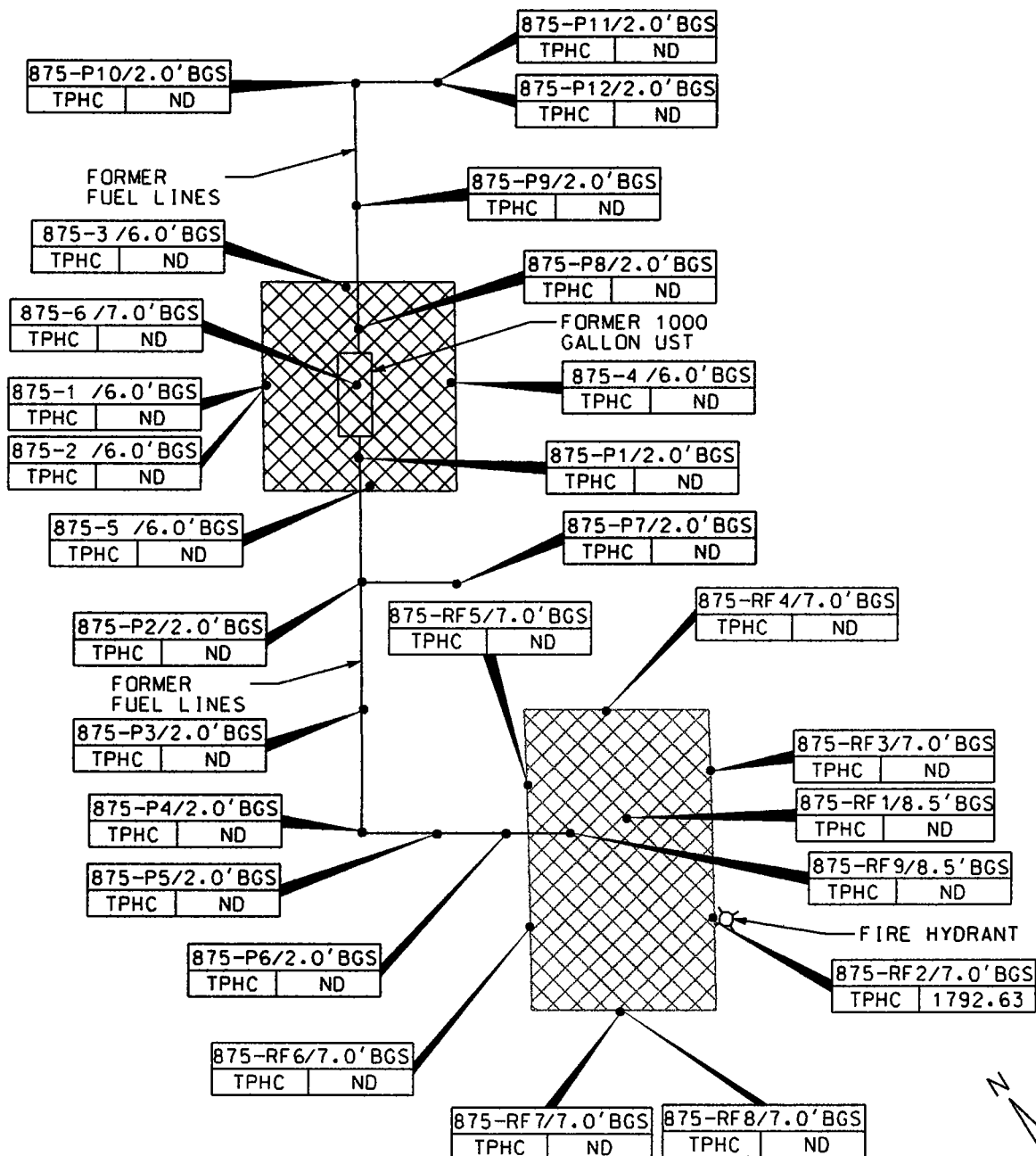


FIGURE 3
CROSS SECTIONAL VIEW
BUILDING 875
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

VERSAR
Engineers, Managers, Scientists & Planners
Bristol, Pennsylvania

SCALE: NTS

DATE: May 1998



LEGEND

- SOIL SAMPLE LOCATION (JANUARY 6, 1999)
- SOIL SAMPLE LOCATION (JANUARY 7, 1999)
- SOIL SAMPLE LOCATION (JANUARY 11, 1999)
- ▨ LIMIT OF EXCAVATION (JANUARY 7, 1999)
- ▨ LIMIT OF EXCAVATION (JANUARY 11, 1999)

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 875
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

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

SCALE: 1" = 20'

DATE: MAY 1998

FORMER
FUEL LINES

FORMER 1000
GALLON UST

SAMPLING LOCATION: SAMPLING DEPTH: SAMPLING DATE:	HIGHER OF NJDEP GWQS AND POL	BLDG 875 7-11' BGS 4/22/00	BLDG 875 7-11' BGS 5/22/00
VOLATILE ORGANIC COMPOUNDS:		ND	ND
SEMIVOLATILE ORGANIC COMPOUNDS:		ND	ND

FORMER
FUEL LINES

FIRE HYDRANT



LEGEND

- GROUNDWATER SAMPLE LOCATION
(APRIL 22, 2000 AND MAY 22, 2000)
- ▨ LIMIT OF EXCAVATION
(JANUARY 7, 1998)
- ▨ LIMIT OF EXCAVATION
(JANUARY 11, 1998)

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 875
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

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

SCALE: 1" = 20'

DATE: MAY 1998

APPENDIX A

NJDEP-STANDARD REPORTING FORM

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
BUREAU OF APPLICABILITY AND COMPLIANCE
Registration and Billing Unit
CN 028, Trenton, N.J. 08625-0028
1-609-984-3156

COPY

FOR STATE USE ONLY

Check In ☐ Yes ☐ No

STATUS Active Inactive COMCODE
☐ ☐ ☐ ☐ ☐ ☐

UNDERGROUND STORAGE TANK
FACILITY QUESTIONNAIRE

FACILITY UST # 0081533 Bldg 875 Reg + Closure

Completion of this Registration Questionnaire will satisfy the registration requirements of the Underground Storage of Hazardous Substances Act, N.J.S.A. 58:10A-21, and the Registration and Billing Regulations N.J.A.C. 7:14B-2.

[Check appropriate box(es)]

- A. ☐ Is this a registration of a proposed or newly installed underground storage tank? (This form must be filed at least 30 days prior to operation)
B. ☒ Is this a registration of an existing underground storage tank not presently registered?
C. ☒ Is this a correction or amendment to an existing facility registration? UST # 0081533
D. ☐ There have been no changes to the facility registration since last submittal. UST # _____ (Go to certification page for signatures)

If "C" is checked above, please check the appropriate type of change(s) below

- | | | |
|--|---|--|
| ☐ Facility Name and/or Address Change | ☐ Type of Product(s) Stored | ☐ Financial Responsibility Change |
| ☐ Owner Name and/or Address Change | ☐ Spills, Leaks, Releases | ☐ Substantial Modification(s) |
| ☐ Facility Operator and/or Address Change | ☐ Tank(s) and/or Piping Changes | ☐ Sale or Transfer (Complete Questions 4,5,6 & 13D) |
| ☐ Owner Contact Person Change | ☒ Closure (Complete Question #13) | ☐ Other (please specify) |

SECTION A - GENERAL FACILITY INFORMATION

1. Facility Name FIT. Monmouth
2. Facility Location MAINPAST WEST
NUMBER AND STREET
CITY OR MUNICIPALITY
COUNTY N.J. STATE N.J. ZIP CODE 08852 BLOCK 1 LOT 1
3. Facility Operator PERSON OR TITLE Contact Tele. No. Area Code Extension
Operator Address (if different than #2)
NUMBER AND STREET
CITY OR MUNICIPALITY
STATE STATE ZIP CODE ZIP CODE
4. Tank Owner
5. Tank Owner Address
NUMBER AND STREET
CITY OR MUNICIPALITY
STATE STATE ZIP CODE ZIP CODE
- Contact Person (Tank Owner) Area Code Extension
7. EPA ID # 0081533
8. Total number of regulated underground storage tanks at facility 0000 (Complete Section B for each tank)

10. Facility Type: A ☐ State C ☐ County/Municipal E ☐ Charitable / Public School G ☐ Other
B ☐ Commercial/ D ☐ Federal F ☐ Residence H ☐ Farm (as defined in N.J.S.A.
Industrial 54:4-23.1 et seq.)

11. Is a copy of the facility site plan submitted with this registration pursuant to N.J.A.C. 7:14B-2? ☐ YES ☐ NO

ALL underground tanks, including those taken out of operation (UNLESS THE TANK WAS REMOVED FROM THE GROUND PRIOR TO 9/3/86) must be registered. Report all tank/piping status changes unless previously submitted.

	TANK NO.	TANK NO.	TANK NO.	TANK NO.	TANK NO.
1. Tank Identification Number Bldg. 875	234				
2. CAS Number (hazardous substances only)					
3. Date Tank Installed (Month/Day/Year)	Mo. Day Year Unknown	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year
4. Tank Size (gallons)	1000				
5. Tank Contents (Mark one "X" for each tank)					
A. Lead gasoline					
B. Unleaded gasoline					
C. Alcohol endriched gasoline					
D. Light diesel fuel (No. 1-D)					
E. Medium diesel fuel (No. 2-D)					
F. Waste Oil					
G. Kerosene (No. 1)					
H. Home heating oil (No. 2)	X				
J. Heating oil (No. 4)					
K. Heavy heating oil (No. 6)					
L. Aviation fuel					
M. Motor oil					
N. Lubricating oil					
P. Sewage					
Q. Sewage sludge					
R. Other hazardous substances (specify)					
S. Hazardous waste (specify ID number)					
T. Mixtures (please specify)					
U. Emergency spill tank (specify substance)					
V. Other petroleum products (please specify)					
W. Other (please specify)					
6. Tank & Piping Construction (Mark one each for both tank & piping)	Tank Piping	Tank Piping	Tank Piping	Tank Piping	Tank Piping
A. Bare Steel	X X				
B. Cathodically protected steel					
C. Fiberglass-coated steel					
D. Fiberglass-reinforced plastic					
E. Internally lined					
F. Other (please specify)					
7. Tank & Piping Structure (Mark one each for both tank & piping)	Tank Piping	Tank Piping	Tank Piping	Tank Piping	Tank Piping
A. Single wall	X X				
B. Double wall					
C. Other (please specify)					
8. Type of Monitoring/Detection System (Mark all that apply for both tank & piping)	Tank Piping	Tank Piping	Tank Piping	Tank Piping	Tank Piping
A. Statistical Inventory Reconciliation					
B. Manual Tank Gauging					
C. Inventory Control					
D. Interstitial					
E. Precision Test					
F. Ground water observation wells					
G. Vapor observation wells					
H. In-tank (automatic) monitoring gauge					
J. Periodic Tank Test					

Bldg. 8

Tank Identification Number	TANK NO. 234	TANK NO.	TANK NO.	TANK NO.	TANK NO.
8. Type of Monitoring/Detection System	Tank Piping	Tank Piping	Tank Piping	Tank Piping	Tank Piping
K. None	☒ ☒	☐ ☐	☐ ☐	☐ ☐	☐ ☐
L. Other (please specify)					
9. Overfill Protection (tank only) (Mark one X for each tank)					
A. Yes	☐	☐	☐	☐	☐
B. No	☒	☐	☐	☐	☐
10. Spill Containment Around Fill Pipe (Mark one X for each tank)					
A. Yes	☐	☐	☐	☐	☐
B. No	☒	☐	☐	☐	☐
11. Tank Status (Mark one X for each tank)	Tank Piping	Tank Piping	Tank Piping	Tank Piping	Tank Piping
A. In-use	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
B. Empty less than 12 months	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
C. Empty 12 months or more	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
D. Emergency spill tank (sump)	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
E. Emergency backup generator tank	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
F. Abandoned in Place	☐ ☐	☐ ☐	☐ ☐	☐ ☐	☐ ☐
G. Removed	☒ ☒	☐ ☐	☐ ☐	☐ ☐	☐ ☐
H. Other (please specify)	☒ (Removed 5/11/98)				
12. If box 11B, C, or D above has been marked, indicate the estimated date last used (month/day/year)	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year
13. Closure Information - Tank ID No.	TANK NO.	TANK NO.	TANK NO.	TANK NO.	TANK NO.
A. Date abandoned in place	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year
B. Date taken temporarily out of service					
C. Date removed					
D. Date of Sale or Transfer					
E. TMS # (if applicable)					
F. ISRA # (if applicable)					

SECTION C - FINANCIAL RESPONSIBILITY

Does this facility have a Financial Responsibility Assurance Mechanism as required in 40 CFR 280? ☐ YES ☐ NO
Please list the appropriate financial information below:

Type	Carrier / Issuing Agency
Effective Date	Expiration Date
Policy Number	Amount

SECTION D - MONITORING SYSTEMS

Does this facility have a release detection monitoring system which is in compliance with N.J.A.C. 7:14B-6? ☐ YES ☐ NO
If "No", please be aware that the facility must meet the appropriate deadline. (See "Dates to Know" on Page 4)

SECTION E - RECORDKEEPING/COMPLIANCE

Please answer all the questions in this section on a facility basis. Any one tank not in compliance requires a "NO" answer for the entire facility.

- Does this facility have cathodic protection systems for all steel tanks and piping?
If "Yes", are the systems properly operated and maintained pursuant to N.J.A.C. 7:14B-5?
☐ YES ☐ NO
- Are the performance claims and documentation of monitoring systems maintained by the owner or operator pursuant to N.J.A.C. 7:14B-5?
☐ YES ☐ NO
- Are the proper monitoring, testing, sampling, repair and inventory records kept on-site pursuant to N.J.A.C. 7:14B-5 and 6?
☐ YES ☐ NO
- Is the proper Release Response Plan kept on-site pursuant to N.J.A.C. 7:14B-5?
☐ YES ☐ NO
- Does the facility have spill and over fill protection systems pursuant to N.J.A.C. 7:14B-4?
☐ YES ☐ NO
- Have all Fill Ports been permanently marked as per API #1637 pursuant to N.J.A.C. 7:14B-5?
☐ YES ☐ NO

IMPORTANT INFORMATION

- FEE:** Please make checks payable to: "Treasurer, State of New Jersey". Use of the enclosed return envelope will expedite processing. Registration and Billing Schedule can be found in N.J.A.C. 7:14B.
All Initial Registration fees are \$100 per facility.
- PENALTY:** Failure by owner or operator of a regulated underground storage tank to comply with any requirement of the State UST Act or regulations may result in the penalties set forth in N.J.S.A. 58:10A-10.
- EMERGENCY:** If a discharge or spill occurs, the NJDEP Hotline at (609) 292-7172 must be called IMMEDIATELY - 24 hours a day.
- UPGRADE EXEMPTION:** Residential heating oil underground storage tanks are exempt from all upgrade requirements.

DATES TO KNOW (critical deadlines)

- December 22, 1988 — All new federally regulated tank systems must have cathodic protection and spill/overfill protection.
- September 4, 1990 — All new State-only regulated tank systems must have cathodic protection and spill/overfill protection.
- December 22, 1990 — All federally regulated piping must have begun leak detection.
- February 19, 1993 — All federally regulated tank systems must maintain financial responsibility assurance.
- December 22, 1993 — All federally regulated tank systems must have begun leak detection.
- December 22, 1998 — All regulated tanks shall install cathodic protection and spill/overfill protection.

CERTIFICATIONS

NOTE: IF THE PERSON SIGNING CERTIFICATION NO. 2 IS THE SAME AS THE PERSON SIGNING CERTIFICATION NO. 1, THEN CERTIFICATION NO. 2 NEED NOT BE SIGNED. (If different persons are required to sign No. 1 and No. 2, then they must do so.)

CERTIFICATION NO. 1:

Must be signed by the highest ranking individual at the facility with overall responsibility

"I certify under penalty of law that the information provided in this document is true, accurate and complete to the best of my knowledge, information and belief. I am aware that there are significant civil and criminal penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

MR. James OTT

(Typed / Printed Name)

Director Public Works

(Title)

[Signature]

(Signature)

5/26/98

(Date)

CERTIFICATION NO. 2:

Must be signed as follows:

- For a corporation, by a principal executive officer of at least the level of vice president
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively
- For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official
- For persons other than indicated above, by the person with legal responsibility for the site

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

(Typed / Printed Name)

(Signature)

(Title)

(Date)

CERTIFICATION NO. 3:

If applicable, must be signed by the individual who is certified to perform services.

"I certify under penalty of law that the information provided in this document is true, accurate and complete to the best of my knowledge, information and belief. I am aware that there are significant civil and criminal penalties for knowingly submitting false, inaccurate or incomplete information and that I am committing a crime of the fourth degree if I make a written false statement which I do not believe to be true. I am also aware that if I knowingly direct or authorize the violation of any statute, I am personally liable for the penalties."

Charles Appleby

(Typed / Printed Name)

Enviro. Prot. Spec.

(Title)

[Signature]

(Signature)

5/28/98

(Date)

U.S. Army

(Name of Firm, if applicable)

(N.J. Certification Number)

APPENDIX B

SITE ASSESSMENT SUMMARY

Site Remediation Program

UST Site/Remedial Investigation Report Certification Form

A. Facility Name : U.S. Army Fort Monmouth New JerseyFacility Street Address : Directorate of Public Works Building 173Municipality: Oceanport County : MonmouthBlock: _____ 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

☒ NA – Federal Agreement

D. (Complete all that apply)

- Assigned Case Manager : Ian Curtis, Federal Case Manager
- UST Registration Number : 81533-234 (7 digits)
- Incident Report Number (10 or 12 digits)
- Tank Closure Number : Federal Case Manager

E. Certification by the Subsurface Evaluator:

The attached report conforms to the specific reporting requirements of N.J.A.C. 7:26E Yes No

Name: Charles Appleby Signature: See signed subsurface removal log UST Cert. No.: 2056Firm: U.S. Army Fort Monmouth Firm's UST Cert. Number: NA-U.S. ArmyFirm Address: Directorate of Public Works Building 173 City: Fort MonmouthState: NJ Zip: 07703 Telephone Number : 732-532-6224

(NOTE: Certification numbers required only if work was conducted on USTs regulated per N.J.S.A. 58:10A-21 et seq.)

F. Certification by the Responsible Party(ies) of the Facility:

The following certification shall be signed [according to the requirements of N.J.A.C. 7:14B-1.7(b)] as follows:

1. For a Corporation by a person authorized by a resolution of the board of directors to sign the document. A copy of the resolution, certified as a true copy by the secretary of the corporation, shall be submitted along with the certification; or
2. For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
3. For a municipality, State, federal or other public agency by either a principal executive officer or ranking elected Official.

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

Name (Print or Type): James Ott Title: Directorate of Public Works

Signature: _____

Company Name: U.S. Army Fort Monmouth Date: _____

APPENDIX C

WASTE MANIFEST

CASIE / PROTANK

ENVIRONMENTAL SERVICES

B.875

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

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No. NJ30-100205971		2. Page 1 of 1																																				
3. Generator's Name and Mailing Address MAIN POST US Army Communications Elect. Command C/O Joseph Fallon Bldg 173 ATTN: SELFm-pw-EV 732 532-6223 609 696-4401 Fort Monmouth NJ 0703				A. Non-hazardous Manifest Document Number NH2020 15733																																				
4. Generator's Phone ()				B. State Generator's ID SAME																																				
5. Transporter 1 Company Name Casie Ecology Oil Salvage, Inc.		6. US EPA ID Number N J D 0 4 5 9 9 5 6 9 3		C. State Trans. ID 1 6 9 3 1																																				
7. Transporter 2 Company Name		8. US EPA ID Number		D. Transporter's Phone () (609) 696-4401																																				
9. Designated Facility Name and Site Address Casie Ecology Oil Salvage, Inc. T/A 3209 N. Mill Rd / Casie Protank Vineland NJ 08360		10. US EPA ID Number N J D 0 4 5 9 9 5 6 9 3		E. State Trans. ID X059718																																				
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)				F. Transporter's Phone ()																																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">a.</td> <td style="width: 60%;">Combustible liquid, n.o.s. (Fuel Oil) NA1993, III</td> <td style="width: 10%;">12. Containers No.</td> <td style="width: 10%;">Type</td> <td style="width: 10%;">13. Total Quantity Quantity</td> <td style="width: 5%;">Unit Wt/Vol</td> <td style="width: 10%;">Waste No.</td> </tr> <tr> <td></td> <td></td> <td>0 0 1</td> <td>T T</td> <td>225</td> <td>G</td> <td>I D 7 2</td> </tr> <tr> <td>b.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>c.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>d.</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				a.	Combustible liquid, n.o.s. (Fuel Oil) NA1993, III	12. Containers No.	Type	13. Total Quantity Quantity	Unit Wt/Vol	Waste No.			0 0 1	T T	225	G	I D 7 2	b.							c.							d.							G. State Facility's ID 0614D1HP05	
				a.	Combustible liquid, n.o.s. (Fuel Oil) NA1993, III	12. Containers No.	Type	13. Total Quantity Quantity	Unit Wt/Vol	Waste No.																														
						0 0 1	T T	225	G	I D 7 2																														
				b.																																				
				c.																																				
d.																																								
J. Additional Descriptions for Materials Listed Above (L,T) %oil/sed %wtr				H. Facility's Phone () (609) 696-4401																																				
15. Special Handling Instructions and Additional Information a. ERG# 128 b. 24 hr emergency response #609-696-4401 K. Ambrosia				K. Handling Codes for Wastes Listed Above																																				
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. I hereby certify that the above-named material is not hazardous waste as defined by 40 CFR Part 261, 264 and 279 or any applicable state law.																																								
Printed/Typed Name Charles Appleby SELFm-pw-EV		Signature <i>[Signature]</i>		Month Day Year 04/21/98																																				
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Dan Scoleri		Signature <i>[Signature]</i>		Month Day Year 04/21/98																																				
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year																																				
19. Discrepancy Indication Space																																								
20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name Signature Month Day Year																																								

SIGNATURE AND INFORMATION MUST BE LEGIBLE ON ALL COPIES

APPENDIX D

UST DISPOSAL CERTIFICATE

APPENDIX E

SOIL 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 ENVIRONMENTAL DIVISION

Fort Monmouth, New Jersey

PROJECT: #99-0078

Bldg. 875

Field Location No. & Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
875-P1 (2')	4174.01	Soil	06-Jan-99 11:15	01/07/99
875-P2 (2')	4174.02	Soil	06-Jan-99 11:20	01/07/99
875-P3 (2')	4174.03	Soil	06-Jan-99 11:25	01/07/99
875-P4 (2')	4174.04	Soil	06-Jan-99 11:30	01/07/99
875-P5 (2')	4174.05	Soil	06-Jan-99 11:35	01/07/99
875-P6 (2')	4174.06	Soil	06-Jan-99 11:40	01/07/99
875-P7 (2')	4174.07	Soil	06-Jan-99 11:45	01/07/99
875-P8 (2')	4174.08	Soil	06-Jan-99 13:30	01/07/99
875-P9 (2')	4174.09	Soil	06-Jan-99 13:35	01/07/99
875-P10 (2')	4174.10	Soil	06-Jan-99 13:40	01/07/99
875-P11 (2')	4174.11	Soil	06-Jan-99 13:45	01/07/99
875-P12 (2')	4174.12	Soil	06-Jan-99 13:50	01/07/99
875-1 (6')	4174.13	Soil	07-Jan-99 09:40	01/07/99
875-2 (6')	4174.14	Soil	07-Jan-99 09:45	01/07/99
875-3 (6')	4174.15	Soil	07-Jan-99 09:50	01/07/99
875-4 (6')	4174.16	Soil	07-Jan-99 09:55	01/07/99
875-5 (6')	4174.17	Soil	07-Jan-99 10:00	01/07/99
875-6 (7')	4174.18	Soil	07-Jan-99 10:05	01/07/99

ANALYSIS:

FORT MONMOUTH ENVIRONMENTAL LAB

TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS


Daniel Wright/Date
Laboratory Director

1-21-99

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Laboratory Authentication Statement	61

Method Summary

NJDEP Method OQA-QAM-025-10/97

Gas Chromatographic Determination of Total Petroleum Hydrocarbons in Soil

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

Twenty five milliliters(25mL) Methylene Chloride is added to the flask and it is secured on a gyrotory shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL of Methylene Chloride is added to the flask and shaken for an additional 30 minutes. The flask is again removed and allowed to settle. The extracts are combined in the vial then transferred to a 1mL autosampler vial.

The extract is then injected directly into a GC-FID for analysis. The sample is analyzed for petroleum hydrocarbons covering a range of C8-C42 including pristane and phytane. Total Petroleum Hydrocarbon concentration is determined by integrating between 5 minutes and 22 minutes. The baseline is established by starting the integration after the end of the solvent peak and stopping after the last peak.

The final concentration of Total Petroleum Hydrocarbons is calculated using percent solid, sample weight and concentration.

PHC Conformance/Non-conformance Summary Report

Indicate
Yes, No, N/A

1. Method Detection Limits provided.
2. Method Blank Contamination – If yes, list the sample and the corresponding concentrations in each blank.

3. Matrix Spike Results Summary Meet Criteria
(If not met, list the sample and corresponding recovery which falls outside the acceptable range).

4. Duplicate Results Summary Meet Criteria
(If not met, list the sample and corresponding recovery which falls outside the acceptable range).

5. IR Spectra submitted for standards, blanks and samples.
6. Chromatograms submitted for standards, blanks and samples if GC fingerprinting was conducted.
7. Analysis holding time met.
(If not met, list number of days exceeded for each sample).

yes

NO

yes

yes

NA

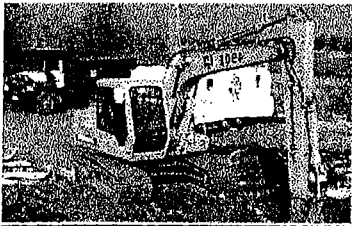
yes

yes

Additional comments: _____

Laboratory Manager

1-21-99
Date



Fort Monmouth Environmental Testing Laboratory

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

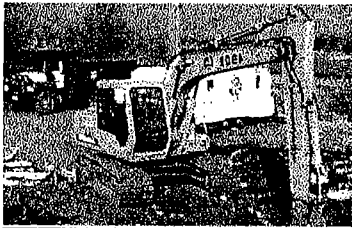
Tel (732)532-4359 Fax (732)532-3484 EMail:appleby@doim6.monmouth.army.mil

NJDEP Certification #13461

Chain of Custody Record

Customer: Charles Appleby		Project No: 98-0932 UST (REM.)		Analysis Parameters							Comments:		
Phone #: X26224		Location:		TPHC	% SOLIDS						H-Nu READINGS	3-5 DAY TAT	
() DERA (X) OMA () Other:		BUILDING 875											
Samplers Name / Company : ^{TIM WALKER} Dave Daniels (SMC)				Sample #									
Lab Sample I.D.	Sample Location	Date	Time	Type	bottles							Remarks / Preservation Method	
4174-01	875-P1 (2')	1-6-99	1115	SOIL	1	X	X					0	ICE
02	875-P2 (2')		1120		1	X	X					0	
03	875-P3 (2')		1125		1	X	X					0	
04	875-P4 (2')		1130		1	X	X					0	
05	875-P5 (2')		1135		1	X	X					2	
06	875-P6 (2')		1140		1	X	X					2	
07	875-P7 (2')		1145		1	X	X					0	
08	875-P8 (2')		1330		1	X	X					0	
09	875-P9 (2')		1335		1	X	X					0	
10	875-P10 (2')		1340		1	X	X					0	
11	875-P11 (2')		1345		1	X	X					0	
12	875-P12 (2')		1350		1	X	X					0	
13	875-1 (6')	1-7-99	0940		1	X	X					0	
14	875-2 (6')	"	0945		1	X	X					0	
Relinquished by (signature):		Date/Time:		Received by (signature):		Relinquished by (signature):		Date/Time:		Received by (signature):			
		1-7-99 1140											
Relinquished by (signature):		Date/Time:		Received by (signature):		Relinquished by (signature):		Date/Time:		Received by (signature):			
Report Type: () Full, (X) Reduced, () Standard, () Screen / non-certified						Remarks: H-Nu CALIBRATION - ZERO GAS = 0.0 PPM							
Turnaround time: () Standard 4 wks, (X) Rush 3-5 Days, () ASAP Verbal ___ Hrs.						ISOBUTYLENE 100 PPM @ 9.34							

004



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

[illegible]

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

Client : U.S. Army
 DPW. SELFM-PW-EV
 Bldg. 173
 Ft. Monmouth, NJ 07703

Lab. ID # : 4174
Date Rec'd: 07-Jan-99
Analysis Start: 08-Jan-99
Analysis Complete: 11-Jan-99

Analysis: OQA-QAM-025
Matrix: Soil
Analyst: D.DEINHARDT
Inst. ID. GC TPHC INST. #1
Column Type RTX 5
Ext. Meth: Shake

UST Reg. #:
Closure #:
DICAR #:
Injection Volume 1 ul
Column ID 0.32 um
Location #: Bldg. 875

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
4174.01	875-P1(2')	1.00	15.70	87.91	170	ND
4174.02	875-P2(2')	1.00	15.43	89.69	170	ND
4174.03	875-P3(2')	1.00	15.43	89.69	170	ND
4174.04	875-P4(2')	1.00	15.43	89.69	170	ND
4174.05	875-P5(2')	1.00	15.43	89.69	170	ND
4174.06	875-P6(2')	1.00	15.43	89.69	170	909.13
4174.07	875-P7(2')	1.00	15.43	89.69	170	ND
4174.08	875-P8(2')	1.00	15.43	89.69	170	ND
4174.09	875-P9(2')	1.00	15.43	89.69	170	ND
4174.10	875-P10(2')	1.00	15.43	89.69	170	ND
4174.11	875-P11(2')	1.00	15.43	89.69	170	ND
4174.12	875-P12(2')	1.00	15.43	89.69	170	ND
4174.13	875-1(6')	1.00	15.43	89.69	170	ND
4174.14	875-2(6')	1.00	15.43	89.69	170	ND
4174.15	875-3(6')	1.00	15.43	89.69	170	ND
4174.16	875-4(6')	1.00	15.43	89.69	170	ND
4174.17	875-5(6')	1.00	15.43	89.69	170	ND
4174.18	875-6(7')	1.00	15.43	89.69	170	ND
METHOD BLANK	TBLK 205	1.00	15.00	100.00	157	ND

ND = Not Detected

MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

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 and 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 | ☒ |
| 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 | ☒ |

Laboratory Manager or Environmental Consultant's Signature _____

Date 1/21/99

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: #99-0078

Bldg. 875

Field Location No. & Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
875-HS1 (5')	4175.01	Soil	06-Jan-99 13:20	01/06/99
875-HS2 (6')	4175.02	Soil	06-Jan-99 13:55	01/06/99

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, %SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

 1-21-99
Daniel Wright/Date
Laboratory Director

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MS/MSD Results Summary	16
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Method Summary

NJDEP Method OQA-QAM-025-10/97

Gas Chromatographic Determination of Total Petroleum Hydrocarbons in Soil

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

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The final concentration of Total Petroleum Hydrocarbons is calculated using percent solid, sample weight and concentration.

PHC Conformance/Non-conformance Summary Report

- | | Indicate
Yes, No, N/A |
|---|--------------------------|
| 1. Method Detection Limits provided. | <u>yes</u> |
| 2. Method Blank Contamination – If yes, list the sample and the corresponding concentrations in each blank.

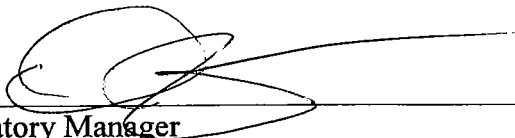
_____ | <u>no</u> |
| 3. Matrix Spike Results Summary Meet Criteria
(If not met, list the sample and corresponding recovery which falls outside the acceptable range).

_____ | <u>yes</u> |
| 4. Duplicate Results Summary Meet Criteria
(If not met, list the sample and corresponding recovery which falls outside the acceptable range).

_____ | <u>yes</u> |
| 5. IR Spectra submitted for standards, blanks and samples. | <u>NA</u> |
| 6. Chromatograms submitted for standards, blanks and samples if GC fingerprinting was conducted. | <u>yes</u> |
| 7. Analysis holding time met.
(If not met, list number of days exceeded for each sample).

_____ | <u>yes</u> |

Additional comments: _____



Laboratory Manager

1-21-99

Date



Tel (732)532-4359 Fax (732)532-3484 EMail:appleby@doim6.monmouth.army.mil

Chain of Custody Record

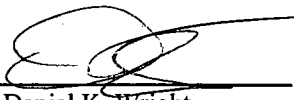
Report of Analysis
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification # 13461

Client :	U.S. Army	Lab. ID # :	4175
	DPW. SELFM-PW-EV	Date Rec'd:	07-Jan-99
	Bldg. 173	Analysis Start:	08-Jan-99
	Ft. Monmouth, NJ 07703	Analysis Complete:	11-Jan-99
Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Inst. ID.	GC TPHC INST. #1	Injection Volume	1 ul
Column Type	RTX 5	Column ID	0.32 um
Ext. Meth:	Shake	Location #:	Bldg. 875

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
4175.01	875-HS1(5')	1.00	15.33	94.60	162	2399.89
4175.02	875-HS2(6')	1.00	15.38	94.13	162	2321.72
METHOD BLANK	TBLK 204	1.00	15.00	100.00	157	ND

ND = Not Detected

MDL = Method Detection Limit


 Daniel K. Wright
 Laboratory Director

LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

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- | | |
|--|-------------------------------------|
| 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 | ☒ |
| 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 | ☒ |

Laboratory Manager or Environmental Consultant's Signature

Date 1 / 21 / 99

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)632-6224 FAX: (732)632-6263

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

NJDEP LABORATORY CERTIFICATION # 13461



ANALYTICAL DATA REPORT Fort Monmouth Environmental Laboratory ENVIRONMENTAL DIVISION Fort Monmouth, New Jersey PROJECT: #99-0008

Bldg.875/Remote Fill

Field Location No. & Location	Laboratory Sample ID#	Matrix	Date and Time Of Collection	Date Received
875-RF-1 (8.5')	4180.01	Soil	11-Jan-99 14:00	01/12/99
875-RF-2 (7')	4180.02	Soil	11-Jan-99 14:05	01/12/99
875-RF-3 (7')	4180.03	Soil	11-Jan-99 14:10	01/12/99
875-RF-4 (7')	4180.04	Soil	11-Jan-99 14:15	01/12/99
875-RF-5 (7')	4180.05	Soil	11-Jan-99 14:20	01/12/99
875-RF-6 (7')	4180.06	Soil	11-Jan-99 14:25	01/12/99
875-RF-7 (7')	4180.07	Soil	11-Jan-99 14:30	01/12/99
875-RF-8 (7')	4180.08	Soil	11-Jan-99 14:35	01/12/99
875-RF-9 (8.5')	4180.09	Soil	11-Jan-99 14:40	01/12/99

ANALYSIS:
FORT MONMOUTH ENVIRONMENTAL LAB
VOA+15, TPHC, %SOLIDS

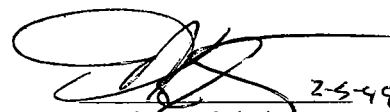

2-5-99
Daniel Wright/Date
Laboratory Director

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Change of Chain of Custody

Lab Project ID#: 4180-02

Site/Project Name: Gdy 875

Date Received: 1-12-99

Date of Change: 11-16-99

Requested by: print T. Walker

Sign:

Turnaround Time: 2 DAYS

1. Were the correct containers and/or preservatives used for the tests indicated? Yes No
2. Was a sufficient amount of sample sent for the tests indicated? Yes No
3. Are samples Within Holding time for new analysis? Yes No
4. Was the change documented in the sample receipt log book? Yes No

Received by: print

Sign:

[illegible]**Comments:**

Method Summary

NJDEP Method 8260

Gas Chromatographic Determination of Volatiles in Soil

A 50uL volume of Methanol Samples soil is added to 5mL aliquot of water. Surrogates and internal standards are added and the sample is placed on a purge and trap concentrator. The sample as purged and desorbed into a GC/MS system.

Volatiles are identified and quantitated. The final concentration is calculated using soil weight, percent solid, methanol volume and concentration.

Method Summary

NJDEP Method OQA-QAM-025-10/97

Gas Chromatographic Determination of Total Petroleum Hydrocarbons in Soil

Fifteen grams (15g)(wet weight) of a soil sample is added to a 125 mL acid cleaned, solvent rinsed, capped Erlenmeyer flask. 15g anhydrous sodium sulfate is added to dry sample. Surrogate standard spiking solution is then added to the flask.

Twenty five milliliters(25mL) Methylene Chloride is added to the flask and it is secured on a gyrotory shaker table. The agitation rate is set to 400rpm and the sample is shaken for 30 minutes. The flask is the removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25mL of Methylene Chloride is added to the flask and shaken for an additional 30 minutes. The flask is again removed and allowed to settle. The extracts are combined in the vial then transferred to a 1mL autosampler vial.

The extract is then injected directly into a GC-FID for analysis. The sample is analyzed for petroleum hydrocarbons covering a range of C8-C42 including pristane and phytane. Total Petroleum Hydrocarbon concentration is determined by integrating between 5 minutes and 22 minutes. The baseline is established by starting the integration after the end of the solvent peak and stopping after the last peak.

The final concentration of Total Petroleum Hydrocarbons is calculated using percent solid, sample weight and concentration.

LABORATORY CHRONICLE

005A

Laboratory Chronicle

Lab ID: 4180

Site: Bldg. 875

	Date	Hold Time
Date Sampled	01/11/99	NA
Receipt/Refrigeration	01/12/99	NA
Extractions		
1. TPHC	01/12/99	14 days
Analyses		
1. Volatile Organics	01/19/99	14 days
2. TPHC	01/14/99	14 days

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate
Yes, No, N/A

1. Chromatograms labeled/Compounds identified
(Field samples and method blanks) YES
2. Retention times for chromatograms provided YES
3. GC/MS Tune Specifications
 - a. BFB Meet Criteria YES
 - b. DFTPP Meet Criteria NA
4. GC/MS Tuning Frequency – Performed every 24 hours for 600 series and 12 hours for 8000 series YES
5. GC/MS Calibration – Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series YES
6. GC/MS Calibration requirements
 - a. Calibration Check Compounds Meet Criteria YES
 - b. System Performance Check Compounds Meet Criteria YES
7. Blank Contamination – If yes, List compounds and concentrations in each blank: NO
 - a. VOA Fraction _____
 - b. B/N Fraction NA
 - c. Acid Fraction NA
8. Surrogate Recoveries Meet Criteria YES

If not met, list those compounds and their recoveries, which fall outside the acceptable range:

 - a. VOA Fraction _____
 - b. B/N Fraction NA
 - c. Acid Fraction NA

If not met, were the calculations checked and the results qualified as "estimated"?

9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria YES

(If not met, list those compounds and their recoveries, which fall outside the acceptable range)

 - a. VOA Fraction _____
 - b. B/N Fraction NA
 - c. Acid Fraction NA

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT
(CONTINUED)

Indicate
Yes, No, N/A

10. Extraction Holding Time Met

NR

If not met, list number of days exceeded for each sample: _____

11. Analysis Holding Time Met

Yes

If not met, list number of days exceeded for each sample: _____

Additional Comments: _____

Laboratory Manager: _____

Date: 2-5-99

PHC Conformance/Non-conformance Summary Report

Indicate
Yes, No, N/A

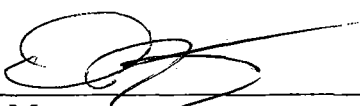
1. Method Detection Limits provided. yes
2. Method Blank Contamination – If yes, list the sample and the corresponding concentrations in each blank. no

3. Matrix Spike Results Summary Meet Criteria
(If not met, list the sample and corresponding recovery which falls outside the acceptable range). yes

4. Duplicate Results Summary Meet Criteria
(If not met, list the sample and corresponding recovery which falls outside the acceptable range). yes

5. IR Spectra submitted for standards, blanks and samples. NA
6. Chromatograms submitted for standards, blanks and samples if GC fingerprinting was conducted. yes
7. Analysis holding time met. yes
(If not met, list number of days exceeded for each sample).

Additional comments: _____



Laboratory Manager

2-5-99

Date

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID

Vblk143

Lab Name: FMETL NJDEP# 13461

Project 980932 Case No.: 4180 Location 875 SAS No

Matrix: (soil/water) SOIL Lab Sample ID: Vblk143

Sample wt/vol: 10.0 (g/ml) G Lab File ID: V05468.D

Level: (low/med) MED Date Received: 01/12/99

% Moisture: not dec. 0 Date Analyzed: 01/19/99

GC Column: RTX502 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

107028	Acrolein	1800	U
107131	Acrylonitrile	1800	U
75650	tert-Butyl alcohol	3200	U
1634044	Methyl-tert-Butyl ether	750	U
108203	Di-isopropyl ether	500	U
	Dichlorodifluoromethane	1000	U
74-87-3	Chloromethane	250	U
75-01-4	Vinyl Chloride	750	U
74-83-9	Bromomethane	500	U
75-00-3	Chloroethane	750	U
75-69-4	Trichlorofluoromethane	500	U
75-35-4	1,1-Dichloroethene	250	U
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	250	U
75-09-2	Methylene Chloride	500	U
156-60-5	trans-1,2-Dichloroethene	500	U
75-35-3	1,1-Dichloroethane	250	U
108-05-4	Vinyl Acetate	750	U
78-93-3	2-Butanone	750	U
	cis-1,2-Dichloroethene	250	U
67-66-3	Chloroform	250	U
75-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	500	U
71-43-2	Benzene	250	U
107-06-2	1,2-Dichloroethane	500	U
79-01-6	Trichloroethene	250	U
78-87-5	1,2-Dichloropropane	250	U
75-27-4	Bromodichloromethane	250	U
110-75-8	2-Chloroethyl vinyl ether	500	U
10061-01-5	cis-1,3-Dichloropropene	250	U
108-10-1	4-Methyl-2-Pentanone	500	U
108-88-3	Toluene	250	U
10061-02-6	trans-1,3-Dichloropropene	500	U
79-00-5	1,1,2-Trichloroethane	500	U
127-18-4	Tetrachloroethene	250	U
591-78-6	2-Hexanone	500	U
126-48-1	Dibromochloromethane	500	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	500	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID

Vblk143

Lab Name: FMETL NJDEP# 13461

Project 980932 Case No.: 4180 Location 875 SAS No

Matrix: (soil/water) SOIL Lab Sample ID: Vblk143

Sample wt/vol: 10.0 (g/ml) G Lab File ID: V05468.D

Level: (low/med) MED Date Received: 01/12/99

% Moisture: not dec. 0 Date Analyzed: 01/19/99

GC Column: RTX502 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

1330-20-7	m+p-Xylenes	750	U
1330-20-7	o-Xylene	500	U
100-42-5	Styrene	500	U
75-25-2	Bromoform	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Vblk143

Lab Name: FMETL NJDEP# 13461
Project 980932 Case No.: 4180 Location 875 SAS No _____
Matrix: (soil/water) SOIL Lab Sample ID: Vblk143
Sample wt/vol: 10.0 (g/ml) G Lab File ID: V05468.D
Level: (low/med) MED Date Received: 01/12/99
% Moisture: not dec. 0 Date Analyzed: 01/19/99
GC Column: RTX502 ID: 0.32 (mm) Dilution Factor: 1.0
Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID

875-RF2

Lab Name: FMETL NJDEP# 13461

Project 980932 Case No.: 4180 Location 875 SAS No

Matrix: (soil/water) SOIL Lab Sample ID: 4180.02

Sample wt/vol: 10.5 (g/ml) G Lab File ID: V05469.D

Level: (low/med) MED Date Received: 01/12/99

% Moisture: not dec. 17.66 Date Analyzed: 01/19/99

GC Column: RTX502 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

107028	Acrolein	2000	U
107131	Acrylonitrile	2000	U
75650	tert-Butyl alcohol	3800	U
1634044	Methyl-tert-Butyl ether	870	U
108203	Di-isopropyl ether	580	U
	Dichlorodifluoromethane	1200	U
74-87-3	Chloromethane	290	U
75-01-4	Vinyl Chloride	870	U
74-83-9	Bromomethane	580	U
75-00-3	Chloroethane	870	U
75-69-4	Trichlorofluoromethane	580	U
75-35-4	1,1-Dichloroethene	290	U
67-64-1	Acetone	580	U
75-15-0	Carbon Disulfide	290	U
75-09-2	Methylene Chloride	1900	
156-60-5	trans-1,2-Dichloroethene	580	U
75-35-3	1,1-Dichloroethane	290	U
108-05-4	Vinyl Acetate	870	U
78-93-3	2-Butanone	870	U
	cis-1,2-Dichloroethene	290	U
67-66-3	Chloroform	290	U
75-55-6	1,1,1-Trichloroethane	290	U
56-23-5	Carbon Tetrachloride	580	U
71-43-2	Benzene	290	U
107-06-2	1,2-Dichloroethane	580	U
79-01-6	Trichloroethene	290	U
78-87-5	1,2-Dichloropropane	290	U
75-27-4	Bromodichloromethane	290	U
110-75-8	2-Chloroethyl vinyl ether	580	U
10061-01-5	cis-1,3-Dichloropropene	290	U
108-10-1	4-Methyl-2-Pentanone	580	U
108-88-3	Toluene	290	U
10061-02-6	trans-1,3-Dichloropropene	580	U
79-00-5	1,1,2-Trichloroethane	580	U
127-18-4	Tetrachloroethene	290	U
591-78-6	2-Hexanone	580	U
126-48-1	Dibromochloromethane	580	U
108-90-7	Chlorobenzene	290	U
100-41-4	Ethylbenzene	580	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

FIELD ID

875-RF2

Lab Name: FMETL NJDEP# 13461

Project 980932 Case No.: 4180 Location 875 SAS No

Matrix: (soil/water) SOIL Lab Sample ID: 4180.02

Sample wt/vol: 10.5 (g/ml) G Lab File ID: V05469.D

Level: (low/med) MED Date Received: 01/12/99

% Moisture: not dec. 17.66 Date Analyzed: 01/19/99

GC Column: RTX502 ID: 0.32 (mm) Dilution Factor: 1.0

Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

1330-20-7	m+p-Xylenes	870	U
1330-20-7	o-Xylene	580	U
100-42-5	Styrene	580	U
75-25-2	Bromoform	580	U
79-34-5	1,1,2,2-Tetrachloroethane	580	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

875-RF2

Lab Name: FMETL NJDEP# 13461
 Project 980932 Case No.: 4180 Location 875 SAS No
 Matrix: (soil/water) SOIL Lab Sample ID: 4180.02
 Sample wt/vol: 10.5 (g/ml) G Lab File ID: V05469.D
 Level: (low/med) MED Date Received: 01/12/99
 % Moisture: not dec. 17.66 Date Analyzed: 01/19/99
 GC Column: RTX502 ID: 0.32 (mm) Dilution Factor: 1.0
 Soil Extract Volume: 25000 (uL) Soil Aliquot Volume: 50 (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	10.02	3400	J

TPHC

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

Client :	U.S. Army	Lab. ID # :	4180
	DPW. SELF-M-PW-EV	Date Rec'd:	12-Jan-99
	Bldg. 173	Analysis Start:	12-Jan-99
	Ft. Monmouth, NJ 07703	Analysis Complete:	14-Jan-99
Analysis:	OQA-QAM-025	UST Reg. #:	
Matrix:	Soil	Closure #:	
Analyst:	D.DEINHARDT	DICAR #:	
Inst. ID.	GC TPHC INST. #1	Injection Volume	1 ul
Column Type	RTX 5	Column ID	0.32 um
Ext. Meth:	Shake	Location #:	Bldg. 875

Sample	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	TPHC Result (mg/kg)
4180.01	875-RF1(8.5')	1.00	15.12	84.44	184	ND
4180.02	875-RF2(7')	1.00	15.13	82.34	189	1792.63
4180.03	875-RF3(7')	1.00	15.00	91.28	172	ND
4180.04	875-RF4(7')	1.00	15.13	84.96	183	ND
4180.05	875-RF5(7')	1.00	15.26	89.70	172	ND
4180.06	875-RF6(7')	1.00	15.12	98.93	157	ND
4180.07	875-RF7(7')	1.00	15.28	88.02	175	ND
4180.08	875-RF8(7')	1.00	15.43	86.94	175	ND
4180.09	875-RF9(8.5')	1.00	14.99	84.79	185	ND
METHOD BLANK	TBLK 206	1.00	15.00	100.00	157	ND

ND = Not Detected

MDL = Method Detection Limit

Daniel K. Wright
Laboratory Director

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 and 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 | ☒ |
| 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 | ☒ |

Laboratory Manager or Environmental Consultant's Signature _____
Date 2/5/95

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

APPENDIX F

GROUNDWATER ANALYTICAL DATA PACKAGE

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732) 532-6224 FAX: (732) 532-6263

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

CERTIFICATIONS: NJDEP #13461, NYSDOH #11699



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

Bldg. 875

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
Trip Blank	5368.01	Aqueous	22-Apr-00	04/24/00
Field Blank	5368.02	Aqueous	22-Apr-00 09:15	04/24/00
875-1	5368.03	Aqueous	22-Apr-00 09:27	04/24/00
DUP.	5368.04	Aqueous	22-Apr-00	04/24/00

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

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

 5-8-00
Daniel Wright/Date
Laboratory Director

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CHAIN OF CUSTODY

000001

METHODOLOGY SUMMARY

000003

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

000005

Laboratory Chronicle

Lab ID: 5368

Site: Bldg. 875

	Date	Hold Time
Date Sampled	04/22/00	NA
Receipt/Refrigeration	04/22,24/00*	NA

Extractions

1. Base Neutral	04/26/00	14 days
-----------------	----------	---------

Analyses

1. Volatile Organics	04/26,27/00	14 days
2. Base Neutral	04/27/00	40 days

- Samples collected and refrigerated on 04/22/00, Laboratory received the sample on Monday 04/24/00.

000006

CONFORMANCE NON-CONFORMANCE SUMMARY

000007

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate
Yes, No, N/A

1. Chromatograms Labeled/Compounds Identified
(Field Samples and Method Blanks) yes
2. Retention times for chromatograms provided yes
3. GC/MS Tune Specifications
 - a. BFB Meet Criteria yes
 - b. DFTPP Meet Criteria yes
4. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series yes
5. GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series yes
6. GC/MS Calibration Requirements
 - a. Calibration Check Compounds Meet Criteria yes
 - b. System Performance Check Compounds Meet Criteria yes
7. Blank Contamination - If yes, List compounds and concentrations in each blank: NO
 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA
8. Surrogate Recoveries Meet Criteria NO

If not met, list those compounds and their recoveries, which fall outside the acceptable range:

 - a. VOA Fraction BFB Low in TB
 - b. B/N Fraction Terphenyl Low in Sample
 - c. Acid Fraction NA

If not met, were the calculations checked and the results qualified as "estimated"? yes
9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria yes

(If not met, list those compounds and their recoveries, which fall outside the acceptable range)

 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA

GC/MS Analysis Conformance/Non-Conformance Summary (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)

yes

- a. VOA Fraction _____
b. B/N Fraction _____
c. Acid Fraction _____

11. Extraction Holding Time Met

yes

If not met, list number of days exceeded for each sample: _____

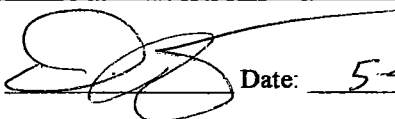
12. Analysis Holding Time Met

yes

If not met, list number of days exceeded for each sample: _____

Additional Comments:

Laboratory Manager :



Date:

5-8-00

VOLATILES ORGANICS

000010

**US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461**

Definition of Qualifiers

MDL : Method Detection Limit
J : Compound Identified Below Detection Limit
B : Compound is in Both Sample and Blank
D : Results are from a Dilution of the Sample
U : Compound Searched for but not Detected
E : Compound Exceeds Calibration Limit

000011

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

Data File **VC003143.D**
 Operator **Skelton**
 Date Acquired **26-Apr-00**

Sample Name **Vblk80**
 Field ID **Vblk80**
 Multiplier **1**

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	
75718	Dichlorodifluoromethane			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	
75-34-3	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	
156594	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 ether			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			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			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	
126-48-1	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-Tetrachloroethane			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 2-Sept 97

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:

Vblk80

Lab Name: FMETL NJDEP#: 13461
Project: UST Case No.: 5368 Location: 875 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: Vblk80
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC003143.D
Level: (low/med) LOW Date Received: 4/24/00
% Moisture: not dec. Date Analyzed: 4/26/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/LNumber TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification Number #13461

Data File **VC003165.D**
 Operator **Skelton**
 Date Acquired **27-Apr-00**

Sample Name **5368.01**
 Field ID **Trip Blank**
 Multiplier **1**

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	
75718	Dichlorodifluoromethane			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	
75-34-3	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	
156594	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 ether			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			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			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	
126-48-1	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-Tetrachloroethane			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 2-Sept 97

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:

Trip Blank

Lab Name: FMETL NJDEP#: 13461
Project: UST Case No.: 5368 Location: 875 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 5368.01
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC003165.D
Level: (low/med) LOW Date Received: 4/24/00
% Moisture: not dec. Date Analyzed: 4/27/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/LNumber TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification Number #13461

Data File **VC003166.D**
 Operator **Skelton**
 Date Acquired **27-Apr-00**

Sample Name **5368.02**
 Field ID **Field Blank**
 Multiplier **1**

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	
75718	Dichlorodifluoromethane			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	
75-34-3	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	
156594	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 ether			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			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			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	
126-48-1	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-Tetrachloroethane			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 2-Sept 97

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:

Field Blank

Lab Name: FMETL NJDEP#: 13461

Project: UST Case No.: 5368 Location: 875 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 5368.02

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC003166.D

Level: (low/med) LOW Date Received: 4/24/00

% Moisture: not dec. _____ Date Analyzed: 4/27/00

GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/LNumber TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification Number #13461

Data File **VC003167.D**
 Operator **Skelton**
 Date Acquired **27-Apr-00**

Sample Name **5368.03**
 Field ID **875-1**
 Multiplier **1**

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	
75718	Dichlorodifluoromethane			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	
75-34-3	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	
156594	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 ether			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			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			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	
126-48-1	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-Tetrachloroethane			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 2-Sept 97

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:

875-1

Lab Name: FMETL NJDEP#: 13461

Project: UST Case No.: 5368 Location: 875 SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: 5368.03

Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC003167.D

Level: (low/med) LOW Date Received: 4/24/00

% Moisture: not dec. _____ Date Analyzed: 4/27/00

GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/LNumber TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification Number #13461

Data File **VC003168.D**
 Operator **Skelton**
 Date Acquired **27-Apr-00**

Sample Name **5368.04**
 Field ID **Dupe**
 Multiplier **1**

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	
75718	Dichlorodifluoromethane			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	
75-34-3	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	
156594	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 ether			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			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			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	
126-48-1	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-Tetrachloroethane			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 2-Sept 97

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:

Dupe

Lab Name: FMETL NJDEP#: 13461
Project: UST Case No.: 5368 Location: 875 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 5368.04
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VC003168.D
Level: (low/med) LOW Date Received: 4/24/00
% Moisture: not dec. Date Analyzed: 4/27/00
GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/LNumber TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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**VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)**

Lab Name: FMETL NJDEP#: 13461
 Project: UST Case No.: 5368 Location: 875 SDG No.:
 Lab File ID: VC002800.D BFB Injection Date: 4/5/00
 Instrument ID: Voalnst#3 BFB Injection Time: 7:56
 GC Column: RTX502.2 ID: 0.25 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	16.4
75	30.0 - 66.0% of mass 95	48.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	79.2
175	4.0 - 9.0% of mass 174	5.5 (6.9)1
176	93.0 - 101.0% of mass 174	76.3 (96.3)1
177	5.0 - 9.0% of mass 176	4.7 (6.1)2

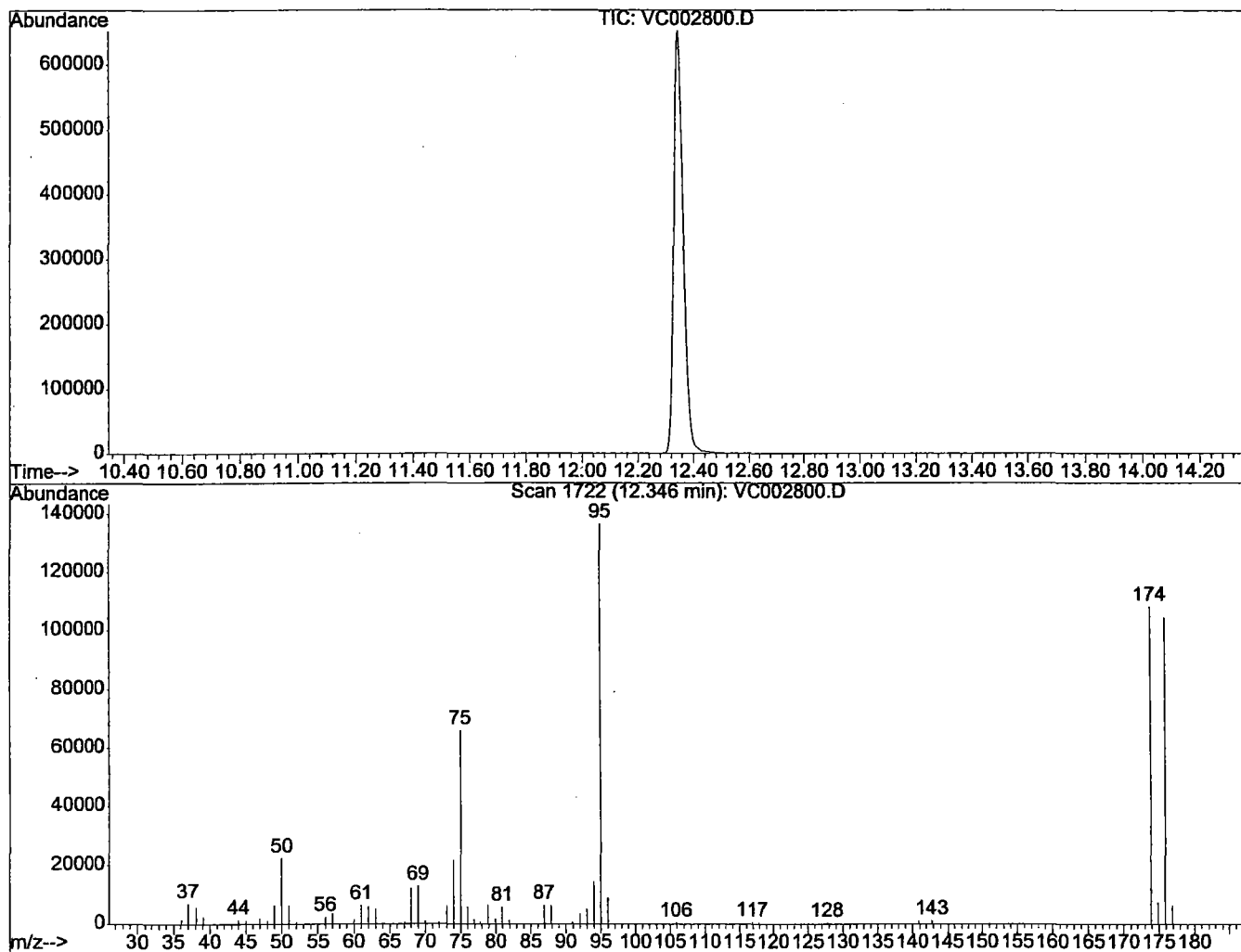
1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	FIELD ID:	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	VSTD020	VC002801.D	4/5/00	8:29
02	VSTD005	VSTD005	VC002803.D	4/5/00	10:07
03	VSTD100	VSTD100	VC002804.D	4/5/00	11:07
04	VSTD050	VSTD050	VC002805.D	4/5/00	11:47
05	VSTD010	VSTD010	VC002806.D	4/5/00	12:27

Data File : D:\HPCHEM\1\DATA\APRIL2000\000405\VC002800.D Vial: 1
Acq On : 5 Apr 2000 7:56 am Operator: Skelton
Sample : BFB Tune Inst : GC/MS Ins
Misc : BFB Tune Multiplr: 1.00
MS Integration Params: LSCINT.P
Method : D:\HPCHEM\1\METHODS\M362423.M (RTE Integrator)
Title : Volatile Organics by GC/MS Method 624/8260/TCLP



Spectrum Information: Scan 1722

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	22456	PASS
75	95	30	60	48.3	65976	PASS
95	95	100	100	100.0	136640	PASS
96	95	5	9	6.5	8859	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	79.2	108232	PASS
175	174	5	9	6.9	7470	PASS
176	174	95	101	96.3	104280	PASS
177	176	5	9	6.1	6397	PASS

BASE NEUTRAL

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

Data File Name **BNA03856.D**
 Operator **Bhaskar**
 Date Acquired **27-Apr-00**

Sample Name **Sblk365**
 Misc Info **Sblk365 A 000426**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	1.83 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.91 ug/L	
62-53-3	Aniline			not detected	NLE	1.63 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	1.28 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.21 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	1.19 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.02 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	1.13 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	1.39 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.80 ug/L	
67-72-1	Hexachloroethane			not detected	10	1.50 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.97 ug/L	
78-59-1	Isophorone			not detected	100	1.01 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.21 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.22 ug/L	
91-20-3	Naphthalene			not detected	NLE	1.27 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.09 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.71 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.08 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.32 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.01 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.96 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.52 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.96 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.81 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.79 ug/L	
83-32-9	Acenaphthene			not detected	400	1.10 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.00 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.87 ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.62 ug/L	
86-73-7	Fluorene			not detected	300	0.99 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.10 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.05 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.01 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.67 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.76 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.94 ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.23 ug/L	
120-12-7	Anthracene			not detected	2000	1.12 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.70 ug/L	
206-44-0	Fluoranthene			not detected	300	1.64 ug/L	

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Semi-Volatile Analysis Report

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Data File Name **BNA03856.D**
 Operator **Bhaskar**
 Date Acquired **27-Apr-00**

Sample Name **Sblk365**
 Misc Info **Sblk365 A 000426**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
92-87-5	Benzidine			not detected	50	4.18 ug/L	
129-00-0	Pyrene			not detected	200	1.25 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.05 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.19 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.75 ug/L	
218-01-9	Chrysene			not detected	20	1.38 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.74 ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.25 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.29 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.05 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.83 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.64 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.84 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
 D= Value from dilution
 B= Compound in Related Blank
 PQL= Practical Quantitation Limit

MDL= Method Detection Limit
 NLE= No Limit Established
 R.T.=Retention Time

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Sblk365

Lab Name: FMETL Lab Code 13461
Project 100004 Case No.: 5368 Location 875 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: Sblk365
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA03856.D
Level: (low/med) LOW Date Received: 4/24/00
% Moisture: decanted: (Y/N) N Date Extracted: 4/26/00
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 4/27/00
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **BNA03858.D**
 Operator **Bhaskar**
 Date Acquired **27-Apr-00**

Sample Name **5368.02**
 Misc Info **Field Blank**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	1.83 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.91 ug/L	
62-53-3	Aniline			not detected	NLE	1.63 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	1.28 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.21 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	1.19 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.02 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	1.13 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	1.39 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.80 ug/L	
67-72-1	Hexachloroethane			not detected	10	1.50 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.97 ug/L	
78-59-1	Isophorone			not detected	100	1.01 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.21 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.22 ug/L	
91-20-3	Naphthalene			not detected	NLE	1.27 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.09 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.71 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.08 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.32 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.01 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.96 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.52 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.96 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.81 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.79 ug/L	
83-32-9	Acenaphthene			not detected	400	1.10 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.00 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.87 ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.62 ug/L	
86-73-7	Fluorene			not detected	300	0.99 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.10 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.05 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.01 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.67 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.76 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.94 ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.23 ug/L	
120-12-7	Anthracene			not detected	2000	1.12 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.70 ug/L	
206-44-0	Fluoranthene			not detected	300	1.64 ug/L	

Semi-Volatile Analysis Report

Page 2

Data File Name **BNA03858.D**
 Operator **Bhaskar**
 Date Acquired **27-Apr-00**

Sample Name **5368.02**
 Misc Info **Field Blank**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
92-87-5	Benzidine			not detected	50	4.18 ug/L	
129-00-0	Pyrene			not detected	200	1.25 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.05 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.19 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.75 ug/L	
218-01-9	Chrysene			not detected	20	1.38 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate	26.58	89056	2.32 ug/L	30	1.74 ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.25 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.29 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.05 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.83 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.64 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.84 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
 D= Value from dilution
 B= Compound in Related Blank
 PQL= Practical Quantitation Limit

MDL= Method Detection Limit
 NLE= No Limit Established
 R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Field Blank

Lab Name: FMETL Lab Code 13461
Project 100004 Case No.: 5368 Location 875 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 5368.02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA03858.D
Level: (low/med) LOW Date Received: 4/24/00
% Moisture: decanted: (Y/N) N Date Extracted: 4/26/00
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 4/27/00
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **BNA03859.D**
 Operator **Bhaskar**
 Date Acquired **27-Apr-00**

Sample Name **5368.03**
 Misc Info **875-1**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	1.83 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.91 ug/L	
62-53-3	Aniline			not detected	NLE	1.63 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	1.28 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.21 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	1.19 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.02 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	1.13 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	1.39 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.80 ug/L	
67-72-1	Hexachloroethane			not detected	10	1.50 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.97 ug/L	
78-59-1	Isophorone			not detected	100	1.01 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.21 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.22 ug/L	
91-20-3	Naphthalene			not detected	NLE	1.27 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.09 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.71 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.08 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.32 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.01 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.96 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.52 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.96 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.81 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.79 ug/L	
83-32-9	Acenaphthene			not detected	400	1.10 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.00 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.87 ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.62 ug/L	
86-73-7	Fluorene			not detected	300	0.99 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.10 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.05 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.01 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.67 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.76 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.94 ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.23 ug/L	
120-12-7	Anthracene			not detected	2000	1.12 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.70 ug/L	
206-44-0	Fluoranthene			not detected	300	1.64 ug/L	

Semi-Volatile Analysis Report

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Data File Name **BNA03859.D**

Operator **Bhaskar**

Date Acquired **27-Apr-00**

Sample Name **5368.03**

Misc Info **875-1**

Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
92-87-5	Benzidine			not detected	50	4.18 ug/L	
129-00-0	Pyrene			not detected	200	1.25 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.05 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.19 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.75 ug/L	
218-01-9	Chrysene			not detected	20	1.38 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.74 ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.25 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.29 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.05 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.83 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.64 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.84 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range

D= Value from dilution

B= Compound in Related Blank

PQL= Practical Quantitation Limit

MDL= Method Detection Limit

NLE= No Limit Established

R.T.=Retention Time

Page 2 of 2

000074

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

875-1

Lab Name: FMETL Lab Code 13461
Project 100004 Case No.: 5368 Location 875 SDG No.: _____
Matrix: (soil/water) WATER Lab Sample ID: 5368.03
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA03859.D
Level: (low/med) LOW Date Received: 4/24/00
% Moisture: _____ decanted: (Y/N) N Date Extracted: 4/26/00
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 4/27/00
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **BNA03860.D**
 Operator **Bhaskar**
 Date Acquired **27-Apr-00**

Sample Name **5368.04**
 Misc Info **Dupe**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	1.83 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.91 ug/L	
62-53-3	Aniline			not detected	NLE	1.63 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	1.28 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.21 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	1.19 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.02 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	1.13 ug/L	
108-60-1	bis(2-chloroisopropyl)ether			not detected	300	1.39 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.80 ug/L	
67-72-1	Hexachloroethane			not detected	10	1.50 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.97 ug/L	
78-59-1	Isophorone			not detected	100	1.01 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.21 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.22 ug/L	
91-20-3	Naphthalene			not detected	NLE	1.27 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.09 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.71 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.08 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.32 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.01 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.96 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.52 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.96 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.81 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.79 ug/L	
83-32-9	Acenaphthene			not detected	400	1.10 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.00 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.87 ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.62 ug/L	
86-73-7	Fluorene			not detected	300	0.99 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.10 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.05 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.01 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.67 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.76 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.94 ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.23 ug/L	
120-12-7	Anthracene			not detected	2000	1.12 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.70 ug/L	
206-44-0	Fluoranthene			not detected	300	1.64 ug/L	

Semi-Volatile Analysis Report

Page 2

Data File Name **BNA03860.D**
 Operator **Bhaskar**
 Date Acquired **27-Apr-00**

Sample Name **5368.04**
 Misc Info **Dupe**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
92-87-5	Benzidine			not detected	50	4.18 ug/L	
129-00-0	Pyrene			not detected	200	1.25 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.05 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.19 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.75 ug/L	
218-01-9	Chrysene			not detected	20	1.38 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.74 ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.25 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.29 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.05 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.83 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.64 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.84 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
 D= Value from dilution
 B= Compound in Related Blank
 PQL= Practical Quantitation Limit

MDL= Method Detection Limit
 NLE= No Limit Established
 R.T.=Retention Time

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD ID

Dupe

Lab Name: FMETL Lab Code 13461
Project 100004 Case No.: 5368 Location 875 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 5368.04
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BNA03860.D
Level: (low/med) LOW Date Received: 4/24/00
% Moisture: decanted: (Y/N) N Date Extracted: 4/26/00
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 4/27/00
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: 7

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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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 and 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 | ☒ |
| 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 | ☒ |

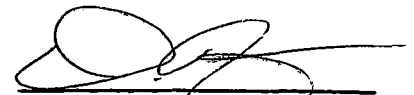
Laboratory Manager or Environmental Consultant's Signature _____
Date 5/8/00

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) 532-6263

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

CERTIFICATIONS: NJDEP #13461, NYSDOH #11699



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

Bldg. 875

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
Field Blank	5427.02	Aqueous	22-May-00	05/22/00
875.1- 7.5 - 11.5'	5427.01	Aqueous	22-May-00 11:15	05/22/00

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

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

Daniel Wright/Date
Laboratory Director

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CHAIN OF CUSTODY

000001



Fort Monmouth Environmental Testing Laboratory

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

Tel (732)532-4359 Fax (732)532-6263 EMail:wrightd@mail1.monmouth.army.mil

NJDEP Certification #13461

Chain of Custody Record

[illegible]

METHODOLOGY SUMMARY

000003

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.

000004

CONFORMANCE NON-CONFORMANCE SUMMARY

000005

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

Indicate
Yes, No, N/A

1. Chromatograms Labeled/Compounds Identified
(Field Samples and Method Blanks) yes
2. Retention times for chromatograms provided yes
3. GC/MS Tune Specifications
 - a. BFB Meet Criteria yes
 - b. DFTPP Meet Criteria yes
4. GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series yes
5. GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series yes
6. GC/MS Calibration Requirements
 - a. Calibration Check Compounds Meet Criteria yes
 - b. System Performance Check Compounds Meet Criteria yes
7. Blank Contamination - If yes, List compounds and concentrations in each blank: NA
 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA
8. Surrogate Recoveries Meet Criteria yes

If not met, list those compounds and their recoveries, which fall outside the acceptable range:

 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA

If not met, were the calculations checked and the results qualified as "estimated"?

9. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries, which fall outside the acceptable range) yes
 - a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA

GC/MS Analysis Conformance/Non-Conformance Summary (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)
- a. VOA Fraction _____
 - b. B/N Fraction _____
 - c. Acid Fraction NA _____

yes

11. Extraction Holding Time Met

yes

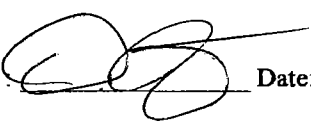
If not met, list number of days exceeded for each sample: _____

12. Analysis Holding Time Met

yes

If not met, list number of days exceeded for each sample: _____

Additional Comments:

Laboratory Manager: 

Date: 6-8-00

LABORATORY CHRONICLE

000008

Laboratory Chronicle

Lab ID: 5427

Site: Bldg. 875

	Date	Hold Time
Date Sampled	05/22/00	NA
Receipt/Refrigeration	05/22/00	NA
Extractions		
1. Base Neutral	05/24/00	14 days
Analyses		
1. Volatile Organics	05/24/00	14 days
2. Base Neutral	05/26/00	40 days

000009

VOLATILES ORGANICS

000010

**US ARMY FT. MONMOUTH ENVIRONMENTAL LABORATORY
NJDEP CERTIFICATION # 13461**

Definition of Qualifiers

MDL : Method Detection Limit
J : Compound Identified Below Detection Limit
B : Compound is in Both Sample and Blank
D : Results are from a Dilution of the Sample
U : Compound Searched for but not Detected
E : Compound Exceeds Calibration Limit

000011

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

Data File **VB006952.D**
 Operator **Skelton**
 Date Acquired **24 May 2000 1:29 pm**

Sample Name **Vblk212**
 Field ID **Vblk212**
 Sample Multiplier **10**

CAS#	Compound Name	R.T.	Response	Result	Regulatory Level (ug/l)*	MDL	Qualifier
107028	Acrolein			not detected	50	18.50 ug/L	
107131	Acrylonitrile			not detected	50	27.80 ug/L	
75650	tert-Butyl alcohol			not detected	nle	85.20 ug/L	
1634044	Methyl-tert-Butyl ether			not detected	70	1.60 ug/L	
108203	Di-isopropyl ether			not detected	nle	2.50 ug/L	
75718	Dichlorodifluoromethane			not detected	nle	16.80 ug/L	
74-87-3	Chloromethane			not detected	30	11.60 ug/L	
75-01-4	Vinyl Chloride			not detected	5	10.60 ug/L	
74-83-9	Bromomethane			not detected	10	11.00 ug/L	
75-00-3	Chloroethane			not detected	nle	10.10 ug/L	
75-69-4	Trichlorofluoromethane			not detected	nle	5.00 ug/L	
75-35-4	1,1-Dichloroethene			not detected	2	2.40 ug/L	
67-64-1	Acetone			not detected	700	13.60 ug/L	
75-15-0	Carbon Disulfide			not detected	nle	4.60 ug/L	
75-09-2	Methylene Chloride			not detected	2	2.40 ug/L	
156-60-5	trans-1,2-Dichloroethene			not detected	100	1.60 ug/L	
75-34-3	1,1-Dichloroethane			not detected	70	1.20 ug/L	
108-05-4	Vinyl Acetate			not detected	nle	7.80 ug/L	
78-93-3	2-Butanone			not detected	300	6.20 ug/L	
156-59-4	cis-1,2-Dichloroethene			not detected	10	1.70 ug/L	
67-66-3	Chloroform			not detected	6	3.00 ug/L	
75-55-6	1,1,1-Trichloroethane			not detected	30	2.30 ug/L	
56-23-5	Carbon Tetrachloride			not detected	2	4.70 ug/L	
71-43-2	Benzene			not detected	1	2.30 ug/L	
107-06-2	1,2-Dichloroethane			not detected	2	1.80 ug/L	
79-01-6	Trichloroethene			not detected	1	2.30 ug/L	
78-87-5	1,2-Dichloropropane			not detected	1	4.00 ug/L	
75-27-4	Bromodichloromethane			not detected	1	5.50 ug/L	
110-75-8	2-Chloroethyl vinyl ether			not detected	nle	6.50 ug/L	
10061-01-5	cis-1,3-Dichloropropene			not detected	nle	6.90 ug/L	
108-10-1	4-Methyl-2-Pentanone			not detected	400	5.90 ug/L	
108-88-3	Toluene			not detected	1000	3.70 ug/L	
10061-02-6	trans-1,3-Dichloropropene			not detected	nle	8.70 ug/L	
79-00-5	1,1,2-Trichloroethane			not detected	3	4.80 ug/L	
127-18-4	Tetrachloroethene			not detected	1	3.20 ug/L	
591-78-6	2-Hexanone			not detected	nle	7.10 ug/L	
126-48-1	Dibromochloromethane			not detected	10	8.60 ug/L	
108-90-7	Chlorobenzene			not detected	4	3.90 ug/L	
100-41-4	Ethylbenzene			not detected	700	6.50 ug/L	
1330-20-7	m+p-Xylenes			not detected	nle	11.40 ug/L	
1330-20-7	o-Xylene			not detected	nle	6.20 ug/L	
100-42-5	Styrene			not detected	100	5.60 ug/L	
75-25-2	Bromoform			not detected	4	7.00 ug/L	
79-34-5	1,1,2,2-Tetrachloroethane			not detected	2	4.70 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	5.50 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	5.70 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	6.40 ug/L	

*Higher of PQL's and Ground Water Quality Criteria as per N.J.A.C. 7:9-6 2-Sept-9

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

Lab ID.

Vblk212

Lab Name: FMETL Project: 000004
NJDEP#: 13461 Case No.: 5427 Location: 875 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: Vblk212
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB006952.D
Level: (low/med) LOW Date Received: 5/22/00
% Moisture: not dec. Date Analyzed: 5/24/00
GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

Number TICs found: 0

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File **VB006965.D**
 Operator **Skelton**
 Date Acquired **24 May 2000 10:35 pm**

Sample Name **5427.01**
 Field ID **875-1**
 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	
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	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	Dichlorodifluoromethane			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	
75-34-3	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	
156-59-4	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 ether			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			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			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	
126-48-1	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-Tetrachloroethane			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 2-Sept-9

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

Lab ID.

875-1

Lab Name: FMETL Project: 000004
NJDEP#: 13461 Case No.: 5427 Location: 875 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 5427.01
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB006965.D
Level: (low/med) LOW Date Received: 5/22/00
% Moisture: not dec. Date Analyzed: 5/24/00
GC Column: RTX502. ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

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

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File **VB006966.D**
 Operator **Skelton**
 Date Acquired **24 May 2000 11:14 pm**

Sample Name **5427.02**
 Field ID **Field Dupe**
 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	
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	70	0.16 ug/L	
108203	Di-isopropyl ether			not detected	nle	0.25 ug/L	
75718	Dichlorodifluoromethane			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	
75-34-3	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	
156-59-4	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 ether			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			not detected	1000	0.37 ug/L	
10061-02-6	trans-1,3-Dichloropropene			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	
126-48-1	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-Tetrachloroethane			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 2-Sept-9

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

Lab ID.

Field Dup

Lab Name: FMETL Project: 000004
NJDEP#: 13461 Case No.: 5427 Location: 875 SDG No.:
Matrix: (soil/water) WATER Lab Sample ID: 5427.02
Sample wt/vol: 5.0 (g/ml) ML Lab File ID: VB006966.D
Level: (low/med) LOW Date Received: 5/22/00
% Moisture: not dec. Date Analyzed: 5/24/00
GC Column: RTX502 ID: 0.25 (mm) Dilution Factor: 1.0
Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/LNumber TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
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BASE NEUTRAL

000035

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

Data File Name **BN04379.D**
 Operator **Bhaskar**
 Date Acquired **26-May-00**

Sample Name **Sblk374**
 Misc Info **Sblk374 A 000524**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	1.83 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.91 ug/L	
62-53-3	Aniline			not detected	NLE	1.63 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	1.28 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.21 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	1.19 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.02 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	1.13 ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	1.39 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.80 ug/L	
67-72-1	Hexachloroethane			not detected	10	1.50 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.97 ug/L	
78-59-1	Isophorone			not detected	100	1.01 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.21 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.22 ug/L	
91-20-3	Naphthalene			not detected	NLE	1.27 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.09 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.71 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.08 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.32 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.01 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.79 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.52 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.96 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.81 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.79 ug/L	
83-32-9	Acenaphthene			not detected	400	1.10 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.00 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.87 ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.62 ug/L	
86-73-7	Fluorene			not detected	300	0.99 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.10 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.05 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.01 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.67 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.76 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.94 ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.23 ug/L	
120-12-7	Anthracene			not detected	2000	1.12 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.70 ug/L	
206-44-0	Fluoranthene			not detected	300	1.64 ug/L	

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field ID:

Sblk374

Lab Name: FMETL Lab Code 13461
Project: 000004 Case No.: 5427 Location: Bl.875 SDG No:
Matrix: (soil/water) WATER Lab Sample ID: Sblk374
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN04379.D
Level: (low/med) LOW Date Received: 5/22/00
% Moisture: decanted: (Y/N) N Date Extracted: 5/24/00
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 5/26/00
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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Semi-Volatile Analysis Report
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

Data File Name **BN04388.D**
 Operator **Bhaskar**
 Date Acquired **26-May-00**

Sample Name **5427.01**
 Misc Info **875-1**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	1.83 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.91 ug/L	
62-53-3	Aniline			not detected	NLE	1.63 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	1.28 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.21 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	1.19 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.02 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	1.13 ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	1.39 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.80 ug/L	
67-72-1	Hexachloroethane			not detected	10	1.50 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.97 ug/L	
78-59-1	Isophorone			not detected	100	1.01 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.21 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.22 ug/L	
91-20-3	Naphthalene			not detected	NLE	1.27 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.09 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.71 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.08 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.32 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.01 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.79 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.52 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.96 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.81 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.79 ug/L	
83-32-9	Acenaphthene			not detected	400	1.10 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.00 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.87 ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.62 ug/L	
86-73-7	Fluorene			not detected	300	0.99 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.10 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.05 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.01 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.67 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.76 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.94 ug/L	
85-01-8	Phenanthrene			not detected	NLE	1.23 ug/L	
120-12-7	Anthracene			not detected	2000	1.12 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.70 ug/L	
206-44-0	Fluoranthene			not detected	300	1.64 ug/L	

000039

Semi-Volatile Analysis Report

Page 2

Data File Name **BN04388.D**
 Operator **Bhaskar**
 Date Acquired **26-May-00**

Sample Name **5427.01**
 Misc Info **875-1**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
92-87-5	Benzidine			not detected	50	4.18 ug/L	
129-00-0	Pyrene			not detected	200	1.25 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.05 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.19 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.75 ug/L	
218-01-9	Chrysene			not detected	20	1.38 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.74 ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.25 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.29 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.05 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.83 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.64 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.84 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
 D= Value from dilution
 B= Compound in Related Blank
 PQL= Practical Quantitation Limit

MDL= Method Detection Limit
 NLE= No Limit Established
 R.T.=Retention Time

Page 2 of 2

000040

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Field ID:

875-1

Lab Name: FMETL Lab Code 13461

Project: 000004 Case No.: 5427 Location: Bl.875 SDG No: _____

Matrix: (soil/water) WATER Lab Sample ID: 5427.01

Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN04388.D

Level: (low/med) LOW Date Received: 5/22/00

% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/24/00

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 5/26/00

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

Number TICs found: 4 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000105-60-2	Caprolactam	15.11	9	JN
2.	unknown	20.15	7	J
3.	unknown	27.86	8	J
4.	unknown	32.95	16	J

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

Data File Name **BN04389.D**
 Operator **Bhaskar**
 Date Acquired **26-May-00**

Sample Name **5427.02**
 Misc Info **Field Dup**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
110-86-1	Pyridine			not detected	NLE	1.83 ug/L	
62-75-9	N-nitroso-dimethylamine			not detected	20	0.91 ug/L	
62-53-3	Aniline			not detected	NLE	1.63 ug/L	
111-44-4	bis(2-Chloroethyl)ether			not detected	10	1.28 ug/L	
541-73-1	1,3-Dichlorobenzene			not detected	600	1.21 ug/L	
106-46-7	1,4-Dichlorobenzene			not detected	75	1.19 ug/L	
100-51-6	Benzyl alcohol			not detected	NLE	1.02 ug/L	
95-50-1	1,2-Dichlorobenzene			not detected	600	1.13 ug/L	
39638-32-9	bis(2-chloroisopropyl)ether			not detected	300	1.39 ug/L	
621-64-7	n-Nitroso-di-n-propylamine			not detected	20	0.80 ug/L	
67-72-1	Hexachloroethane			not detected	10	1.50 ug/L	
98-95-3	Nitrobenzene			not detected	10	0.97 ug/L	
78-59-1	Isophorone			not detected	100	1.01 ug/L	
111-91-1	bis(2-Chloroethoxy)methane			not detected	NLE	1.21 ug/L	
120-82-1	1,2,4-Trichlorobenzene			not detected	9	1.22 ug/L	
91-20-3	Naphthalene			not detected	NLE	1.27 ug/L	
106-47-8	4-Chloroaniline			not detected	NLE	1.09 ug/L	
87-68-3	Hexachlorobutadiene			not detected	1	0.71 ug/L	
91-57-6	2-Methylnaphthalene			not detected	NLE	1.08 ug/L	
77-47-4	Hexachlorocyclopentadiene			not detected	50	1.32 ug/L	
91-58-7	2-Chloronaphthalene			not detected	NLE	1.01 ug/L	
88-74-4	2-Nitroaniline			not detected	NLE	0.79 ug/L	
131-11-3	Dimethylphthalate			not detected	7000	1.52 ug/L	
208-96-8	Acenaphthylene			not detected	NLE	0.96 ug/L	
606-20-2	2,6-Dinitrotoluene			not detected	NLE	0.81 ug/L	
99-09-2	3-Nitroaniline			not detected	NLE	0.79 ug/L	
83-32-9	Acenaphthene			not detected	400	1.10 ug/L	
132-64-9	Dibenzofuran			not detected	NLE	1.00 ug/L	
121-14-2	2,4-Dinitrotoluene			not detected	10	0.87 ug/L	
84-66-2	Diethylphthalate			not detected	5000	1.62 ug/L	
86-73-7	Fluorene	20.39	40739	1.01 ug/L	300	0.99 ug/L	
7005-72-3	4-Chlorophenyl-phenylether			not detected	NLE	1.10 ug/L	
100-01-6	4-Nitroaniline			not detected	NLE	1.05 ug/L	
86-30-6	n-Nitrosodiphenylamine			not detected	20	1.01 ug/L	
103-33-3	Azobenzene			not detected	NLE	0.67 ug/L	
101-55-3	4-Bromophenyl-phenylether			not detected	NLE	0.76 ug/L	
118-74-1	Hexachlorobenzene			not detected	10	0.94 ug/L	
85-01-8	Phenanthrene	22.84	70495	1.25 ug/L	NLE	1.23 ug/L	
120-12-7	Anthracene			not detected	2000	1.12 ug/L	
84-74-2	Di-n-butylphthalate			not detected	900	1.70 ug/L	
206-44-0	Fluoranthene			not detected	300	1.64 ug/L	

Semi-Volatile Analysis Report

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Data File Name **BN04389.D**
 Operator **Bhaskar**
 Date Acquired **26-May-00**

Sample Name **5427.02**
 Misc Info **Field Dup**
 Sample Multiplier **1**

CAS#	Name	R.T.	Response	Result	Regulatory Level (ug/L)*	MDL	Qualifiers
92-87-5	Benzidine			not detected	50	4.18 ug/L	
129-00-0	Pyrene			not detected	200	1.25 ug/L	
85-68-7	Butylbenzylphthalate			not detected	100	1.05 ug/L	
56-55-3	Benzo[a]anthracene			not detected	10	1.19 ug/L	
91-94-1	3,3'-Dichlorobenzidine			not detected	60	1.75 ug/L	
218-01-9	Chrysene			not detected	20	1.38 ug/L	
117-81-7	bis(2-Ethylhexyl)phthalate			not detected	30	1.74 ug/L	
117-84-0	Di-n-octylphthalate			not detected	100	1.44 ug/L	
205-99-2	Benzo[b]fluoranthene			not detected	10	1.25 ug/L	
207-08-9	Benzo[k]fluoranthene			not detected	2	1.29 ug/L	
50-32-8	Benzo[a]pyrene			not detected	20	1.05 ug/L	
193-39-5	Indeno[1,2,3-cd]pyrene			not detected	20	0.83 ug/L	
53-70-3	Dibenz[a,h]anthracene			not detected	20	0.64 ug/L	
191-24-2	Benzo[g,h,i]perylene			not detected	NLE	0.84 ug/L	

* Higher of PQL's and Ground Water Criteria as per NJAC 7:9-6 2-Sept-97

Qualifiers

E= Value Exceeds Linear Range
 D= Value from dilution
 B= Compound in Related Blank
 PQL= Practical Quantitation Limit

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:

Field Blank

Lab Name: FMETL Lab Code 13461
Project: 000004 Case No.: 5427 Location: Bl.875 SDG No: _____
Matrix: (soil/water) WATER Lab Sample ID: 5427.02
Sample wt/vol: 1000 (g/ml) ML Lab File ID: BN04389.D
Level: (low/med) LOW Date Received: 5/22/00
% Moisture: _____ decanted: (Y/N) N Date Extracted: 5/24/00
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 5/26/00
Injection Volume: 1.0 (uL) Dilution Factor: 1.0
GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:

Number TICs found: 3 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 000581-42-0	Naphthalene, 2,6-dimethyl-	17.79	5	JN
2. 000581-40-8	Naphthalene, 2,3-dimethyl-	18.01	8	JN
3. 002245-38-7	Naphthalene, 1,6,7-trimethyl-	19.51	5	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 and 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 | ☒ |
| 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 | ☒ |

Laboratory Manager or Environmental Consultant's Signature

Date 6/8/00

Laboratory Certification #13461

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

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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

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